



**Consorcio de Aguas y
Residuos de La Rioja**

JUNIO 2020

CT/ABAS/6/2018

PROYECTO:

PROYECTO DE ABASTECIMIENTO A VARIOS MUNICIPIOS DE LA RIOJA. SISTEMA CIDACOS. (LA RIOJA).

TOMO VIII: PRESUPUESTO

VALOR ESTIMADO DEL PROYECTO:

40.392.621,89 €

IVA:

8.482.450,60 €

INGENIERO DIRECTOR DEL PROYECTO:

ÁNGEL CASTILLO GONZÁLEZ

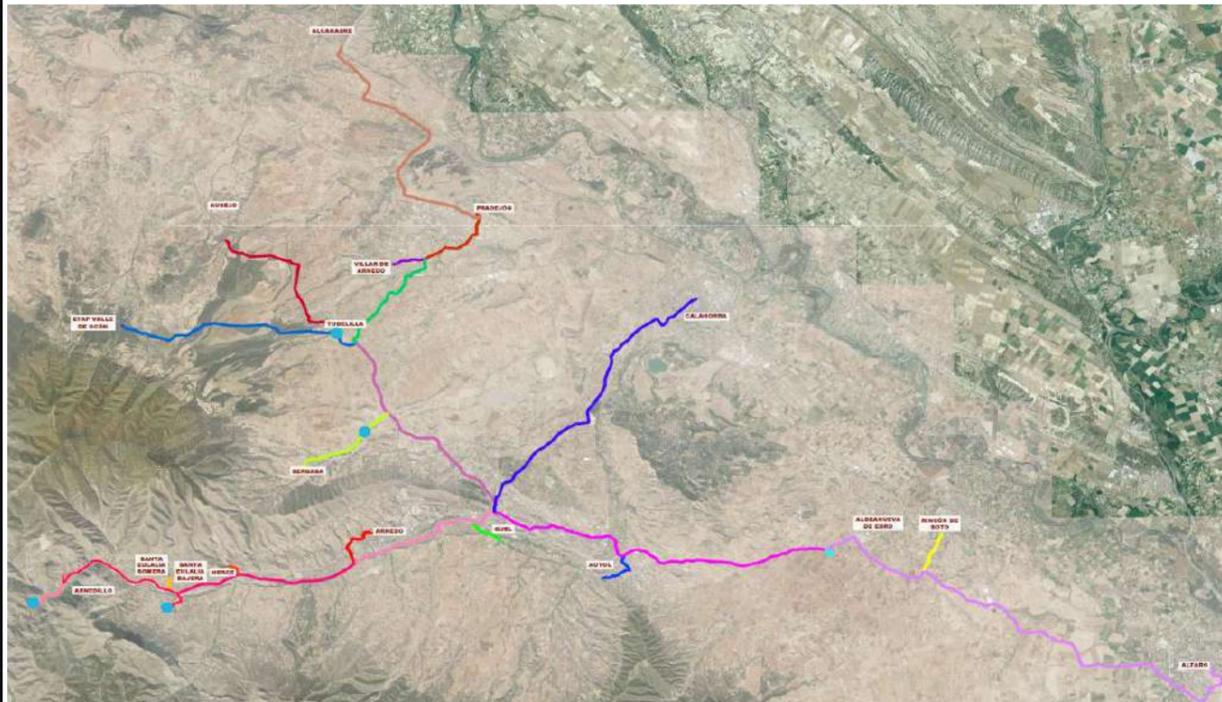
INGENIERO AUTOR DEL PROYECTO:

OSCAR F. GONZÁLEZ VEGA

EMPRESA CONSULTORA:



estudio de ingeniería civil, s.l.



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DOCUMENTO Nº 4. PRESUPUESTO



1. MEDICIONES



1.1. MEDICIONES AUXILIARES



MOVIMIENTO DE TIERRAS. CONDUCCIONES

1. EJE 1: AZUD – ETAP PRINCIPAL

Istram 9.04 20/05/20 12:18:11
 PROYECTO : CIDACOS COMPLETO
 EJE : 1: AZUD - ETAP PRINCIPAL

Istram 9.04 20/05/20 12:18:11
 PROYECTO : CIDACOS COMPLETO
 EJE : 1: AZUD - ETAP PRINCIPAL

*** MEDICIONES DE LOS PERFILES TRANSVERSALES***
 *** CAPAS DE FIRME ***

*** MEDICIONES DE LOS PERFILES TRANSVERSALES***
 *** CAPAS DE FIRME ***

PERFIL	MATERIAL	AREA PERFIL	VOL. PARCIAL	VOL. ACUMUL.	MATERIAL	AREA PERFIL	VOL. PARCIAL	VOL. ACUMUL.
0.000	TERRAPLEN	0.285	0.00	0.0	D_TIERRA	0.008	0.00	0.0
	ARENA_1	0.250	0.00	0.0	ARENA_2	0.443	0.00	0.0
	ARENA_3	0.779	0.00	0.0				
20.000	TERRAPLEN	0.001	2.86	2.9	D_TIERRA	2.311	23.19	23.2
	ARENA_1	0.251	5.01	5.0	ARENA_2	0.442	8.85	8.9
	ARENA_3	0.784	15.63	15.6				
24.761	TERRAPLEN	0.000	0.00	2.9	D_TIERRA	3.218	13.16	36.4
	ARENA_1	0.251	1.19	6.2	ARENA_2	0.442	2.11	11.0
	ARENA_3	0.876	2.09	2.1	ARENA_3	0.784	3.73	19.4
32.447	TERRAPLEN	0.000	0.00	2.9	D_TIERRA	3.955	27.57	63.9
	ARENA_1	0.251	1.93	8.1	ARENA_2	0.442	3.40	14.4
	ARENA_3	1.613	9.56	11.6	ARENA_3	0.784	6.02	25.4
40.000	TERRAPLEN	0.000	0.00	2.9	D_TIERRA	4.185	30.74	94.7
	ARENA_1	0.251	1.89	10.0	ARENA_2	0.442	3.34	17.7
	ARENA_3	1.843	13.05	24.7	ARENA_3	0.784	5.92	31.3
47.375	TERRAPLEN	0.000	0.00	2.9	D_TIERRA	4.438	31.80	126.5
	ARENA_1	0.251	1.85	11.9	ARENA_2	0.442	3.26	21.0
	ARENA_3	2.095	14.52	39.2	ARENA_3	0.784	5.78	37.1
60.000	TERRAPLEN	0.000	0.00	2.9	D_TIERRA	4.773	58.14	184.6
	ARENA_1	0.251	3.16	15.0	ARENA_2	0.442	5.58	26.5
	ARENA_3	2.431	28.57	67.8	ARENA_3	0.784	9.89	47.0
70.488	TERRAPLEN	0.000	0.00	2.9	D_TIERRA	4.954	51.01	235.6
	ARENA_1	0.251	2.63	17.7	ARENA_2	0.442	4.64	31.2
	ARENA_3	2.612	26.45	94.2	ARENA_3	0.784	8.22	55.2
80.000	TERRAPLEN	0.000	0.00	2.9	D_TIERRA	5.126	47.94	283.6
	ARENA_1	0.251	2.38	20.0	ARENA_2	0.442	4.21	35.4
	ARENA_3	2.784	25.66	119.9	ARENA_3	0.784	7.45	62.6
94.902	TERRAPLEN	0.000	0.00	2.9	D_TIERRA	5.143	76.52	360.1
	ARENA_1	0.250	3.73	23.8	ARENA_2	0.442	6.59	42.0
	ARENA_3	2.801	41.61	161.5	ARENA_3	0.784	11.68	74.3
100.000	TERRAPLEN	0.000	0.00	2.9	D_TIERRA	4.904	25.61	385.7
	ARENA_1	0.251	1.28	25.0	ARENA_2	0.442	2.25	44.2
	ARENA_3	2.562	13.67	175.2	ARENA_3	0.784	4.00	78.3
120.000	TERRAPLEN	0.000	0.00	2.9	D_TIERRA	3.954	88.58	474.3
	ARENA_1	0.251	5.01	30.1	ARENA_2	0.442	8.85	53.1
	ARENA_3	1.612	41.73	216.9	ARENA_3	0.784	15.67	94.0
140.000	TERRAPLEN	0.000	0.00	2.9	D_TIERRA	4.202	81.56	555.8
	ARENA_1	0.251	5.01	35.1	ARENA_2	0.442	8.85	61.9
	ARENA_3	1.860	34.71	251.6	ARENA_3	0.784	15.67	109.7
153.651	TERRAPLEN	0.000	0.00	2.9	D_TIERRA	3.894	55.26	611.1
	ARENA_1	0.251	3.42	38.5	ARENA_2	0.442	6.04	68.0
	ARENA_3	1.552	23.29	274.9	ARENA_3	0.784	10.70	120.4
160.000	TERRAPLEN	0.000	0.00	2.9	D_TIERRA	4.138	25.50	636.6
	ARENA_1	0.251	1.59	40.1	ARENA_2	0.442	2.81	70.8
	ARENA_3	1.796	10.63	285.5	ARENA_3	0.784	4.98	125.3
180.000	TERRAPLEN	0.000	0.00	2.9	D_TIERRA	4.057	81.95	718.5
	ARENA_1	0.251	5.01	45.1	ARENA_2	0.442	8.85	79.6
	ARENA_3	1.715	35.10	320.7	ARENA_3	0.784	15.67	141.0
196.183	TERRAPLEN	0.000	0.00	2.9	D_TIERRA	3.953	64.81	783.3
	ARENA_1	0.251	4.05	49.1	ARENA_2	0.442	7.16	86.8
	ARENA_3	1.610	26.90	347.6	ARENA_3	0.784	12.68	153.7
200.000	TERRAPLEN	0.000	0.00	2.9	D_TIERRA	3.992	15.16	798.5
	ARENA_1	0.251	0.96	50.1	ARENA_2	0.442	1.69	88.5
	ARENA_3	1.650	6.22	353.8	ARENA_3	0.784	2.99	156.7
220.000	TERRAPLEN	0.000	0.00	2.9	D_TIERRA	4.407	83.98	882.5
	ARENA_1	0.251	5.01	55.1	ARENA_2	0.442	8.85	97.3
	ARENA_3	2.064	37.14	390.9	ARENA_3	0.784	15.68	172.4

PERFIL	MATERIAL	AREA PERFIL	VOL. PARCIAL	VOL. ACUMUL.	MATERIAL	AREA PERFIL	VOL. PARCIAL	VOL. ACUMUL.
240.000	TERRAPLEN	0.000	0.00	2.9	D_TIERRA	4.829	92.36	974.8
	ARENA_1	0.251	5.01	60.1	ARENA_2	0.442	8.85	106.2
	ARENA_3	2.487	45.51	436.4	ARENA_3	0.784	15.68	188.1
247.612	TERRAPLEN	0.000	0.00	2.9	D_TIERRA	4.911	37.07	1011.9
	ARENA_1	0.251	1.91	62.0	ARENA_2	0.442	3.37	109.5
	ARENA_3	2.569	19.24	455.7	ARENA_3	0.784	5.97	194.0
260.000	TERRAPLEN	0.000	0.00	2.9	D_TIERRA	4.832	60.35	1072.3
	ARENA_1	0.251	3.10	65.1	ARENA_2	0.442	5.48	115.0
	ARENA_3	2.490	31.33	487.0	ARENA_3	0.784	9.71	203.7
280.000	TERRAPLEN	0.000	0.00	2.9	D_TIERRA	4.870	97.02	1169.3
	ARENA_1	0.251	5.01	70.1	ARENA_2	0.442	8.85	123.9
	ARENA_3	2.528	50.18	537.2	ARENA_3	0.784	15.68	219.4
289.358	TERRAPLEN	0.000	0.00	2.9	D_TIERRA	6.746	54.35	1223.6
	ARENA_1	0.251	2.34	72.5	ARENA_2	0.442	4.14	128.0
	ARENA_3	4.403	32.43	569.6	ARENA_3	0.784	7.34	226.7
300.000	TERRAPLEN	0.000	0.00	2.9	D_TIERRA	5.317	64.18	1287.8
	ARENA_1	0.251	2.67	75.2	ARENA_2	0.442	4.71	132.7
	ARENA_3	2.975	39.26	608.9	ARENA_3	0.784	8.34	235.1
310.669	TERRAPLEN	0.000	0.00	2.9	D_TIERRA	4.579	52.79	1340.6
	ARENA_1	0.251	2.67	77.8	ARENA_2	0.442	4.72	137.4
	ARENA_3	2.237	27.80	636.7	ARENA_3	0.784	8.36	243.4
320.000	TERRAPLEN	0.000	0.00	2.9	D_TIERRA	4.340	41.61	1382.2
	ARENA_1	0.251	2.34	80.2	ARENA_2	0.442	4.13	141.5
	ARENA_3	1.997	19.75	656.4	ARENA_3	0.784	7.31	250.8
334.098	TERRAPLEN	0.000	0.00	2.9	D_TIERRA	3.974	58.60	1440.8
	ARENA_1	0.251	3.53	83.7	ARENA_2	0.442	6.24	147.8
	ARENA_3	1.632	25.58	682.0	ARENA_3	0.784	11.05	261.8
340.000	TERRAPLEN	0.000	0.00	2.9	D_TIERRA	3.899	23.23	1464.0
	ARENA_1	0.251	1.48	85.2	ARENA_2	0.442	2.61	150.4
	ARENA_3	1.557	9.41	691.4	ARENA_3	0.784	4.63	266.4
360.000	TERRAPLEN	0.000	0.00	2.9	D_TIERRA	4.472	83.71	1547.8
	ARENA_1	0.251	5.01	90.2	ARENA_2	0.442	8.84	159.2
	ARENA_3	2.130	36.87	728.3	ARENA_3	0.784	15.68	282.1
380.000	TERRAPLEN	0.000	0.00	2.9	D_TIERRA	3.894	83.66	1631.4
	ARENA_1	0.251	5.01	95.2	ARENA_2	0.442	8.85	168.1
	ARENA_3	1.551	36.81	765.1	ARENA_3	0.783	15.67	297.8
400.000	TERRAPLEN	0.000	0.00	2.9	D_TIERRA	6.376	102.69	1734.1
	ARENA_1	0.251	5.01	100.2	ARENA_2	0.442	8.85	176.9
	ARENA_3	4.033	55.85	820.9	ARENA_3	0.783	15.66	313.4
401.629	TERRAPLEN	0.000	0.00	2.9	D_TIERRA	6.658	10.62	1744.7
	ARENA_1	0.251	0.41	100.6	ARENA_2	0.442	0.72	177.6
	ARENA_3	4.316	6.80	827.7	ARENA_3	0.783	1.28	314.7
410.135	TERRAPLEN	0.000	0.00	2.9	D_TIERRA	6.920	57.75	1802.5
	ARENA_1	0.251	2.13	102.7	ARENA_2	0.442	3.76	181.4
	ARENA_3	4.578	37.83	865.6	ARENA_3	0.783	6.66	321.4
420.000	TERRAPLEN	0.000	0.00	2.9	D_TIERRA	3.810	52.92	1855.4
	ARENA_1	0.251	2.47	105.2	ARENA_2	0.442	4.36	185.8
	ARENA_3	1.468	29.82	895.4	ARENA_3	0.783	7.72	329.1
440.000	TERRAPLEN	0.000	0.00	2.9	D_TIERRA	3.943	77.53	1932.9
	ARENA_1	0.251	5.01	110.2	ARENA_2	0.442	8.85	194.6
	ARENA_3	1.601	30.68	926.1	ARENA_3	0.783	15.66	344.8
460.000	TERRAPLEN	0.000	0.00	2.9	D_TIERRA	3.944	78.86	2011.8
	ARENA_1	0.251	5.01	115.2	ARENA_2	0.442	8.85	203.5
	ARENA_3	1.601	32.02	958.1	ARENA_3	0.784	15.66	360.4
462.565	TERRAPLEN	0.000	0.00	2.9	D_TIERRA	3.844	9.99	2021.8
	ARENA_1	0.251	0.64	115.9	ARENA_2	0.442	1.13	204.6
	ARENA_3	1.502	3.98	962.1	ARENA_3	0.784	2.01	362.4
480.000	TERRAPLEN	0.000	0.00	2.9	D_TIERRA	4.041	68.74	2090.5
	ARENA_1	0.251	4.37	120.2	ARENA_2	0.442	7.71	212.3
	ARENA_3	1.699	27.90	990.0	ARENA_3	0.784	13.67	376.1



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PROYECTO :

EJE : 1: AZUD - ETAP PRINCIPAL

CIDACOS COMPLETO

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PROYECTO :

EJE : 1: AZUD - ETAP PRINCIPAL

CIDACOS COMPLETO

*** MEDICIONES DE LOS PERFILES TRANSVERSALES***
*** CAPAS DE FIRME ***

*** MEDICIONES DE LOS PERFILES TRANSVERSALES***
*** CAPAS DE FIRME ***

PERFIL	MATERIAL	AREA PERFIL	VOL. PARCIAL	VOL. ACUMUL.	MATERIAL	AREA PERFIL	VOL. PARCIAL	VOL. ACUMUL.
480.963	TERRAPLEN	0.000	0.00	2.9	D TIERRA	4.061	3.90	2094.4
	ARENA_1	0.251	0.24	120.5	ARENA_2	0.442	0.43	212.7
	RELLENO_ZANJA	1.718	1.65	991.6	ARENA_3	0.784	0.75	376.8
500.000	TERRAPLEN	0.002	0.02	2.9	D TIERRA	3.666	73.55	2168.0
	ARENA_1	0.251	4.77	125.3	ARENA_2	0.442	8.42	221.2
	RELLENO_ZANJA	1.330	29.02	1020.6	ARENA_3	0.784	14.92	391.8
502.002	TERRAPLEN	0.123	0.13	3.0	D TIERRA	3.378	7.05	2175.0
	ARENA_1	0.251	0.50	125.8	ARENA_2	0.442	0.89	222.0
	RELLENO_ZANJA	1.259	2.59	1023.2	ARENA_3	0.784	1.57	393.3
508.740	TERRAPLEN	0.000	0.41	3.4	D TIERRA	3.784	24.13	2199.2
	ARENA_1	0.251	1.69	127.4	ARENA_2	0.442	2.98	225.0
	RELLENO_ZANJA	1.442	9.10	1032.3	ARENA_3	0.784	5.28	398.6
520.000	TERRAPLEN	0.003	0.02	3.4	D TIERRA	3.513	41.09	2240.2
	ARENA_1	0.251	2.82	130.3	ARENA_2	0.442	4.98	230.0
	RELLENO_ZANJA	1.182	14.77	1047.1	ARENA_3	0.784	8.82	407.4
534.746	TERRAPLEN	0.003	0.05	3.5	D TIERRA	3.690	53.11	2293.3
	ARENA_1	0.250	3.69	134.0	ARENA_2	0.442	6.52	236.5
	RELLENO_ZANJA	1.357	18.72	1065.8	ARENA_3	0.784	11.56	419.0
540.000	TERRAPLEN	0.000	0.01	3.5	D TIERRA	4.064	20.37	2313.7
	ARENA_1	0.251	1.32	135.3	ARENA_2	0.442	2.32	238.9
	RELLENO_ZANJA	1.721	8.09	1073.9	ARENA_3	0.784	4.12	423.1
558.501	TERRAPLEN	0.000	0.00	3.5	D TIERRA	3.936	74.00	2387.7
	ARENA_1	0.251	4.63	139.9	ARENA_2	0.442	8.18	247.0
	RELLENO_ZANJA	1.594	30.66	1104.6	ARENA_3	0.784	14.50	437.6
560.000	TERRAPLEN	0.000	0.00	3.5	D TIERRA	3.895	5.87	2393.6
	ARENA_1	0.251	0.38	140.3	ARENA_2	0.442	0.66	247.7
	RELLENO_ZANJA	1.553	2.36	1106.9	ARENA_3	0.784	1.17	438.8
580.000	TERRAPLEN	0.000	0.00	3.5	D TIERRA	4.045	79.40	2473.0
	ARENA_1	0.251	5.01	145.3	ARENA_2	0.442	8.85	256.5
	RELLENO_ZANJA	1.703	32.56	1139.5	ARENA_3	0.783	15.67	454.5
596.778	TERRAPLEN	0.000	0.00	3.5	D TIERRA	4.028	67.72	2540.7
	ARENA_1	0.251	4.20	149.5	ARENA_2	0.442	7.42	264.0
	RELLENO_ZANJA	1.685	28.42	1167.9	ARENA_3	0.783	13.14	467.6
600.000	TERRAPLEN	0.000	0.00	3.5	D TIERRA	4.257	13.35	2554.1
	ARENA_1	0.251	0.81	150.3	ARENA_2	0.442	1.43	265.4
	RELLENO_ZANJA	1.915	5.80	1173.7	ARENA_3	0.784	2.53	470.1
620.000	TERRAPLEN	0.000	0.00	3.5	D TIERRA	6.123	103.81	2657.9
	ARENA_1	0.251	5.01	155.3	ARENA_2	0.442	8.85	274.2
	RELLENO_ZANJA	3.781	56.96	1230.7	ARENA_3	0.784	15.68	485.8
635.874	TERRAPLEN	0.000	0.00	3.5	D TIERRA	3.943	79.89	2737.8
	ARENA_1	0.251	3.98	159.3	ARENA_2	0.442	7.02	281.3
	RELLENO_ZANJA	1.600	42.71	1273.4	ARENA_3	0.784	12.44	498.2
640.000	TERRAPLEN	0.000	0.00	3.5	D TIERRA	3.917	16.21	2754.0
	ARENA_1	0.251	1.03	160.3	ARENA_2	0.442	1.82	283.1
	RELLENO_ZANJA	1.575	6.55	1279.9	ARENA_3	0.784	3.23	501.5
643.036	TERRAPLEN	0.000	0.00	3.5	D TIERRA	3.891	11.85	2765.8
	ARENA_1	0.251	0.76	161.1	ARENA_2	0.442	1.34	284.4
	RELLENO_ZANJA	1.549	4.74	1284.7	ARENA_3	0.784	2.38	503.9
649.622	TERRAPLEN	0.000	0.00	3.5	D TIERRA	4.005	26.00	2791.8
	ARENA_1	0.251	1.65	162.7	ARENA_2	0.442	2.91	287.3
	RELLENO_ZANJA	1.663	10.58	1295.3	ARENA_3	0.784	5.16	509.0
660.000	TERRAPLEN	0.000	0.00	3.5	D TIERRA	3.954	41.30	2833.1
	ARENA_1	0.251	2.60	165.3	ARENA_2	0.442	4.59	291.9
	RELLENO_ZANJA	1.612	16.99	1312.3	ARENA_3	0.784	8.13	517.2
677.073	TERRAPLEN	0.000	0.00	3.5	D TIERRA	3.954	67.51	2900.6
	ARENA_1	0.251	4.28	169.6	ARENA_2	0.442	7.55	299.5
	RELLENO_ZANJA	1.612	27.52	1339.8	ARENA_3	0.783	13.37	530.5
680.000	TERRAPLEN	0.000	0.00	3.5	D TIERRA	3.953	11.57	2912.2
	ARENA_1	0.251	0.73	170.4	ARENA_2	0.442	1.29	300.8
	RELLENO_ZANJA	1.611	4.72	1344.5	ARENA_3	0.783	2.29	532.8

PERFIL	MATERIAL	AREA PERFIL	VOL. PARCIAL	VOL. ACUMUL.	MATERIAL	AREA PERFIL	VOL. PARCIAL	VOL. ACUMUL.
686.131	TERRAPLEN	0.000	0.00	3.5	D TIERRA	3.953	24.24	2936.4
	ARENA_1	0.251	1.54	171.9	ARENA_2	0.442	2.71	303.5
	RELLENO_ZANJA	1.611	9.88	1354.4	ARENA_3	0.784	4.80	537.6
699.221	TERRAPLEN	0.000	0.00	3.5	D TIERRA	3.949	51.72	2988.2
	ARENA_1	0.251	3.28	175.2	ARENA_2	0.442	5.79	309.3
	RELLENO_ZANJA	1.607	21.06	1375.4	ARENA_3	0.784	10.26	547.9
700.000	TERRAPLEN	0.000	0.00	3.5	D TIERRA	3.980	3.09	2991.2
	ARENA_1	0.251	0.20	175.4	ARENA_2	0.442	0.34	309.6
	RELLENO_ZANJA	1.638	1.26	1376.7	ARENA_3	0.784	0.61	548.5
715.699	TERRAPLEN	0.000	0.00	3.5	D TIERRA	3.953	62.27	3053.5
	ARENA_1	0.251	3.93	179.3	ARENA_2	0.442	6.94	316.6
	RELLENO_ZANJA	1.611	25.50	1402.2	ARENA_3	0.784	12.30	560.8
720.000	TERRAPLEN	0.000	0.00	3.5	D TIERRA	7.330	24.27	3077.8
	ARENA_1	0.251	1.08	180.4	ARENA_2	0.442	1.90	318.5
	RELLENO_ZANJA	4.988	14.19	1416.4	ARENA_3	0.784	3.37	564.2
740.000	TERRAPLEN	0.000	0.00	3.5	D TIERRA	3.953	112.84	3190.6
	ARENA_1	0.251	5.01	185.4	ARENA_2	0.442	8.85	327.3
	RELLENO_ZANJA	1.611	65.99	1482.4	ARENA_3	0.784	15.67	579.8
760.000	TERRAPLEN	0.000	0.00	3.5	D TIERRA	3.953	79.06	3269.7
	ARENA_1	0.251	5.01	190.4	ARENA_2	0.442	8.85	336.2
	RELLENO_ZANJA	1.611	32.22	1514.6	ARENA_3	0.784	15.68	595.5
780.000	TERRAPLEN	0.000	0.00	3.5	D TIERRA	4.042	79.95	3349.6
	ARENA_1	0.251	5.01	195.4	ARENA_2	0.442	8.85	345.0
	RELLENO_ZANJA	1.700	33.11	1547.7	ARENA_3	0.783	15.67	611.2
800.000	TERRAPLEN	0.000	0.00	3.5	D TIERRA	3.953	79.95	3429.6
	ARENA_1	0.251	5.01	200.4	ARENA_2	0.442	8.85	353.9
	RELLENO_ZANJA	1.611	33.10	1580.8	ARENA_3	0.784	15.67	626.9
820.000	TERRAPLEN	0.000	0.00	3.5	D TIERRA	4.128	80.81	3510.4
	ARENA_1	0.251	5.01	205.4	ARENA_2	0.442	8.85	362.7
	RELLENO_ZANJA	1.786	33.97	1614.8	ARENA_3	0.784	15.68	642.5
840.000	TERRAPLEN	0.000	0.00	3.5	D TIERRA	4.107	82.35	3592.7
	ARENA_1	0.251	5.01	210.4	ARENA_2	0.442	8.85	371.5
	RELLENO_ZANJA	1.765	35.51	1650.3	ARENA_3	0.784	15.68	658.2
844.501	TERRAPLEN	0.000	0.00	3.5	D TIERRA	4.399	19.14	3611.9
	ARENA_1	0.251	1.13	211.6	ARENA_2	0.442	1.99	373.5
	RELLENO_ZANJA	2.056	8.60	1658.9	ARENA_3	0.784	3.53	661.7
860.000	TERRAPLEN	0.000	0.00	3.5	D TIERRA	5.382	75.79	3687.7
	ARENA_1	0.251	3.88	215.4	ARENA_2	0.442	6.85	380.4
	RELLENO_ZANJA	3.039	39.49	1698.4	ARENA_3	0.784	12.15	673.9
900.000	TERRAPLEN	0.000	0.00	3.5	D TIERRA	4.250	192.63	3880.3
	ARENA_1	0.251	10.02	225.5	ARENA_2	0.442	17.69	398.1
	RELLENO_ZANJA	1.908	98.94	1797.3	ARENA_3	0.784	31.36	705.2
907.687	TERRAPLEN	0.000	0.00	3.5	D TIERRA	3.968	31.58	3911.9
	ARENA_1	0.251	1.93	227.4	ARENA_2	0.442	3.40	401.5
	RELLENO_ZANJA	1.625	13.58	1810.9	ARENA_3	0.784	6.03	711.3
940.000	TERRAPLEN	0.000	0.00	3.5	D TIERRA	3.953	127.97	4039.9
	ARENA_1	0.251	8.09	235.5	ARENA_2	0.442	14.29	415.8
	RELLENO_ZANJA	1.611	52.29	1863.2	ARENA_3	0.783	25.31	736.6
960.000	TERRAPLEN	0.000	0.00	3.5	D TIERRA	4.014	79.67	4119.5
	ARENA_1	0.251	5.01	240.5	ARENA_2	0.442	8.85	424.6
	RELLENO_ZANJA	1.672	32.83	1896.0	ARENA_3	0.783	15.65	752.2
978.422	TERRAPLEN	0.000	0.00	3.5	D TIERRA	4.103	74.76	4194.3
	ARENA_1	0.251	4.61	245.1	ARENA_2	0.442	8.15	432.8
	RELLENO_ZANJA	1.760	31.62	1927.6	ARENA_3	0.784	14.43	766.7
980.000	TERRAPLEN	0.000	0.00	3.5	D TIERRA	4.079	6.46	4200.8
	ARENA_1	0.251	0.40	245.5	ARENA_2	0.442	0.70	433.5
	RELLENO_ZANJA	1.737	2.76	1930.4	ARENA_3	0.784	1.24	767.9
1000.000	TERRAPLEN	0.000	0.00	3.5	D TIERRA	3.978	80.57	4281.3
	ARENA_1	0.251	5.01	250.5	ARENA_2	0.442	8.85	442.3
	RELLENO_ZANJA	1.636	33.73	1964.1	ARENA_3	0.784	15.68	783.6

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 * * * MEDICIONES DE LOS PERFILES TRANSVERSALES* * *
 * * * CAPAS DE FIRME * * *

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 * * * CAPAS DE FIRME * * *

PERFIL	MATERIAL	AREA PERFIL	VOL. PARCIAL	VOL. ACUMUL.	MATERIAL	AREA PERFIL	VOL. PARCIAL	VOL. ACUMUL.
1020.000	TERRAPLEN	0.000	0.00	3.5	D TIERRA	3.977	79.55	4360.9
	ARENA_1	0.251	5.01	255.5	ARENA_2	0.442	8.85	451.2
	RELLENO_ZANJA	1.634	32.71	1996.8	ARENA_3	0.784	15.68	799.2
1040.000	TERRAPLEN	0.000	0.00	3.5	D TIERRA	4.113	80.90	4441.8
	ARENA_1	0.251	5.01	260.5	ARENA_2	0.442	8.85	460.0
	RELLENO_ZANJA	1.771	34.06	2030.9	ARENA_3	0.784	15.68	814.9
1060.000	TERRAPLEN	0.000	0.00	3.5	D TIERRA	4.127	82.41	4524.2
	ARENA_1	0.251	5.01	265.6	ARENA_2	0.442	8.85	468.9
	RELLENO_ZANJA	1.785	35.56	2066.4	ARENA_3	0.783	15.67	830.6
1065.589	TERRAPLEN	0.000	0.00	3.5	D TIERRA	4.150	23.13	4547.3
	ARENA_1	0.250	1.40	267.0	ARENA_2	0.442	2.47	471.3
	RELLENO_ZANJA	1.808	10.04	2076.5	ARENA_3	0.784	4.38	835.0
1080.000	TERRAPLEN	0.000	0.00	3.5	D TIERRA	3.948	58.35	4605.7
	ARENA_1	0.251	3.61	270.6	ARENA_2	0.442	6.37	477.7
	RELLENO_ZANJA	1.606	24.60	2101.1	ARENA_3	0.783	11.29	846.3
1088.379	TERRAPLEN	0.000	0.00	3.5	D TIERRA	3.925	32.99	4638.7
	ARENA_1	0.251	2.10	272.7	ARENA_2	0.442	3.71	481.4
	RELLENO_ZANJA	1.583	13.36	2114.4	ARENA_3	0.783	6.56	852.8
1095.237	TERRAPLEN	0.000	0.00	3.5	D TIERRA	3.906	26.85	4665.5
	ARENA_1	0.251	1.72	274.4	ARENA_2	0.442	3.03	484.4
	RELLENO_ZANJA	1.564	10.79	2125.2	ARENA_3	0.783	5.37	858.2
1100.000	TERRAPLEN	0.000	0.00	3.5	D TIERRA	3.902	18.60	4684.1
	ARENA_1	0.250	1.19	275.6	ARENA_2	0.442	2.11	486.5
	RELLENO_ZANJA	1.560	7.44	2132.7	ARENA_3	0.784	3.73	861.9
1102.520	TERRAPLEN	0.000	0.00	3.5	D TIERRA	3.913	9.85	4694.0
	ARENA_1	0.250	0.63	276.2	ARENA_2	0.442	1.11	487.7
	RELLENO_ZANJA	1.570	3.94	2136.6	ARENA_3	0.784	1.97	863.9
1109.149	TERRAPLEN	0.000	0.00	3.5	D TIERRA	3.955	26.08	4720.0
	ARENA_1	0.251	1.66	277.9	ARENA_2	0.442	2.93	490.6
	RELLENO_ZANJA	1.612	10.55	2147.2	ARENA_3	0.783	5.19	869.1
1116.049	TERRAPLEN	0.000	0.00	3.5	D TIERRA	3.991	27.41	4747.5
	ARENA_1	0.251	1.73	279.6	ARENA_2	0.442	3.05	493.6
	RELLENO_ZANJA	1.649	11.25	2158.4	ARENA_3	0.783	5.41	874.5
1120.000	TERRAPLEN	0.000	0.00	3.5	D TIERRA	4.007	15.80	4763.3
	ARENA_1	0.251	0.99	280.6	ARENA_2	0.442	1.75	495.4
	RELLENO_ZANJA	1.664	6.55	2165.0	ARENA_3	0.783	3.10	877.6
1140.000	TERRAPLEN	0.000	0.00	3.5	D TIERRA	4.639	86.45	4849.7
	ARENA_1	0.251	5.01	285.6	ARENA_2	0.442	8.85	504.2
	RELLENO_ZANJA	2.297	39.61	2204.6	ARENA_3	0.784	15.67	893.3
1160.000	TERRAPLEN	0.000	0.00	3.5	D TIERRA	4.690	93.29	4943.0
	ARENA_1	0.251	5.01	290.6	ARENA_2	0.442	8.85	513.1
	RELLENO_ZANJA	2.347	46.44	2251.0	ARENA_3	0.784	15.68	909.0
1169.307	TERRAPLEN	0.000	0.00	3.5	D TIERRA	4.713	43.76	4986.7
	ARENA_1	0.251	2.33	292.9	ARENA_2	0.442	4.12	517.2
	RELLENO_ZANJA	2.371	21.96	2273.0	ARENA_3	0.784	7.30	916.3
1180.000	TERRAPLEN	0.000	0.00	3.5	D TIERRA	4.677	50.21	5037.0
	ARENA_1	0.251	2.68	295.6	ARENA_2	0.442	4.73	521.9
	RELLENO_ZANJA	2.335	25.16	2298.1	ARENA_3	0.784	8.38	924.6
1200.000	TERRAPLEN	0.000	0.00	3.5	D TIERRA	5.016	96.94	5133.9
	ARENA_1	0.251	5.01	300.6	ARENA_2	0.442	8.85	530.8
	RELLENO_ZANJA	2.674	50.09	2348.2	ARENA_3	0.784	15.68	940.3
1220.000	TERRAPLEN	0.000	0.00	3.5	D TIERRA	4.397	94.14	5228.0
	ARENA_1	0.251	5.01	305.6	ARENA_2	0.442	8.85	539.6
	RELLENO_ZANJA	2.055	47.29	2395.5	ARENA_3	0.784	15.68	956.0
1240.000	TERRAPLEN	0.000	0.00	3.5	D TIERRA	4.253	86.51	5314.5
	ARENA_1	0.251	5.01	310.6	ARENA_2	0.442	8.85	548.5
	RELLENO_ZANJA	1.911	39.66	2435.2	ARENA_3	0.784	15.68	971.7
1249.810	TERRAPLEN	0.000	0.00	3.5	D TIERRA	4.186	41.39	5355.9
	ARENA_1	0.251	2.46	313.1	ARENA_2	0.442	4.34	552.8
	RELLENO_ZANJA	1.844	18.42	2453.6	ARENA_3	0.784	7.69	979.4

PERFIL	MATERIAL	AREA PERFIL	VOL. PARCIAL	VOL. ACUMUL.	MATERIAL	AREA PERFIL	VOL. PARCIAL	VOL. ACUMUL.
1260.000	TERRAPLEN	0.000	0.00	3.5	D TIERRA	4.126	42.35	5398.3
	ARENA_1	0.251	2.55	315.7	ARENA_2	0.442	4.51	557.3
	RELLENO_ZANJA	1.783	18.48	2472.1	ARENA_3	0.784	7.99	987.4
1273.250	TERRAPLEN	0.000	0.00	3.5	D TIERRA	3.972	53.64	5451.9
	ARENA_1	0.251	3.32	319.0	ARENA_2	0.442	5.86	563.2
	RELLENO_ZANJA	1.629	22.61	2494.7	ARENA_3	0.784	10.39	997.7
1280.000	TERRAPLEN	0.000	0.00	3.5	D TIERRA	3.894	26.54	5478.5
	ARENA_1	0.251	1.69	320.7	ARENA_2	0.442	2.99	566.2
	RELLENO_ZANJA	1.551	10.73	2505.4	ARENA_3	0.784	5.29	1003.0
1281.772	TERRAPLEN	0.000	0.00	3.5	D TIERRA	3.873	6.88	5485.3
	ARENA_1	0.251	0.44	321.1	ARENA_2	0.442	0.78	566.9
	RELLENO_ZANJA	1.531	2.73	2508.1	ARENA_3	0.784	1.39	1004.4
1300.000	TERRAPLEN	0.000	0.00	3.5	D TIERRA	3.965	71.43	5556.8
	ARENA_1	0.251	4.57	325.7	ARENA_2	0.442	8.06	575.0
	RELLENO_ZANJA	1.623	28.74	2536.9	ARENA_3	0.784	14.29	1018.7
1314.732	TERRAPLEN	0.000	0.00	3.5	D TIERRA	3.950	58.30	5615.1
	ARENA_1	0.251	3.69	329.4	ARENA_2	0.442	6.52	581.5
	RELLENO_ZANJA	1.608	23.80	2560.7	ARENA_3	0.783	11.55	1030.3
1320.000	TERRAPLEN	0.000	0.00	3.5	D TIERRA	4.011	20.97	5636.0
	ARENA_1	0.251	1.32	330.7	ARENA_2	0.442	2.33	583.9
	RELLENO_ZANJA	1.669	8.63	2569.3	ARENA_3	0.784	4.13	1034.4
1340.000	TERRAPLEN	0.000	0.00	3.5	D TIERRA	4.230	82.41	5718.5
	ARENA_1	0.251	5.01	335.7	ARENA_2	0.442	8.85	592.7
	RELLENO_ZANJA	1.888	35.56	2604.9	ARENA_3	0.784	15.68	1050.1
1345.539	TERRAPLEN	0.000	0.00	3.5	D TIERRA	4.297	23.61	5742.1
	ARENA_1	0.251	1.39	337.1	ARENA_2	0.442	2.45	595.1
	RELLENO_ZANJA	1.954	10.64	2615.5	ARENA_3	0.784	4.34	1054.4
1360.000	TERRAPLEN	0.000	0.00	3.5	D TIERRA	4.362	62.61	5804.7
	ARENA_1	0.251	3.62	340.7	ARENA_2	0.442	6.40	601.5
	RELLENO_ZANJA	2.020	28.74	2644.3	ARENA_3	0.784	11.34	1065.7
1380.000	TERRAPLEN	0.000	0.00	3.5	D TIERRA	4.434	87.96	5892.6
	ARENA_1	0.251	5.01	345.7	ARENA_2	0.442	8.85	610.4
	RELLENO_ZANJA	2.091	41.12	2685.4	ARENA_3	0.784	15.68	1081.4
1400.000	TERRAPLEN	0.000	0.00	3.5	D TIERRA	4.693	91.27	5983.9
	ARENA_1	0.251	5.01	350.7	ARENA_2	0.442	8.85	619.2
	RELLENO_ZANJA	2.351	44.43	2729.8	ARENA_3	0.784	15.68	1097.1
1409.713	TERRAPLEN	0.000	0.00	3.5	D TIERRA	4.729	45.76	6029.7
	ARENA_1	0.251	2.43	353.2	ARENA_2	0.442	4.30	623.5
	RELLENO_ZANJA	2.387	23.01	2752.8	ARENA_3	0.784	7.61	1104.7
1419.134	TERRAPLEN	0.000	0.00	3.5	D TIERRA	4.867	45.20	6074.9
	ARENA_1	0.251	2.36	355.5	ARENA_2	0.442	4.17	627.7
	RELLENO_ZANJA	2.525	23.14	2775.9	ARENA_3	0.784	7.39	1112.1
1420.000	TERRAPLEN	0.000	0.00	3.5	D TIERRA	4.870	4.22	6079.1
	ARENA_1	0.251	0.22	355.7	ARENA_2	0.442	0.38	628.1
	RELLENO_ZANJA	2.528	2.19	2778.1	ARENA_3	0.784	0.68	1112.8
1423.010	TERRAPLEN	0.000	0.00	3.5	D TIERRA	4.841	14.61	6093.7
	ARENA_1	0.251	0.75	356.5	ARENA_2	0.442	1.33	629.4
	RELLENO_ZANJA	2.499	7.56	2785.7	ARENA_3	0.784	2.36	1115.1
1430.549	TERRAPLEN	0.000	0.00	3.5	D TIERRA	3.921	33.03	6126.7
	ARENA_1	0.250	1.89	358.4	ARENA_2	0.444	3.34	632.8
	RELLENO_ZANJA	1.579	15.37	2801.1	ARENA_3	0.773	5.87	1121.0
1434.875	TERRAPLEN	0.000	0.00	3.5	D TIERRA	4.067	17.28	6144.0
	ARENA_1	0.250	1.08	359.5	ARENA_2	0.444	1.92	634.7
	RELLENO_ZANJA	1.725	7.15	2808.2	ARENA_3	0.773	3.34	1124.3
1436.900	TERRAPLEN	0.000	0.00	3.5	D TIERRA	4.004	8.17	6152.2
	ARENA_1	0.250	0.51	360.0	ARENA_2	0.444	0.90	635.6
	RELLENO_ZANJA	1.662	3.43	2811.6	ARENA_3	0.773	1.57	1125.9
1440.000	TERRAPLEN	0.000	0.00	3.5	D TIERRA	3.835	12.15	6164.3
	ARENA_1	0.250	0.78	360.7	ARENA_2	0.444	1.38	636.9
	RELLENO_ZANJA	1.492	4.89	2816.5	ARENA_3	0.773	2.40	1128.3



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PROYECTO : CIDACOS COMPLETO
EJE : 1: AZUD - ETAP PRINCIPAL

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*** MEDICIONES DE LOS PERFILES TRANSVERSALES***
*** CAPAS DE FIRME ***

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PERFIL	MATERIAL	AREA PERFIL	VOL. PARCIAL	VOL. ACUMUL.	MATERIAL	AREA PERFIL	VOL. PARCIAL	VOL. ACUMUL.
1440.394	TERRAPLEN	0.000	0.00	3.5	D TIERRA	3.828	1.51	6165.8
	ARENA_1	0.250	0.10	360.8	ARENA_2	0.444	0.17	637.1
	RELLENO_ZANJA	1.486	0.59	2817.1	ARENA_3	0.773	0.30	1128.6
1450.192	TERRAPLEN	0.000	0.00	3.5	D TIERRA	3.816	37.45	6203.3
	ARENA_1	0.250	2.45	363.3	ARENA_2	0.444	4.35	641.5
	RELLENO_ZANJA	1.474	14.50	2831.6	ARENA_3	0.773	7.57	1136.2
1460.000	TERRAPLEN	0.000	0.00	3.5	D TIERRA	3.695	36.84	6240.1
	ARENA_1	0.250	2.45	365.7	ARENA_2	0.444	4.35	645.8
	RELLENO_ZANJA	1.353	13.86	2845.5	ARENA_3	0.773	7.58	1143.8
1460.145	TERRAPLEN	0.000	0.00	3.5	D TIERRA	3.695	0.54	6240.7
	ARENA_1	0.250	0.04	365.8	ARENA_2	0.444	0.06	645.9
	RELLENO_ZANJA	1.353	0.20	2845.7	ARENA_3	0.773	0.11	1143.9
1469.473	TERRAPLEN	0.000	0.00	3.5	D TIERRA	3.955	35.68	6276.3
	ARENA_1	0.251	2.33	368.1	ARENA_2	0.442	4.13	650.0
	RELLENO_ZANJA	1.613	13.83	2859.5	ARENA_3	0.784	7.26	1151.1
1474.342	TERRAPLEN	0.000	0.00	3.5	D TIERRA	4.089	19.58	6295.9
	ARENA_1	0.251	1.22	369.3	ARENA_2	0.442	2.15	652.2
	RELLENO_ZANJA	1.746	8.18	2867.7	ARENA_3	0.784	3.82	1155.0
1480.000	TERRAPLEN	0.000	0.00	3.5	D TIERRA	4.161	23.34	6319.3
	ARENA_1	0.251	1.42	370.8	ARENA_2	0.442	2.50	654.7
	RELLENO_ZANJA	1.819	10.09	2877.8	ARENA_3	0.784	4.44	1159.4
1500.000	TERRAPLEN	0.000	0.00	3.5	D TIERRA	4.016	81.77	6401.0
	ARENA_1	0.251	5.01	375.8	ARENA_2	0.442	8.85	663.5
	RELLENO_ZANJA	1.673	34.93	2912.7	ARENA_3	0.784	15.68	1175.1
1502.391	TERRAPLEN	0.000	0.00	3.5	D TIERRA	4.075	9.67	6410.7
	ARENA_1	0.251	0.60	376.4	ARENA_2	0.442	1.06	664.6
	RELLENO_ZANJA	1.733	4.07	2916.8	ARENA_3	0.784	1.87	1176.9
1520.000	TERRAPLEN	0.000	0.00	3.5	D TIERRA	4.280	73.57	6484.3
	ARENA_1	0.251	4.41	380.8	ARENA_2	0.442	7.79	672.4
	RELLENO_ZANJA	1.938	32.32	2949.1	ARENA_3	0.784	13.80	1190.7
1538.027	TERRAPLEN	0.000	0.00	3.5	D TIERRA	6.884	0.00	6484.3
	ARENA_1	0.340	0.00	380.8	ARENA_2	0.724	0.00	672.4
	RELLENO_ZANJA	3.800	0.00	2949.1	ARENA_3	1.155	0.00	1190.7
1540.000	TERRAPLEN	0.000	0.00	3.5	D TIERRA	7.142	13.84	6498.1
	ARENA_1	0.340	0.67	381.4	ARENA_2	0.724	1.43	673.8
	RELLENO_ZANJA	4.058	7.75	2956.8	ARENA_3	1.155	2.28	1193.0
1549.124	TERRAPLEN	0.000	0.00	3.5	D TIERRA	5.421	57.31	6555.4
	ARENA_1	0.340	3.10	384.5	ARENA_2	0.724	6.61	680.4
	RELLENO_ZANJA	2.336	29.17	2986.0	ARENA_3	1.155	10.54	1203.6
1555.527	TERRAPLEN	0.000	0.00	3.5	D TIERRA	5.228	34.09	6589.5
	ARENA_1	0.340	2.17	386.7	ARENA_2	0.724	4.64	685.0
	RELLENO_ZANJA	2.143	14.34	3000.4	ARENA_3	1.155	7.40	1211.0
1560.000	TERRAPLEN	0.000	0.00	3.5	D TIERRA	5.440	23.86	6613.4
	ARENA_1	0.340	1.52	388.2	ARENA_2	0.724	3.24	688.3
	RELLENO_ZANJA	2.355	10.06	3010.4	ARENA_3	1.155	5.17	1216.1
1572.389	TERRAPLEN	0.000	0.00	3.5	D TIERRA	5.781	69.51	6682.9
	ARENA_1	0.340	4.21	392.4	ARENA_2	0.724	8.97	697.3
	RELLENO_ZANJA	2.697	31.29	3041.7	ARENA_3	1.155	14.31	1230.4
1580.000	TERRAPLEN	0.000	0.00	3.5	D TIERRA	5.565	43.18	6726.1
	ARENA_1	0.340	2.59	395.0	ARENA_2	0.724	5.51	702.8
	RELLENO_ZANJA	2.481	19.70	3061.4	ARENA_3	1.155	8.79	1239.2
1583.329	TERRAPLEN	0.000	0.00	3.5	D TIERRA	5.335	18.14	6744.2
	ARENA_1	0.340	1.13	396.2	ARENA_2	0.724	2.41	705.2
	RELLENO_ZANJA	2.250	7.87	3069.3	ARENA_3	1.155	3.85	1243.1
1592.899	TERRAPLEN	0.000	0.00	3.5	D TIERRA	5.086	49.87	6794.1
	ARENA_1	0.340	3.25	399.4	ARENA_2	0.724	6.93	712.1
	RELLENO_ZANJA	2.002	20.35	3089.6	ARENA_3	1.155	11.05	1254.1
1600.000	TERRAPLEN	0.000	0.00	3.5	D TIERRA	5.060	36.02	6830.1
	ARENA_1	0.340	2.41	401.8	ARENA_2	0.724	5.14	717.3
	RELLENO_ZANJA	1.975	14.12	3103.7	ARENA_3	1.155	8.20	1262.3

PERFIL	MATERIAL	AREA PERFIL	VOL. PARCIAL	VOL. ACUMUL.	MATERIAL	AREA PERFIL	VOL. PARCIAL	VOL. ACUMUL.
1600.763	TERRAPLEN	0.000	0.00	3.5	D TIERRA	5.089	3.87	6834.0
	ARENA_1	0.339	0.26	402.1	ARENA_2	0.725	0.55	717.8
	RELLENO_ZANJA	2.004	1.52	3105.3	ARENA_3	1.155	0.88	1263.2
1610.005	TERRAPLEN	0.000	0.00	3.5	D TIERRA	5.375	48.35	6882.3
	ARENA_1	0.340	3.14	405.2	ARENA_2	0.725	6.70	724.5
	RELLENO_ZANJA	2.291	19.85	3125.1	ARENA_3	1.155	10.67	1273.9
1620.000	TERRAPLEN	0.000	0.00	3.5	D TIERRA	5.213	52.92	6935.2
	ARENA_1	0.340	3.39	408.6	ARENA_2	0.724	7.24	731.7
	RELLENO_ZANJA	2.129	22.09	3147.2	ARENA_3	1.155	11.54	1285.4
1640.000	TERRAPLEN	0.000	0.00	3.5	D TIERRA	5.117	103.30	7038.5
	ARENA_1	0.340	6.79	415.4	ARENA_2	0.724	14.49	746.2
	RELLENO_ZANJA	2.032	41.60	3188.8	ARENA_3	1.155	23.10	1308.5
1660.000	TERRAPLEN	0.000	0.00	3.5	D TIERRA	5.041	101.57	7140.1
	ARENA_1	0.340	6.79	422.2	ARENA_2	0.724	14.49	760.7
	RELLENO_ZANJA	1.956	39.88	3228.7	ARENA_3	1.155	23.10	1331.6
1664.094	TERRAPLEN	0.000	0.00	3.5	D TIERRA	5.288	21.14	7161.3
	ARENA_1	0.340	1.39	423.6	ARENA_2	0.724	2.97	763.7
	RELLENO_ZANJA	2.203	8.51	3237.2	ARENA_3	1.155	4.73	1336.4
1671.236	TERRAPLEN	0.000	0.00	3.5	D TIERRA	5.219	37.52	7198.8
	ARENA_1	0.340	2.43	426.0	ARENA_2	0.724	5.17	768.9
	RELLENO_ZANJA	2.134	15.49	3252.7	ARENA_3	1.155	8.25	1344.6
1680.000	TERRAPLEN	0.000	0.00	3.5	D TIERRA	5.543	47.16	7245.9
	ARENA_1	0.340	2.98	429.0	ARENA_2	0.724	6.35	775.2
	RELLENO_ZANJA	2.458	20.12	3272.8	ARENA_3	1.155	10.12	1354.7
1684.749	TERRAPLEN	0.000	0.00	3.5	D TIERRA	5.630	26.53	7272.5
	ARENA_1	0.340	1.61	430.6	ARENA_2	0.724	3.44	778.7
	RELLENO_ZANJA	2.545	11.88	3284.7	ARENA_3	1.155	5.49	1360.2
1691.948	TERRAPLEN	0.000	0.00	3.5	D TIERRA	5.711	40.82	7313.3
	ARENA_1	0.340	2.44	433.1	ARENA_2	0.724	5.22	783.9
	RELLENO_ZANJA	2.627	18.62	3303.3	ARENA_3	1.155	8.32	1368.5
1700.000	TERRAPLEN	0.000	0.00	3.5	D TIERRA	5.718	46.01	7359.3
	ARENA_1	0.340	2.73	435.8	ARENA_2	0.724	5.83	789.7
	RELLENO_ZANJA	2.633	21.18	3324.5	ARENA_3	1.155	9.30	1377.8
1720.000	TERRAPLEN	0.000	0.00	3.5	D TIERRA	5.946	116.64	7475.9
	ARENA_1	0.340	6.79	442.6	ARENA_2	0.724	14.49	804.2
	RELLENO_ZANJA	2.862	54.95	3379.4	ARENA_3	1.155	23.10	1400.9
1726.355	TERRAPLEN	0.000	0.00	3.5	D TIERRA	6.018	38.02	7514.0
	ARENA_1	0.340	2.16	444.7	ARENA_2	0.724	4.60	808.8
	RELLENO_ZANJA	2.934	18.42	3397.8	ARENA_3	1.155	7.34	1408.3
1738.028	TERRAPLEN	0.000	0.00	3.5	D TIERRA	6.051	70.45	7584.4
	ARENA_1	0.340	3.96	448.7	ARENA_2	0.724	8.46	817.3
	RELLENO_ZANJA	2.967	34.44	3432.3	ARENA_3	1.155	13.48	1421.8
1740.000	TERRAPLEN	0.000	0.00	3.5	D TIERRA	6.052	11.93	7596.3
	ARENA_1	0.340	0.67	449.4	ARENA_2	0.724	1.43	818.7
	RELLENO_ZANJA	2.967	5.85	3438.1	ARENA_3	1.155	2.28	1424.0
1760.000	TERRAPLEN	0.000	0.00	3.5	D TIERRA	5.929	119.81	7716.2
	ARENA_1	0.340	6.79	456.2	ARENA_2	0.724	14.49	833.2
	RELLENO_ZANJA	2.845	58.12	3496.3	ARENA_3	1.155	23.10	1447.1
1763.805	TERRAPLEN	0.000	0.00	3.5	D TIERRA	6.096	22.88	7739.0
	ARENA_1	0.340	1.29	457.5	ARENA_2	0.724	2.76	835.9
	RELLENO_ZANJA	3.012	11.14	3507.4	ARENA_3	1.155	4.40	1451.5
1780.000	TERRAPLEN	0.000	0.00	3.5	D TIERRA	6.158	99.22	7838.3
	ARENA_1	0.340	5.50	463.0	ARENA_2	0.724	11.73	847.7
	RELLENO_ZANJA	3.073	49.27	3556.7	ARENA_3	1.155	18.71	1470.2
1790.646	TERRAPLEN	0.000	0.00	3.5	D TIERRA	5.514	62.13	7900.4
	ARENA_1	0.340	3.62	466.6	ARENA_2	0.724	7.71	855.4
	RELLENO_ZANJA	2.429	29.29	3585.9	ARENA_3	1.155	12.30	1482.5
1800.000	TERRAPLEN	0.000	0.00	3.5	D TIERRA	5.637	52.15	7952.5
	ARENA_1	0.340	3.18	469.7	ARENA_2	0.724	6.78	862.1
	RELLENO_ZANJA	2.552	23.30	3609.2	ARENA_3	1.155	10.81	1493.4

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PERFIL	MATERIAL	AREA PERFIL	VOL. PARCIAL	VOL. ACUMUL.	MATERIAL	AREA PERFIL	VOL. PARCIAL	VOL. ACUMUL.
1811.180	TERRAPLEN	0.000	0.00	3.5	D_TIERRA	5.122	60.14	8012.7
	ARENA_1	0.340	3.80	473.5	ARENA_2	0.724	8.10	870.2
	RELLENO_ZANJA	2.037	25.65	3634.9	ARENA_3	1.155	12.91	1506.3
1820.000	TERRAPLEN	0.000	0.00	3.5	D_TIERRA	5.185	45.45	8058.1
	ARENA_1	0.340	3.00	476.5	ARENA_2	0.724	6.39	876.6
	RELLENO_ZANJA	2.100	18.25	3653.1	ARENA_3	1.155	10.19	1516.5
1824.942	TERRAPLEN	0.000	0.00	3.5	D_TIERRA	5.342	26.01	8084.1
	ARENA_1	0.340	1.68	478.2	ARENA_2	0.724	3.58	880.2
	RELLENO_ZANJA	2.258	10.77	3663.9	ARENA_3	1.155	5.71	1522.2
1840.000	TERRAPLEN	0.000	0.00	3.5	D_TIERRA	5.429	81.10	8165.2
	ARENA_1	0.340	5.11	483.3	ARENA_2	0.724	10.91	891.1
	RELLENO_ZANJA	2.344	34.65	3698.6	ARENA_3	1.155	17.39	1539.6
1847.857	TERRAPLEN	0.000	0.00	3.5	D_TIERRA	5.157	41.59	8206.8
	ARENA_1	0.340	2.67	486.0	ARENA_2	0.724	5.69	896.8
	RELLENO_ZANJA	2.072	17.35	3715.9	ARENA_3	1.155	9.07	1548.6
1858.242	TERRAPLEN	0.000	0.00	3.5	D_TIERRA	5.165	53.60	8260.4
	ARENA_1	0.340	3.53	489.5	ARENA_2	0.724	7.52	904.3
	RELLENO_ZANJA	2.080	21.56	3737.5	ARENA_3	1.155	11.99	1560.6
1860.000	TERRAPLEN	0.000	0.00	3.5	D_TIERRA	5.166	9.08	8269.5
	ARENA_1	0.340	0.60	490.1	ARENA_2	0.724	1.27	905.6
	RELLENO_ZANJA	2.082	3.66	3741.1	ARENA_3	1.155	2.03	1562.7
1869.006	TERRAPLEN	0.000	0.00	3.5	D_TIERRA	5.365	47.42	8316.9
	ARENA_1	0.340	3.06	493.2	ARENA_2	0.724	6.52	912.1
	RELLENO_ZANJA	2.280	19.64	3760.8	ARENA_3	1.155	10.40	1573.1
1880.000	TERRAPLEN	0.000	0.00	3.5	D_TIERRA	5.119	57.63	8374.6
	ARENA_1	0.340	3.73	496.9	ARENA_2	0.724	7.96	920.1
	RELLENO_ZANJA	2.034	23.72	3784.5	ARENA_3	1.155	12.70	1585.8
1884.692	TERRAPLEN	0.000	0.00	3.5	D_TIERRA	5.153	24.10	8398.7
	ARENA_1	0.340	1.59	498.5	ARENA_2	0.725	3.40	923.5
	RELLENO_ZANJA	2.069	9.63	3794.1	ARENA_3	1.154	5.42	1591.2
1895.796	TERRAPLEN	0.000	0.00	3.5	D_TIERRA	5.500	59.15	8457.8
	ARENA_1	0.340	3.77	502.3	ARENA_2	0.724	8.05	931.5
	RELLENO_ZANJA	2.416	24.90	3819.0	ARENA_3	1.155	12.82	1604.0
1900.000	TERRAPLEN	0.000	0.00	3.5	D_TIERRA	5.346	22.80	8480.6
	ARENA_1	0.340	1.43	503.7	ARENA_2	0.724	3.05	934.6
	RELLENO_ZANJA	2.261	9.83	3828.8	ARENA_3	1.155	4.85	1608.8
1904.335	TERRAPLEN	0.000	0.00	3.5	D_TIERRA	5.203	22.86	8503.5
	ARENA_1	0.340	1.47	505.2	ARENA_2	0.724	3.14	937.7
	RELLENO_ZANJA	2.119	9.49	3838.3	ARENA_3	1.155	5.01	1613.8
1913.556	TERRAPLEN	0.000	0.00	3.5	D_TIERRA	5.254	48.21	8551.7
	ARENA_1	0.340	3.13	508.3	ARENA_2	0.724	6.68	944.4
	RELLENO_ZANJA	2.169	19.77	3858.1	ARENA_3	1.155	10.65	1624.5
1920.000	TERRAPLEN	0.000	0.00	3.5	D_TIERRA	5.344	34.14	8585.8
	ARENA_1	0.340	2.19	510.5	ARENA_2	0.724	4.67	949.1
	RELLENO_ZANJA	2.259	14.27	3872.4	ARENA_3	1.155	7.44	1631.9
1940.000	TERRAPLEN	0.000	0.00	3.5	D_TIERRA	5.140	104.84	8690.7
	ARENA_1	0.340	6.79	517.3	ARENA_2	0.724	14.49	963.6
	RELLENO_ZANJA	2.056	43.15	3915.5	ARENA_3	1.155	23.10	1655.0
1954.081	TERRAPLEN	0.000	0.00	3.5	D_TIERRA	5.331	73.72	8764.4
	ARENA_1	0.340	4.78	522.1	ARENA_2	0.724	10.20	973.8
	RELLENO_ZANJA	2.246	30.29	3945.8	ARENA_3	1.155	16.26	1671.3
1960.000	TERRAPLEN	0.000	0.00	3.5	D_TIERRA	5.310	31.49	8795.9
	ARENA_1	0.340	2.01	524.1	ARENA_2	0.724	4.29	978.1
	RELLENO_ZANJA	2.225	13.23	3959.0	ARENA_3	1.155	6.84	1678.1
1973.769	TERRAPLEN	0.000	0.00	3.5	D_TIERRA	5.267	72.82	8868.7
	ARENA_1	0.340	4.68	528.8	ARENA_2	0.724	9.97	988.0
	RELLENO_ZANJA	2.182	30.34	3989.4	ARENA_3	1.155	15.90	1694.0
1980.000	TERRAPLEN	0.000	0.00	3.5	D_TIERRA	6.010	35.13	8903.8
	ARENA_1	0.340	2.12	530.9	ARENA_2	0.724	4.51	992.6
	RELLENO_ZANJA	2.926	15.91	4005.3	ARENA_3	1.155	7.20	1701.2

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PERFIL	MATERIAL	AREA PERFIL	VOL. PARCIAL	VOL. ACUMUL.	MATERIAL	AREA PERFIL	VOL. PARCIAL	VOL. ACUMUL.
1983.015	TERRAPLEN	0.000	0.00	3.5	D_TIERRA	5.193	16.89	8920.7
	ARENA_1	0.340	1.02	531.9	ARENA_2	0.724	2.18	994.7
	RELLENO_ZANJA	2.108	7.59	4012.9	ARENA_3	1.155	3.48	1704.7
1996.320	TERRAPLEN	0.000	0.00	3.5	D_TIERRA	5.177	68.98	8989.7
	ARENA_1	0.340	4.52	536.4	ARENA_2	0.724	9.64	1004.4
	RELLENO_ZANJA	2.092	27.94	4040.8	ARENA_3	1.155	15.36	1720.1
2000.000	TERRAPLEN	0.000	0.00	3.5	D_TIERRA	5.284	19.25	9009.0
	ARENA_1	0.340	1.25	537.7	ARENA_2	0.724	2.67	1007.0
	RELLENO_ZANJA	2.200	7.90	4048.7	ARENA_3	1.155	4.25	1724.3
2003.423	TERRAPLEN	0.000	0.00	3.5	D_TIERRA	5.316	18.14	9027.1
	ARENA_1	0.340	1.16	538.8	ARENA_2	0.724	2.48	1009.5
	RELLENO_ZANJA	2.231	7.58	4056.3	ARENA_3	1.155	3.95	1728.3
2009.438	TERRAPLEN	0.000	0.00	3.5	D_TIERRA	5.409	32.26	9059.4
	ARENA_1	0.340	2.04	540.9	ARENA_2	0.724	4.36	1013.9
	RELLENO_ZANJA	2.325	13.70	4070.0	ARENA_3	1.155	6.95	1735.2
2016.885	TERRAPLEN	0.000	0.00	3.5	D_TIERRA	5.367	40.13	9099.5
	ARENA_1	0.340	2.53	543.4	ARENA_2	0.724	5.39	1019.3
	RELLENO_ZANJA	2.282	17.15	4087.2	ARENA_3	1.155	8.60	1743.8
2020.000	TERRAPLEN	0.000	0.00	3.5	D_TIERRA	5.387	16.75	9116.2
	ARENA_1	0.340	1.06	544.5	ARENA_2	0.724	2.26	1021.5
	RELLENO_ZANJA	2.302	7.14	4094.3	ARENA_3	1.155	3.60	1747.4
2038.837	TERRAPLEN	0.000	0.00	3.5	D_TIERRA	6.191	109.05	9225.3
	ARENA_1	0.340	6.40	550.9	ARENA_2	0.724	13.65	1035.2
	RELLENO_ZANJA	3.106	50.94	4145.2	ARENA_3	1.155	21.76	1769.2
2040.000	TERRAPLEN	0.000	0.00	3.5	D_TIERRA	6.219	7.22	9232.5
	ARENA_1	0.340	0.39	551.3	ARENA_2	0.724	0.84	1036.0
	RELLENO_ZANJA	3.134	3.63	4148.9	ARENA_3	1.155	1.34	1770.5
2060.000	TERRAPLEN	0.000	0.00	3.5	D_TIERRA	5.946	121.64	9354.1
	ARENA_1	0.340	6.79	558.0	ARENA_2	0.724	14.49	1050.5
	RELLENO_ZANJA	2.861	59.95	4208.8	ARENA_3	1.155	23.10	1793.6
2064.336	TERRAPLEN	0.000	0.00	3.5	D_TIERRA	5.732	25.32	9379.5
	ARENA_1	0.339	1.47	559.5	ARENA_2	0.725	3.14	1053.6
	RELLENO_ZANJA	2.648	11.94	4220.8	ARENA_3	1.152	5.00	1798.7
2075.837	TERRAPLEN	0.000	0.00	3.5	D_TIERRA	7.114	73.88	9453.3
	ARENA_1	0.340	3.90	563.4	ARENA_2	0.725	8.33	1062.0
	RELLENO_ZANJA	4.030	38.40	4259.2	ARENA_3	1.154	13.26	1811.9
2080.000	TERRAPLEN	0.000	0.00	3.5	D_TIERRA	7.134	29.66	9483.0
	ARENA_1	0.340	1.41	564.8	ARENA_2	0.725	3.02	1065.0
	RELLENO_ZANJA	4.050	16.82	4276.0	ARENA_3	1.154	4.81	1816.7
2087.680	TERRAPLEN	0.000	0.00	3.5	D_TIERRA	7.394	55.79	9538.8
	ARENA_1	0.340	2.61	567.4	ARENA_2	0.725	5.56	1070.6
	RELLENO_ZANJA	4.310	32.10	4308.1	ARENA_3	1.154	8.87	1825.6
2092.906	TERRAPLEN	0.000	0.00	3.5	D_TIERRA	8.206	40.76	9579.5
	ARENA_1	0.340	1.77	569.2	ARENA_2	0.725	3.79	1074.4
	RELLENO_ZANJA	5.121	24.64	4332.7	ARENA_3	1.154	6.03	1831.6
2100.000	TERRAPLEN	0.000	0.00	3.5	D_TIERRA	7.289	54.96	9634.5
	ARENA_1	0.340	2.41	571.6	ARENA_2	0.725	5.14	1079.5
	RELLENO_ZANJA	4.205	33.08	4365.8	ARENA_3	1.154	8.19	1839.8
2109.356	TERRAPLEN	0.000	0.00	3.5	D_TIERRA	7.528	69.32	9703.8
	ARENA_1	0.340	3.18	574.8	ARENA_2	0.725	6.78	1086.3
	RELLENO_ZANJA	4.443	40.45	4406.3	ARENA_3	1.154	10.80	1850.6
2120.000	TERRAPLEN	0.000	0.00	3.5	D_TIERRA	6.372	73.98	9777.8
	ARENA_1	0.340	3.62	578.4	ARENA_2	0.725	7.71	1094.0
	RELLENO_ZANJA	3.287	41.14	4447.4	ARENA_3	1.154	12.29	1862.9
2140.000	TERRAPLEN	0.000	0.00	3.5	D_TIERRA	13.056	194.28	9972.1
	ARENA_1	0.340	6.79	585.2	ARENA_2	0.725	14.49	1108.5
	RELLENO_ZANJA	9.971	132.59	4580.0	ARENA_3	1.154	23.09	1886.0
2141.222	TERRAPLEN	0.000	0.00	3.5	D_TIERRA	15.227	17.28	9989.4
	ARENA_1	0.340	0.41	585.6	ARENA_2	0.725	0.89	1109.4
	RELLENO_ZANJA	12.142	13.51	4593.5	ARENA_3	1.154	1.41	1887.4



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PERFIL	MATERIAL	AREA PERFIL	VOL. PARCIAL	VOL. ACUMUL.	MATERIAL	AREA PERFIL	VOL. PARCIAL	VOL. ACUMUL.
2160.000	TERRAPLEN	0.000	0.00	3.5	D TIERRA	10.079	237.59	10226.9
	ARENA_1	0.340	6.38	592.0	ARENA_2	0.724	13.60	1123.0
	RELLENO_ZANJA	6.994	179.67	4773.2	ARENA_3	1.155	21.68	1909.1
2162.794	TERRAPLEN	0.000	0.00	3.5	D TIERRA	11.646	30.35	10257.3
	ARENA_1	0.340	0.95	593.0	ARENA_2	0.724	2.02	1125.0
	RELLENO_ZANJA	8.561	21.73	4794.9	ARENA_3	1.155	3.23	1912.3
2180.000	TERRAPLEN	0.000	0.00	3.5	D TIERRA	14.426	224.29	10481.6
	ARENA_1	0.340	5.84	598.8	ARENA_2	0.724	12.46	1137.4
	RELLENO_ZANJA	11.341	171.22	4966.1	ARENA_3	1.155	19.88	1932.2
2200.000	TERRAPLEN	0.000	0.00	3.5	D TIERRA	5.220	196.46	10678.0
	ARENA_1	0.340	6.79	605.6	ARENA_2	0.724	14.49	1151.9
	RELLENO_ZANJA	2.135	134.76	5100.9	ARENA_3	1.155	23.10	1955.3
2213.549	TERRAPLEN	0.727	4.93	8.4	D TIERRA	0.006	35.40	10713.4
	ARENA_1	0.337	4.59	610.2	ARENA_2	0.730	9.86	1161.8
	RELLENO_ZANJA	0.000	14.46	5115.3	ARENA_3	1.107	15.32	1970.6
2216.971	TERRAPLEN	0.250	1.67	10.1	D TIERRA	0.407	0.71	10714.1
	ARENA_1	0.337	1.15	611.3	ARENA_2	0.730	2.50	1164.3
	RELLENO_ZANJA	0.000	0.00	5115.3	ARENA_3	1.107	3.79	1974.4
2220.000	TERRAPLEN	0.174	0.64	10.7	D TIERRA	0.652	1.60	10715.7
	ARENA_1	0.337	1.02	612.4	ARENA_2	0.730	2.21	1166.5
	RELLENO_ZANJA	0.000	0.00	5115.3	ARENA_3	1.107	3.35	1977.7
2220.224	TERRAPLEN	0.176	0.04	10.8	D TIERRA	0.660	0.15	10715.9
	ARENA_1	0.337	0.08	612.4	ARENA_2	0.730	0.16	1166.7
	RELLENO_ZANJA	0.000	0.00	5115.3	ARENA_3	1.107	0.25	1978.0
2233.785	TERRAPLEN	0.000	1.19	12.0	D TIERRA	4.864	37.45	10753.3
	ARENA_1	0.340	4.59	617.0	ARENA_2	0.724	9.86	1176.5
	RELLENO_ZANJA	1.779	12.06	5127.4	ARENA_3	1.155	15.34	1993.3
2236.933	TERRAPLEN	0.000	0.00	12.0	D TIERRA	4.460	14.68	10768.0
	ARENA_1	0.340	1.07	618.1	ARENA_2	0.724	2.28	1178.8
	RELLENO_ZANJA	1.375	4.97	5132.4	ARENA_3	1.155	3.64	1997.0
2240.000	TERRAPLEN	0.000	0.00	12.0	D TIERRA	4.423	13.62	10781.6
	ARENA_1	0.340	1.04	619.1	ARENA_2	0.724	2.22	1181.0
	RELLENO_ZANJA	1.339	4.16	5136.5	ARENA_3	1.155	3.54	2000.5
2240.264	TERRAPLEN	0.000	0.00	12.0	D TIERRA	4.431	1.17	10782.8
	ARENA_1	0.340	0.09	619.2	ARENA_2	0.724	0.19	1181.2
	RELLENO_ZANJA	1.346	0.35	5136.9	ARENA_3	1.155	0.30	2000.8
2251.744	TERRAPLEN	0.020	0.12	12.1	D TIERRA	3.627	46.25	10829.1
	ARENA_1	0.340	3.90	623.1	ARENA_2	0.724	8.32	1189.5
	RELLENO_ZANJA	0.804	12.34	5149.2	ARENA_3	1.155	13.26	2014.1
2260.000	TERRAPLEN	0.000	0.08	12.2	D TIERRA	4.245	32.50	10861.6
	ARENA_1	0.340	2.80	625.9	ARENA_2	0.724	5.98	1195.5
	RELLENO_ZANJA	1.165	8.13	5157.3	ARENA_3	1.155	9.54	2023.6
2277.901	TERRAPLEN	0.000	0.00	12.2	D TIERRA	4.489	78.17	10939.7
	ARENA_1	0.340	6.08	632.0	ARENA_2	0.724	12.97	1208.5
	RELLENO_ZANJA	1.404	23.00	5180.3	ARENA_3	1.155	20.68	2044.3
2280.000	TERRAPLEN	0.000	0.00	12.2	D TIERRA	4.560	9.50	10949.2
	ARENA_1	0.340	0.71	632.7	ARENA_2	0.724	1.52	1210.0
	RELLENO_ZANJA	1.475	3.02	5183.4	ARENA_3	1.155	2.42	2046.7
2300.000	TERRAPLEN	0.000	0.00	12.2	D TIERRA	4.508	90.68	11039.9
	ARENA_1	0.340	6.79	639.5	ARENA_2	0.724	14.49	1224.5
	RELLENO_ZANJA	1.424	28.99	5212.3	ARENA_3	1.155	23.10	2069.8
2320.000	TERRAPLEN	0.000	0.00	12.2	D TIERRA	0.000	0.00	11039.9
	ARENA_1	0.000	0.00	639.5	ARENA_2	0.000	0.00	1224.5
	RELLENO_ZANJA	0.000	0.00	5212.3	ARENA_3	0.000	0.00	2069.8
2323.993	TERRAPLEN	0.000	0.00	12.2	D TIERRA	0.000	0.00	11039.9
	ARENA_1	0.000	0.00	639.5	ARENA_2	0.000	0.00	1224.5
	RELLENO_ZANJA	0.000	0.00	5212.3	ARENA_3	0.000	0.00	2069.8
2340.000	TERRAPLEN	0.000	0.00	12.2	D TIERRA	4.276	0.00	11039.9
	ARENA_1	0.340	0.00	639.5	ARENA_2	0.724	0.00	1224.5
	RELLENO_ZANJA	1.191	0.00	5212.3	ARENA_3	1.155	0.00	2069.8

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*** MEDICIONES DE LOS PERFILES TRANSVERSALES***
*** CAPAS DE FIRME ***

PERFIL	MATERIAL	AREA PERFIL	VOL. PARCIAL	VOL. ACUMUL.	MATERIAL	AREA PERFIL	VOL. PARCIAL	VOL. ACUMUL.
2360.000	TERRAPLEN	0.000	0.00	12.2	D TIERRA	4.241	85.17	11125.1
	ARENA_1	0.340	6.79	646.3	ARENA_2	0.724	14.49	1239.0
	RELLENO_ZANJA	1.156	23.48	5235.8	ARENA_3	1.155	23.10	2092.9
2380.000	TERRAPLEN	0.000	0.00	12.2	D TIERRA	3.619	78.60	11203.7
	ARENA_1	0.340	6.79	653.1	ARENA_2	0.724	14.49	1253.5
	RELLENO_ZANJA	0.535	16.91	5252.7	ARENA_3	1.155	23.10	2116.0
2400.000	TERRAPLEN	0.000	0.00	12.2	D TIERRA	3.353	69.72	11273.4
	ARENA_1	0.340	6.79	659.9	ARENA_2	0.724	14.49	1268.0
	RELLENO_ZANJA	0.269	8.04	5260.8	ARENA_3	1.155	23.10	2139.1
2420.000	TERRAPLEN	0.000	0.00	12.2	D TIERRA	3.616	69.69	11343.1
	ARENA_1	0.340	6.79	666.7	ARENA_2	0.724	14.49	1282.5
	RELLENO_ZANJA	0.531	8.00	5268.8	ARENA_3	1.155	23.10	2162.2
2440.000	TERRAPLEN	0.000	0.00	12.2	D TIERRA	3.641	72.57	11415.7
	ARENA_1	0.340	6.79	673.5	ARENA_2	0.724	14.49	1296.9
	RELLENO_ZANJA	0.556	10.87	5279.7	ARENA_3	1.155	23.10	2185.3
2460.000	TERRAPLEN	0.000	0.00	12.2	D TIERRA	3.630	72.71	11488.4
	ARENA_1	0.340	6.79	680.3	ARENA_2	0.724	14.49	1311.4
	RELLENO_ZANJA	0.545	11.01	5290.7	ARENA_3	1.155	23.10	2208.4
2480.000	TERRAPLEN	0.000	0.00	12.2	D TIERRA	3.602	72.32	11560.7
	ARENA_1	0.340	6.79	687.0	ARENA_2	0.724	14.49	1325.9
	RELLENO_ZANJA	0.517	10.62	5301.3	ARENA_3	1.155	23.10	2231.5
2487.307	TERRAPLEN	0.000	0.00	12.2	D TIERRA	3.582	26.25	11586.9
	ARENA_1	0.340	2.48	689.5	ARENA_2	0.724	5.29	1331.2
	RELLENO_ZANJA	0.497	3.71	5305.0	ARENA_3	1.155	8.44	2240.0
2500.000	TERRAPLEN	0.000	0.00	12.2	D TIERRA	3.508	44.99	11631.9
	ARENA_1	0.340	4.31	693.8	ARENA_2	0.724	9.20	1340.4
	RELLENO_ZANJA	0.423	5.84	5310.8	ARENA_3	1.155	14.66	2254.6
2502.088	TERRAPLEN	0.000	0.00	12.2	D TIERRA	3.491	7.31	11639.2
	ARENA_1	0.340	0.71	694.5	ARENA_2	0.724	1.51	1341.9
	RELLENO_ZANJA	0.407	0.87	5311.7	ARENA_3	1.155	2.41	2257.0
2520.000	TERRAPLEN	0.000	0.00	12.2	D TIERRA	3.389	61.62	11700.9
	ARENA_1	0.340	6.08	700.6	ARENA_2	0.724	12.98	1354.9
	RELLENO_ZANJA	0.305	6.37	5318.1	ARENA_3	1.155	20.69	2277.7
2537.597	TERRAPLEN	0.000	0.00	12.2	D TIERRA	3.214	58.10	11758.9
	ARENA_1	0.340	5.98	706.6	ARENA_2	0.724	12.75	1367.7
	RELLENO_ZANJA	0.129	3.81	5321.9	ARENA_3	1.155	20.33	2298.1
2540.000	TERRAPLEN	0.000	0.00	12.2	D TIERRA	3.191	7.70	11766.6
	ARENA_1	0.340	0.82	707.4	ARENA_2	0.724	1.74	1369.4
	RELLENO_ZANJA	0.106	0.28	5322.2	ARENA_3	1.155	2.78	2300.8
2560.000	TERRAPLEN	0.000	0.00	12.2	D TIERRA	3.018	62.09	11828.7
	ARENA_1	0.340	6.79	714.2	ARENA_2	0.724	14.49	1383.9
	RELLENO_ZANJA	0.000	1.06	5323.2	ARENA_3	1.155	23.10	2323.9
2580.000	TERRAPLEN	0.000	0.00	12.2	D TIERRA	3.215	62.33	11891.1
	ARENA_1	0.340	6.79	721.0	ARENA_2	0.724	14.49	1398.4
	RELLENO_ZANJA	0.131	1.31	5324.5	ARENA_3	1.155	23.10	2347.0
2600.000	TERRAPLEN	0.000	0.00	12.2	D TIERRA	3.381	65.96	11957.0
	ARENA_1	0.340	6.79	727.8	ARENA_2	0.724	14.49	1412.9
	RELLENO_ZANJA	0.296	4.26	5328.8	ARENA_3	1.155	23.10	2370.1
2619.974	TERRAPLEN	0.000	0.00	12.2	D TIERRA	3.539	69.10	12026.1
	ARENA_1	0.340	6.78	734.6	ARENA_2	0.724	14.47	1427.3
	RELLENO_ZANJA	0.454	7.49	5336.3	ARENA_3	1.155	23.07	2393.2
2620.000	TERRAPLEN	0.000	0.00	12.2	D TIERRA	3.539	0.09	12026.2
	ARENA_1	0.340	0.01	734.6	ARENA_2	0.724	0.02	1427.3
	RELLENO_ZANJA	0.454	0.01	5336.3	ARENA_3	1.155	0.03	2393.3
2640.000	TERRAPLEN	0.000	0.00	12.2	D TIERRA	3.591	71.29	12097.5
	ARENA_1	0.340	6.79	741.4	ARENA_2	0.724	14.49	1441.8
	RELLENO_ZANJA	0.506	9.60	5345.9	ARENA_3	1.155	23.10	2416.4
2660.000	TERRAPLEN	0.000	0.00	12.2	D TIERRA	3.541	71.31	12168.8
	ARENA_1	0.340	6.79	748.2	ARENA_2	0.724	14.49	1456.3
	RELLENO_ZANJA	0.456	9.62	5355.5	ARENA_3	1.155	23.10	2439.5



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PROYECTO :

EJE : 1: AZUD - ETAP PRINCIPAL

CIDACOS COMPLETO

*** MEDICIONES DE LOS PERFILES TRANSVERSALES***
*** CAPAS DE FIRME ***

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PERFIL	MATERIAL	AREA PERFIL	VOL. PARCIAL	VOL. ACUMUL.	MATERIAL	AREA PERFIL	VOL. PARCIAL	VOL. ACUMUL.
2660.662	TERRAPLEN	0.000	0.00	12.2	D TIERRA	3.548	2.35	12171.2
	ARENA_1	0.340	0.22	748.4	ARENA_2	0.724	0.48	1456.8
	RELLENO_ZANJA	0.463	0.30	5355.8	ARENA_3	1.155	0.76	2440.2
2680.000	TERRAPLEN	0.000	0.00	12.2	D TIERRA	3.754	70.60	12241.8
	ARENA_1	0.340	6.57	755.0	ARENA_2	0.724	14.01	1470.8
	RELLENO_ZANJA	0.669	10.95	5366.8	ARENA_3	1.155	22.34	2462.6
2700.000	TERRAPLEN	0.000	0.00	12.2	D TIERRA	4.065	78.18	12319.9
	ARENA_1	0.340	6.79	761.8	ARENA_2	0.724	14.49	1485.3
	RELLENO_ZANJA	0.980	16.49	5383.3	ARENA_3	1.155	23.10	2485.7
2720.000	TERRAPLEN	0.000	0.00	12.2	D TIERRA	4.101	81.65	12401.6
	ARENA_1	0.340	6.79	768.6	ARENA_2	0.724	14.49	1499.8
	RELLENO_ZANJA	1.016	19.96	5403.2	ARENA_3	1.155	23.10	2508.8
2723.037	TERRAPLEN	0.000	0.00	12.2	D TIERRA	4.071	12.41	12414.0
	ARENA_1	0.340	1.03	769.6	ARENA_2	0.724	2.20	1502.0
	RELLENO_ZANJA	0.986	3.04	5406.3	ARENA_3	1.155	3.51	2512.3
2730.866	TERRAPLEN	0.000	0.00	12.2	D TIERRA	3.993	31.57	12445.6
	ARENA_1	0.340	2.66	772.2	ARENA_2	0.724	5.67	1507.7
	RELLENO_ZANJA	0.908	7.42	5413.7	ARENA_3	1.155	9.04	2521.3
2737.863	TERRAPLEN	0.000	0.00	12.2	D TIERRA	3.940	27.75	12473.3
	ARENA_1	0.340	2.38	774.6	ARENA_2	0.724	5.07	1512.7
	RELLENO_ZANJA	0.855	6.17	5419.8	ARENA_3	1.155	8.08	2529.4
2740.000	TERRAPLEN	0.000	0.00	12.2	D TIERRA	3.939	8.42	12481.7
	ARENA_1	0.340	0.73	775.3	ARENA_2	0.724	1.55	1514.3
	RELLENO_ZANJA	0.854	1.83	5421.7	ARENA_3	1.155	2.47	2531.9
2744.666	TERRAPLEN	0.000	0.00	12.2	D TIERRA	4.073	18.69	12500.4
	ARENA_1	0.340	1.58	776.9	ARENA_2	0.724	3.38	1517.7
	RELLENO_ZANJA	0.988	4.30	5426.0	ARENA_3	1.155	5.39	2537.3
2759.273	TERRAPLEN	0.000	0.00	12.2	D TIERRA	4.361	61.59	12562.0
	ARENA_1	0.339	4.95	781.9	ARENA_2	0.728	10.61	1528.3
	RELLENO_ZANJA	1.276	16.54	5442.5	ARENA_3	1.129	16.68	2553.9
2760.000	TERRAPLEN	0.000	0.00	12.2	D TIERRA	4.459	3.21	12565.2
	ARENA_1	0.339	0.25	782.1	ARENA_2	0.728	0.53	1528.8
	RELLENO_ZANJA	1.374	0.96	5443.5	ARENA_3	1.129	0.82	2554.8
2780.000	TERRAPLEN	0.002	0.02	12.2	D TIERRA	5.277	97.36	12662.6
	ARENA_1	0.339	6.77	788.9	ARENA_2	0.728	14.56	1543.4
	RELLENO_ZANJA	2.220	35.94	5479.4	ARENA_3	1.129	22.58	2577.3
2800.000	TERRAPLEN	0.000	0.02	12.2	D TIERRA	5.149	104.26	12766.8
	ARENA_1	0.336	6.74	795.6	ARENA_2	0.734	14.62	1558.0
	RELLENO_ZANJA	2.065	42.84	5522.2	ARENA_3	1.062	21.92	2599.3
2820.000	TERRAPLEN	0.000	0.00	12.2	D TIERRA	5.149	102.99	12869.8
	ARENA_1	0.340	6.75	802.4	ARENA_2	0.724	14.59	1572.6
	RELLENO_ZANJA	2.065	41.29	5563.5	ARENA_3	1.155	22.17	2621.4
2834.455	TERRAPLEN	0.000	0.00	12.2	D TIERRA	5.183	74.68	12944.5
	ARENA_1	0.340	4.91	807.3	ARENA_2	0.724	10.47	1583.0
	RELLENO_ZANJA	2.098	30.09	5593.6	ARENA_3	1.155	16.70	2638.1
2840.000	TERRAPLEN	0.000	0.00	12.2	D TIERRA	5.179	28.73	12973.2
	ARENA_1	0.340	1.88	809.2	ARENA_2	0.724	4.02	1587.1
	RELLENO_ZANJA	2.095	11.62	5605.2	ARENA_3	1.155	6.41	2644.5
2860.000	TERRAPLEN	0.000	0.00	12.2	D TIERRA	6.262	114.41	13087.6
	ARENA_1	0.340	6.79	816.0	ARENA_2	0.724	14.49	1601.5
	RELLENO_ZANJA	3.177	52.72	5658.0	ARENA_3	1.155	23.10	2667.6
2860.000	TERRAPLEN	0.000	0.00	12.2	D TIERRA	15.299	0.00	13087.6
	ARENA_1	0.354	0.00	816.0	ARENA_2	1.120	0.00	1601.5
	RELLENO_ZANJA	10.574	0.00	5658.0	ARENA_3	2.385	0.00	2667.6
2871.119	TERRAPLEN	0.000	0.00	12.2	D TIERRA	13.098	157.87	13245.5
	ARENA_1	0.354	3.94	819.9	ARENA_2	1.120	12.45	1614.0
	RELLENO_ZANJA	8.373	105.33	5763.3	ARENA_3	2.385	26.52	2694.2
2880.000	TERRAPLEN	0.000	0.00	12.2	D TIERRA	10.858	106.37	13351.9
	ARENA_1	0.354	3.15	823.1	ARENA_2	1.120	9.94	1623.9
	RELLENO_ZANJA	6.133	64.41	5827.7	ARENA_3	2.385	21.18	2715.3

PERFIL	MATERIAL	AREA PERFIL	VOL. PARCIAL	VOL. ACUMUL.	MATERIAL	AREA PERFIL	VOL. PARCIAL	VOL. ACUMUL.
2900.000	TERRAPLEN	0.000	0.00	12.2	D TIERRA	11.404	222.62	13574.5
	ARENA_1	0.354	7.09	830.2	ARENA_2	1.120	22.39	1646.3
	RELLENO_ZANJA	6.680	128.12	5955.8	ARENA_3	2.385	47.71	2763.1
2915.028	TERRAPLEN	0.000	0.00	12.2	D TIERRA	10.189	162.26	13736.8
	ARENA_1	0.354	5.33	835.5	ARENA_2	1.120	16.83	1663.2
	RELLENO_ZANJA	5.464	91.25	6047.1	ARENA_3	2.385	35.85	2798.9
2920.000	TERRAPLEN	0.000	0.00	12.2	D TIERRA	10.483	51.39	13788.2
	ARENA_1	0.354	1.76	837.2	ARENA_2	1.120	5.57	1668.7
	RELLENO_ZANJA	5.758	27.90	6075.0	ARENA_3	2.385	11.86	2810.8
2934.637	TERRAPLEN	0.000	0.00	12.2	D TIERRA	10.501	153.57	13941.7
	ARENA_1	0.354	5.19	842.4	ARENA_2	1.120	16.39	1685.1
	RELLENO_ZANJA	5.776	84.41	6159.4	ARENA_3	2.385	34.91	2845.7
2940.000	TERRAPLEN	0.000	0.00	12.2	D TIERRA	9.865	54.61	13996.3
	ARENA_1	0.354	1.90	844.3	ARENA_2	1.120	6.01	1691.1
	RELLENO_ZANJA	5.140	29.27	6188.7	ARENA_3	2.385	12.79	2858.5
2960.000	TERRAPLEN	0.000	0.00	12.2	D TIERRA	9.710	195.75	14192.1
	ARENA_1	0.354	7.09	851.4	ARENA_2	1.120	22.40	1713.5
	RELLENO_ZANJA	4.985	101.25	6289.9	ARENA_3	2.385	47.70	2906.2
2960.005	TERRAPLEN	0.000	0.00	12.2	D TIERRA	9.677	0.05	14192.1
	ARENA_1	0.354	0.00	851.4	ARENA_2	1.120	0.01	1713.5
	RELLENO_ZANJA	4.952	0.02	6289.9	ARENA_3	2.385	0.01	2906.2
2980.000	TERRAPLEN	0.000	0.00	12.2	D TIERRA	12.226	218.97	14411.1
	ARENA_1	0.354	7.09	858.5	ARENA_2	1.120	22.39	1735.9
	RELLENO_ZANJA	7.501	124.50	6414.4	ARENA_3	2.385	47.69	2953.9
2981.272	TERRAPLEN	0.000	0.00	12.2	D TIERRA	12.032	15.43	14426.5
	ARENA_1	0.354	0.45	859.0	ARENA_2	1.120	1.42	1737.3
	RELLENO_ZANJA	7.307	9.42	6423.8	ARENA_3	2.385	3.03	2956.9
2991.860	TERRAPLEN	0.000	0.00	12.2	D TIERRA	10.764	120.68	14547.2
	ARENA_1	0.354	3.75	862.7	ARENA_2	1.120	11.86	1749.2
	RELLENO_ZANJA	6.040	70.66	6494.5	ARENA_3	2.385	25.26	2982.2
3000.000	TERRAPLEN	0.000	0.00	12.2	D TIERRA	10.057	84.74	14632.0
	ARENA_1	0.354	2.88	865.6	ARENA_2	1.120	9.11	1758.3
	RELLENO_ZANJA	5.332	46.28	6540.8	ARENA_3	2.385	19.42	3001.6
3003.984	TERRAPLEN	0.000	0.00	12.2	D TIERRA	9.731	39.42	14671.4
	ARENA_1	0.354	1.41	867.0	ARENA_2	1.120	4.46	1762.8
	RELLENO_ZANJA	5.006	20.59	6561.4	ARENA_3	2.385	9.50	3011.1
3011.378	TERRAPLEN	0.000	0.00	12.2	D TIERRA	9.754	72.03	14743.4
	ARENA_1	0.354	2.62	869.6	ARENA_2	1.120	8.28	1771.0
	RELLENO_ZANJA	5.029	37.10	6598.5	ARENA_3	2.385	17.64	3028.7
3015.310	TERRAPLEN	0.000	0.00	12.2	D TIERRA	9.817	38.48	14781.9
	ARENA_1	0.354	1.39	871.0	ARENA_2	1.120	4.40	1775.4
	RELLENO_ZANJA	5.092	19.90	6618.4	ARENA_3	2.385	9.38	3038.1
3020.000	TERRAPLEN	0.000	0.00	12.2	D TIERRA	10.009	46.49	14828.4
	ARENA_1	0.354	1.66	872.7	ARENA_2	1.120	5.25	1780.7
	RELLENO_ZANJA	5.284	24.33	6642.7	ARENA_3	2.385	11.19	3049.3
3020.983	TERRAPLEN	0.000	0.00	12.2	D TIERRA	10.052	9.86	14838.2
	ARENA_1	0.354	0.35	873.0	ARENA_2	1.120	1.10	1781.8
	RELLENO_ZANJA	5.327	5.22	6647.9	ARENA_3	2.385	2.34	3051.6
3026.113	TERRAPLEN	0.000	0.00	12.2	D TIERRA	9.921	51.23	14889.5
	ARENA_1	0.354	1.82	874.8	ARENA_2	1.120	5.74	1787.5
	RELLENO_ZANJA	5.196	26.99	6674.9	ARENA_3	2.385	12.24	3063.9
3032.940	TERRAPLEN	0.000	0.00	12.2	D TIERRA	9.782	67.26	14956.7
	ARENA_1	0.354	2.42	877.3	ARENA_2	1.120	7.64	1795.2
	RELLENO_ZANJA	5.057	35.00	6709.9	ARENA_3	2.385	16.28	3080.1
3040.000	TERRAPLEN	0.000	0.00	12.2	D TIERRA	9.815	69.18	15025.9
	ARENA_1	0.354	2.50	879.8	ARENA_2	1.120	7.91	1803.1
	RELLENO_ZANJA	5.090	35.82	6745.7	ARENA_3	2.385	16.84	3097.0
3041.264	TERRAPLEN	0.000	0.00	12.2	D TIERRA	9.893	12.46	15038.4
	ARENA_1	0.353	0.45	880.2	ARENA_2	1.122	1.42	1804.5
	RELLENO_ZANJA	5.168	6.48	6752.2	ARENA_3	2.366	3.00	3100.0

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 PROYECTO : CIDACOS COMPLETO
 EJE : 1: AZUD - ETAP PRINCIPAL

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 PROYECTO : CIDACOS COMPLETO
 EJE : 1: AZUD - ETAP PRINCIPAL

 * * * MEDICIONES DE LOS PERFILES TRANSVERSALES* * *
 * * * CAPAS DE FIRME * * *

 * * * MEDICIONES DE LOS PERFILES TRANSVERSALES* * *
 * * * CAPAS DE FIRME * * *

PERFIL	MATERIAL	AREA PERFIL	VOL. PARCIAL	VOL. ACUMUL.	MATERIAL	AREA PERFIL	VOL. PARCIAL	VOL. ACUMUL.
3060.000	TERRAPLEN	0.000	0.00	12.2	D TIERRA	19.930	279.38	15317.7
	ARENA_1	0.353	6.62	886.8	ARENA_2	1.122	21.03	1825.5
	RELLENO_ZANJA	15.205	190.85	6943.1	ARENA_3	2.366	44.34	3144.3
3080.000	TERRAPLEN	0.000	0.00	12.2	D TIERRA	19.389	393.19	15710.9
	ARENA_1	0.354	7.07	893.9	ARENA_2	1.121	22.43	1848.0
	RELLENO_ZANJA	14.664	298.69	7241.8	ARENA_3	2.377	47.44	3191.8
3082.630	TERRAPLEN	0.000	0.00	12.2	D TIERRA	19.237	50.79	15761.7
	ARENA_1	0.354	0.93	894.8	ARENA_2	1.120	2.95	1850.9
	RELLENO_ZANJA	14.512	38.37	7280.1	ARENA_3	2.385	6.26	3198.0
3097.118	TERRAPLEN	0.000	0.00	12.2	D TIERRA	16.844	261.37	16023.1
	ARENA_1	0.354	5.14	900.0	ARENA_2	1.120	16.22	1867.1
	RELLENO_ZANJA	12.119	192.91	7473.0	ARENA_3	2.385	34.56	3232.6
3100.000	TERRAPLEN	0.000	0.00	12.2	D TIERRA	16.417	47.93	16071.0
	ARENA_1	0.354	1.02	901.0	ARENA_2	1.120	3.23	1870.4
	RELLENO_ZANJA	11.692	34.31	7507.3	ARENA_3	2.385	6.87	3239.5
3102.560	TERRAPLEN	0.000	0.00	12.2	D TIERRA	16.053	41.56	16112.6
	ARENA_1	0.354	0.91	901.9	ARENA_2	1.120	2.87	1873.2
	RELLENO_ZANJA	11.328	29.47	7536.8	ARENA_3	2.385	6.11	3245.6
3107.899	TERRAPLEN	0.000	0.00	12.2	D TIERRA	15.354	83.84	16196.4
	ARENA_1	0.354	1.89	903.8	ARENA_2	1.120	5.98	1879.2
	RELLENO_ZANJA	10.629	58.61	7595.4	ARENA_3	2.385	12.74	3258.3
3113.952	TERRAPLEN	0.000	0.00	12.2	D TIERRA	14.583	90.60	16287.0
	ARENA_1	0.354	2.14	905.9	ARENA_2	1.120	6.78	1886.0
	RELLENO_ZANJA	9.858	62.00	7657.4	ARENA_3	2.385	14.44	3272.7
3119.854	TERRAPLEN	0.000	0.00	12.2	D TIERRA	14.156	84.81	16371.8
	ARENA_1	0.354	2.09	908.0	ARENA_2	1.120	6.61	1892.6
	RELLENO_ZANJA	9.431	56.92	7714.4	ARENA_3	2.385	14.08	3286.8
3120.000	TERRAPLEN	0.000	0.00	12.2	D TIERRA	14.129	2.06	16373.9
	ARENA_1	0.354	0.05	908.1	ARENA_2	1.120	0.16	1892.8
	RELLENO_ZANJA	9.404	1.37	7715.7	ARENA_3	2.385	0.35	3287.2
3126.511	TERRAPLEN	0.000	0.00	12.2	D TIERRA	12.870	87.89	16461.8
	ARENA_1	0.354	2.31	910.4	ARENA_2	1.120	7.29	1900.1
	RELLENO_ZANJA	8.145	57.13	7772.9	ARENA_3	2.385	15.53	3302.7
3140.000	TERRAPLEN	0.000	0.00	12.2	D TIERRA	10.584	158.18	16620.0
	ARENA_1	0.354	4.78	915.2	ARENA_2	1.120	15.10	1915.2
	RELLENO_ZANJA	5.859	94.45	7867.3	ARENA_3	2.385	32.17	3334.9
3144.003	TERRAPLEN	0.000	0.00	12.2	D TIERRA	10.011	41.22	16661.2
	ARENA_1	0.354	1.42	916.6	ARENA_2	1.120	4.48	1919.6
	RELLENO_ZANJA	5.287	22.31	7889.6	ARENA_3	2.385	9.55	3344.4
3160.000	TERRAPLEN	0.000	0.00	12.2	D TIERRA	10.378	163.09	16824.3
	ARENA_1	0.354	5.67	922.3	ARENA_2	1.120	17.91	1937.6
	RELLENO_ZANJA	5.653	87.50	7977.1	ARENA_3	2.385	38.16	3382.6
3160.475	TERRAPLEN	0.000	0.00	12.2	D TIERRA	10.411	4.94	16829.2
	ARENA_1	0.354	0.17	922.4	ARENA_2	1.120	0.53	1938.1
	RELLENO_ZANJA	5.686	2.69	7979.8	ARENA_3	2.385	1.13	3383.7
3173.637	TERRAPLEN	0.000	0.00	12.2	D TIERRA	11.024	141.06	16970.3
	ARENA_1	0.354	4.66	927.1	ARENA_2	1.120	14.74	1952.8
	RELLENO_ZANJA	6.299	78.87	8058.7	ARENA_3	2.385	31.40	3415.1
3179.537	TERRAPLEN	0.000	0.00	12.2	D TIERRA	5.790	0.00	16970.3
	ARENA_1	0.340	0.00	927.1	ARENA_2	0.724	0.00	1952.8
	RELLENO_ZANJA	2.706	0.00	8058.7	ARENA_3	1.155	0.00	3415.1
3180.000	TERRAPLEN	0.000	0.00	12.2	D TIERRA	5.783	2.68	16973.0
	ARENA_1	0.340	0.16	927.2	ARENA_2	0.724	0.34	1953.2
	RELLENO_ZANJA	2.698	1.25	8059.9	ARENA_3	1.155	0.53	3415.6
3191.970	TERRAPLEN	0.000	0.00	12.2	D TIERRA	5.584	68.03	17041.0
	ARENA_1	0.340	4.06	931.3	ARENA_2	0.724	8.67	1961.8
	RELLENO_ZANJA	2.499	31.11	8091.0	ARENA_3	1.155	13.83	3429.5
3198.634	TERRAPLEN	0.000	0.00	12.2	D TIERRA	5.468	36.82	17077.8
	ARENA_1	0.340	2.26	933.6	ARENA_2	0.724	4.83	1966.7
	RELLENO_ZANJA	2.383	16.27	8107.3	ARENA_3	1.155	7.70	3437.2

PERFIL	MATERIAL	AREA PERFIL	VOL. PARCIAL	VOL. ACUMUL.	MATERIAL	AREA PERFIL	VOL. PARCIAL	VOL. ACUMUL.
3200.000	TERRAPLEN	0.000	0.00	12.2	D TIERRA	5.444	7.45	17085.3
	ARENA_1	0.340	0.46	934.0	ARENA_2	0.724	0.99	1967.6
	RELLENO_ZANJA	2.359	3.24	8110.5	ARENA_3	1.155	1.58	3438.7
3204.642	TERRAPLEN	0.000	0.00	12.2	D TIERRA	5.363	25.08	17110.3
	ARENA_1	0.340	1.58	935.6	ARENA_2	0.724	3.36	1971.0
	RELLENO_ZANJA	2.278	10.76	8121.3	ARENA_3	1.155	5.36	3444.1
3214.790	TERRAPLEN	0.000	0.00	12.2	D TIERRA	5.184	53.51	17163.9
	ARENA_1	0.340	3.45	939.1	ARENA_2	0.724	7.35	1978.4
	RELLENO_ZANJA	2.099	22.21	8143.5	ARENA_3	1.155	11.72	3455.8
3220.000	TERRAPLEN	0.000	0.00	12.2	D TIERRA	5.195	27.04	17190.9
	ARENA_1	0.340	1.77	940.8	ARENA_2	0.724	3.77	1982.1
	RELLENO_ZANJA	2.110	10.97	8154.5	ARENA_3	1.155	6.02	3461.8
3223.869	TERRAPLEN	0.000	0.00	12.2	D TIERRA	5.203	20.12	17211.0
	ARENA_1	0.340	1.31	942.1	ARENA_2	0.724	2.80	1984.9
	RELLENO_ZANJA	2.119	8.18	8162.7	ARENA_3	1.155	4.47	3466.3
3230.868	TERRAPLEN	0.000	0.00	12.2	D TIERRA	5.251	36.58	17247.6
	ARENA_1	0.340	2.38	944.5	ARENA_2	0.724	5.07	1990.0
	RELLENO_ZANJA	2.166	14.99	8177.7	ARENA_3	1.155	8.08	3474.4
3238.254	TERRAPLEN	0.000	0.00	12.2	D TIERRA	5.194	38.57	17286.2
	ARENA_1	0.340	2.51	947.0	ARENA_2	0.724	5.35	1995.4
	RELLENO_ZANJA	2.109	15.79	8193.4	ARENA_3	1.155	8.53	3482.9
3240.000	TERRAPLEN	0.000	0.00	12.2	D TIERRA	5.147	9.03	17295.2
	ARENA_1	0.340	0.59	947.6	ARENA_2	0.724	1.26	1996.6
	RELLENO_ZANJA	2.063	3.64	8197.1	ARENA_3	1.155	2.02	3484.9
3244.496	TERRAPLEN	0.000	0.00	12.2	D TIERRA	5.119	23.08	17318.3
	ARENA_1	0.340	1.53	949.1	ARENA_2	0.724	3.26	1999.9
	RELLENO_ZANJA	2.035	9.21	8206.3	ARENA_3	1.155	5.19	3490.1
3255.310	TERRAPLEN	0.000	0.00	12.2	D TIERRA	5.161	55.59	17373.9
	ARENA_1	0.340	3.67	952.8	ARENA_2	0.724	7.83	2007.7
	RELLENO_ZANJA	2.077	22.23	8228.5	ARENA_3	1.155	12.49	3502.6
3260.000	TERRAPLEN	0.000	0.00	12.2	D TIERRA	5.129	24.13	17398.0
	ARENA_1	0.340	1.59	954.4	ARENA_2	0.724	3.40	2011.1
	RELLENO_ZANJA	2.044	9.66	8238.2	ARENA_3	1.155	5.42	3508.0
3261.263	TERRAPLEN	0.000	0.00	12.2	D TIERRA	5.123	6.47	17404.5
	ARENA_1	0.340	0.43	954.8	ARENA_2	0.724	0.91	2012.0
	RELLENO_ZANJA	2.038	2.58	8240.8	ARENA_3	1.155	1.46	3509.5
3270.833	TERRAPLEN	0.000	0.00	12.2	D TIERRA	5.165	49.23	17453.7
	ARENA_1	0.340	3.25	958.1	ARENA_2	0.724	6.93	2019.0
	RELLENO_ZANJA	2.080	19.71	8260.5	ARENA_3	1.155	11.05	3520.6
3277.921	TERRAPLEN	0.000	0.00	12.2	D TIERRA	5.175	36.65	17490.3
	ARENA_1	0.340	2.41	960.5	ARENA_2	0.724	5.13	2024.1
	RELLENO_ZANJA	2.090	14.78	8275.3	ARENA_3	1.155	8.19	3528.7
3280.000	TERRAPLEN	0.000	0.00	12.2	D TIERRA	5.135	10.72	17501.1
	ARENA_1	0.340	0.71	961.2	ARENA_2	0.724	1.51	2025.6
	RELLENO_ZANJA	2.050	4.30	8279.6	ARENA_3	1.155	2.40	3531.1
3300.000	TERRAPLEN	0.000	0.00	12.2	D TIERRA	5.043	101.78	17602.8
	ARENA_1	0.340	6.79	968.0	ARENA_2	0.724	14.49	2040.1
	RELLENO_ZANJA	1.958	40.09	8319.6	ARENA_3	1.155	23.10	3554.2
3320.000	TERRAPLEN	0.000	0.00	12.2	D TIERRA	5.091	101.34	17704.2
	ARENA_1	0.340	6.79	974.8	ARENA_2	0.724	14.49	2054.6
	RELLENO_ZANJA	2.006	39.64	8359.3	ARENA_3	1.155	23.10	3577.3
3340.000	TERRAPLEN	0.000	0.00	12.2	D TIERRA	9.411	0.00	17704.2
	ARENA_1	0.354	0.00	974.8	ARENA_2	1.120	0.00	2054.6
	RELLENO_ZANJA	4.685	0.00	8359.3	ARENA_3	2.385	0.00	3577.3
3360.000	TERRAPLEN	0.000	0.00	12.2	D TIERRA	9.486	188.96	17893.1
	ARENA_1	0.354	7.09	981.9	ARENA_2	1.120	22.39	2077.0
	RELLENO_ZANJA	4.761	94.46	8453.7	ARENA_3	2.385	47.70	3625.1
3380.000	TERRAPLEN	0.000	0.00	12.2	D TIERRA	10.769	202.55	18095.7
	ARENA_1	0.354	7.09	989.0	ARENA_2	1.120	22.39	2099.4
	RELLENO_ZANJA	6.044	108.05	8561.8	ARENA_3	2.385	47.71	3672.8

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 PROYECTO : CIDACOS COMPLETO
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 * * * MEDICIONES DE LOS PERFILES TRANSVERSALES* * *
 * * * CAPAS DE FIRME * * *

PERFIL	MATERIAL	AREA PERFIL	VOL. PARCIAL	VOL. ACUMUL.	MATERIAL	AREA PERFIL	VOL. PARCIAL	VOL. ACUMUL.
3400.000	TERRAPLEN	0.000	0.00	12.2	D TIERRA	11.077	218.46	18314.1
	ARENA_1	0.354	7.09	996.0	ARENA_2	1.120	22.39	2121.8
	RELLENO_ZANJA	6.351	123.96	8685.8	ARENA_3	2.385	47.71	3720.5
3420.000	TERRAPLEN	0.000	0.00	12.2	D TIERRA	14.023	250.99	18565.1
	ARENA_1	0.354	7.09	1003.1	ARENA_2	1.120	22.40	2144.2
	RELLENO_ZANJA	9.298	156.49	8842.2	ARENA_3	2.381	47.66	3768.1
3425.383	TERRAPLEN	0.000	0.00	12.2	D TIERRA	12.077	70.25	18635.4
	ARENA_1	0.354	1.91	1005.0	ARENA_2	1.120	6.03	2150.2
	RELLENO_ZANJA	7.352	44.81	8887.1	ARENA_3	2.381	12.82	3780.9
3440.000	TERRAPLEN	0.000	0.00	12.2	D TIERRA	11.346	171.18	18806.6
	ARENA_1	0.354	5.18	1010.2	ARENA_2	1.120	16.37	2166.6
	RELLENO_ZANJA	6.621	102.12	8989.2	ARENA_3	2.385	34.84	3815.8
3457.499	TERRAPLEN	0.000	0.00	12.2	D TIERRA	10.109	187.72	18994.3
	ARENA_1	0.354	6.20	1016.4	ARENA_2	1.120	19.59	2186.2
	RELLENO_ZANJA	5.384	105.04	9094.2	ARENA_3	2.385	41.74	3857.5
3460.000	TERRAPLEN	0.000	0.00	12.2	D TIERRA	9.728	24.81	19019.1
	ARENA_1	0.354	0.89	1017.3	ARENA_2	1.120	2.80	2189.0
	RELLENO_ZANJA	5.003	12.99	9107.2	ARENA_3	2.385	5.97	3863.5
3480.000	TERRAPLEN	0.000	0.00	12.2	D TIERRA	9.563	192.91	19212.0
	ARENA_1	0.354	7.09	1024.4	ARENA_2	1.120	22.39	2211.4
	RELLENO_ZANJA	4.838	98.41	9205.6	ARENA_3	2.385	47.71	3911.2
3500.000	TERRAPLEN	0.000	0.00	12.2	D TIERRA	9.477	190.40	19402.4
	ARENA_1	0.354	7.09	1031.5	ARENA_2	1.120	22.39	2233.7
	RELLENO_ZANJA	4.752	95.90	9301.5	ARENA_3	2.385	47.71	3958.9
3503.581	TERRAPLEN	0.000	0.00	12.2	D TIERRA	9.154	33.36	19435.8
	ARENA_1	0.354	1.27	1032.8	ARENA_2	1.120	4.01	2237.8
	RELLENO_ZANJA	4.429	16.44	9318.0	ARENA_3	2.385	8.54	3967.4
3520.000	TERRAPLEN	0.000	0.00	12.2	D TIERRA	8.763	147.09	19582.8
	ARENA_1	0.354	5.82	1038.6	ARENA_2	1.120	18.38	2256.1
	RELLENO_ZANJA	4.038	69.51	9387.5	ARENA_3	2.385	39.16	4006.6
3540.000	TERRAPLEN	0.000	0.00	12.3	D TIERRA	7.720	164.83	19747.7
	ARENA_1	0.354	7.09	1045.7	ARENA_2	1.120	22.39	2278.5
	RELLENO_ZANJA	3.036	70.73	9458.2	ARENA_3	2.385	47.71	4054.3
3560.000	TERRAPLEN	0.000	0.00	12.3	D TIERRA	9.978	176.98	19924.7
	ARENA_1	0.354	7.09	1052.7	ARENA_2	1.120	22.40	2300.9
	RELLENO_ZANJA	5.253	82.89	9541.1	ARENA_3	2.383	47.68	4102.0
3562.814	TERRAPLEN	0.000	0.00	12.3	D TIERRA	9.751	27.76	19952.4
	ARENA_1	0.354	1.00	1053.7	ARENA_2	1.120	3.15	2304.1
	RELLENO_ZANJA	5.026	14.46	9555.5	ARENA_3	2.385	6.71	4108.7
3580.000	TERRAPLEN	0.000	0.00	12.3	D TIERRA	10.531	174.29	20126.7
	ARENA_1	0.354	6.09	1059.8	ARENA_2	1.120	19.24	2323.3
	RELLENO_ZANJA	5.806	93.08	9648.6	ARENA_3	2.385	40.99	4149.7
3600.000	TERRAPLEN	0.000	0.00	12.3	D TIERRA	10.825	213.57	20340.3
	ARENA_1	0.354	7.09	1066.9	ARENA_2	1.120	22.39	2345.7
	RELLENO_ZANJA	6.101	119.07	9767.7	ARENA_3	2.385	47.71	4197.4
3608.431	TERRAPLEN	0.000	0.00	12.3	D TIERRA	9.543	85.86	20426.1
	ARENA_1	0.354	2.99	1069.9	ARENA_2	1.120	9.44	2355.2
	RELLENO_ZANJA	4.818	46.03	9813.7	ARENA_3	2.385	20.11	4217.5
3615.913	TERRAPLEN	0.000	0.00	12.3	D TIERRA	9.357	70.70	20496.8
	ARENA_1	0.354	2.65	1072.6	ARENA_2	1.120	8.38	2363.5
	RELLENO_ZANJA	4.632	35.35	9849.1	ARENA_3	2.385	17.85	4235.4
3620.000	TERRAPLEN	0.000	0.00	12.3	D TIERRA	9.320	38.17	20535.0
	ARENA_1	0.354	1.45	1074.0	ARENA_2	1.120	4.58	2368.1
	RELLENO_ZANJA	4.595	18.86	9867.9	ARENA_3	2.385	9.75	4245.1
3640.000	TERRAPLEN	0.000	0.00	12.3	D TIERRA	9.759	190.79	20725.8
	ARENA_1	0.354	7.09	1081.1	ARENA_2	1.120	22.39	2390.5
	RELLENO_ZANJA	5.034	96.29	9964.2	ARENA_3	2.385	47.71	4292.8
3660.000	TERRAPLEN	0.000	0.00	12.3	D TIERRA	9.227	189.86	20915.7
	ARENA_1	0.354	7.09	1088.2	ARENA_2	1.120	22.40	2412.9
	RELLENO_ZANJA	4.502	95.36	10059.6	ARENA_3	2.385	47.70	4340.5

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 PROYECTO : CIDACOS COMPLETO
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 * * * MEDICIONES DE LOS PERFILES TRANSVERSALES* * *
 * * * CAPAS DE FIRME * * *

PERFIL	MATERIAL	AREA PERFIL	VOL. PARCIAL	VOL. ACUMUL.	MATERIAL	AREA PERFIL	VOL. PARCIAL	VOL. ACUMUL.
3680.000	TERRAPLEN	0.000	0.00	12.3	D TIERRA	8.965	181.92	21097.6
	ARENA_1	0.354	7.09	1095.3	ARENA_2	1.120	22.40	2435.3
	RELLENO_ZANJA	4.240	87.42	10147.0	ARENA_3	2.385	47.70	4388.2
3700.000	TERRAPLEN	0.000	0.00	12.3	D TIERRA	8.885	178.50	21276.1
	ARENA_1	0.354	7.09	1102.4	ARENA_2	1.120	22.39	2457.7
	RELLENO_ZANJA	4.160	84.00	10231.0	ARENA_3	2.385	47.70	4435.9
3720.000	TERRAPLEN	0.000	0.00	12.3	D TIERRA	8.735	176.20	21452.3
	ARENA_1	0.354	7.09	1109.4	ARENA_2	1.120	22.39	2480.1
	RELLENO_ZANJA	4.010	81.70	10312.7	ARENA_3	2.385	47.71	4483.6
3740.000	TERRAPLEN	0.000	0.00	12.3	D TIERRA	9.564	182.99	21635.3
	ARENA_1	0.354	7.09	1116.5	ARENA_2	1.120	22.39	2502.5
	RELLENO_ZANJA	4.839	88.49	10401.2	ARENA_3	2.385	47.70	4531.3
3760.000	TERRAPLEN	0.000	0.00	12.3	D TIERRA	10.097	196.61	21831.9
	ARENA_1	0.354	7.09	1123.6	ARENA_2	1.120	22.39	2524.9
	RELLENO_ZANJA	5.372	102.11	10503.3	ARENA_3	2.385	47.70	4579.0
3760.000	TERRAPLEN	0.000	0.00	12.3	D TIERRA	0.000	0.00	21831.9
	ARENA_1	0.000	0.00	1123.6	ARENA_2	0.000	0.00	2524.9
	RELLENO_ZANJA	0.000	0.00	10503.3	ARENA_3	0.000	0.00	4579.0
3780.000	TERRAPLEN	0.000	0.00	12.3	D TIERRA	0.000	0.00	21831.9
	ARENA_1	0.000	0.00	1123.6	ARENA_2	0.000	0.00	2524.9
	RELLENO_ZANJA	0.000	0.00	10503.3	ARENA_3	0.000	0.00	4579.0
3800.000	TERRAPLEN	0.000	0.00	12.3	D TIERRA	9.911	0.00	21831.9
	ARENA_1	0.354	0.00	1123.6	ARENA_2	1.120	0.00	2524.9
	RELLENO_ZANJA	5.186	0.00	10503.3	ARENA_3	2.385	0.00	4579.0
3820.000	TERRAPLEN	0.000	0.00	12.3	D TIERRA	9.414	193.24	22025.1
	ARENA_1	0.354	7.09	1130.7	ARENA_2	1.120	22.39	2547.3
	RELLENO_ZANJA	4.688	98.74	10602.0	ARENA_3	2.385	47.70	4626.7
3840.000	TERRAPLEN	0.000	0.00	12.3	D TIERRA	9.568	189.81	22214.9
	ARENA_1	0.354	7.09	1137.8	ARENA_2	1.120	22.39	2569.7
	RELLENO_ZANJA	4.843	95.31	10697.3	ARENA_3	2.385	47.70	4674.4
3860.000	TERRAPLEN	0.000	0.00	12.3	D TIERRA	9.411	189.79	22404.7
	ARENA_1	0.354	7.09	1144.9	ARENA_2	1.120	22.39	2592.1
	RELLENO_ZANJA	4.686	95.29	10792.6	ARENA_3	2.385	47.70	4722.1
3880.000	TERRAPLEN	0.000	0.00	12.3	D TIERRA	9.647	190.58	22595.3
	ARENA_1	0.354	7.09	1152.0	ARENA_2	1.120	22.39	2614.5
	RELLENO_ZANJA	4.922	96.08	10888.7	ARENA_3	2.385	47.70	4769.8
3900.000	TERRAPLEN	0.000	0.00	12.3	D TIERRA	9.427	190.74	22786.0
	ARENA_1	0.354	7.09	1159.1	ARENA_2	1.120	22.39	2636.8
	RELLENO_ZANJA	4.701	96.23	10985.0	ARENA_3	2.385	47.70	4817.5
3920.000	TERRAPLEN	0.000	0.00	12.3	D TIERRA	9.528	189.55	22975.6
	ARENA_1	0.354	7.08	1166.2	ARENA_2	1.121	22.40	2659.3
	RELLENO_ZANJA	4.803	95.05	11080.0	ARENA_3	2.379	47.64	4865.2
3940.000	TERRAPLEN	0.000	0.00	12.3	D TIERRA	10.750	202.79	23178.4
	ARENA_1	0.354	7.08	1173.2	ARENA_2	1.120	22.41	2681.7
	RELLENO_ZANJA	6.025	108.29	11188.3	ARENA_3	2.383	47.61	4912.8
3960.000	TERRAPLEN	0.000	0.00	12.3	D TIERRA	10.002	207.52	23385.9
	ARENA_1	0.354	7.08	1180.3	ARENA_2	1.121	22.41	2704.1
	RELLENO_ZANJA	5.277	113.02	11301.3	ARENA_3	2.376	47.59	4960.4
3980.000	TERRAPLEN	0.000	0.00	12.3	D TIERRA	10.070	200.71	23586.6
	ARENA_1	0.354	7.08	1187.4	ARENA_2	1.120	22.41	2726.5
	RELLENO_ZANJA	5.345	106.22	11407.5	ARENA_3	2.385	47.62	5008.0
4000.000	TERRAPLEN	0.000	0.00	12.3	D TIERRA	9.590	196.59	23783.2
	ARENA_1	0.354	7.09	1194.5	ARENA_2	1.120	22.39	2748.9
	RELLENO_ZANJA	4.865	102.10	11509.6	ARENA_3	2.385	47.71	5055.7
4020.000	TERRAPLEN	0.000	0.00	12.3	D TIERRA	9.434	190.24	23973.4
	ARENA_1	0.354	7.09	1201.6	ARENA_2	1.120	22.40	2771.3
	RELLENO_ZANJA	4.709	95.74	11605.4	ARENA_3	2.385	47.71	5103.4
4040.000	TERRAPLEN	0.000	0.00	12.3	D TIERRA	10.500	199.34	24172.8
	ARENA_1	0.354	7.09	1208.7	ARENA_2	1.120	22.39	2793.7
	RELLENO_ZANJA	5.775	104.84	11710.2	ARENA_3	2.385	47.70	5151.1



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PROYECTO :

EJE : 1: AZUD - ETAP PRINCIPAL

CIDACOS COMPLETO

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PROYECTO :

EJE : 1: AZUD - ETAP PRINCIPAL

CIDACOS COMPLETO

*** MEDICIONES DE LOS PERFILES TRANSVERSALES***
*** CAPAS DE FIRME ***

*** MEDICIONES DE LOS PERFILES TRANSVERSALES***
*** CAPAS DE FIRME ***

PERFIL	MATERIAL	AREA PERFIL	VOL. PARCIAL	VOL. ACUMUL.	MATERIAL	AREA PERFIL	VOL. PARCIAL	VOL. ACUMUL.
4045.375	TERRAPLEN	0.000	0.00	12.3	D TIERRA	10.288	55.87	24228.6
	ARENA_1	0.354	1.90	1210.6	ARENA_2	1.120	6.02	2799.7
	RELLENO_ZANJA	5.563	30.47	11740.7	ARENA_3	2.385	12.82	5163.9
4060.000	TERRAPLEN	0.000	0.00	12.3	D TIERRA	10.058	148.78	24377.4
	ARENA_1	0.354	5.18	1215.8	ARENA_2	1.120	16.38	2816.1
	RELLENO_ZANJA	5.333	79.68	11820.4	ARENA_3	2.385	34.88	5198.8
4080.000	TERRAPLEN	0.000	0.00	12.3	D TIERRA	11.737	217.95	24595.4
	ARENA_1	0.354	7.09	1222.8	ARENA_2	1.120	22.39	2838.4
	RELLENO_ZANJA	7.012	123.45	11943.8	ARENA_3	2.385	47.71	5246.5
4100.000	TERRAPLEN	0.000	0.00	12.3	D TIERRA	11.019	227.55	24822.9
	ARENA_1	0.354	7.09	1229.9	ARENA_2	1.120	22.39	2860.8
	RELLENO_ZANJA	6.294	133.06	12076.9	ARENA_3	2.385	47.71	5294.2
4120.000	TERRAPLEN	0.000	0.00	12.3	D TIERRA	9.510	205.29	25028.2
	ARENA_1	0.354	7.09	1237.0	ARENA_2	1.120	22.39	2883.2
	RELLENO_ZANJA	4.785	110.79	12187.7	ARENA_3	2.385	47.70	5341.9
4140.000	TERRAPLEN	0.000	0.00	12.3	D TIERRA	9.743	192.53	25220.7
	ARENA_1	0.354	7.09	1244.1	ARENA_2	1.120	22.39	2905.6
	RELLENO_ZANJA	5.018	98.03	12285.7	ARENA_3	2.385	47.70	5389.6
4150.961	TERRAPLEN	0.000	0.00	12.3	D TIERRA	10.044	108.44	25329.2
	ARENA_1	0.354	3.88	1248.0	ARENA_2	1.120	12.27	2917.9
	RELLENO_ZANJA	5.319	56.65	12342.3	ARENA_3	2.385	26.14	5415.8
4160.000	TERRAPLEN	0.000	0.00	12.3	D TIERRA	13.411	106.01	25435.2
	ARENA_1	0.354	3.20	1251.2	ARENA_2	1.120	10.12	2928.0
	RELLENO_ZANJA	8.686	63.30	12405.6	ARENA_3	2.385	21.56	5437.3
4160.802	TERRAPLEN	0.000	0.00	12.3	D TIERRA	13.599	10.83	25446.0
	ARENA_1	0.354	0.28	1251.5	ARENA_2	1.120	0.90	2928.9
	RELLENO_ZANJA	8.874	7.04	12412.7	ARENA_3	2.385	1.91	5439.2
4166.685	TERRAPLEN	0.000	0.00	12.3	D TIERRA	14.055	81.34	25527.4
	ARENA_1	0.354	2.08	1253.6	ARENA_2	1.120	6.59	2935.5
	RELLENO_ZANJA	9.330	53.55	12466.2	ARENA_3	2.385	14.03	5453.3
4172.676	TERRAPLEN	0.000	0.00	12.3	D TIERRA	13.968	83.94	25611.3
	ARENA_1	0.354	2.12	1255.7	ARENA_2	1.120	6.71	2942.2
	RELLENO_ZANJA	9.243	55.63	12521.9	ARENA_3	2.385	14.29	5467.6
4178.048	TERRAPLEN	0.000	0.00	12.3	D TIERRA	14.515	76.51	25687.8
	ARENA_1	0.354	1.90	1257.6	ARENA_2	1.120	6.02	2948.2
	RELLENO_ZANJA	9.790	51.12	12573.0	ARENA_3	2.385	12.81	5480.4
4180.000	TERRAPLEN	0.000	0.00	12.3	D TIERRA	14.866	28.68	25716.5
	ARENA_1	0.354	0.69	1258.3	ARENA_2	1.120	2.19	2950.4
	RELLENO_ZANJA	10.141	19.45	12592.4	ARENA_3	2.385	4.66	5485.0
4183.994	TERRAPLEN	0.000	0.00	12.3	D TIERRA	15.396	60.43	25776.9
	ARENA_1	0.354	1.42	1259.7	ARENA_2	1.120	4.47	2954.9
	RELLENO_ZANJA	10.671	41.56	12634.0	ARENA_3	2.385	9.53	5494.6
4189.380	TERRAPLEN	0.000	0.00	12.3	D TIERRA	14.856	81.47	25858.4
	ARENA_1	0.354	1.91	1261.6	ARENA_2	1.120	6.03	2960.9
	RELLENO_ZANJA	10.131	56.02	12690.0	ARENA_3	2.385	12.85	5507.4
4196.164	TERRAPLEN	0.000	0.00	12.3	D TIERRA	14.082	98.16	25956.5
	ARENA_1	0.354	2.40	1264.0	ARENA_2	1.120	7.60	2968.5
	RELLENO_ZANJA	9.357	66.10	12756.1	ARENA_3	2.385	16.18	5523.6
4200.000	TERRAPLEN	0.000	0.00	12.3	D TIERRA	13.786	53.45	26010.0
	ARENA_1	0.354	1.36	1265.4	ARENA_2	1.120	4.30	2972.8
	RELLENO_ZANJA	9.061	35.33	12791.4	ARENA_3	2.385	9.15	5532.7
4201.413	TERRAPLEN	0.000	0.00	12.3	D TIERRA	13.678	19.40	26029.4
	ARENA_1	0.354	0.50	1265.9	ARENA_2	1.120	1.58	2974.4
	RELLENO_ZANJA	8.953	12.73	12804.2	ARENA_3	2.385	3.37	5536.1
4208.386	TERRAPLEN	0.000	0.00	12.3	D TIERRA	13.141	93.50	26122.9
	ARENA_1	0.354	2.47	1268.3	ARENA_2	1.120	7.81	2982.2
	RELLENO_ZANJA	8.416	60.55	12864.7	ARENA_3	2.385	16.63	5552.7
4214.287	TERRAPLEN	0.000	0.00	12.3	D TIERRA	12.640	76.07	26199.0
	ARENA_1	0.354	2.09	1270.4	ARENA_2	1.120	6.61	2988.8
	RELLENO_ZANJA	7.916	48.18	12912.9	ARENA_3	2.385	14.08	5566.8

PERFIL	MATERIAL	AREA PERFIL	VOL. PARCIAL	VOL. ACUMUL.	MATERIAL	AREA PERFIL	VOL. PARCIAL	VOL. ACUMUL.
4220.000	TERRAPLEN	0.000	0.00	12.3	D TIERRA	12.161	70.84	26269.8
	ARENA_1	0.354	2.02	1272.4	ARENA_2	1.120	6.40	2995.2
	RELLENO_ZANJA	7.435	43.85	12956.8	ARENA_3	2.385	13.63	5580.5
4220.471	TERRAPLEN	0.000	0.00	12.3	D TIERRA	12.121	5.72	26275.5
	ARENA_1	0.354	0.17	1272.6	ARENA_2	1.120	0.53	2995.7
	RELLENO_ZANJA	7.395	3.49	12960.2	ARENA_3	2.385	1.12	5581.6
4224.685	TERRAPLEN	0.000	0.00	12.3	D TIERRA	11.647	50.08	26325.6
	ARENA_1	0.354	1.49	1274.1	ARENA_2	1.120	4.72	3000.5
	RELLENO_ZANJA	6.922	30.17	12990.4	ARENA_3	2.385	10.05	5591.6
4240.000	TERRAPLEN	0.000	0.00	12.3	D TIERRA	10.121	166.69	26492.3
	ARENA_1	0.354	5.43	1279.5	ARENA_2	1.120	17.15	3017.6
	RELLENO_ZANJA	5.396	94.33	13084.7	ARENA_3	2.385	36.53	5628.2
4253.009	TERRAPLEN	0.000	0.00	12.3	D TIERRA	9.745	129.22	26621.5
	ARENA_1	0.354	4.61	1284.1	ARENA_2	1.120	14.57	3032.2
	RELLENO_ZANJA	5.020	67.75	13152.5	ARENA_3	2.385	31.03	5659.2
4260.000	TERRAPLEN	0.000	0.00	12.3	D TIERRA	9.414	66.97	26688.5
	ARENA_1	0.354	2.48	1286.6	ARENA_2	1.120	7.83	3040.0
	RELLENO_ZANJA	4.689	33.94	13186.4	ARENA_3	2.385	16.67	5675.9
4280.000	TERRAPLEN	0.000	0.00	12.3	D TIERRA	9.218	186.31	26874.8
	ARENA_1	0.354	7.09	1293.7	ARENA_2	1.120	22.39	3062.4
	RELLENO_ZANJA	4.493	91.81	13278.2	ARENA_3	2.385	47.70	5723.6
4300.000	TERRAPLEN	0.000	0.00	12.3	D TIERRA	9.408	186.25	27061.1
	ARENA_1	0.354	7.09	1300.8	ARENA_2	1.120	22.39	3084.8
	RELLENO_ZANJA	4.683	91.75	13370.0	ARENA_3	2.385	47.71	5771.3
4320.000	TERRAPLEN	0.000	0.00	12.3	D TIERRA	9.310	187.18	27248.2
	ARENA_1	0.354	7.09	1307.9	ARENA_2	1.120	22.39	3107.2
	RELLENO_ZANJA	4.585	92.68	13462.7	ARENA_3	2.385	47.71	5819.0
4331.245	TERRAPLEN	0.000	0.00	12.3	D TIERRA	9.427	105.35	27353.6
	ARENA_1	0.354	3.99	1311.9	ARENA_2	1.120	12.59	3119.8
	RELLENO_ZANJA	4.702	52.22	13514.9	ARENA_3	2.385	26.82	5845.8
4340.000	TERRAPLEN	0.000	0.00	12.3	D TIERRA	9.430	82.55	27436.1
	ARENA_1	0.354	3.10	1315.0	ARENA_2	1.120	9.80	3129.6
	RELLENO_ZANJA	4.705	41.18	13556.1	ARENA_3	2.385	20.88	5866.7
4360.000	TERRAPLEN	0.000	0.00	12.3	D TIERRA	9.490	189.20	27625.3
	ARENA_1	0.354	7.09	1322.1	ARENA_2	1.120	22.39	3152.0
	RELLENO_ZANJA	4.765	94.70	13650.8	ARENA_3	2.385	47.70	5914.4
4360.080	TERRAPLEN	0.000	0.00	12.3	D TIERRA	9.494	0.76	27626.1
	ARENA_1	0.354	0.03	1322.1	ARENA_2	1.120	0.09	3152.1
	RELLENO_ZANJA	4.770	0.38	13651.2	ARENA_3	2.385	0.19	5914.6
4380.000	TERRAPLEN	0.000	0.00	12.3	D TIERRA	9.425	188.44	27814.5
	ARENA_1	0.354	7.06	1329.2	ARENA_2	1.120	22.30	3174.4
	RELLENO_ZANJA	4.700	94.32	13745.5	ARENA_3	2.385	47.51	5962.1
4400.000	TERRAPLEN	0.000	0.00	12.3	D TIERRA	9.707	191.33	28005.9
	ARENA_1	0.354	7.09	1336.2	ARENA_2	1.120	22.39	3196.8
	RELLENO_ZANJA	4.982	96.83	13842.3	ARENA_3	2.385	47.70	6009.8
4420.000	TERRAPLEN	0.000	0.00	12.3	D TIERRA	9.538	192.45	28198.3
	ARENA_1	0.354	7.09	1343.3	ARENA_2	1.120	22.39	3219.2
	RELLENO_ZANJA	4.813	97.95	13940.3	ARENA_3	2.385	47.71	6057.5
4440.000	TERRAPLEN	0.000	0.00	12.3	D TIERRA	10.028	195.65	28394.0
	ARENA_1	0.354	7.09	1350.4	ARENA_2	1.120	22.39	3241.5
	RELLENO_ZANJA	5.303	101.15	14041.4	ARENA_3	2.385	47.71	6105.2
4460.000	TERRAPLEN	0.000	0.00	12.3	D TIERRA	10.956	209.84	28603.8
	ARENA_1	0.354	7.09	1357.5	ARENA_2	1.120	22.39	3263.9
	RELLENO_ZANJA	6.231	115.34	14156.7	ARENA_3	2.385	47.71	6152.9
4480.000	TERRAPLEN	0.000	0.00	12.3	D TIERRA	10.036	209.93	28813.7
	ARENA_1	0.354	7.09	1364.6	ARENA_2	1.120	22.39	3286.3
	RELLENO_ZANJA	5.311	115.43	14272.2	ARENA_3	2.385	47.71	6200.6
4480.549	TERRAPLEN	0.000	0.00	12.3	D TIERRA	10.072	5.52	28819.2
	ARENA_1	0.354	0.19	1364.8	ARENA_2	1.120	0.61	3286.9
	RELLENO_ZANJA	5.347	2.93	14275.1	ARENA_3	2.385	1.31	6201.9

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 PROYECTO : CIDACOS COMPLETO
 EJE : 1: AZUD - ETAP PRINCIPAL

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 PROYECTO : CIDACOS COMPLETO
 EJE : 1: AZUD - ETAP PRINCIPAL

 * * * MEDICIONES DE LOS PERFILES TRANSVERSALES* * *
 * * * CAPAS DE FIRME * * *

 * * * MEDICIONES DE LOS PERFILES TRANSVERSALES* * *
 * * * CAPAS DE FIRME * * *

PERFIL	MATERIAL	AREA PERFIL	VOL. PARCIAL	VOL. ACUMUL.	MATERIAL	AREA PERFIL	VOL. PARCIAL	VOL. ACUMUL.	PERFIL	MATERIAL	AREA PERFIL	VOL. PARCIAL	VOL. ACUMUL.	MATERIAL	AREA PERFIL	VOL. PARCIAL	VOL. ACUMUL.
4500.000	TERRAPLEN	0.000	0.00	12.3	D TIERRA	9.960	194.82	29014.1	4840.000	TERRAPLEN	0.000	0.00	12.3	D TIERRA	9.617	189.39	32308.7
	ARENA_1	0.354	6.90	1371.7	ARENA_2	1.120	21.78	3308.7		ARENA_1	0.354	7.09	1492.2	ARENA_2	1.120	22.40	3689.4
	RELLENO_ZANJA	5.235	102.91	14378.0	ARENA_3	2.385	46.39	6248.3		RELLENO_ZANJA	4.892	94.89	16066.1	ARENA_3	2.385	47.70	7059.3
4520.000	TERRAPLEN	0.000	0.00	12.3	D TIERRA	9.419	193.79	29207.9	4860.000	TERRAPLEN	0.000	0.00	12.3	D TIERRA	9.350	189.67	32498.3
	ARENA_1	0.354	7.09	1378.8	ARENA_2	1.120	22.39	3331.1		ARENA_1	0.354	7.09	1499.3	ARENA_2	1.120	22.39	3711.8
	RELLENO_ZANJA	4.693	99.29	14477.3	ARENA_3	2.385	47.70	6296.0		RELLENO_ZANJA	4.625	95.17	16161.3	ARENA_3	2.385	47.70	7107.0
4540.000	TERRAPLEN	0.000	0.00	12.3	D TIERRA	9.760	191.79	29399.6	4862.759	TERRAPLEN	0.000	0.00	12.3	D TIERRA	9.602	26.14	32524.5
	ARENA_1	0.354	7.09	1385.9	ARENA_2	1.120	22.39	3353.5		ARENA_1	0.354	0.98	1500.2	ARENA_2	1.120	3.09	3714.9
	RELLENO_ZANJA	5.035	97.29	14574.6	ARENA_3	2.385	47.70	6343.7		RELLENO_ZANJA	4.877	13.11	16174.4	ARENA_3	2.385	6.58	7113.5
4560.000	TERRAPLEN	0.000	0.00	12.3	D TIERRA	9.284	190.44	29590.1	4880.000	TERRAPLEN	0.000	0.00	12.3	D TIERRA	10.629	174.40	32698.9
	ARENA_1	0.354	7.09	1392.9	ARENA_2	1.120	22.39	3375.9		ARENA_1	0.354	6.11	1506.3	ARENA_2	1.120	19.31	3734.2
	RELLENO_ZANJA	4.559	95.94	14670.5	ARENA_3	2.385	47.71	6391.4		RELLENO_ZANJA	5.904	92.93	16267.3	ARENA_3	2.385	41.13	7154.7
4580.000	TERRAPLEN	0.000	0.00	12.3	D TIERRA	9.302	185.85	29775.9	4900.000	TERRAPLEN	0.000	0.00	12.3	D TIERRA	10.579	212.08	32910.9
	ARENA_1	0.354	7.09	1400.0	ARENA_2	1.120	22.39	3398.3		ARENA_1	0.354	7.09	1513.4	ARENA_2	1.120	22.39	3756.6
	RELLENO_ZANJA	4.577	91.35	14761.9	ARENA_3	2.385	47.71	6439.1		RELLENO_ZANJA	5.854	117.58	16384.9	ARENA_3	2.385	47.71	7202.4
4600.000	TERRAPLEN	0.000	0.00	12.3	D TIERRA	9.247	185.49	29961.4	4920.000	TERRAPLEN	0.000	0.00	12.3	D TIERRA	11.869	224.48	33135.4
	ARENA_1	0.354	7.09	1407.1	ARENA_2	1.120	22.40	3420.7		ARENA_1	0.354	7.09	1520.5	ARENA_2	1.120	22.39	3779.0
	RELLENO_ZANJA	4.522	90.99	14852.9	ARENA_3	2.385	47.71	6486.8		RELLENO_ZANJA	7.144	129.98	16514.9	ARENA_3	2.385	47.71	7250.1
4620.000	TERRAPLEN	0.000	0.00	12.3	D TIERRA	9.262	185.09	30146.5	4940.000	TERRAPLEN	0.000	0.00	12.3	D TIERRA	13.077	249.47	33384.9
	ARENA_1	0.354	7.09	1414.2	ARENA_2	1.120	22.39	3443.1		ARENA_1	0.354	7.09	1527.6	ARENA_2	1.120	22.39	3801.4
	RELLENO_ZANJA	4.537	90.59	14943.5	ARENA_3	2.385	47.70	6534.5		RELLENO_ZANJA	8.352	154.97	16669.9	ARENA_3	2.385	47.71	7297.8
4640.000	TERRAPLEN	0.000	0.00	12.3	D TIERRA	9.421	186.83	30333.3	4942.668	TERRAPLEN	0.000	0.00	12.3	D TIERRA	13.152	34.99	33419.9
	ARENA_1	0.354	7.09	1421.3	ARENA_2	1.120	22.39	3465.5		ARENA_1	0.354	0.95	1528.6	ARENA_2	1.120	2.99	3804.4
	RELLENO_ZANJA	4.696	92.33	15035.8	ARENA_3	2.385	47.70	6582.2		RELLENO_ZANJA	8.427	22.38	16692.2	ARENA_3	2.385	6.36	7304.1
4660.000	TERRAPLEN	0.000	0.00	12.3	D TIERRA	9.499	189.20	30522.5	4949.010	TERRAPLEN	0.000	0.00	12.3	D TIERRA	13.136	83.36	33503.2
	ARENA_1	0.354	7.09	1428.4	ARENA_2	1.120	22.40	3487.9		ARENA_1	0.354	2.25	1530.8	ARENA_2	1.120	7.10	3811.5
	RELLENO_ZANJA	4.774	94.70	15130.5	ARENA_3	2.385	47.70	6629.9		RELLENO_ZANJA	8.412	53.39	16745.6	ARENA_3	2.385	15.13	7319.3
4680.000	TERRAPLEN	0.000	0.00	12.3	D TIERRA	9.413	189.12	30711.7	4955.396	TERRAPLEN	0.000	0.00	12.3	D TIERRA	13.544	85.19	33588.4
	ARENA_1	0.354	7.09	1435.5	ARENA_2	1.120	22.40	3510.3		ARENA_1	0.354	2.26	1533.1	ARENA_2	1.120	7.15	3818.6
	RELLENO_ZANJA	4.688	94.62	15225.1	ARENA_3	2.385	47.70	6677.6		RELLENO_ZANJA	8.819	55.02	16800.6	ARENA_3	2.385	15.23	7334.5
4700.000	TERRAPLEN	0.000	0.00	12.3	D TIERRA	9.071	184.84	30896.5	4960.000	TERRAPLEN	0.000	0.00	12.3	D TIERRA	13.688	62.69	33651.1
	ARENA_1	0.354	7.09	1442.6	ARENA_2	1.120	22.39	3532.7		ARENA_1	0.354	1.63	1534.7	ARENA_2	1.120	5.16	3823.8
	RELLENO_ZANJA	4.346	90.34	15315.5	ARENA_3	2.385	47.70	6725.3		RELLENO_ZANJA	8.963	40.93	16841.6	ARENA_3	2.385	10.98	7345.5
4720.000	TERRAPLEN	0.000	0.00	12.3	D TIERRA	10.482	195.53	31092.0	4960.670	TERRAPLEN	0.000	0.00	12.3	D TIERRA	13.698	9.17	33660.3
	ARENA_1	0.354	7.09	1449.6	ARENA_2	1.120	22.39	3555.1		ARENA_1	0.354	0.24	1534.9	ARENA_2	1.120	0.75	3824.6
	RELLENO_ZANJA	5.757	101.03	15416.5	ARENA_3	2.385	47.70	6773.0		RELLENO_ZANJA	8.973	6.01	16847.6	ARENA_3	2.385	1.60	7347.1
4720.262	TERRAPLEN	0.000	0.00	12.3	D TIERRA	10.522	2.75	31094.8	4967.492	TERRAPLEN	0.000	0.00	12.3	D TIERRA	13.775	93.71	33754.0
	ARENA_1	0.354	0.09	1449.7	ARENA_2	1.120	0.29	3555.4		ARENA_1	0.354	2.42	1537.4	ARENA_2	1.120	7.64	3832.2
	RELLENO_ZANJA	5.798	1.51	15418.0	ARENA_3	2.385	0.62	6773.7		RELLENO_ZANJA	9.050	61.48	16909.1	ARENA_3	2.385	16.27	7363.4
4740.000	TERRAPLEN	0.000	0.00	12.3	D TIERRA	11.139	213.77	31308.6	4973.363	TERRAPLEN	0.000	0.00	12.3	D TIERRA	13.827	81.03	33835.0
	ARENA_1	0.354	6.99	1456.7	ARENA_2	1.120	22.10	3577.5		ARENA_1	0.354	2.08	1539.4	ARENA_2	1.120	6.57	3838.8
	RELLENO_ZANJA	6.414	120.51	15538.5	ARENA_3	2.385	47.08	6820.7		RELLENO_ZANJA	9.102	53.29	16962.4	ARENA_3	2.385	14.00	7377.4
4760.000	TERRAPLEN	0.000	0.00	12.3	D TIERRA	10.766	219.05	31527.6	4979.650	TERRAPLEN	0.000	0.00	12.3	D TIERRA	13.414	85.63	33920.7
	ARENA_1	0.354	7.09	1463.8	ARENA_2	1.120	22.39	3599.9		ARENA_1	0.354	2.23	1541.7	ARENA_2	1.120	7.04	3845.8
	RELLENO_ZANJA	6.041	124.55	15663.1	ARENA_3	2.385	47.71	6868.4		RELLENO_ZANJA	8.689	55.93	17018.3	ARENA_3	2.385	15.00	7392.4
4780.000	TERRAPLEN	0.000	0.00	12.3	D TIERRA	10.032	207.98	31735.6	4980.000	TERRAPLEN	0.000	0.00	12.3	D TIERRA	13.382	4.69	33925.4
	ARENA_1	0.354	7.09	1470.9	ARENA_2	1.120	22.39	3622.3		ARENA_1	0.354	0.12	1541.8	ARENA_2	1.120	0.39	3846.2
	RELLENO_ZANJA	5.307	113.48	15776.5	ARENA_3	2.385	47.70	6916.1		RELLENO_ZANJA	8.657	3.04	17021.3	ARENA_3	2.385	0.83	7393.2
4787.639	TERRAPLEN	0.000	0.00	12.3	D TIERRA	9.870	76.02	31811.6	4984.339	TERRAPLEN	0.000	0.00	12.3	D TIERRA	12.988	57.21	33982.6
	ARENA_1	0.354	2.71	1473.6	ARENA_2	1.120	8.55	3630.8		ARENA_1	0.354	1.54	1543.3	ARENA_2	1.120	4.86	3851.1
	RELLENO_ZANJA	5.145	39.92	15816.5	ARENA_3	2.385	18.22	6934.4		RELLENO_ZANJA	8.263	36.71	17058.0	ARENA_3	2.385	10.35	7403.5
4800.000	TERRAPLEN	0.000	0.00	12.3	D TIERRA	9.590	120.27	31931.9	4991.569	TERRAPLEN	0.000	0.00	12.3	D TIERRA	12.320	91.49	34074.1
	ARENA_1	0.354	4.38	1478.0	ARENA_2	1.120	13.84	3644.6		ARENA_1	0.354	2.56	1545.9	ARENA_2	1.120	8.10	3859.1
	RELLENO_ZANJA	4.865	61.87	15878.3	ARENA_3	2.385	29.48	6963.8		RELLENO_ZANJA	7.595	57.33	17115.3	ARENA_3	2.385	17.25	7420.8
4815.279	TERRAPLEN	0.000	0.00	12.3	D TIERRA	9.211	143.63	32075.5	4997.104	TERRAPLEN	0.000	0.00	12.3	D TIERRA	12.004	67.32	34141.4
	ARENA_1	0.354	5.41	1483.4	ARENA_2	1.120	17.11	3661.8		ARENA_1	0.354	1.96	1547.8	ARENA_2	1.120	6.20	3865.3
	RELLENO_ZANJA	4.486	71.44	15949.8	ARENA_3	2.385	36.44	7000.3		RELLENO_ZANJA	7.279	41.16	17156.5	ARENA_3	2.385	13.20	7434.0
4820.000	TERRAPLEN	0.000	0.00	12.3	D TIERRA	9.322	43.75	32119.3	5000.000	TERRAPLEN	0.000	0.00	12.3	D TIERRA	11.555	34.11	34175.5
	ARENA_1	0.354	1.67	1485.1	ARENA_2	1.120	5.29	3667.0		ARENA_1</							

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 PROYECTO : CIDACOS COMPLETO
 EJE : 1: AZUD - ETAP PRINCIPAL

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 PROYECTO : CIDACOS COMPLETO
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 * * * MEDICIONES DE LOS PERFILES TRANSVERSALES* * *
 * * * CAPAS DE FIRME * * *

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PERFIL	MATERIAL	AREA PERFIL	VOL. PARCIAL	VOL. ACUMUL.	MATERIAL	AREA PERFIL	VOL. PARCIAL	VOL. ACUMUL.
5002.592	TERRAPLEN	0.000	0.00	12.3	D TIERRA	11.127	29.40	34204.9
	ARENA_1	0.354	0.92	1549.8	ARENA_2	1.120	2.90	3871.5
	RELLENO_ZANJA	6.402	17.15	17194.1	ARENA_3	2.385	6.18	7447.1
5009.094	TERRAPLEN	0.000	0.00	12.3	D TIERRA	10.285	69.61	34274.5
	ARENA_1	0.354	2.30	1552.1	ARENA_2	1.120	7.28	3878.8
	RELLENO_ZANJA	5.560	38.89	17233.0	ARENA_3	2.385	15.51	7462.6
5014.129	TERRAPLEN	0.000	0.00	12.3	D TIERRA	10.251	51.70	34326.2
	ARENA_1	0.354	1.78	1553.9	ARENA_2	1.120	5.64	3884.4
	RELLENO_ZANJA	5.527	27.91	17260.9	ARENA_3	2.385	12.01	7474.6
5020.000	TERRAPLEN	0.000	0.00	12.3	D TIERRA	10.190	60.01	34386.2
	ARENA_1	0.354	2.08	1556.0	ARENA_2	1.120	6.57	3891.0
	RELLENO_ZANJA	5.465	32.27	17293.2	ARENA_3	2.385	14.00	7488.6
5020.713	TERRAPLEN	0.000	0.00	12.3	D TIERRA	10.183	7.26	34393.5
	ARENA_1	0.354	0.25	1556.2	ARENA_2	1.120	0.80	3891.8
	RELLENO_ZANJA	5.458	3.89	17297.0	ARENA_3	2.385	1.70	7490.3
5034.173	TERRAPLEN	0.000	0.00	12.3	D TIERRA	9.996	135.80	34529.3
	ARENA_1	0.354	4.77	1561.0	ARENA_2	1.120	15.07	3906.9
	RELLENO_ZANJA	5.271	72.21	17369.3	ARENA_3	2.385	32.11	7522.4
5040.000	TERRAPLEN	0.000	0.00	12.3	D TIERRA	9.985	58.21	34587.5
	ARENA_1	0.354	2.07	1563.0	ARENA_2	1.120	6.52	3913.4
	RELLENO_ZANJA	5.260	30.68	17399.9	ARENA_3	2.385	13.90	7536.3
5050.088	TERRAPLEN	0.000	0.00	12.3	D TIERRA	10.084	101.23	34688.7
	ARENA_1	0.354	3.58	1566.6	ARENA_2	1.120	11.30	3924.7
	RELLENO_ZANJA	5.359	53.56	17453.5	ARENA_3	2.385	24.06	7560.4
5056.357	TERRAPLEN	0.000	0.00	12.3	D TIERRA	9.829	62.42	34751.1
	ARENA_1	0.354	2.22	1568.8	ARENA_2	1.120	7.02	3931.7
	RELLENO_ZANJA	5.104	32.80	17486.3	ARENA_3	2.385	14.95	7575.3
5060.000	TERRAPLEN	0.000	0.00	12.3	D TIERRA	9.682	35.54	34786.7
	ARENA_1	0.354	1.29	1570.1	ARENA_2	1.120	4.08	3935.8
	RELLENO_ZANJA	4.957	18.32	17504.6	ARENA_3	2.385	8.69	7584.0
5060.544	TERRAPLEN	0.000	0.00	12.3	D TIERRA	9.659	5.26	34791.9
	ARENA_1	0.354	0.19	1570.3	ARENA_2	1.120	0.61	3936.4
	RELLENO_ZANJA	4.934	2.69	17507.3	ARENA_3	2.385	1.30	7585.3
5069.773	TERRAPLEN	0.000	0.00	12.3	D TIERRA	9.581	88.78	34880.7
	ARENA_1	0.354	3.27	1573.6	ARENA_2	1.120	10.33	3946.7
	RELLENO_ZANJA	4.856	45.18	17552.5	ARENA_3	2.385	22.01	7607.3
5073.830	TERRAPLEN	0.000	0.00	12.3	D TIERRA	9.515	38.74	34919.4
	ARENA_1	0.354	1.44	1575.0	ARENA_2	1.120	4.54	3951.3
	RELLENO_ZANJA	4.790	19.57	17572.1	ARENA_3	2.385	9.68	7617.0
5079.988	TERRAPLEN	0.000	0.00	12.3	D TIERRA	9.493	58.53	34978.0
	ARENA_1	0.354	2.18	1577.2	ARENA_2	1.120	6.90	3958.2
	RELLENO_ZANJA	4.768	29.43	17601.5	ARENA_3	2.385	14.69	7631.7
5080.000	TERRAPLEN	0.000	0.00	12.3	D TIERRA	9.493	0.11	34978.1
	ARENA_1	0.354	0.00	1577.2	ARENA_2	1.120	0.01	3958.2
	RELLENO_ZANJA	4.768	0.06	17601.5	ARENA_3	2.385	0.03	7631.7
5085.480	TERRAPLEN	0.000	0.00	12.3	D TIERRA	9.579	52.26	35030.3
	ARENA_1	0.354	1.94	1579.2	ARENA_2	1.120	6.14	3964.3
	RELLENO_ZANJA	4.854	26.37	17627.9	ARENA_3	2.385	13.07	7644.8
5091.999	TERRAPLEN	0.000	0.00	12.3	D TIERRA	9.763	63.05	35093.4
	ARENA_1	0.354	2.31	1581.5	ARENA_2	1.120	7.30	3971.6
	RELLENO_ZANJA	5.038	32.25	17660.2	ARENA_3	2.385	15.55	7660.3
5097.633	TERRAPLEN	0.000	0.00	12.3	D TIERRA	9.718	54.88	35148.3
	ARENA_1	0.354	2.00	1583.5	ARENA_2	1.120	6.31	3977.9
	RELLENO_ZANJA	4.993	28.26	17688.4	ARENA_3	2.385	13.44	7673.8
5100.000	TERRAPLEN	0.000	0.00	12.3	D TIERRA	9.440	22.67	35170.9
	ARENA_1	0.354	0.84	1584.3	ARENA_2	1.120	2.65	3980.6
	RELLENO_ZANJA	4.715	11.49	17699.9	ARENA_3	2.385	5.65	7679.4
5103.781	TERRAPLEN	0.000	0.00	12.3	D TIERRA	9.878	36.52	35207.5
	ARENA_1	0.354	1.34	1585.6	ARENA_2	1.120	4.23	3984.8
	RELLENO_ZANJA	5.153	18.66	17718.6	ARENA_3	2.385	9.02	7688.4

PERFIL	MATERIAL	AREA PERFIL	VOL. PARCIAL	VOL. ACUMUL.	MATERIAL	AREA PERFIL	VOL. PARCIAL	VOL. ACUMUL.
5110.049	TERRAPLEN	0.000	0.00	12.3	D TIERRA	9.407	60.44	35267.9
	ARENA_1	0.354	2.22	1587.9	ARENA_2	1.120	7.02	3991.8
	RELLENO_ZANJA	4.682	30.82	17749.4	ARENA_3	2.385	14.95	7703.4
5115.358	TERRAPLEN	0.000	0.00	12.3	D TIERRA	9.582	50.41	35318.3
	ARENA_1	0.354	1.88	1589.7	ARENA_2	1.120	5.94	3997.8
	RELLENO_ZANJA	4.857	25.32	17774.7	ARENA_3	2.385	12.66	7716.1
5120.000	TERRAPLEN	0.000	0.00	12.3	D TIERRA	10.005	45.46	35363.8
	ARENA_1	0.354	1.64	1591.4	ARENA_2	1.120	5.20	4003.0
	RELLENO_ZANJA	5.280	23.53	17798.2	ARENA_3	2.385	11.07	7727.1
5121.939	TERRAPLEN	0.000	0.00	12.3	D TIERRA	10.046	19.44	35383.2
	ARENA_1	0.354	0.69	1592.1	ARENA_2	1.120	2.17	4005.1
	RELLENO_ZANJA	5.321	10.28	17808.5	ARENA_3	2.385	4.62	7731.8
5127.334	TERRAPLEN	0.000	0.00	12.3	D TIERRA	9.934	53.90	35437.1
	ARENA_1	0.354	1.91	1594.0	ARENA_2	1.120	6.04	4011.2
	RELLENO_ZANJA	5.209	28.41	17836.9	ARENA_3	2.385	12.87	7744.6
5132.189	TERRAPLEN	0.000	0.00	12.3	D TIERRA	9.851	48.03	35485.1
	ARENA_1	0.354	1.72	1595.7	ARENA_2	1.120	5.44	4016.6
	RELLENO_ZANJA	5.126	25.09	17862.0	ARENA_3	2.385	11.58	7756.2
5140.000	TERRAPLEN	0.000	0.00	12.3	D TIERRA	9.414	75.24	35560.4
	ARENA_1	0.354	2.77	1598.5	ARENA_2	1.120	8.75	4025.4
	RELLENO_ZANJA	4.689	38.33	17900.3	ARENA_3	2.385	18.63	7774.8
5160.000	TERRAPLEN	0.000	0.00	12.3	D TIERRA	12.260	216.74	35777.1
	ARENA_1	0.354	7.09	1605.6	ARENA_2	1.120	22.39	4047.7
	RELLENO_ZANJA	7.535	122.24	18022.6	ARENA_3	2.385	47.70	7822.5
5180.000	TERRAPLEN	0.000	0.00	12.3	D TIERRA	12.706	249.66	36026.8
	ARENA_1	0.354	7.09	1612.7	ARENA_2	1.120	22.39	4070.1
	RELLENO_ZANJA	7.981	155.16	18177.7	ARENA_3	2.385	47.71	7870.2
5200.000	TERRAPLEN	0.000	0.00	12.3	D TIERRA	12.384	250.90	36277.7
	ARENA_1	0.354	7.09	1619.7	ARENA_2	1.120	22.39	4092.5
	RELLENO_ZANJA	7.659	156.40	18334.1	ARENA_3	2.385	47.71	7917.9
5220.000	TERRAPLEN	0.000	0.00	12.3	D TIERRA	11.968	243.52	36521.2
	ARENA_1	0.354	7.09	1626.8	ARENA_2	1.120	22.39	4114.9
	RELLENO_ZANJA	7.243	149.02	18483.2	ARENA_3	2.385	47.71	7965.7
5240.000	TERRAPLEN	0.000	0.00	12.3	D TIERRA	11.342	233.10	36754.3
	ARENA_1	0.354	7.09	1633.9	ARENA_2	1.120	22.39	4137.3
	RELLENO_ZANJA	6.617	138.60	18621.8	ARENA_3	2.385	47.71	8013.4
5260.000	TERRAPLEN	0.000	0.00	12.3	D TIERRA	8.726	200.68	36955.0
	ARENA_1	0.354	7.09	1641.0	ARENA_2	1.120	22.40	4159.7
	RELLENO_ZANJA	4.001	106.18	18727.9	ARENA_3	2.385	47.70	8061.1
5280.000	TERRAPLEN	0.000	0.00	12.3	D TIERRA	9.599	183.26	37138.2
	ARENA_1	0.354	7.09	1648.1	ARENA_2	1.120	22.40	4182.1
	RELLENO_ZANJA	4.874	88.76	18816.7	ARENA_3	2.385	47.69	8108.8
5300.000	TERRAPLEN	0.000	0.00	12.3	D TIERRA	9.719	193.19	37331.4
	ARENA_1	0.354	7.09	1655.2	ARENA_2	1.120	22.40	4204.5
	RELLENO_ZANJA	4.994	98.69	18915.4	ARENA_3	2.385	47.70	8156.5
5300.348	TERRAPLEN	0.000	0.00	12.3	D TIERRA	9.296	3.31	37334.7
	ARENA_1	0.354	0.12	1655.3	ARENA_2	1.120	0.39	4204.9
	RELLENO_ZANJA	4.571	1.66	18917.0	ARENA_3	2.385	0.83	8157.3
5320.000	TERRAPLEN	0.000	0.00	12.3	D TIERRA	8.604	175.89	37510.6
	ARENA_1	0.354	6.96	1662.3	ARENA_2	1.120	22.01	4226.9
	RELLENO_ZANJA	3.879	83.03	19000.1	ARENA_3	2.385	46.87	8204.2
5340.000	TERRAPLEN	0.000	0.00	12.3	D TIERRA	8.848	174.52	37685.1
	ARENA_1	0.354	7.09	1669.3	ARENA_2	1.120	22.39	4249.3
	RELLENO_ZANJA	4.123	80.02	19080.1	ARENA_3	2.385	47.71	8251.9
5341.753	TERRAPLEN	0.000	0.00	12.3	D TIERRA	8.617	15.31	37700.5
	ARENA_1	0.354	0.62	1670.0	ARENA_2	1.120	1.96	4251.3
	RELLENO_ZANJA	3.892	7.03	19087.1	ARENA_3	2.385	4.18	8256.0
5360.000	TERRAPLEN	0.000	0.00	12.3	D TIERRA	10.135	171.08	37871.5
	ARENA_1	0.354	6.47	1676.4	ARENA_2	1.120	20.43	4271.7
	RELLENO_ZANJA	5.410	84.87	19172.0	ARENA_3	2.385	43.51	8299.6



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PROYECTO :

EJE : 1: AZUD - ETAP PRINCIPAL

CIDACOS COMPLETO

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PROYECTO :

EJE : 1: AZUD - ETAP PRINCIPAL

CIDACOS COMPLETO

*** MEDICIONES DE LOS PERFILES TRANSVERSALES***
*** CAPAS DE FIRME ***

*** MEDICIONES DE LOS PERFILES TRANSVERSALES***
*** CAPAS DE FIRME ***

PERFIL	MATERIAL	AREA PERFIL	VOL. PARCIAL	VOL. ACUMUL.	MATERIAL	AREA PERFIL	VOL. PARCIAL	VOL. ACUMUL.
5380.000	TERRAPLEN	0.000	0.00	12.3	D TIERRA	10.459	205.94	38077.5
	ARENA_1	0.354	7.09	1683.5	ARENA_2	1.120	22.39	4294.1
	RELLENO_ZANJA	5.734	111.44	19283.4	ARENA_3	2.385	47.70	8347.3
5392.498	TERRAPLEN	0.000	0.00	12.3	D TIERRA	10.973	133.93	38211.4
	ARENA_1	0.354	4.43	1688.0	ARENA_2	1.120	13.99	4308.1
	RELLENO_ZANJA	6.248	74.88	19358.3	ARENA_3	2.385	29.81	8377.1
5398.616	TERRAPLEN	0.000	0.00	12.3	D TIERRA	10.736	66.41	38277.8
	ARENA_1	0.354	2.17	1690.1	ARENA_2	1.120	6.85	4314.9
	RELLENO_ZANJA	6.011	37.50	19395.8	ARENA_3	2.385	14.59	8391.7
5400.000	TERRAPLEN	0.000	0.00	12.3	D TIERRA	10.826	14.92	38292.7
	ARENA_1	0.354	0.49	1690.6	ARENA_2	1.120	1.55	4316.5
	RELLENO_ZANJA	6.101	8.38	19404.2	ARENA_3	2.385	3.30	8395.0
5403.914	TERRAPLEN	0.000	0.00	12.3	D TIERRA	11.045	42.80	38335.5
	ARENA_1	0.354	1.39	1692.0	ARENA_2	1.120	4.38	4320.9
	RELLENO_ZANJA	6.320	24.31	19428.5	ARENA_3	2.385	9.34	8404.3
5410.083	TERRAPLEN	0.000	0.00	12.3	D TIERRA	11.776	70.39	38405.9
	ARENA_1	0.354	2.19	1694.2	ARENA_2	1.120	6.91	4327.8
	RELLENO_ZANJA	7.051	41.24	19469.7	ARENA_3	2.385	14.71	8419.0
5420.000	TERRAPLEN	0.000	0.00	12.3	D TIERRA	9.905	107.51	38513.4
	ARENA_1	0.354	3.51	1697.7	ARENA_2	1.120	11.10	4338.9
	RELLENO_ZANJA	5.180	60.65	19530.4	ARENA_3	2.385	23.65	8442.7
5426.896	TERRAPLEN	0.000	0.00	12.3	D TIERRA	10.625	70.79	38584.2
	ARENA_1	0.354	2.44	1700.1	ARENA_2	1.120	7.72	4346.6
	RELLENO_ZANJA	5.900	38.21	19568.6	ARENA_3	2.385	16.45	8459.1
5440.000	TERRAPLEN	0.000	0.00	12.3	D TIERRA	10.769	140.18	38724.4
	ARENA_1	0.354	4.64	1704.8	ARENA_2	1.120	14.67	4361.3
	RELLENO_ZANJA	6.044	78.26	19646.9	ARENA_3	2.385	31.26	8490.4
5460.000	TERRAPLEN	0.000	0.00	12.3	D TIERRA	9.487	202.57	38927.0
	ARENA_1	0.354	7.09	1711.9	ARENA_2	1.120	22.39	4383.7
	RELLENO_ZANJA	4.762	108.07	19754.9	ARENA_3	2.385	47.70	8538.1
5464.989	TERRAPLEN	0.000	0.00	12.3	D TIERRA	9.768	48.03	38975.0
	ARENA_1	0.354	1.77	1713.6	ARENA_2	1.120	5.59	4389.3
	RELLENO_ZANJA	5.043	24.46	19779.4	ARENA_3	2.384	11.90	8550.0
5475.034	TERRAPLEN	0.000	0.00	12.3	D TIERRA	11.468	106.66	39081.7
	ARENA_1	0.354	3.56	1717.2	ARENA_2	1.120	11.25	4400.5
	RELLENO_ZANJA	6.743	59.19	19838.6	ARENA_3	2.384	23.95	8573.9
5480.000	TERRAPLEN	0.000	0.00	12.3	D TIERRA	13.273	61.43	39143.1
	ARENA_1	0.354	1.76	1719.0	ARENA_2	1.120	5.56	4406.1
	RELLENO_ZANJA	8.548	37.97	19876.5	ARENA_3	2.385	11.84	8585.7
5481.592	TERRAPLEN	0.000	0.00	12.3	D TIERRA	17.573	24.55	39167.6
	ARENA_1	0.354	0.56	1719.5	ARENA_2	1.120	1.78	4407.9
	RELLENO_ZANJA	12.848	17.03	19893.6	ARENA_3	2.385	3.80	8589.5
5487.258	TERRAPLEN	0.000	0.00	12.3	D TIERRA	13.808	88.90	39256.5
	ARENA_1	0.354	2.01	1721.5	ARENA_2	1.120	6.34	4414.2
	RELLENO_ZANJA	9.083	62.13	19955.7	ARENA_3	2.385	13.51	8603.1
5493.306	TERRAPLEN	0.000	0.00	12.3	D TIERRA	8.306	66.87	39323.4
	ARENA_1	0.354	2.14	1723.7	ARENA_2	1.120	6.77	4421.0
	RELLENO_ZANJA	3.027	36.62	19992.3	ARENA_3	2.385	14.42	8617.5
5498.747	TERRAPLEN	0.000	0.00	12.3	D TIERRA	10.875	52.18	39375.6
	ARENA_1	0.354	1.93	1725.6	ARENA_2	1.120	6.09	4427.1
	RELLENO_ZANJA	6.150	24.97	20017.3	ARENA_3	2.385	12.98	8630.5
5500.000	TERRAPLEN	0.000	0.00	12.3	D TIERRA	10.526	13.41	39389.0
	ARENA_1	0.354	0.44	1726.1	ARENA_2	1.120	1.40	4428.5
	RELLENO_ZANJA	5.801	7.49	20024.8	ARENA_3	2.385	2.99	8633.4
5505.483	TERRAPLEN	0.002	0.01	12.3	D TIERRA	10.379	57.31	39446.3
	ARENA_1	0.354	1.94	1728.0	ARENA_2	1.120	6.14	4434.6
	RELLENO_ZANJA	5.680	31.48	20056.3	ARENA_3	2.385	13.08	8646.5
5511.473	TERRAPLEN	0.000	0.01	12.3	D TIERRA	12.078	67.26	39513.6
	ARENA_1	0.354	2.12	1730.1	ARENA_2	1.120	6.71	4441.3
	RELLENO_ZANJA	7.353	39.03	20095.3	ARENA_3	2.385	14.29	8660.8

PERFIL	MATERIAL	AREA PERFIL	VOL. PARCIAL	VOL. ACUMUL.	MATERIAL	AREA PERFIL	VOL. PARCIAL	VOL. ACUMUL.
5516.676	TERRAPLEN	0.000	0.00	12.3	D TIERRA	10.255	58.10	39571.7
	ARENA_1	0.354	1.84	1732.0	ARENA_2	1.120	5.83	4447.1
	RELLENO_ZANJA	5.530	33.51	20128.8	ARENA_3	2.385	12.41	8673.2
5520.000	TERRAPLEN	0.000	0.00	12.3	D TIERRA	9.641	33.07	39604.7
	ARENA_1	0.354	1.18	1733.1	ARENA_2	1.120	3.72	4450.9
	RELLENO_ZANJA	4.916	17.36	20146.2	ARENA_3	2.385	7.93	8681.1
5522.981	TERRAPLEN	0.000	0.00	12.3	D TIERRA	9.112	27.95	39632.7
	ARENA_1	0.354	1.06	1734.2	ARENA_2	1.120	3.34	4454.2
	RELLENO_ZANJA	4.387	13.87	20160.0	ARENA_3	2.385	7.11	8688.3
5529.026	TERRAPLEN	0.000	0.00	12.3	D TIERRA	8.841	54.26	39687.0
	ARENA_1	0.354	2.14	1736.3	ARENA_2	1.120	6.77	4461.0
	RELLENO_ZANJA	4.116	25.70	20185.7	ARENA_3	2.385	14.42	8702.7
5534.998	TERRAPLEN	0.000	0.00	12.3	D TIERRA	8.213	50.92	39737.9
	ARENA_1	0.354	2.12	1738.5	ARENA_2	1.120	6.69	4467.7
	RELLENO_ZANJA	3.488	22.70	20208.4	ARENA_3	2.385	14.24	8716.9
5540.000	TERRAPLEN	0.000	0.00	12.3	D TIERRA	7.897	40.29	39778.2
	ARENA_1	0.354	1.77	1740.2	ARENA_2	1.120	5.60	4473.3
	RELLENO_ZANJA	3.172	16.66	20225.1	ARENA_3	2.385	11.93	8728.8
5541.221	TERRAPLEN	0.000	0.00	12.3	D TIERRA	8.834	10.21	39788.4
	ARENA_1	0.354	0.43	1740.7	ARENA_2	1.120	1.37	4474.6
	RELLENO_ZANJA	4.109	4.45	20229.5	ARENA_3	2.385	2.91	8731.8
5546.346	TERRAPLEN	0.000	0.00	12.3	D TIERRA	8.643	44.78	39833.2
	ARENA_1	0.354	1.82	1742.5	ARENA_2	1.120	5.74	4480.4
	RELLENO_ZANJA	3.918	20.57	20250.1	ARENA_3	2.385	12.22	8744.0
5555.238	TERRAPLEN	0.000	0.00	12.3	D TIERRA	9.993	82.85	39916.0
	ARENA_1	0.354	3.15	1745.6	ARENA_2	1.120	9.96	4490.3
	RELLENO_ZANJA	5.268	40.84	20290.9	ARENA_3	2.385	21.21	8765.2
5560.000	TERRAPLEN	0.000	0.00	12.3	D TIERRA	9.092	45.44	39961.5
	ARENA_1	0.354	1.69	1747.3	ARENA_2	1.120	5.33	4495.6
	RELLENO_ZANJA	4.367	22.94	20313.9	ARENA_3	2.385	11.36	8776.5
5580.000	TERRAPLEN	0.000	0.00	12.3	D TIERRA	9.036	181.28	40142.7
	ARENA_1	0.354	7.09	1754.4	ARENA_2	1.120	22.39	4518.0
	RELLENO_ZANJA	4.311	86.78	20400.7	ARENA_3	2.385	47.70	8824.2
5600.000	TERRAPLEN	0.000	0.00	12.3	D TIERRA	9.488	185.24	40328.0
	ARENA_1	0.354	7.09	1761.5	ARENA_2	1.120	22.39	4540.4
	RELLENO_ZANJA	4.763	90.74	20491.4	ARENA_3	2.385	47.70	8872.0
5620.000	TERRAPLEN	0.000	0.00	12.3	D TIERRA	9.299	187.88	40515.9
	ARENA_1	0.354	7.09	1768.6	ARENA_2	1.120	22.39	4562.8
	RELLENO_ZANJA	4.574	93.38	20584.8	ARENA_3	2.385	47.71	8919.7
5640.000	TERRAPLEN	0.000	0.00	12.3	D TIERRA	9.474	187.73	40703.6
	ARENA_1	0.354	7.09	1775.7	ARENA_2	1.120	22.39	4585.2
	RELLENO_ZANJA	4.749	93.23	20678.0	ARENA_3	2.385	47.71	8967.4
5660.000	TERRAPLEN	0.000	0.00	12.3	D TIERRA	9.406	188.80	40892.4
	ARENA_1	0.354	7.09	1782.8	ARENA_2	1.120	22.39	4607.6
	RELLENO_ZANJA	4.681	94.30	20772.3	ARENA_3	2.385	47.70	9015.1
5680.000	TERRAPLEN	0.000	0.00	12.3	D TIERRA	9.070	184.76	41077.1
	ARENA_1	0.354	7.09	1789.8	ARENA_2	1.120	22.39	4630.0
	RELLENO_ZANJA	4.345	90.26	20862.6	ARENA_3	2.385	47.71	9062.8
5700.000	TERRAPLEN	0.000	0.00	12.3	D TIERRA	9.493	185.63	41262.8
	ARENA_1	0.354	7.09	1796.9	ARENA_2	1.120	22.39	4652.4
	RELLENO_ZANJA	4.768	91.13	20953.7	ARENA_3	2.385	47.71	9110.5
5714.763	TERRAPLEN	0.000	0.00	12.3	D TIERRA	10.990	151.19	41414.0
	ARENA_1	0.354	5.23	1802.2	ARENA_2	1.120	16.53	4668.9
	RELLENO_ZANJA	6.265	81.44	21035.1	ARENA_3	2.385	35.21	9145.7
5720.000	TERRAPLEN	0.000	0.00	12.3	D TIERRA	10.351	55.88	41469.8
	ARENA_1	0.354	1.86	1804.0	ARENA_2	1.120	5.86	4674.8
	RELLENO_ZANJA	5.626	31.14	21066.3	ARENA_3	2.385	12.49	9158.2
5740.000	TERRAPLEN	0.000	0.00	12.3	D TIERRA	9.248	195.99	41665.8
	ARENA_1	0.354	7.09	1811.1	ARENA_2	1.120	22.39	4697.2
	RELLENO_ZANJA	4.523	101.49	21167.8	ARENA_3	2.385	47.71	9205.9



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PROYECTO :

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CIDACOS COMPLETO

*** MEDICIONES DE LOS PERFILES TRANSVERSALES***
*** CAPAS DE FIRME ***

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PERFIL	MATERIAL	AREA PERFIL	VOL. PARCIAL	VOL. ACUMUL.	MATERIAL	AREA PERFIL	VOL. PARCIAL	VOL. ACUMUL.
5740.678	TERRAPLEN	0.000	0.00	12.3	D_TIERRA	9.190	6.25	41672.1
	ARENA_1	0.354	0.24	1811.3	ARENA_2	1.120	0.76	4698.0
	RELLENO_ZANJA	4.465	3.05	21170.8	ARENA_3	2.385	1.62	9207.5
5760.000	TERRAPLEN	0.000	0.00	12.3	D_TIERRA	10.299	188.28	41860.4
	ARENA_1	0.354	6.85	1818.2	ARENA_2	1.120	21.64	4719.6
	RELLENO_ZANJA	5.574	96.98	21267.8	ARENA_3	2.385	46.09	9253.6
5780.000	TERRAPLEN	0.000	0.00	12.3	D_TIERRA	10.028	203.27	42063.6
	ARENA_1	0.354	7.09	1825.3	ARENA_2	1.120	22.39	4742.0
	RELLENO_ZANJA	5.303	108.77	21376.6	ARENA_3	2.385	47.71	9301.3
5800.000	TERRAPLEN	0.006	0.06	12.4	D_TIERRA	8.511	185.39	42249.0
	ARENA_1	0.354	7.09	1832.4	ARENA_2	1.120	22.39	4764.4
	RELLENO_ZANJA	3.851	91.54	21468.1	ARENA_3	2.385	47.71	9349.0
5820.000	TERRAPLEN	0.006	0.12	12.5	D_TIERRA	8.608	171.18	42420.2
	ARENA_1	0.354	7.09	1839.5	ARENA_2	1.120	22.39	4786.8
	RELLENO_ZANJA	3.889	77.40	21545.5	ARENA_3	2.385	47.70	9396.7
5840.000	TERRAPLEN	0.000	0.06	12.6	D_TIERRA	9.846	184.54	42604.8
	ARENA_1	0.354	7.09	1846.5	ARENA_2	1.120	22.40	4809.2
	RELLENO_ZANJA	5.123	90.12	21635.6	ARENA_3	2.384	47.69	9444.4
5860.000	TERRAPLEN	0.000	0.00	12.6	D_TIERRA	9.299	191.45	42796.2
	ARENA_1	0.354	7.09	1853.6	ARENA_2	1.120	22.40	4831.6
	RELLENO_ZANJA	4.574	96.97	21732.6	ARENA_3	2.384	47.69	9492.1
5880.000	TERRAPLEN	0.000	0.00	12.6	D_TIERRA	9.339	186.38	42982.6
	ARENA_1	0.354	7.09	1860.7	ARENA_2	1.120	22.39	4854.0
	RELLENO_ZANJA	4.614	91.88	21824.5	ARENA_3	2.385	47.70	9539.8
5900.000	TERRAPLEN	0.000	0.00	12.6	D_TIERRA	15.337	246.76	43229.3
	ARENA_1	0.354	7.09	1867.8	ARENA_2	1.120	22.39	4876.4
	RELLENO_ZANJA	10.612	152.26	21976.7	ARENA_3	2.385	47.70	9587.5
5920.000	TERRAPLEN	0.000	0.00	12.6	D_TIERRA	12.904	282.41	43511.8
	ARENA_1	0.354	7.09	1874.9	ARENA_2	1.120	22.39	4898.7
	RELLENO_ZANJA	8.179	187.91	22164.7	ARENA_3	2.385	47.71	9635.2
5940.000	TERRAPLEN	0.000	0.00	12.6	D_TIERRA	10.902	238.05	43749.8
	ARENA_1	0.354	7.09	1882.0	ARENA_2	1.120	22.39	4921.1
	RELLENO_ZANJA	6.177	143.55	22308.2	ARENA_3	2.385	47.71	9682.9
5960.000	TERRAPLEN	0.000	0.00	12.6	D_TIERRA	10.149	210.51	43960.3
	ARENA_1	0.354	7.09	1889.1	ARENA_2	1.120	22.39	4943.5
	RELLENO_ZANJA	5.425	116.01	22424.2	ARENA_3	2.385	47.71	9730.6
5965.211	TERRAPLEN	0.000	0.00	12.6	D_TIERRA	9.852	52.11	44012.4
	ARENA_1	0.354	1.85	1890.9	ARENA_2	1.120	5.83	4949.4
	RELLENO_ZANJA	5.127	27.49	22451.7	ARENA_3	2.385	12.43	9743.0
5980.000	TERRAPLEN	0.000	0.00	12.6	D_TIERRA	9.651	144.21	44156.7
	ARENA_1	0.354	5.24	1896.2	ARENA_2	1.120	16.56	4965.9
	RELLENO_ZANJA	4.926	74.34	22526.1	ARENA_3	2.385	35.28	9778.3
6000.000	TERRAPLEN	0.000	0.00	12.6	D_TIERRA	10.712	203.63	44360.3
	ARENA_1	0.354	7.09	1903.3	ARENA_2	1.120	22.39	4988.3
	RELLENO_ZANJA	5.987	109.13	22635.2	ARENA_3	2.385	47.71	9826.0
6006.694	TERRAPLEN	0.000	0.00	12.6	D_TIERRA	11.121	73.08	44433.4
	ARENA_1	0.354	2.37	1905.6	ARENA_2	1.120	7.50	4995.8
	RELLENO_ZANJA	6.396	41.45	22676.6	ARENA_3	2.385	15.97	9842.0
6014.599	TERRAPLEN	0.000	0.00	12.6	D_TIERRA	11.600	89.81	44523.2
	ARENA_1	0.354	2.80	1908.4	ARENA_2	1.120	8.85	5004.7
	RELLENO_ZANJA	6.875	52.45	22729.1	ARENA_3	2.385	18.86	9860.8
6019.368	TERRAPLEN	0.000	0.00	12.6	D_TIERRA	11.875	55.98	44579.1
	ARENA_1	0.354	1.69	1910.1	ARENA_2	1.120	5.34	5010.0
	RELLENO_ZANJA	7.151	33.44	22762.5	ARENA_3	2.385	11.38	9872.2
6020.000	TERRAPLEN	0.000	0.00	12.6	D_TIERRA	11.910	7.52	44586.7
	ARENA_1	0.354	0.22	1910.3	ARENA_2	1.120	0.71	5010.7
	RELLENO_ZANJA	7.185	4.53	22767.1	ARENA_3	2.385	1.51	9873.7
6025.452	TERRAPLEN	0.000	0.00	12.6	D_TIERRA	12.198	65.72	44652.4
	ARENA_1	0.354	1.93	1912.3	ARENA_2	1.120	6.10	5016.8
	RELLENO_ZANJA	7.474	39.96	22807.0	ARENA_3	2.385	13.00	9886.7

PERFIL	MATERIAL	AREA PERFIL	VOL. PARCIAL	VOL. ACUMUL.	MATERIAL	AREA PERFIL	VOL. PARCIAL	VOL. ACUMUL.
6031.155	TERRAPLEN	0.000	0.00	12.6	D_TIERRA	13.268	72.62	44725.0
	ARENA_1	0.354	2.02	1914.3	ARENA_2	1.120	6.39	5023.2
	RELLENO_ZANJA	8.543	45.67	22852.7	ARENA_3	2.385	13.60	9900.3
6037.072	TERRAPLEN	0.000	0.00	12.6	D_TIERRA	14.543	82.28	44807.3
	ARENA_1	0.354	2.10	1916.4	ARENA_2	1.120	6.63	5029.8
	RELLENO_ZANJA	9.818	54.32	22907.0	ARENA_3	2.385	14.11	9914.4
6040.000	TERRAPLEN	0.000	0.00	12.6	D_TIERRA	14.872	43.06	44850.3
	ARENA_1	0.354	1.04	1917.4	ARENA_2	1.120	3.28	5033.1
	RELLENO_ZANJA	10.147	29.23	22936.2	ARENA_3	2.385	6.98	9921.4
6043.238	TERRAPLEN	0.000	0.00	12.6	D_TIERRA	15.568	49.28	44899.6
	ARENA_1	0.354	1.15	1918.6	ARENA_2	1.120	3.63	5036.7
	RELLENO_ZANJA	10.843	33.98	22970.2	ARENA_3	2.385	7.72	9929.2
6060.000	TERRAPLEN	0.000	0.00	12.6	D_TIERRA	15.508	260.45	45160.1
	ARENA_1	0.354	5.94	1924.5	ARENA_2	1.120	18.77	5055.5
	RELLENO_ZANJA	10.783	181.25	23151.5	ARENA_3	2.385	39.98	9969.1
6061.459	TERRAPLEN	0.000	0.00	12.6	D_TIERRA	15.520	22.64	45182.7
	ARENA_1	0.354	0.52	1925.0	ARENA_2	1.120	1.63	5057.1
	RELLENO_ZANJA	10.795	15.74	23167.2	ARENA_3	2.385	3.48	9972.6
6080.000	TERRAPLEN	0.000	0.00	12.6	D_TIERRA	11.184	247.56	45430.3
	ARENA_1	0.354	6.57	1931.6	ARENA_2	1.120	20.76	5077.9
	RELLENO_ZANJA	6.459	159.96	23327.2	ARENA_3	2.385	44.22	10016.8
6100.000	TERRAPLEN	0.000	0.00	12.6	D_TIERRA	9.941	211.25	45641.5
	ARENA_1	0.354	7.09	1938.7	ARENA_2	1.120	22.39	5100.3
	RELLENO_ZANJA	5.216	116.75	23443.9	ARENA_3	2.385	47.70	10064.5
6101.050	TERRAPLEN	0.000	0.00	12.6	D_TIERRA	10.003	10.47	45652.0
	ARENA_1	0.354	0.37	1939.1	ARENA_2	1.120	1.18	5101.5
	RELLENO_ZANJA	5.278	5.51	23449.4	ARENA_3	2.385	2.50	10067.0
6120.000	TERRAPLEN	0.000	0.00	12.6	D_TIERRA	9.191	181.87	45833.9
	ARENA_1	0.354	6.72	1945.8	ARENA_2	1.120	21.22	5122.7
	RELLENO_ZANJA	4.467	92.33	23541.8	ARENA_3	2.385	45.20	10112.2
6140.000	TERRAPLEN	0.000	0.00	12.6	D_TIERRA	9.380	185.71	46019.6
	ARENA_1	0.354	7.09	1952.9	ARENA_2	1.120	22.39	5145.1
	RELLENO_ZANJA	4.655	91.21	23633.0	ARENA_3	2.385	47.70	10159.9
6160.000	TERRAPLEN	0.000	0.00	12.6	D_TIERRA	11.309	206.89	46226.5
	ARENA_1	0.354	7.09	1960.0	ARENA_2	1.120	22.39	5167.5
	RELLENO_ZANJA	6.584	112.39	23745.4	ARENA_3	2.385	47.71	10207.6
6168.811	TERRAPLEN	0.000	0.00	12.6	D_TIERRA	12.279	0.00	46226.5
	ARENA_1	0.428	0.00	1960.0	ARENA_2	1.359	0.00	5167.5
	RELLENO_ZANJA	6.927	0.00	23745.4	ARENA_3	2.699	0.00	10207.6
6180.000	TERRAPLEN	0.000	0.00	12.6	D_TIERRA	12.234	137.13	46363.6
	ARENA_1	0.428	4.79	1964.7	ARENA_2	1.359	15.21	5182.7
	RELLENO_ZANJA	6.882	77.26	23822.6	ARENA_3	2.698	30.19	10237.8
6195.141	TERRAPLEN	0.000	0.00	12.6	D_TIERRA	10.861	174.84	46538.4
	ARENA_1	0.428	6.48	1971.2	ARENA_2	1.359	20.58	5203.3
	RELLENO_ZANJA	5.509	93.81	23916.4	ARENA_3	2.699	40.86	10278.7
6200.000	TERRAPLEN	0.000	0.00	12.6	D_TIERRA	10.911	52.89	46591.3
	ARENA_1	0.428	2.08	1973.3	ARENA_2	1.359	6.61	5209.9
	RELLENO_ZANJA	5.560	26.89	23943.3	ARENA_3	2.698	13.11	10291.8
6207.359	TERRAPLEN	0.000	0.00	12.6	D_TIERRA	201.459	781.42	47372.7
	ARENA_1	0.428	3.15	1976.5	ARENA_2	1.359	10.00	5219.9
	RELLENO_ZANJA	196.107	742.03	24685.4	ARENA_3	2.698	19.86	10311.7
6220.000	TERRAPLEN	0.000	0.00	12.6	D_TIERRA	140.112	2158.90	49531.6
	ARENA_1	0.428	5.41	1981.9	ARENA_2	1.359	17.18	5237.1
	RELLENO_ZANJA	134.761	2091.25	26776.6	ARENA_3	2.698	34.11	10345.8
6224.301	TERRAPLEN	0.000	0.00	12.6	D_TIERRA	49.234	407.19	49938.8
	ARENA_1	0.428	1.84	1983.7	ARENA_2	1.359	5.85	5242.9
	RELLENO_ZANJA	43.883	384.17	27160.8	ARENA_3	2.698	11.61	10357.4
6240.000	TERRAPLEN	0.000	0.00	12.6	D_TIERRA	10.712	470.55	50409.4
	ARENA_1	0.428	6.72	1990.4	ARENA_2	1.359	21.34	5264.2
	RELLENO_ZANJA	5.361	386.54	27547.3	ARENA_3	2.698	42.36	10399.7

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 * * * MEDICIONES DE LOS PERFILES TRANSVERSALES* * *
 * * * CAPAS DE FIRME * * *

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PERFIL	MATERIAL	AREA PERFIL	VOL. PARCIAL	VOL. ACUMUL.	MATERIAL	AREA PERFIL	VOL. PARCIAL	VOL. ACUMUL.
6260.000	TERRAPLEN	0.000	0.00	12.6	D TIERRA	10.641	213.53	50622.9
	ARENA_1	0.428	8.56	1999.0	ARENA_2	1.359	27.19	5291.4
	RELLENO_ZANJA	5.290	106.50	27653.8	ARENA_3	2.699	53.97	10453.7
6280.000	TERRAPLEN	0.000	0.00	12.6	D TIERRA	10.377	210.18	50833.1
	ARENA_1	0.428	8.56	2007.5	ARENA_2	1.359	27.19	5318.6
	RELLENO_ZANJA	5.026	103.16	27757.0	ARENA_3	2.698	53.97	10507.7
6300.000	TERRAPLEN	0.000	0.00	12.6	D TIERRA	10.365	207.43	51040.5
	ARENA_1	0.428	8.56	2016.1	ARENA_2	1.359	27.19	5345.8
	RELLENO_ZANJA	5.014	100.40	27857.4	ARENA_3	2.698	53.97	10561.6
6320.000	TERRAPLEN	0.000	0.00	12.6	D TIERRA	10.417	207.82	51248.3
	ARENA_1	0.428	8.56	2024.7	ARENA_2	1.359	27.19	5373.0
	RELLENO_ZANJA	5.065	100.79	27958.2	ARENA_3	2.698	53.97	10615.6
6325.129	TERRAPLEN	0.000	0.00	12.6	D TIERRA	10.445	53.50	51301.8
	ARENA_1	0.428	2.19	2026.8	ARENA_2	1.359	6.97	5380.0
	RELLENO_ZANJA	5.093	26.05	27984.2	ARENA_3	2.698	13.84	10629.5
6330.221	TERRAPLEN	0.000	0.00	12.6	D TIERRA	10.931	54.42	51356.2
	ARENA_1	0.428	2.18	2029.0	ARENA_2	1.359	6.92	5386.9
	RELLENO_ZANJA	5.580	27.17	28011.4	ARENA_3	2.698	13.74	10643.2
6335.400	TERRAPLEN	0.000	0.00	12.6	D TIERRA	12.181	59.85	51416.1
	ARENA_1	0.428	2.22	2031.2	ARENA_2	1.359	7.04	5393.9
	RELLENO_ZANJA	6.830	32.13	28043.5	ARENA_3	2.698	13.98	10657.2
6340.000	TERRAPLEN	0.000	0.00	12.6	D TIERRA	12.096	55.84	51471.9
	ARENA_1	0.428	1.97	2033.2	ARENA_2	1.359	6.25	5400.2
	RELLENO_ZANJA	6.745	31.22	28074.8	ARENA_3	2.698	12.41	10669.6
6342.133	TERRAPLEN	0.000	0.00	12.6	D TIERRA	11.497	25.16	51497.1
	ARENA_1	0.428	0.91	2034.1	ARENA_2	1.359	2.90	5403.1
	RELLENO_ZANJA	6.146	13.75	28088.5	ARENA_3	2.698	5.76	10675.3
6346.735	TERRAPLEN	0.000	0.00	12.6	D TIERRA	11.353	52.58	51549.7
	ARENA_1	0.428	1.97	2036.1	ARENA_2	1.360	6.26	5409.3
	RELLENO_ZANJA	6.002	27.95	28116.5	ARENA_3	2.697	12.41	10687.8
6352.630	TERRAPLEN	0.000	0.00	12.6	D TIERRA	16.122	80.98	51630.7
	ARENA_1	0.428	2.52	2038.6	ARENA_2	1.360	8.02	5417.4
	RELLENO_ZANJA	10.771	49.44	28165.9	ARENA_3	2.697	15.90	10703.6
6360.000	TERRAPLEN	0.000	0.00	12.6	D TIERRA	22.071	140.74	51771.4
	ARENA_1	0.428	3.15	2041.8	ARENA_2	1.360	10.02	5427.4
	RELLENO_ZANJA	16.719	101.30	28267.2	ARENA_3	2.697	19.88	10723.5
6361.198	TERRAPLEN	0.000	0.00	12.6	D TIERRA	23.234	27.14	51798.5
	ARENA_1	0.428	0.51	2042.3	ARENA_2	1.360	1.63	5429.0
	RELLENO_ZANJA	17.883	20.73	28287.9	ARENA_3	2.697	3.23	10726.8
6372.414	TERRAPLEN	0.000	0.00	12.6	D TIERRA	32.046	310.01	52108.5
	ARENA_1	0.428	4.80	2047.1	ARENA_2	1.360	15.25	5444.3
	RELLENO_ZANJA	26.694	249.99	28537.9	ARENA_3	2.697	30.25	10757.0
6376.426	TERRAPLEN	0.000	0.00	12.6	D TIERRA	32.963	130.41	52239.0
	ARENA_1	0.428	1.72	2048.8	ARENA_2	1.360	5.45	5449.7
	RELLENO_ZANJA	27.612	108.94	28646.9	ARENA_3	2.697	10.82	10767.8
6380.000	TERRAPLEN	0.000	0.00	12.6	D TIERRA	36.732	124.54	52363.5
	ARENA_1	0.428	1.53	2050.3	ARENA_2	1.360	4.86	5454.6
	RELLENO_ZANJA	31.381	105.42	28752.3	ARENA_3	2.697	9.64	10777.5
6391.278	TERRAPLEN	0.000	0.00	12.6	D TIERRA	29.446	373.18	52736.7
	ARENA_1	0.428	4.82	2055.2	ARENA_2	1.359	15.33	5469.9
	RELLENO_ZANJA	24.094	312.82	29065.1	ARENA_3	2.699	30.42	10807.9
6400.000	TERRAPLEN	0.000	0.00	12.6	D TIERRA	19.039	211.44	52948.1
	ARENA_1	0.428	3.73	2058.9	ARENA_2	1.359	11.86	5481.8
	RELLENO_ZANJA	13.687	164.77	29229.9	ARENA_3	2.699	23.54	10831.4
6420.000	TERRAPLEN	0.000	0.00	12.6	D TIERRA	24.786	438.24	53386.4
	ARENA_1	0.428	8.56	2067.4	ARENA_2	1.359	27.19	5508.9
	RELLENO_ZANJA	19.434	331.22	29561.1	ARENA_3	2.699	53.97	10885.4
6440.000	TERRAPLEN	0.000	0.00	12.6	D TIERRA	10.419	352.05	53738.4
	ARENA_1	0.427	8.55	2076.0	ARENA_2	1.361	27.20	5536.1
	RELLENO_ZANJA	5.068	245.02	29806.1	ARENA_3	2.692	53.90	10939.3

PERFIL	MATERIAL	AREA PERFIL	VOL. PARCIAL	VOL. ACUMUL.	MATERIAL	AREA PERFIL	VOL. PARCIAL	VOL. ACUMUL.
6460.000	TERRAPLEN	0.000	0.00	12.6	D TIERRA	11.190	216.09	53954.5
	ARENA_1	0.426	8.54	2084.5	ARENA_2	1.363	27.24	5563.4
	RELLENO_ZANJA	5.839	109.07	29915.2	ARENA_3	2.673	53.65	10992.9
6480.000	TERRAPLEN	0.000	0.00	12.6	D TIERRA	14.930	0.00	53954.5
	ARENA_1	0.556	0.00	2084.5	ARENA_2	1.797	0.00	5563.4
	RELLENO_ZANJA	8.450	0.00	29915.2	ARENA_3	3.186	0.00	10992.9
6494.376	TERRAPLEN	0.000	0.00	12.6	D TIERRA	13.265	202.67	54157.2
	ARENA_1	0.560	8.02	2092.5	ARENA_2	1.794	25.81	5589.2
	RELLENO_ZANJA	6.785	109.51	30024.7	ARENA_3	3.233	46.14	11039.1
6500.000	TERRAPLEN	0.000	0.00	12.6	D TIERRA	14.038	76.78	54233.9
	ARENA_1	0.560	3.15	2095.7	ARENA_2	1.794	10.09	5599.3
	RELLENO_ZANJA	7.558	40.33	30065.0	ARENA_3	3.233	18.18	11057.3
6520.000	TERRAPLEN	0.000	0.00	12.6	D TIERRA	11.752	257.90	54491.8
	ARENA_1	0.558	11.18	2106.9	ARENA_2	1.796	35.89	5635.2
	RELLENO_ZANJA	5.272	128.30	30193.3	ARENA_3	3.213	64.46	11121.7
6539.103	TERRAPLEN	0.000	0.00	12.6	D TIERRA	18.708	290.93	54782.8
	ARENA_1	0.561	10.69	2117.6	ARENA_2	1.791	34.26	5669.4
	RELLENO_ZANJA	12.228	167.15	30360.5	ARENA_3	3.252	61.76	11183.5
6540.000	TERRAPLEN	0.000	0.00	12.6	D TIERRA	22.324	18.40	54801.2
	ARENA_1	0.561	0.50	2118.1	ARENA_2	1.791	1.61	5671.0
	RELLENO_ZANJA	15.844	12.59	30373.0	ARENA_3	3.252	2.92	11186.4
6546.887	TERRAPLEN	0.000	0.00	12.6	D TIERRA	24.921	162.69	54963.9
	ARENA_1	0.562	3.87	2121.9	ARENA_2	1.790	12.33	5683.4
	RELLENO_ZANJA	18.441	118.06	30491.1	ARENA_3	3.260	22.43	11208.8
6552.764	TERRAPLEN	0.000	0.00	12.6	D TIERRA	24.962	146.58	55110.4
	ARENA_1	0.562	3.30	2125.2	ARENA_2	1.790	10.52	5693.9
	RELLENO_ZANJA	18.482	108.50	30599.6	ARENA_3	3.260	19.16	11228.0
6560.000	TERRAPLEN	0.000	0.00	12.6	D TIERRA	26.449	186.01	55296.4
	ARENA_1	0.562	4.07	2129.3	ARENA_2	1.790	12.95	5706.8
	RELLENO_ZANJA	19.970	139.12	30738.7	ARENA_3	3.260	23.59	11251.6
6561.003	TERRAPLEN	0.000	0.00	12.6	D TIERRA	21.563	24.08	55320.5
	ARENA_1	0.561	0.56	2129.9	ARENA_2	1.791	1.80	5708.6
	RELLENO_ZANJA	15.083	17.58	30756.3	ARENA_3	3.255	3.27	11254.8
6580.000	TERRAPLEN	0.000	0.00	12.6	D TIERRA	21.632	410.28	55730.8
	ARENA_1	0.561	10.67	2140.5	ARENA_2	1.791	34.02	5742.7
	RELLENO_ZANJA	15.152	287.18	31043.5	ARENA_3	3.255	61.83	11316.7
6600.000	TERRAPLEN	4.927	49.27	61.9	D TIERRA	2.459	240.91	55971.7
	ARENA_1	0.562	11.24	2151.8	ARENA_2	1.789	35.80	5778.5
	RELLENO_ZANJA	0.879	160.31	31203.8	ARENA_3	3.263	65.17	11381.8
6620.000	TERRAPLEN	0.133	0.00	61.9	D TIERRA	9.304	0.00	55971.7
	ARENA_1	0.543	0.00	2151.8	ARENA_2	1.467	0.00	5778.5
	RELLENO_ZANJA	4.857	0.00	31203.8	ARENA_3	2.238	0.00	11381.8
6640.000	TERRAPLEN	0.096	2.29	64.1	D TIERRA	7.874	171.77	56143.5
	ARENA_1	0.542	10.85	2162.6	ARENA_2	1.469	29.36	5807.8
	RELLENO_ZANJA	3.480	83.37	31287.2	ARENA_3	2.228	44.66	11426.5
6660.000	TERRAPLEN	0.000	0.96	65.1	D TIERRA	10.937	188.11	56331.6
	ARENA_1	0.542	10.84	2173.5	ARENA_2	1.469	29.38	5837.2
	RELLENO_ZANJA	5.824	93.04	31380.2	ARENA_3	2.228	44.56	11471.1
6680.000	TERRAPLEN	0.000	0.00	65.1	D TIERRA	15.970	269.08	56600.7
	ARENA_1	0.542	10.84	2184.3	ARENA_2	1.469	29.38	5866.6
	RELLENO_ZANJA	10.857	166.80	31547.0	ARENA_3	2.231	44.60	11515.7
6700.000	TERRAPLEN	0.000	0.00	65.1	D TIERRA	9.293	252.63	56853.3
	ARENA_1	0.542	10.84	2195.1	ARENA_2	1.469	29.37	5896.0
	RELLENO_ZANJA	4.179	150.36	31697.4	ARENA_3	2.231	44.63	11560.3
6720.000	TERRAPLEN	0.000	0.00	65.1	D TIERRA	8.619	179.12	57032.4
	ARENA_1	0.542	10.84	2206.0	ARENA_2	1.469	29.38	5925.3
	RELLENO_ZANJA	3.506	76.85	31774.2	ARENA_3	2.231	44.63	11604.9
6731.566	TERRAPLEN	0.000	0.00	65.1	D TIERRA	8.688	100.09	57132.5
	ARENA_1	0.542	6.27	2212.2	ARENA_2	1.469	16.99	5942.3
	RELLENO_ZANJA	3.574	40.94	31815.2	ARENA_3	2.232	25.81	11630.7

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 PROYECTO : CIDACOS COMPLETO
 EJE : 1: AZUD - ETAP PRINCIPAL

Istram 9.04 20/05/20 12:18:12

 PROYECTO : CIDACOS COMPLETO
 EJE : 1: AZUD - ETAP PRINCIPAL

 * * * MEDICIONES DE LOS PERFILES TRANSVERSALES* * *
 * * * CAPAS DE FIRME * * *

 * * * RESUMEN DE VOLUMENES TOTALES * * *

PERFIL	MATERIAL	AREA PERFIL	VOL. PARCIAL	VOL. ACUMUL.	MATERIAL	AREA PERFIL	VOL. PARCIAL	VOL. ACUMUL.
6740.000	TERRAPLEN	0.000	0.00	65.1	D TIERRA	12.319	88.58	57221.1
	ARENA_1	0.542	4.57	2216.8	ARENA_2	1.469	12.39	5954.7
	RELLENO_ZANJA	7.205	45.46	31860.6	ARENA_3	2.232	18.82	11649.6
6760.000	TERRAPLEN	0.000	0.00	65.1	D TIERRA	12.322	246.40	57467.5
	ARENA_1	0.542	10.84	2227.7	ARENA_2	1.469	29.37	5984.1
	RELLENO_ZANJA	7.208	144.13	32004.7	ARENA_3	2.232	44.64	11694.2
6780.000	TERRAPLEN	0.000	0.00	65.1	D TIERRA	11.003	233.25	57700.7
	ARENA_1	0.542	10.84	2238.5	ARENA_2	1.469	29.37	6013.5
	RELLENO_ZANJA	5.889	130.97	32135.7	ARENA_3	2.232	44.64	11738.8
6799.150	TERRAPLEN	0.000	0.00	65.1	D TIERRA	8.693	188.59	57889.3
	ARENA_1	0.542	10.38	2248.9	ARENA_2	1.468	28.12	6041.6
	RELLENO_ZANJA	3.579	90.66	32226.4	ARENA_3	2.235	42.77	11781.6
6800.000	TERRAPLEN	0.000	0.00	65.1	D TIERRA	8.542	7.32	57896.7
	ARENA_1	0.542	0.46	2249.3	ARENA_2	1.468	1.25	6042.8
	RELLENO_ZANJA	3.428	2.98	32229.3	ARENA_3	2.235	1.90	11783.5
6820.000	TERRAPLEN	0.000	0.00	65.1	D TIERRA	10.902	194.44	58091.1
	ARENA_1	0.542	10.85	2260.2	ARENA_2	1.468	29.36	6072.2
	RELLENO_ZANJA	5.788	92.16	32321.5	ARENA_3	2.235	44.70	11828.2
6820.015	TERRAPLEN	0.000	0.00	65.1	D TIERRA	10.833	0.16	58091.3
	ARENA_1	0.542	0.01	2260.2	ARENA_2	1.468	0.02	6072.2
	RELLENO_ZANJA	5.719	0.09	32321.6	ARENA_3	2.235	0.03	11828.2
6827.620	TERRAPLEN	0.000	0.00	65.1	D TIERRA	8.448	73.32	58164.6
	ARENA_1	0.542	4.12	2264.3	ARENA_2	1.468	11.16	6083.4
	RELLENO_ZANJA	3.335	34.43	32356.0	ARENA_3	2.235	17.00	11845.2
6832.806	TERRAPLEN	0.000	0.00	65.1	D TIERRA	9.852	47.45	58212.0
	ARENA_1	0.543	2.81	2267.1	ARENA_2	1.467	7.61	6091.0
	RELLENO_ZANJA	4.738	20.93	32377.0	ARENA_3	2.237	11.60	11856.8
6840.000	TERRAPLEN	0.000	0.00	65.1	D TIERRA	10.348	72.66	58284.7
	ARENA_1	0.542	3.90	2271.0	ARENA_2	1.468	10.56	6101.5
	RELLENO_ZANJA	5.235	35.87	32412.8	ARENA_3	2.237	16.10	11872.9
6860.000	TERRAPLEN	0.000	0.00	65.1	D TIERRA	8.759	191.07	58475.8
	ARENA_1	0.542	10.85	2281.9	ARENA_2	1.468	29.35	6130.9
	RELLENO_ZANJA	3.645	88.80	32501.6	ARENA_3	2.237	44.75	11917.7
6880.000	TERRAPLEN	0.000	0.00	65.1	D TIERRA	8.780	175.39	58651.1
	ARENA_1	0.542	10.85	2292.7	ARENA_2	1.468	29.35	6160.2
	RELLENO_ZANJA	3.668	73.13	32574.8	ARENA_3	2.237	44.75	11962.4
6899.647	TERRAPLEN	0.000	0.00	65.1	D TIERRA	8.796	172.66	58823.8
	ARENA_1	0.542	10.66	2303.4	ARENA_2	1.468	28.84	6189.1
	RELLENO_ZANJA	3.682	72.20	32647.0	ARENA_3	2.233	43.91	12006.3
6900.000	TERRAPLEN	0.000	0.00	65.1	D TIERRA	8.697	3.09	58826.9
	ARENA_1	0.542	0.19	2303.6	ARENA_2	1.468	0.52	6189.6
	RELLENO_ZANJA	3.583	1.28	32648.2	ARENA_3	2.233	0.79	12007.1
6920.000	TERRAPLEN	0.000	0.00	65.1	D TIERRA	8.704	174.01	59000.9
	ARENA_1	0.542	10.85	2314.4	ARENA_2	1.468	29.36	6219.0
	RELLENO_ZANJA	3.590	71.73	32720.0	ARENA_3	2.238	44.71	12051.8
6920.000	TERRAPLEN	0.000	0.00	65.1	D TIERRA	4.670	0.00	59000.9
	ARENA_1	0.250	0.00	2314.4	ARENA_2	0.511	0.00	6219.0
	RELLENO_ZANJA	2.053	0.00	32720.0	ARENA_3	0.989	0.00	12051.8
6936.602	TERRAPLEN	0.000	0.00	65.1	D TIERRA	4.759	78.27	59079.2
	ARENA_1	0.250	4.15	2318.6	ARENA_2	0.511	8.49	6227.4
	RELLENO_ZANJA	2.143	34.83	32754.8	ARENA_3	0.989	16.42	12068.3
6938.656	TERRAPLEN	0.000	0.00	65.1	D TIERRA	5.025	10.05	59089.2
	ARENA_1	0.250	0.51	2319.1	ARENA_2	0.511	1.05	6228.5
	RELLENO_ZANJA	2.409	4.67	32759.5	ARENA_3	0.989	2.03	12070.3

MATERIAL	VOLUMEN
TERRAPLEN	65.1
D TIERRA	59089.2
ARENA_1	2319.1
ARENA_2	6228.5
RELLENO_ZANJA	32759.5
ARENA_3	12070.3



2. EJE 2: ETAP PRINCIPAL – P070 (ARNEDILLO)

Istram 9.04 12/05/20 11:16:24
 PROYECTO : CIDACOS COMPLETO
 EJE : 2: ETAP PRINCIPAL - ARNEDILLO (P070)

Istram 9.04 12/05/20 11:16:24
 PROYECTO : CIDACOS COMPLETO
 EJE : 2: ETAP PRINCIPAL - ARNEDILLO (P070)

*** MEDICIONES DE LOS PERFILES TRANSVERSALES***
 *** CAPAS DE FIRME ***

*** MEDICIONES DE LOS PERFILES TRANSVERSALES***
 *** CAPAS DE FIRME ***

PERFIL	MATERIAL	AREA PERFIL	VOL. PARCIAL	VOL. ACUMUL.	MATERIAL	AREA PERFIL	VOL. PARCIAL	VOL. ACUMUL.
5440.000	D TIERRA	1.154	0.00	0.0	ARENA_1	0.116	0.00	0.0
	ARENA_2	0.054	0.00	0.0	RELLENO_ZANJA	0.780	0.00	0.0
	ARENA_3	0.181	0.00	0.0				
5440.034	D TIERRA	1.157	0.04	0.0	ARENA_1	0.116	0.00	0.0
	ARENA_2	0.054	0.00	0.0	RELLENO_ZANJA	0.783	0.03	0.0
	ARENA_3	0.181	0.01	0.0				
5455.841	D TIERRA	1.211	18.72	18.8	ARENA_1	0.116	1.83	1.8
	ARENA_2	0.054	0.86	0.9	RELLENO_ZANJA	0.836	12.80	12.8
	ARENA_3	0.181	2.86	2.9				
5460.000	D TIERRA	1.199	5.01	23.8	ARENA_1	0.116	0.48	2.3
	ARENA_2	0.054	0.23	1.1	RELLENO_ZANJA	0.824	3.45	16.3
	ARENA_3	0.181	0.75	3.6				
5463.014	D TIERRA	1.154	3.55	27.3	ARENA_1	0.116	0.35	2.7
	ARENA_2	0.054	0.16	1.3	RELLENO_ZANJA	0.780	2.42	18.7
	ARENA_3	0.181	0.54	4.2				
5474.465	D TIERRA	1.344	14.30	41.6	ARENA_1	0.116	1.33	4.0
	ARENA_2	0.054	0.62	1.9	RELLENO_ZANJA	0.969	10.01	28.7
	ARENA_3	0.181	2.07	6.2				
5480.000	D TIERRA	1.154	6.91	48.5	ARENA_1	0.116	0.64	4.6
	ARENA_2	0.054	0.30	2.2	RELLENO_ZANJA	0.780	4.84	33.5
	ARENA_3	0.181	1.00	7.2				
5480.147	D TIERRA	1.146	0.17	48.7	ARENA_1	0.116	0.02	4.7
	ARENA_2	0.054	0.01	2.2	RELLENO_ZANJA	0.771	0.11	33.7
	ARENA_3	0.181	0.03	7.3				
5488.165	D TIERRA	1.154	9.22	57.9	ARENA_1	0.116	0.93	5.6
	ARENA_2	0.054	0.43	2.6	RELLENO_ZANJA	0.780	6.22	39.9
	ARENA_3	0.181	1.45	8.7				
5500.000	D TIERRA	1.156	13.67	71.6	ARENA_1	0.116	1.37	7.0
	ARENA_2	0.054	0.64	3.3	RELLENO_ZANJA	0.782	9.24	49.1
	ARENA_3	0.181	2.14	10.9				
5508.807	D TIERRA	1.174	10.26	81.9	ARENA_1	0.116	1.02	8.0
	ARENA_2	0.054	0.48	3.7	RELLENO_ZANJA	0.799	6.96	56.1
	ARENA_3	0.181	1.59	12.5				
5520.000	D TIERRA	1.256	13.60	95.5	ARENA_1	0.116	1.30	9.3
	ARENA_2	0.054	0.61	4.3	RELLENO_ZANJA	0.882	9.41	65.5
	ARENA_3	0.181	2.03	14.5				
5521.307	D TIERRA	1.154	1.58	97.0	ARENA_1	0.116	0.15	9.4
	ARENA_2	0.054	0.07	4.4	RELLENO_ZANJA	0.780	1.09	66.6
	ARENA_3	0.181	0.24	14.7				
5531.817	D TIERRA	0.000	0.00	97.0	ARENA_1	0.000	0.00	9.4
	ARENA_2	0.000	0.00	4.4	RELLENO_ZANJA	0.000	0.00	66.6
	ARENA_3	0.000	0.00	14.7				
5540.000	D TIERRA	1.247	0.00	97.0	ARENA_1	0.116	0.00	9.4
	ARENA_2	0.054	0.00	4.4	RELLENO_ZANJA	0.872	0.00	66.6
	ARENA_3	0.181	0.00	14.7				
5553.841	D TIERRA	1.251	17.29	114.3	ARENA_1	0.116	1.61	11.0
	ARENA_2	0.054	0.75	5.2	RELLENO_ZANJA	0.877	12.11	78.7
	ARENA_3	0.181	2.51	17.2				
5560.000	D TIERRA	1.170	7.46	121.8	ARENA_1	0.116	0.72	11.8
	ARENA_2	0.054	0.33	5.5	RELLENO_ZANJA	0.796	5.15	83.8
	ARENA_3	0.181	1.12	18.3				
5580.000	D TIERRA	1.149	23.19	145.0	ARENA_1	0.116	2.32	14.1
	ARENA_2	0.054	1.08	6.6	RELLENO_ZANJA	0.774	15.70	99.5
	ARENA_3	0.181	3.63	22.0				
5582.596	D TIERRA	1.154	2.99	148.0	ARENA_1	0.116	0.30	14.4
	ARENA_2	0.054	0.14	6.7	RELLENO_ZANJA	0.780	2.02	101.5
	ARENA_3	0.181	0.47	22.4				

PERFIL	MATERIAL	AREA PERFIL	VOL. PARCIAL	VOL. ACUMUL.	MATERIAL	AREA PERFIL	VOL. PARCIAL	VOL. ACUMUL.
5600.000	D TIERRA	1.154	20.09	168.0	ARENA_1	0.116	2.02	16.4
	ARENA_2	0.054	0.94	7.7	RELLENO_ZANJA	0.780	13.57	115.1
	ARENA_3	0.181	3.16	25.6				
5620.000	D TIERRA	1.154	23.08	191.1	ARENA_1	0.116	2.32	18.7
	ARENA_2	0.054	1.08	8.8	RELLENO_ZANJA	0.779	15.59	130.7
	ARENA_3	0.181	3.62	29.2				
5640.000	TERRAPLEN	0.003	0.03	0.0	D TIERRA	1.342	24.96	216.1
	ARENA_1	0.116	2.32	21.1	ARENA_2	0.054	1.08	9.8
	RELLENO_ZANJA	0.979	17.58	148.3	ARENA_3	0.181	3.62	32.9
5643.042	D TIERRA	2.324	5.58	221.7	ARENA_1	0.116	0.35	21.4
	ARENA_2	0.054	0.17	10.0	RELLENO_ZANJA	1.949	4.45	152.7
	ARENA_3	0.180	0.55	33.4				
5660.000	D TIERRA	1.176	29.67	251.3	ARENA_1	0.116	1.97	23.4
	ARENA_2	0.054	0.92	10.9	RELLENO_ZANJA	0.801	23.32	176.1
	ARENA_3	0.181	3.07	36.5				
5665.873	D TIERRA	1.136	6.79	258.1	ARENA_1	0.116	0.68	24.1
	ARENA_2	0.054	0.32	11.2	RELLENO_ZANJA	0.761	4.59	180.6
	ARENA_3	0.181	1.06	37.5				
5680.000	D TIERRA	1.217	16.62	274.7	ARENA_1	0.116	1.64	25.7
	ARENA_2	0.054	0.77	12.0	RELLENO_ZANJA	0.842	11.33	192.0
	ARENA_3	0.181	2.56	40.1				
5684.079	D TIERRA	1.138	4.80	279.5	ARENA_1	0.116	0.47	26.2
	ARENA_2	0.054	0.22	12.2	RELLENO_ZANJA	0.763	3.27	195.2
	ARENA_3	0.181	0.74	40.8				
5687.306	D TIERRA	1.288	3.91	283.5	ARENA_1	0.116	0.37	26.6
	ARENA_2	0.054	0.17	12.4	RELLENO_ZANJA	0.914	2.71	197.9
	ARENA_3	0.181	0.59	41.4				
5692.019	D TIERRA	1.360	6.24	289.7	ARENA_1	0.116	0.55	27.1
	ARENA_2	0.054	0.26	12.7	RELLENO_ZANJA	0.985	4.47	202.4
	ARENA_3	0.181	0.86	42.3				
5698.215	D TIERRA	1.379	8.48	298.2	ARENA_1	0.116	0.72	27.8
	ARENA_2	0.054	0.34	13.0	RELLENO_ZANJA	1.004	6.16	208.6
	ARENA_3	0.181	1.12	43.4				
5700.000	D TIERRA	1.354	2.44	300.6	ARENA_1	0.116	0.21	28.0
	ARENA_2	0.054	0.10	13.1	RELLENO_ZANJA	0.979	1.77	210.4
	ARENA_3	0.181	0.32	43.7				
5706.942	D TIERRA	1.429	9.66	310.3	ARENA_1	0.116	0.81	28.8
	ARENA_2	0.054	0.38	13.5	RELLENO_ZANJA	1.054	7.06	217.4
	ARENA_3	0.181	1.26	45.0				
5718.369	D TIERRA	1.155	14.76	325.0	ARENA_1	0.116	1.33	30.2
	ARENA_2	0.054	0.62	14.1	RELLENO_ZANJA	0.780	10.48	227.9
	ARENA_3	0.181	2.07	47.1				
5720.000	D TIERRA	1.184	1.91	326.9	ARENA_1	0.116	0.19	30.4
	ARENA_2	0.054	0.09	14.2	RELLENO_ZANJA	0.810	1.30	229.2
	ARENA_3	0.181	0.30	47.4				
5726.533	D TIERRA	1.154	7.64	334.6	ARENA_1	0.116	0.76	31.1
	ARENA_2	0.054	0.35	14.5	RELLENO_ZANJA	0.780	5.19	234.4
	ARENA_3	0.181	1.19	48.5				
5840.000	D TIERRA	1.582	0.00	334.6	ARENA_1	0.120	0.00	31.1
	ARENA_2	0.059	0.00	14.5	RELLENO_ZANJA	1.174	0.00	234.4
	ARENA_3	0.206	0.00	48.5				
5843.710	D TIERRA	1.438	5.60	340.2	ARENA_1	0.119	0.44	31.6
	ARENA_2	0.060	0.22	14.7	RELLENO_ZANJA	1.030	4.09	238.5
	ARENA_3	0.204	0.76	49.3				
5860.000	D TIERRA	1.348	22.69	362.9	ARENA_1	0.119	1.94	33.5
	ARENA_2	0.060	0.97	15.7	RELLENO_ZANJA	0.940	16.04	254.5
	ARENA_3	0.204	3.32	52.6				
5874.516	D TIERRA	1.413	20.04	382.9	ARENA_1	0.120	1.73	35.2
	ARENA_2	0.059	0.86	16.6	RELLENO_ZANJA	1.005	14.12	268.6
	ARENA_3	0.206	2.98	55.6				



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PROYECTO : CIDACOS COMPLETO
EJE : 2: ETAP PRINCIPAL - ARNEDILLO (P070)

*** RESUMEN DE VOLUMENES TOTALES ***

MATERIAL	VOLUMEN
TERRAPLEN	0.0
D_TIERRA	382.9
ARENA_1	35.2
ARENA_2	16.6
RELLENO_ZANJA	268.6
ARENA_3	55.6

3. EJE 3: ETAP PRINCIPAL – ACOMETIDA ARNEDO

Istram 9.04 15/09/21 13:28:55

PROYECTO : CIDACOS COMPLETO
EJE : 3: ETAP PRINCIPAL - ACOMETIDA DE ARNEDO

*** MEDICIONES DE LOS PERFILES TRANSVERSALES ***
*** CAPAS DE FIRME ***

PERFIL	MATERIAL	AREA PERFIL	VOL. PARCIAL	VOL. ACUMUL.	MATERIAL	AREA PERFIL	VOL. PARCIAL	VOL. ACUMUL.
0.000	TERRAPLEN	0.002	0.00	0.0	D_TIERRA	4.034	0.00	0.0
	ARENA_1	0.323	0.00	0.0	ARENA_2	0.643	0.00	0.0
	RELLENO_ZANJA	1.348	0.00	0.0	ARENA_3	1.043	0.00	0.0
20.000	TERRAPLEN	0.000	0.02	0.0	D_TIERRA	5.364	93.99	94.0
	ARENA_1	0.323	6.45	6.5	ARENA_2	0.643	12.86	12.9
	RELLENO_ZANJA	2.650	39.98	40.0	ARENA_3	1.043	20.86	20.9
23.280	D_TIERRA	5.772	18.26	112.2	ARENA_1	0.323	1.06	7.5
	ARENA_2	0.643	2.11	15.0	RELLENO_ZANJA	3.058	9.36	49.3
	ARENA_3	1.043	3.42	24.3				
33.959	D_TIERRA	5.984	62.77	175.0	ARENA_1	0.323	3.45	11.0
	ARENA_2	0.643	6.86	21.8	RELLENO_ZANJA	3.269	33.78	83.1
	ARENA_3	1.043	11.14	35.4				
477.002	D_TIERRA	29.521	0.00	175.0	ARENA_1	0.276	0.00	11.0
	ARENA_2	1.088	0.00	21.8	RELLENO_ZANJA	24.534	0.00	83.1
	ARENA_3	2.899	0.00	35.4				
480.000	D_TIERRA	21.414	76.35	251.4	ARENA_1	0.275	0.83	11.8
	ARENA_2	1.088	3.26	25.1	RELLENO_ZANJA	16.427	61.40	144.5
	ARENA_3	2.898	8.69	44.1				
480.449	D_TIERRA	21.193	9.57	260.9	ARENA_1	0.276	0.12	11.9
	ARENA_2	1.088	0.49	25.6	RELLENO_ZANJA	16.206	7.33	151.8
	ARENA_3	2.899	1.30	45.4				
484.044	D_TIERRA	20.913	75.69	336.6	ARENA_1	0.276	0.99	12.9
	ARENA_2	1.088	3.91	29.5	RELLENO_ZANJA	15.926	57.76	209.6
	ARENA_3	2.899	10.42	55.8				
496.485	D_TIERRA	0.000	0.00	336.6	ARENA_1	0.000	0.00	12.9
	ARENA_2	0.000	0.00	29.5	RELLENO_ZANJA	0.000	0.00	209.6
	ARENA_3	0.000	0.00	55.8				
500.000	D_TIERRA	0.000	0.00	336.6	ARENA_1	0.000	0.00	12.9
	ARENA_2	0.000	0.00	29.5	RELLENO_ZANJA	0.000	0.00	209.6
	ARENA_3	0.000	0.00	55.8				
520.000	D_TIERRA	10.571	0.00	336.6	ARENA_1	0.276	0.00	12.9
	ARENA_2	1.087	0.00	29.5	RELLENO_ZANJA	5.585	0.00	209.6
	ARENA_3	2.909	0.00	55.8				
534.769	D_TIERRA	11.735	164.72	501.3	ARENA_1	0.277	4.08	17.0
	ARENA_2	1.085	16.04	45.5	RELLENO_ZANJA	6.748	91.07	300.7
	ARENA_3	2.919	43.04	98.9				
540.000	D_TIERRA	11.774	61.49	562.8	ARENA_1	0.277	1.45	18.4
	ARENA_2	1.085	5.68	51.2	RELLENO_ZANJA	6.787	35.40	336.1
	ARENA_3	2.919	15.27	114.1				
560.000	D_TIERRA	12.340	241.13	804.0	ARENA_1	0.277	5.53	24.0
	ARENA_2	1.085	21.71	72.9	RELLENO_ZANJA	7.352	141.39	477.5
	ARENA_3	2.919	58.38	172.5				
580.000	D_TIERRA	12.410	247.49	1051.5	ARENA_1	0.277	5.53	29.5
	ARENA_2	1.085	21.71	94.6	RELLENO_ZANJA	7.423	147.75	625.2
	ARENA_3	2.919	58.39	230.9				
592.085	D_TIERRA	12.286	149.22	1200.7	ARENA_1	0.277	3.34	32.8
	ARENA_2	1.085	13.12	107.7	RELLENO_ZANJA	7.299	88.96	714.2
	ARENA_3	2.919	35.28	266.2				
600.000	D_TIERRA	12.415	97.75	1298.4	ARENA_1	0.277	2.19	35.0
	ARENA_2	1.085	8.59	116.3	RELLENO_ZANJA	7.428	58.28	772.5
	ARENA_3	2.919	23.11	289.3				
619.930	D_TIERRA	14.662	269.82	1568.3	ARENA_1	0.277	5.52	40.5
	ARENA_2	1.085	21.63	138.0	RELLENO_ZANJA	9.675	170.43	942.9
	ARENA_3	2.919	58.18	347.5				
620.000	D_TIERRA	14.650	1.03	1569.3	ARENA_1	0.277	0.02	40.6
	ARENA_2	1.085	0.08	138.0	RELLENO_ZANJA	9.662	0.68	943.6
	ARENA_3	2.919	0.20	347.7				



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PROYECTO : CIDACOS COMPLETO
EJE : 3: ETAP PRINCIPAL - ACOMETIDA DE ARNEDO

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PROYECTO : CIDACOS COMPLETO
EJE : 3: ETAP PRINCIPAL - ACOMETIDA DE ARNEDO

*** MEDICIONES DE LOS PERFILES TRANSVERSALES***
*** CAPAS DE FIRME ***

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*** CAPAS DE FIRME ***

PERFIL	MATERIAL	AREA PERFIL	VOL. PARCIAL	VOL. ACUMUL.	MATERIAL	AREA PERFIL	VOL. PARCIAL	VOL. ACUMUL.
629.930	D TIERRA	12.098	132.80	1702.1	ARENA_1	0.277	2.75	43.3
	ARENA_2	1.085	10.78	148.8	RELLENO_ZANJA	7.112	83.28	1026.9
	ARENA_3	2.919	28.99	376.7				
640.000	D TIERRA	12.158	122.13	1824.2	ARENA_1	0.277	2.79	46.1
	ARENA_2	1.085	10.93	159.7	RELLENO_ZANJA	7.171	71.91	1098.8
	ARENA_3	2.919	29.40	406.1				
653.632	D TIERRA	13.660	175.98	2000.2	ARENA_1	0.277	3.77	49.9
	ARENA_2	1.085	14.80	174.5	RELLENO_ZANJA	8.673	107.99	1206.8
	ARENA_3	2.919	39.80	445.9				
660.000	D TIERRA	14.247	88.86	2089.1	ARENA_1	0.277	1.76	51.6
	ARENA_2	1.085	6.91	181.5	RELLENO_ZANJA	9.260	57.10	1263.9
	ARENA_3	2.919	18.59	464.5				
680.000	D TIERRA	12.625	268.72	2357.8	ARENA_1	0.277	5.53	57.2
	ARENA_2	1.085	21.71	203.2	RELLENO_ZANJA	7.638	168.98	1432.8
	ARENA_3	2.919	58.38	522.8				
700.000	D TIERRA	12.351	249.76	2607.5	ARENA_1	0.277	5.53	62.7
	ARENA_2	1.085	21.71	224.9	RELLENO_ZANJA	7.364	150.02	1582.9
	ARENA_3	2.919	58.39	581.2				
720.000	D TIERRA	11.799	241.50	2849.0	ARENA_1	0.277	5.53	68.2
	ARENA_2	1.085	21.71	246.6	RELLENO_ZANJA	6.812	141.76	1724.6
	ARENA_3	2.919	58.39	639.6				
740.000	D TIERRA	12.312	241.10	3090.1	ARENA_1	0.277	5.53	73.8
	ARENA_2	1.085	21.71	268.3	RELLENO_ZANJA	7.325	141.36	1866.0
	ARENA_3	2.919	58.39	698.0				
760.000	D TIERRA	12.090	244.02	3334.1	ARENA_1	0.277	5.53	79.3
	ARENA_2	1.085	21.71	290.0	RELLENO_ZANJA	7.103	144.28	2010.3
	ARENA_3	2.919	58.39	756.4				
780.000	D TIERRA	15.097	0.00	3334.1	ARENA_1	0.465	0.00	79.3
	ARENA_2	1.350	0.00	290.0	RELLENO_ZANJA	10.752	0.00	2010.3
	ARENA_3	1.824	0.00	756.4				
800.000	D TIERRA	12.590	276.87	3611.0	ARENA_1	0.465	9.30	88.6
	ARENA_2	1.350	27.00	317.0	RELLENO_ZANJA	8.245	189.97	2200.2
	ARENA_3	1.824	36.48	792.9				
820.000	D TIERRA	12.243	248.33	3859.4	ARENA_1	0.465	9.30	97.9
	ARENA_2	1.350	27.00	344.0	RELLENO_ZANJA	7.899	161.44	2361.7
	ARENA_3	1.824	36.48	829.4				
840.000	D TIERRA	12.672	249.16	4108.5	ARENA_1	0.465	9.30	107.2
	ARENA_2	1.350	27.00	371.0	RELLENO_ZANJA	8.327	162.26	2523.9
	ARENA_3	1.824	36.48	865.8				
860.000	D TIERRA	14.076	267.48	4376.0	ARENA_1	0.465	9.30	116.5
	ARENA_2	1.350	27.00	398.0	RELLENO_ZANJA	9.731	180.58	2704.5
	ARENA_3	1.824	36.48	902.3				
880.000	D TIERRA	13.834	279.10	4655.1	ARENA_1	0.465	9.30	125.8
	ARENA_2	1.350	27.00	425.0	RELLENO_ZANJA	9.489	192.20	2896.7
	ARENA_3	1.824	36.48	938.8				
900.000	D TIERRA	13.609	274.43	4929.5	ARENA_1	0.465	9.30	135.1
	ARENA_2	1.350	27.00	452.0	RELLENO_ZANJA	9.264	187.53	3084.2
	ARENA_3	1.824	36.48	975.3				
920.000	D TIERRA	24.138	377.47	5307.0	ARENA_1	0.465	9.30	144.4
	ARENA_2	1.350	27.00	479.0	RELLENO_ZANJA	19.793	290.57	3374.8
	ARENA_3	1.824	36.48	1011.8				
940.000	D TIERRA	14.923	390.60	5697.6	ARENA_1	0.465	9.30	153.7
	ARENA_2	1.350	27.00	506.0	RELLENO_ZANJA	10.578	303.71	3678.5
	ARENA_3	1.824	36.48	1048.3				
960.000	D TIERRA	15.595	305.17	6002.8	ARENA_1	0.465	9.30	163.0
	ARENA_2	1.350	27.00	533.0	RELLENO_ZANJA	11.250	218.27	3896.8
	ARENA_3	1.824	36.48	1084.7				
980.000	D TIERRA	15.938	315.33	6318.1	ARENA_1	0.465	9.30	172.3
	ARENA_2	1.350	27.00	560.0	RELLENO_ZANJA	11.593	228.43	4125.2
	ARENA_3	1.824	36.48	1121.2				

PERFIL	MATERIAL	AREA PERFIL	VOL. PARCIAL	VOL. ACUMUL.	MATERIAL	AREA PERFIL	VOL. PARCIAL	VOL. ACUMUL.
1000.000	D TIERRA	16.160	320.98	6639.1	ARENA_1	0.465	9.30	181.6
	ARENA_2	1.350	27.00	587.0	RELLENO_ZANJA	11.815	234.08	4359.3
	ARENA_3	1.824	36.48	1157.7				
1013.607	D TIERRA	15.890	218.05	6857.1	ARENA_1	0.465	6.33	187.9
	ARENA_2	1.350	18.37	605.4	RELLENO_ZANJA	11.545	158.93	4518.2
	ARENA_3	1.824	24.82	1182.5				
1020.000	D TIERRA	15.599	100.66	6957.8	ARENA_1	0.465	2.97	190.9
	ARENA_2	1.350	8.63	614.0	RELLENO_ZANJA	11.254	72.88	4591.1
	ARENA_3	1.824	11.66	1194.2				
1040.000	D TIERRA	15.324	309.24	7267.0	ARENA_1	0.465	9.30	200.2
	ARENA_2	1.350	27.00	641.0	RELLENO_ZANJA	10.979	222.34	4813.4
	ARENA_3	1.824	36.48	1230.7				
1048.160	D TIERRA	15.261	124.79	7391.8	ARENA_1	0.465	3.79	204.0
	ARENA_2	1.350	11.02	652.0	RELLENO_ZANJA	10.916	89.33	4902.8
	ARENA_3	1.824	14.89	1245.6				
1060.000	D TIERRA	15.171	180.16	7572.0	ARENA_1	0.465	5.51	209.5
	ARENA_2	1.350	15.98	668.0	RELLENO_ZANJA	10.826	128.72	5031.5
	ARENA_3	1.824	21.60	1267.2				
1080.000	D TIERRA	15.112	302.84	7874.8	ARENA_1	0.465	9.30	218.8
	ARENA_2	1.350	27.00	695.0	RELLENO_ZANJA	10.768	215.94	5247.4
	ARENA_3	1.824	36.48	1303.7				
1100.000	D TIERRA	14.328	294.40	8169.2	ARENA_1	0.465	9.30	228.1
	ARENA_2	1.350	27.00	722.0	RELLENO_ZANJA	9.983	207.50	5454.9
	ARENA_3	1.824	36.48	1340.1				
1120.000	D TIERRA	13.930	282.58	8451.8	ARENA_1	0.465	9.30	237.4
	ARENA_2	1.350	27.00	749.0	RELLENO_ZANJA	9.585	195.68	5650.6
	ARENA_3	1.824	36.48	1376.6				
1140.000	D TIERRA	13.885	278.15	8729.9	ARENA_1	0.465	9.30	246.7
	ARENA_2	1.350	27.00	776.0	RELLENO_ZANJA	9.540	191.26	5841.9
	ARENA_3	1.824	36.48	1413.1				
1160.000	D TIERRA	14.016	279.01	9008.9	ARENA_1	0.465	9.30	256.0
	ARENA_2	1.350	27.00	803.0	RELLENO_ZANJA	9.671	192.12	6034.0
	ARENA_3	1.824	36.48	1449.6				
1180.000	D TIERRA	13.890	279.06	9288.0	ARENA_1	0.465	9.30	265.3
	ARENA_2	1.350	27.00	830.0	RELLENO_ZANJA	9.545	192.16	6226.2
	ARENA_3	1.824	36.48	1486.1				
1200.000	D TIERRA	13.758	276.48	9564.5	ARENA_1	0.465	9.30	274.6
	ARENA_2	1.350	27.00	857.0	RELLENO_ZANJA	9.413	189.58	6415.7
	ARENA_3	1.824	36.48	1522.6				
1220.000	D TIERRA	13.680	274.38	9838.9	ARENA_1	0.465	9.30	283.9
	ARENA_2	1.350	27.00	884.0	RELLENO_ZANJA	9.335	187.48	6603.2
	ARENA_3	1.824	36.48	1559.0				
1240.000	D TIERRA	13.511	271.91	10110.8	ARENA_1	0.465	9.30	293.2
	ARENA_2	1.350	27.00	911.0	RELLENO_ZANJA	9.166	185.01	6788.2
	ARENA_3	1.824	36.48	1595.5				
1260.000	D TIERRA	12.698	262.09	10372.9	ARENA_1	0.465	9.30	302.5
	ARENA_2	1.350	27.00	938.0	RELLENO_ZANJA	8.353	175.19	6963.4
	ARENA_3	1.824	36.48	1632.0				
1280.000	D TIERRA	12.536	252.34	10625.2	ARENA_1	0.465	9.30	311.8
	ARENA_2	1.350	27.00	965.0	RELLENO_ZANJA	8.191	165.44	7128.9
	ARENA_3	1.824	36.48	1668.5				
1300.000	D TIERRA	12.325	248.61	10873.8	ARENA_1	0.465	9.30	321.1
	ARENA_2	1.350	27.00	992.0	RELLENO_ZANJA	7.980	161.71	7290.6
	ARENA_3	1.824	36.48	1705.0				
1320.000	D TIERRA	11.963	242.89	11116.7	ARENA_1	0.465	9.30	330.4
	ARENA_2	1.350	27.00	1019.0	RELLENO_ZANJA	7.618	155.99	7446.6
	ARENA_3	1.824	36.48	1741.5				
1331.719	D TIERRA	12.142	141.24	11257.9	ARENA_1	0.465	5.45	335.9
	ARENA_2	1.350	15.82	1034.8	RELLENO_ZANJA	7.797	90.33	7536.9
	ARENA_3	1.824	21.38	1762.8				



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PROYECTO : CIDACOS COMPLETO
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*** MEDICIONES DE LOS PERFILES TRANSVERSALES ***
*** CAPAS DE FIRME ***

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PERFIL	MATERIAL	AREA PERFIL	VOL. PARCIAL	VOL. ACUMUL.	MATERIAL	AREA PERFIL	VOL. PARCIAL	VOL. ACUMUL.
1340.000	D TIERRA	11.942	99.72	11357.7	ARENA_1	0.465	3.85	339.7
	ARENA_2	1.350	11.18	1046.0	RELLENO_ZANJA	7.597	63.74	7600.6
	ARENA_3	1.824	15.11	1777.9				
1360.000	D TIERRA	11.459	234.01	11591.7	ARENA_1	0.465	9.30	349.0
	ARENA_2	1.350	27.00	1073.0	RELLENO_ZANJA	7.114	147.11	7747.7
	ARENA_3	1.824	36.49	1814.4				
1380.000	D TIERRA	8.839	202.98	11794.7	ARENA_1	0.465	9.30	358.3
	ARENA_2	1.350	27.00	1100.0	RELLENO_ZANJA	4.494	116.08	7863.8
	ARENA_3	1.824	36.49	1850.9				
1400.000	D TIERRA	10.294	191.33	11986.0	ARENA_1	0.465	9.30	367.6
	ARENA_2	1.350	27.00	1127.0	RELLENO_ZANJA	5.949	104.43	7968.3
	ARENA_3	1.824	36.49	1887.4				
1408.682	D TIERRA	9.202	84.63	12070.6	ARENA_1	0.465	4.04	371.7
	ARENA_2	1.350	11.72	1138.7	RELLENO_ZANJA	4.857	46.91	8015.2
	ARENA_3	1.824	15.84	1903.2				
1420.000	D TIERRA	11.035	0.00	12070.6	ARENA_1	0.277	0.00	371.7
	ARENA_2	1.085	0.00	1138.7	RELLENO_ZANJA	6.048	0.00	8015.2
	ARENA_3	2.919	0.00	1903.2				
1440.000	D TIERRA	11.020	220.54	12291.2	ARENA_1	0.277	5.53	377.2
	ARENA_2	1.085	21.71	1160.4	RELLENO_ZANJA	6.033	120.80	8136.0
	ARENA_3	2.919	58.38	1961.6				
1460.000	D TIERRA	12.660	236.79	12527.9	ARENA_1	0.277	5.53	382.7
	ARENA_2	1.085	21.71	1182.1	RELLENO_ZANJA	7.673	137.05	8273.0
	ARENA_3	2.919	58.38	2020.0				
1480.000	D TIERRA	12.619	252.79	12780.7	ARENA_1	0.277	5.53	388.3
	ARENA_2	1.085	21.71	1203.8	RELLENO_ZANJA	7.632	153.05	8426.1
	ARENA_3	2.919	58.38	2078.4				
1500.000	D TIERRA	10.389	230.09	13010.8	ARENA_1	0.277	5.53	393.8
	ARENA_2	1.085	21.71	1225.6	RELLENO_ZANJA	5.402	130.35	8556.4
	ARENA_3	2.919	58.38	2136.8				
1509.997	D TIERRA	11.817	111.00	13121.8	ARENA_1	0.277	2.77	396.6
	ARENA_2	1.085	10.85	1236.4	RELLENO_ZANJA	6.831	61.15	8617.6
	ARENA_3	2.919	29.18	2166.0				
1520.000	D TIERRA	12.474	121.50	13243.3	ARENA_1	0.277	2.77	399.3
	ARENA_2	1.085	10.86	1247.3	RELLENO_ZANJA	7.487	71.61	8689.2
	ARENA_3	2.919	29.20	2195.2				
1540.000	D TIERRA	14.102	265.76	13509.1	ARENA_1	0.277	5.54	404.9
	ARENA_2	1.085	21.71	1269.0	RELLENO_ZANJA	9.115	166.02	8855.2
	ARENA_3	2.919	58.38	2253.5				
1560.000	D TIERRA	18.361	324.63	13833.7	ARENA_1	0.277	5.53	410.4
	ARENA_2	1.085	21.71	1290.7	RELLENO_ZANJA	13.374	224.89	9080.1
	ARENA_3	2.919	58.39	2311.9				
1562.206	D TIERRA	18.963	41.17	13874.9	ARENA_1	0.277	0.61	411.0
	ARENA_2	1.085	2.39	1293.1	RELLENO_ZANJA	13.976	30.17	9110.2
	ARENA_3	2.919	6.44	2318.4				
1580.000	D TIERRA	11.388	270.03	14144.9	ARENA_1	0.277	4.92	415.9
	ARENA_2	1.085	19.31	1312.4	RELLENO_ZANJA	6.401	181.29	9291.5
	ARENA_3	2.919	51.95	2370.3				
1600.000	D TIERRA	16.789	281.77	14426.7	ARENA_1	0.277	5.53	421.5
	ARENA_2	1.085	21.71	1334.1	RELLENO_ZANJA	11.802	182.03	9473.6
	ARENA_3	2.919	58.39	2428.7				
1620.000	D TIERRA	18.524	353.13	14779.8	ARENA_1	0.277	5.53	427.0
	ARENA_2	1.085	21.71	1355.8	RELLENO_ZANJA	13.537	253.39	9727.0
	ARENA_3	2.919	58.39	2487.1				
1640.000	D TIERRA	19.077	376.01	15155.8	ARENA_1	0.277	5.53	432.6
	ARENA_2	1.085	21.71	1377.5	RELLENO_ZANJA	14.090	276.27	10003.2
	ARENA_3	2.919	58.39	2545.5				
1660.000	D TIERRA	10.841	299.18	15455.0	ARENA_1	0.277	5.53	438.1
	ARENA_2	1.085	21.71	1399.2	RELLENO_ZANJA	5.854	199.44	10202.7
	ARENA_3	2.919	58.39	2603.9				

PERFIL	MATERIAL	AREA PERFIL	VOL. PARCIAL	VOL. ACUMUL.	MATERIAL	AREA PERFIL	VOL. PARCIAL	VOL. ACUMUL.
1680.000	D TIERRA	12.972	238.13	15693.1	ARENA_1	0.277	5.54	443.6
	ARENA_2	1.085	21.71	1420.9	RELLENO_ZANJA	7.986	138.39	10341.1
	ARENA_3	2.919	58.39	2662.2				
1693.161	D TIERRA	13.064	171.33	15864.5	ARENA_1	0.277	3.64	447.3
	ARENA_2	1.085	14.28	1435.2	RELLENO_ZANJA	8.077	105.70	10446.8
	ARENA_3	2.919	38.42	2700.7				
1700.000	D TIERRA	13.169	89.70	15954.2	ARENA_1	0.277	1.89	449.2
	ARENA_2	1.085	7.42	1442.6	RELLENO_ZANJA	8.182	55.60	10502.4
	ARENA_3	2.919	19.97	2720.6				
1720.000	D TIERRA	13.482	266.51	16220.7	ARENA_1	0.277	5.53	454.7
	ARENA_2	1.085	21.71	1464.3	RELLENO_ZANJA	8.495	166.77	10669.1
	ARENA_3	2.919	58.39	2779.0				
1740.000	D TIERRA	13.640	271.21	16491.9	ARENA_1	0.277	5.53	460.2
	ARENA_2	1.085	21.71	1486.1	RELLENO_ZANJA	8.653	171.47	10840.6
	ARENA_3	2.919	58.39	2837.4				
1760.000	D TIERRA	14.181	278.21	16770.1	ARENA_1	0.277	5.53	465.8
	ARENA_2	1.085	21.71	1507.8	RELLENO_ZANJA	9.194	178.47	11019.1
	ARENA_3	2.919	58.39	2895.8				
1780.000	D TIERRA	12.504	266.85	17036.9	ARENA_1	0.277	5.53	471.3
	ARENA_2	1.085	21.71	1529.5	RELLENO_ZANJA	7.517	167.11	11186.2
	ARENA_3	2.919	58.39	2954.2				
1800.000	D TIERRA	11.958	244.62	17281.6	ARENA_1	0.277	5.53	476.8
	ARENA_2	1.085	21.71	1551.2	RELLENO_ZANJA	6.971	144.88	11331.1
	ARENA_3	2.919	58.39	3012.6				
1820.000	D TIERRA	11.616	235.73	17517.3	ARENA_1	0.277	5.54	482.4
	ARENA_2	1.085	21.71	1572.9	RELLENO_ZANJA	6.629	135.99	11467.1
	ARENA_3	2.919	58.39	3070.9				
1840.000	D TIERRA	12.870	244.85	17762.1	ARENA_1	0.277	5.54	487.9
	ARENA_2	1.085	21.71	1594.6	RELLENO_ZANJA	7.883	145.11	11612.2
	ARENA_3	2.919	58.39	3129.3				
1860.000	D TIERRA	15.836	287.06	18049.2	ARENA_1	0.277	5.53	493.4
	ARENA_2	1.085	21.71	1616.3	RELLENO_ZANJA	10.849	187.32	11799.5
	ARENA_3	2.919	58.39	3187.7				
1880.000	D TIERRA	21.527	373.63	18422.8	ARENA_1	0.277	5.53	499.0
	ARENA_2	1.085	21.71	1638.0	RELLENO_ZANJA	16.540	273.89	12073.4
	ARENA_3	2.919	58.38	3246.1				
1897.460	D TIERRA	16.093	328.43	18751.3	ARENA_1	0.277	4.83	503.8
	ARENA_2	1.085	18.95	1657.0	RELLENO_ZANJA	11.107	241.36	12314.7
	ARENA_3	2.919	50.97	3297.1				
1900.000	D TIERRA	15.421	40.02	18791.3	ARENA_1	0.277	0.70	504.5
	ARENA_2	1.085	2.76	1659.7	RELLENO_ZANJA	10.434	27.36	12342.1
	ARENA_3	2.919	7.41	3304.5				
1920.000	D TIERRA	11.019	264.40	19055.7	ARENA_1	0.277	5.53	510.0
	ARENA_2	1.085	21.71	1681.4	RELLENO_ZANJA	6.032	164.66	12506.7
	ARENA_3	2.919	58.39	3362.9				
1933.558	D TIERRA	11.172	150.43	19206.1	ARENA_1	0.277	3.75	513.8
	ARENA_2	1.085	14.72	1696.1	RELLENO_ZANJA	6.185	82.82	12589.6
	ARENA_3	2.919	39.58	3402.5				
1940.000	D TIERRA	10.817	70.83	19276.9	ARENA_1	0.277	1.78	515.6
	ARENA_2	1.085	6.99	1703.1	RELLENO_ZANJA	5.830	38.70	12628.3
	ARENA_3	2.919	18.81	3421.3				
1948.986	D TIERRA	10.740	96.85	19373.8	ARENA_1	0.277	2.49	518.1
	ARENA_2	1.085	9.75	1712.9	RELLENO_ZANJA	5.753	52.04	12680.3
	ARENA_3	2.919	26.23	3447.5				
1960.000	D TIERRA	11.587	122.95	19496.8	ARENA_1	0.277	3.05	521.1
	ARENA_2	1.085	11.95	1724.8	RELLENO_ZANJA	6.600	68.03	12748.3
	ARENA_3	2.919	32.15	3479.6				
1980.000	D TIERRA	13.235	248.22	19745.0	ARENA_1	0.277	5.53	526.6
	ARENA_2	1.085	21.71	1746.6	RELLENO_ZANJA	8.248	148.48	12896.8
	ARENA_3	2.919	58.39	3538.0				

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 PROYECTO : CIDACOS COMPLETO
 EJE : 3: ETAP PRINCIPAL - ACOMETIDA DE ARNEDO

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 PROYECTO : CIDACOS COMPLETO
 EJE : 3: ETAP PRINCIPAL - ACOMETIDA DE ARNEDO

 * * * MEDICIONES DE LOS PERFILES TRANSVERSALES* * *
 * * * CAPAS DE FIRME * * *

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 * * * CAPAS DE FIRME * * *

PERFIL	MATERIAL	AREA PERFIL	VOL. PARCIAL	VOL. ACUMUL.	MATERIAL	AREA PERFIL	VOL. PARCIAL	VOL. ACUMUL.	PERFIL	MATERIAL	AREA PERFIL	VOL. PARCIAL	VOL. ACUMUL.	MATERIAL	AREA PERFIL	VOL. PARCIAL	VOL. ACUMUL.
2000.000	D TIERRA	14.012	272.47	20017.4	ARENA_1	0.277	5.54	532.2	2280.000	D TIERRA	12.804	108.77	24204.3	ARENA_1	0.277	2.44	609.6
	ARENA_2	1.085	21.71	1768.3	RELLENO_ZANJA	9.025	172.73	13069.5		ARENA_2	1.085	9.56	2072.2	RELLENO_ZANJA	7.817	64.85	15860.1
	ARENA_3	2.919	58.39	3596.4						ARENA_3	2.919	25.71	4413.8				
2020.000	D TIERRA	14.225	282.37	20299.8	ARENA_1	0.277	5.54	537.7	2300.000	D TIERRA	13.312	261.15	24465.5	ARENA_1	0.277	5.53	615.2
	ARENA_2	1.085	21.71	1790.0	RELLENO_ZANJA	9.238	182.63	13252.2		ARENA_2	1.085	21.71	2093.9	RELLENO_ZANJA	8.325	161.41	16021.5
	ARENA_3	2.919	58.39	3654.8						ARENA_3	2.919	58.38	4472.2				
2040.000	D TIERRA	13.173	273.98	20573.8	ARENA_1	0.277	5.53	543.2	2303.294	D TIERRA	13.878	44.78	24510.3	ARENA_1	0.277	0.91	616.1
	ARENA_2	1.085	21.71	1811.7	RELLENO_ZANJA	8.186	174.24	13426.4		ARENA_2	1.085	3.58	2097.5	RELLENO_ZANJA	8.891	28.35	16049.9
	ARENA_3	2.919	58.39	3713.2						ARENA_3	2.919	9.62	4481.8				
2060.000	D TIERRA	12.951	261.24	20835.0	ARENA_1	0.277	5.53	548.8	2320.000	D TIERRA	15.069	241.80	24752.1	ARENA_1	0.277	4.62	620.7
	ARENA_2	1.085	21.71	1833.4	RELLENO_ZANJA	7.964	161.50	13587.9		ARENA_2	1.085	18.13	2115.6	RELLENO_ZANJA	10.082	158.48	16208.4
	ARENA_3	2.919	58.39	3771.6						ARENA_3	2.919	48.77	4530.6				
2079.429	D TIERRA	13.179	253.83	21088.9	ARENA_1	0.277	5.38	554.1	2340.000	D TIERRA	13.801	288.71	25040.8	ARENA_1	0.277	5.53	626.2
	ARENA_2	1.085	21.09	1854.5	RELLENO_ZANJA	8.192	156.94	13744.9		ARENA_2	1.085	21.71	2137.3	RELLENO_ZANJA	8.814	188.97	16397.3
	ARENA_3	2.919	56.72	3828.3						ARENA_3	2.919	58.39	4589.0				
2080.000	D TIERRA	13.237	7.54	21096.4	ARENA_1	0.277	0.16	554.3	2358.950	D TIERRA	11.854	243.09	25283.9	ARENA_1	0.277	5.24	631.5
	ARENA_2	1.085	0.62	1855.1	RELLENO_ZANJA	8.250	4.69	13749.5		ARENA_2	1.085	20.57	2157.9	RELLENO_ZANJA	6.867	148.58	16545.9
	ARENA_3	2.919	1.67	3830.0						ARENA_3	2.919	55.32	4644.3				
2100.000	D TIERRA	13.753	269.89	21366.3	ARENA_1	0.277	5.53	559.8	2360.000	D TIERRA	11.863	12.45	25296.3	ARENA_1	0.277	0.29	631.8
	ARENA_2	1.085	21.71	1876.8	RELLENO_ZANJA	8.766	170.15	13919.7		ARENA_2	1.085	1.14	2159.0	RELLENO_ZANJA	6.876	7.22	16553.1
	ARENA_3	2.919	58.39	3888.3						ARENA_3	2.919	3.07	4647.4				
2120.000	D TIERRA	38.373	521.26	21887.5	ARENA_1	0.277	5.53	565.4	2368.611	D TIERRA	11.923	102.41	25398.7	ARENA_1	0.277	2.38	634.2
	ARENA_2	1.085	21.71	1898.5	RELLENO_ZANJA	33.386	421.52	14341.2		ARENA_2	1.085	9.35	2168.3	RELLENO_ZANJA	6.936	59.47	16612.6
	ARENA_3	2.919	58.39	3946.7						ARENA_3	2.919	25.14	4672.5				
2140.000	D TIERRA	11.434	498.07	22385.6	ARENA_1	0.277	5.53	570.9	2380.000	D TIERRA	11.259	132.01	25530.7	ARENA_1	0.277	3.15	637.3
	ARENA_2	1.085	21.71	1920.2	RELLENO_ZANJA	6.447	398.33	14739.6		ARENA_2	1.085	12.36	2180.7	RELLENO_ZANJA	6.272	75.21	16687.8
	ARENA_3	2.919	58.39	4005.1						ARENA_3	2.919	33.25	4705.7				
2144.640	D TIERRA	11.870	54.07	22439.7	ARENA_1	0.277	1.28	572.2	2400.000	D TIERRA	12.623	238.82	25769.6	ARENA_1	0.277	5.53	642.8
	ARENA_2	1.085	5.04	1925.3	RELLENO_ZANJA	6.883	30.93	14770.5		ARENA_2	1.085	21.71	2202.4	RELLENO_ZANJA	7.636	139.08	16826.9
	ARENA_3	2.919	13.55	4018.7						ARENA_3	2.919	58.39	4764.1				
2160.000	D TIERRA	13.292	193.24	22632.9	ARENA_1	0.277	4.25	576.4	2420.000	D TIERRA	10.338	229.60	25999.2	ARENA_1	0.277	5.53	648.4
	ARENA_2	1.085	16.67	1941.9	RELLENO_ZANJA	8.305	116.64	14887.1		ARENA_2	1.085	21.71	2224.1	RELLENO_ZANJA	5.351	129.87	16956.7
	ARENA_3	2.919	44.84	4063.5						ARENA_3	2.919	58.39	4822.5				
2180.000	D TIERRA	16.008	293.00	22925.9	ARENA_1	0.277	5.54	582.0	2421.377	D TIERRA	10.366	14.25	26013.4	ARENA_1	0.277	0.38	648.8
	ARENA_2	1.085	21.71	1963.6	RELLENO_ZANJA	11.021	193.26	15080.4		ARENA_2	1.085	1.49	2225.6	RELLENO_ZANJA	5.379	7.39	16964.1
	ARENA_3	2.919	58.39	4121.9						ARENA_3	2.919	4.02	4826.5				
2200.000	D TIERRA	13.001	290.09	23216.0	ARENA_1	0.277	5.53	587.5	2440.000	D TIERRA	9.920	188.89	26202.3	ARENA_1	0.277	5.15	653.9
	ARENA_2	1.085	21.71	1985.3	RELLENO_ZANJA	8.014	190.35	15270.7		ARENA_2	1.085	20.21	2245.8	RELLENO_ZANJA	4.932	96.02	17060.2
	ARENA_3	2.919	58.39	4180.3						ARENA_3	2.919	54.37	4880.9				
2202.447	D TIERRA	12.907	31.70	23247.7	ARENA_1	0.277	0.68	588.2	2446.418	D TIERRA	9.870	63.50	26265.8	ARENA_1	0.277	1.78	655.7
	ARENA_2	1.085	2.66	1988.0	RELLENO_ZANJA	7.920	19.50	15290.2		ARENA_2	1.085	6.97	2252.8	RELLENO_ZANJA	4.883	31.50	17091.6
	ARENA_3	2.919	7.14	4187.4						ARENA_3	2.919	18.74	4899.6				
2220.000	D TIERRA	12.519	223.15	23470.9	ARENA_1	0.277	4.86	593.0	2460.000	D TIERRA	10.593	138.96	26404.8	ARENA_1	0.277	3.76	659.4
	ARENA_2	1.085	19.05	2007.0	RELLENO_ZANJA	7.532	135.61	15425.8		ARENA_2	1.085	14.74	2267.5	RELLENO_ZANJA	5.606	71.23	17162.9
	ARENA_3	2.919	51.24	4238.7						ARENA_3	2.919	39.65	4939.3				
2234.283	D TIERRA	12.312	177.33	23648.2	ARENA_1	0.277	3.95	597.0	2480.000	D TIERRA	11.541	221.33	26626.1	ARENA_1	0.277	5.53	665.0
	ARENA_2	1.085	15.50	2022.5	RELLENO_ZANJA	7.325	106.10	15531.9		ARENA_2	1.085	21.71	2289.2	RELLENO_ZANJA	6.554	121.59	17284.5
	ARENA_3	2.919	41.70	4280.4						ARENA_3	2.919	58.39	4997.7				
2240.000	D TIERRA	12.257	70.23	23718.4	ARENA_1	0.277	1.58	598.6	2500.000	D TIERRA	12.066	236.07	26862.2	ARENA_1	0.277	5.53	670.5
	ARENA_2	1.085	6.20	2028.8	RELLENO_ZANJA	7.270	41.72	15573.7		ARENA_2	1.085	21.71	2311.0	RELLENO_ZANJA	7.079	136.33	17420.8
	ARENA_3	2.919	16.69	4297.0						ARENA_3	2.919	58.39	5056.1				
2252.306	D TIERRA	12.134	150.08	23868.5	ARENA_1	0.277	3.41	602.0	2505.098	D TIERRA	12.175	61.79	26924.0	ARENA_1	0.277	1.41	671.9
	ARENA_2	1.085	13.36	2042.1	RELLENO_ZANJA	7.147	88.71	15662.4		ARENA_2	1.085	5.53	2316.5	RELLENO_ZANJA	7.188	36.37	17457.2
	ARENA_3	2.919	35.92	4333.0						ARENA_3	2.919	14.88	5070.9				
2260.000	D TIERRA	12.052	93.04	23961.5	ARENA_1	0.277	2.13	604.1	2520.000	D TIERRA	12.419	183.25	27107.2	ARENA_1	0.277	4.12	676.0
	ARENA_2	1.085	8.35	2050.5	RELLENO_ZANJA	7.065	54.67	15717.0		ARENA_2	1.085	16.17	2332.7	RELLENO_ZANJA	7.433	108.94	17566.1
	ARENA_3	2.919	22.46	4355.4						ARENA_3	2.919	43.50	5114.5				
2271.193	D TIERRA	11.897	134.03	24095.6	ARENA_1	0.277	3.10	607.2	2540.000	D TIERRA	12.693	251.13	27358.3	ARENA_1	0.277	5.53	681.6
	ARENA_2	1.085	12.15	2062.6	RELLENO_ZANJA	6.910	78.21	15795.3		ARENA_2	1.085	21.71	2354.4	RELLENO_ZANJA	7.706	151.39	17717.5
	ARENA_3	2.919	32.68	4388.1						ARENA_3	2.919	58.39	5172.8				



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PROYECTO : CIDACOS COMPLETO
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*** MEDICIONES DE LOS PERFILES TRANSVERSALES ***
*** CAPAS DE FIRME ***

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PERFIL	MATERIAL	AREA PERFIL	VOL. PARCIAL	VOL. ACUMUL.	MATERIAL	AREA PERFIL	VOL. PARCIAL	VOL. ACUMUL.
2560.000	D TIERRA	12.895	255.89	27614.2	ARENA_1	0.277	5.53	687.1
	ARENA_2	1.085	21.71	2376.1	RELLENO_ZANJA	7.908	156.14	17873.6
	ARENA_3	2.919	58.39	5231.2				
2580.000	D TIERRA	13.015	259.10	27873.3	ARENA_1	0.277	5.53	692.6
	ARENA_2	1.085	21.71	2397.8	RELLENO_ZANJA	8.028	159.36	18033.0
	ARENA_3	2.919	58.39	5289.6				
2600.000	D TIERRA	12.406	254.20	28127.5	ARENA_1	0.277	5.53	698.2
	ARENA_2	1.085	21.71	2419.5	RELLENO_ZANJA	7.419	154.46	18187.5
	ARENA_3	2.919	58.39	5348.0				
2620.000	D TIERRA	12.886	252.92	28380.4	ARENA_1	0.277	5.53	703.7
	ARENA_2	1.085	21.71	2441.2	RELLENO_ZANJA	7.899	153.18	18340.6
	ARENA_3	2.919	58.39	5406.4				
2640.000	D TIERRA	12.937	258.23	28638.7	ARENA_1	0.277	5.53	709.2
	ARENA_2	1.085	21.71	2462.9	RELLENO_ZANJA	7.950	158.49	18499.1
	ARENA_3	2.919	58.39	5464.8				
2660.000	D TIERRA	12.909	258.45	28897.1	ARENA_1	0.277	5.53	714.8
	ARENA_2	1.085	21.71	2484.6	RELLENO_ZANJA	7.922	158.71	18657.8
	ARENA_3	2.919	58.39	5523.2				
2680.000	D TIERRA	12.673	255.81	29152.9	ARENA_1	0.277	5.53	720.3
	ARENA_2	1.085	21.71	2506.3	RELLENO_ZANJA	7.686	156.07	18813.9
	ARENA_3	2.919	58.39	5581.5				
2700.000	D TIERRA	12.925	255.98	29408.9	ARENA_1	0.277	5.53	725.8
	ARENA_2	1.085	21.71	2528.0	RELLENO_ZANJA	7.938	156.24	18970.1
	ARENA_3	2.919	58.39	5639.9				
2720.000	D TIERRA	13.458	263.83	29672.8	ARENA_1	0.277	5.53	731.4
	ARENA_2	1.085	21.71	2549.7	RELLENO_ZANJA	8.471	164.09	19134.2
	ARENA_3	2.919	58.39	5698.3				
2740.000	D TIERRA	13.889	273.47	29946.2	ARENA_1	0.277	5.53	736.9
	ARENA_2	1.085	21.71	2571.5	RELLENO_ZANJA	8.902	173.73	19308.0
	ARENA_3	2.919	58.39	5756.7				
2760.000	D TIERRA	14.270	281.59	30227.8	ARENA_1	0.277	5.53	742.4
	ARENA_2	1.085	21.71	2593.2	RELLENO_ZANJA	9.283	181.85	19489.8
	ARENA_3	2.919	58.39	5815.1				
2780.000	D TIERRA	14.678	289.48	30517.3	ARENA_1	0.277	5.53	748.0
	ARENA_2	1.085	21.71	2614.9	RELLENO_ZANJA	9.691	189.74	19679.6
	ARENA_3	2.919	58.39	5873.5				
2800.000	D TIERRA	11.470	261.48	30778.8	ARENA_1	0.277	5.53	753.5
	ARENA_2	1.085	21.71	2636.6	RELLENO_ZANJA	6.483	161.74	19841.3
	ARENA_3	2.919	58.39	5931.9				
2820.000	D TIERRA	7.266	187.36	30966.1	ARENA_1	0.277	5.53	759.0
	ARENA_2	1.085	21.71	2658.3	RELLENO_ZANJA	2.279	87.62	19928.9
	ARENA_3	2.919	58.39	5990.3				
2840.000	D TIERRA	7.286	145.51	31111.6	ARENA_1	0.277	5.53	764.6
	ARENA_2	1.085	21.71	2680.0	RELLENO_ZANJA	2.299	45.77	19974.7
	ARENA_3	2.919	58.39	6048.6				
2860.000	D TIERRA	7.808	150.94	31262.6	ARENA_1	0.277	5.53	770.1
	ARENA_2	1.085	21.71	2701.7	RELLENO_ZANJA	2.821	51.20	20025.9
	ARENA_3	2.919	58.39	6107.0				
2880.000	D TIERRA	2.275	0.00	31262.6	ARENA_1	0.234	0.00	770.1
	ARENA_2	0.388	0.00	2701.7	RELLENO_ZANJA	0.247	0.00	20025.9
	ARENA_3	0.700	0.00	6107.0				
2900.000	D TIERRA	7.739	0.00	31262.6	ARENA_1	0.277	0.00	770.1
	ARENA_2	1.085	0.00	2701.7	RELLENO_ZANJA	2.752	0.00	20025.9
	ARENA_3	2.919	0.00	6107.0				
2920.000	D TIERRA	12.167	199.06	31461.6	ARENA_1	0.277	5.53	775.7
	ARENA_2	1.085	21.71	2723.4	RELLENO_ZANJA	7.180	99.32	20125.2
	ARENA_3	2.919	58.39	6165.4				
2924.086	D TIERRA	12.922	51.26	31512.9	ARENA_1	0.277	1.13	776.8
	ARENA_2	1.085	4.43	2727.8	RELLENO_ZANJA	7.935	30.88	20156.1
	ARENA_3	2.919	11.93	6177.3				

PERFIL	MATERIAL	AREA PERFIL	VOL. PARCIAL	VOL. ACUMUL.	MATERIAL	AREA PERFIL	VOL. PARCIAL	VOL. ACUMUL.
2940.000	D TIERRA	11.500	194.32	31707.2	ARENA_1	0.277	4.40	781.2
	ARENA_2	1.085	17.27	2745.1	RELLENO_ZANJA	6.513	114.96	20271.1
	ARENA_3	2.919	46.46	6223.8				
2960.000	D TIERRA	16.859	283.58	31990.8	ARENA_1	0.277	5.53	786.7
	ARENA_2	1.085	21.71	2766.8	RELLENO_ZANJA	11.872	183.85	20454.9
	ARENA_3	2.919	58.39	6282.2				
2980.000	D TIERRA	4.044	0.00	31990.8	ARENA_1	0.234	0.00	786.7
	ARENA_2	0.388	0.00	2766.8	RELLENO_ZANJA	2.016	0.00	20454.9
	ARENA_3	0.698	0.00	6282.2				
2994.880	D TIERRA	3.569	56.64	32047.4	ARENA_1	0.234	3.49	790.2
	ARENA_2	0.388	5.77	2772.6	RELLENO_ZANJA	1.541	26.46	20481.4
	ARENA_3	0.700	10.40	6292.6				
3000.000	D TIERRA	3.542	18.20	32065.6	ARENA_1	0.234	1.20	791.4
	ARENA_2	0.388	1.99	2774.6	RELLENO_ZANJA	1.514	7.82	20489.2
	ARENA_3	0.700	3.58	6296.2				
3020.000	D TIERRA	3.554	70.96	32136.6	ARENA_1	0.234	4.69	796.1
	ARENA_2	0.388	7.76	2782.3	RELLENO_ZANJA	1.526	30.40	20519.6
	ARENA_3	0.699	13.99	6310.2				
3022.535	D TIERRA	3.883	9.43	32146.0	ARENA_1	0.234	0.59	796.7
	ARENA_2	0.388	0.98	2783.3	RELLENO_ZANJA	1.855	4.29	20523.9
	ARENA_3	0.700	1.77	6311.9				
3040.000	D TIERRA	4.710	75.04	32221.1	ARENA_1	0.234	4.09	800.8
	ARENA_2	0.388	6.78	2790.1	RELLENO_ZANJA	2.682	39.62	20563.5
	ARENA_3	0.700	12.23	6324.2				
3060.000	D TIERRA	3.793	85.03	32306.1	ARENA_1	0.234	4.69	805.5
	ARENA_2	0.388	7.76	2797.9	RELLENO_ZANJA	1.765	44.47	20608.0
	ARENA_3	0.700	14.00	6338.2				
3080.000	D TIERRA	3.673	74.66	32380.7	ARENA_1	0.234	4.69	810.2
	ARENA_2	0.388	7.76	2805.6	RELLENO_ZANJA	1.645	34.10	20642.0
	ARENA_3	0.700	14.00	6352.2				
3100.000	D TIERRA	3.554	72.26	32453.0	ARENA_1	0.234	4.69	814.8
	ARENA_2	0.388	7.76	2813.4	RELLENO_ZANJA	1.526	31.70	20673.7
	ARENA_3	0.700	14.00	6366.2				
3120.000	D TIERRA	3.825	73.78	32526.8	ARENA_1	0.234	4.69	819.5
	ARENA_2	0.388	7.76	2821.1	RELLENO_ZANJA	1.797	33.22	20707.0
	ARENA_3	0.700	14.00	6380.2				
3140.000	D TIERRA	3.542	73.67	32600.5	ARENA_1	0.234	4.69	824.2
	ARENA_2	0.388	7.76	2828.9	RELLENO_ZANJA	1.514	33.11	20740.1
	ARENA_3	0.700	14.00	6394.2				
3158.870	D TIERRA	3.584	67.24	32667.7	ARENA_1	0.234	4.42	828.6
	ARENA_2	0.388	7.32	2836.2	RELLENO_ZANJA	1.556	28.97	20769.0
	ARENA_3	0.700	13.21	6407.4				
3160.000	D TIERRA	3.587	4.05	32671.7	ARENA_1	0.234	0.26	828.9
	ARENA_2	0.388	0.44	2836.7	RELLENO_ZANJA	1.559	1.76	20770.8
	ARENA_3	0.700	0.79	6408.2				
3180.000	D TIERRA	3.592	71.79	32743.5	ARENA_1	0.234	4.69	833.6
	ARENA_2	0.388	7.76	2844.4	RELLENO_ZANJA	1.564	31.23	20802.0
	ARENA_3	0.700	14.00	6422.2				
3200.000	D TIERRA	3.560	71.52	32815.0	ARENA_1	0.234	4.69	838.3
	ARENA_2	0.388	7.76	2852.2	RELLENO_ZANJA	1.532	30.96	20833.0
	ARENA_3	0.700	14.00	6436.2				
3220.000	D TIERRA	3.542	71.02	32886.1	ARENA_1	0.234	4.69	843.0
	ARENA_2	0.388	7.76	2859.9	RELLENO_ZANJA	1.514	30.46	20863.5
	ARENA_3	0.700	14.00	6450.2				
3240.000	D TIERRA	3.538	70.80	32956.9	ARENA_1	0.234	4.69	847.6
	ARENA_2	0.388	7.76	2867.7	RELLENO_ZANJA	1.510	30.24	20893.7
	ARENA_3	0.700	14.00	6464.2				
3240.071	D TIERRA	3.498	0.25	32957.1	ARENA_1	0.234	0.02	847.7
	ARENA_2	0.388	0.03	2867.7	RELLENO_ZANJA	1.470	0.11	20893.8
	ARENA_3	0.700	0.05	6464.2				



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PROYECTO : CIDACOS COMPLETO
EJE : 3: ETAP PRINCIPAL - ACOMETIDA DE ARNEO

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PROYECTO : CIDACOS COMPLETO
EJE : 3: ETAP PRINCIPAL - ACOMETIDA DE ARNEO

*** MEDICIONES DE LOS PERFILES TRANSVERSALES ***
*** CAPAS DE FIRME ***

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*** CAPAS DE FIRME ***

PERFIL	MATERIAL	AREA PERFIL	VOL. PARCIAL	VOL. ACUMUL.	MATERIAL	AREA PERFIL	VOL. PARCIAL	VOL. ACUMUL.
3260.000	D TIERRA	4.504	79.74	33036.9	ARENA_1	0.234	4.67	852.3
	ARENA_2	0.388	7.73	2875.5	RELLENO_ZANJA	2.476	39.32	20933.1
	ARENA_3	0.700	13.95	6478.2				
3280.000	D TIERRA	3.688	81.92	33118.8	ARENA_1	0.234	4.69	857.0
	ARENA_2	0.388	7.76	2883.2	RELLENO_ZANJA	1.660	41.36	20974.5
	ARENA_3	0.700	14.00	6492.2				
3300.000	D TIERRA	3.455	71.43	33190.2	ARENA_1	0.234	4.69	861.7
	ARENA_2	0.388	7.76	2891.0	RELLENO_ZANJA	1.427	30.87	21005.3
	ARENA_3	0.700	14.00	6506.2				
3306.261	D TIERRA	3.526	21.85	33212.1	ARENA_1	0.234	1.47	863.2
	ARENA_2	0.388	2.43	2893.4	RELLENO_ZANJA	1.498	9.16	21014.5
	ARENA_3	0.700	4.38	6510.6				
3320.000	D TIERRA	3.519	48.39	33260.4	ARENA_1	0.234	3.22	866.4
	ARENA_2	0.388	5.33	2898.7	RELLENO_ZANJA	1.491	20.53	21035.0
	ARENA_3	0.700	9.62	6520.2				
3335.183	D TIERRA	3.538	53.57	33314.0	ARENA_1	0.234	3.56	870.0
	ARENA_2	0.388	5.89	2904.6	RELLENO_ZANJA	1.510	22.78	21057.8
	ARENA_3	0.700	10.63	6530.8				
3340.000	D TIERRA	3.559	17.09	33331.1	ARENA_1	0.234	1.13	871.1
	ARENA_2	0.388	1.87	2906.5	RELLENO_ZANJA	1.531	7.32	21065.1
	ARENA_3	0.700	3.37	6534.2				
3355.039	D TIERRA	3.542	53.39	33384.5	ARENA_1	0.234	3.52	874.6
	ARENA_2	0.388	5.83	2912.3	RELLENO_ZANJA	1.514	22.90	21088.0
	ARENA_3	0.700	10.53	6544.7				
3360.000	D TIERRA	3.579	17.66	33402.2	ARENA_1	0.234	1.16	875.8
	ARENA_2	0.388	1.92	2914.3	RELLENO_ZANJA	1.551	7.60	21095.6
	ARENA_3	0.700	3.47	6548.2				
3380.000	D TIERRA	3.703	72.81	33475.0	ARENA_1	0.234	4.69	880.5
	ARENA_2	0.388	7.76	2922.0	RELLENO_ZANJA	1.675	32.26	21127.9
	ARENA_3	0.700	14.00	6562.2				
3380.928	D TIERRA	3.707	3.44	33478.4	ARENA_1	0.234	0.22	880.7
	ARENA_2	0.388	0.36	2922.4	RELLENO_ZANJA	1.679	1.56	21129.4
	ARENA_3	0.700	0.65	6562.8				
3400.000	D TIERRA	3.615	69.82	33548.2	ARENA_1	0.234	4.47	885.1
	ARENA_2	0.388	7.40	2929.8	RELLENO_ZANJA	1.587	31.14	21160.6
	ARENA_3	0.700	13.35	6576.2				
3404.771	D TIERRA	3.545	17.08	33565.3	ARENA_1	0.234	1.12	886.3
	ARENA_2	0.388	1.85	2931.6	RELLENO_ZANJA	1.517	7.40	21168.0
	ARENA_3	0.700	3.34	6579.5				
3420.000	D TIERRA	3.545	53.98	33619.3	ARENA_1	0.234	3.57	889.8
	ARENA_2	0.388	5.91	2937.5	RELLENO_ZANJA	1.517	23.10	21191.1
	ARENA_3	0.700	10.66	6590.2				
3440.000	D TIERRA	3.545	70.89	33690.2	ARENA_1	0.234	4.69	894.5
	ARENA_2	0.388	7.76	2945.3	RELLENO_ZANJA	1.517	30.33	21221.4
	ARENA_3	0.700	14.00	6604.2				
3460.000	D TIERRA	3.489	70.33	33760.5	ARENA_1	0.234	4.69	899.2
	ARENA_2	0.388	7.76	2953.0	RELLENO_ZANJA	1.461	29.77	21251.2
	ARENA_3	0.700	14.00	6618.2				
3480.000	D TIERRA	3.543	70.32	33830.8	ARENA_1	0.234	4.69	903.9
	ARENA_2	0.388	7.76	2960.8	RELLENO_ZANJA	1.515	29.76	21280.9
	ARENA_3	0.700	14.00	6632.2				
3500.000	D TIERRA	3.597	71.40	33902.2	ARENA_1	0.234	4.69	908.6
	ARENA_2	0.388	7.76	2968.6	RELLENO_ZANJA	1.569	30.84	21311.8
	ARENA_3	0.700	14.00	6646.2				
3520.000	D TIERRA	3.653	72.50	33974.7	ARENA_1	0.234	4.69	913.3
	ARENA_2	0.388	7.76	2976.3	RELLENO_ZANJA	1.625	31.94	21343.7
	ARENA_3	0.700	14.00	6660.2				
3540.000	D TIERRA	4.089	77.42	34052.2	ARENA_1	0.234	4.69	917.9
	ARENA_2	0.388	7.76	2984.1	RELLENO_ZANJA	2.061	36.86	21380.6
	ARENA_3	0.700	14.00	6674.2				

PERFIL	MATERIAL	AREA PERFIL	VOL. PARCIAL	VOL. ACUMUL.	MATERIAL	AREA PERFIL	VOL. PARCIAL	VOL. ACUMUL.
3560.000	D TIERRA	4.567	86.56	34138.7	ARENA_1	0.234	4.69	922.6
	ARENA_2	0.388	7.76	2991.8	RELLENO_ZANJA	2.539	46.00	21426.6
	ARENA_3	0.700	14.00	6688.2				
3580.000	D TIERRA	4.616	91.82	34230.5	ARENA_1	0.234	4.69	927.3
	ARENA_2	0.388	7.76	2999.6	RELLENO_ZANJA	2.588	51.26	21477.8
	ARENA_3	0.700	14.00	6702.2				
3600.000	D TIERRA	4.734	93.50	34324.0	ARENA_1	0.234	4.69	932.0
	ARENA_2	0.388	7.76	3007.4	RELLENO_ZANJA	2.706	52.94	21530.8
	ARENA_3	0.700	14.00	6716.2				
3620.000	D TIERRA	4.842	95.76	34419.8	ARENA_1	0.234	4.69	936.7
	ARENA_2	0.388	7.76	3015.1	RELLENO_ZANJA	2.814	55.20	21586.0
	ARENA_3	0.700	14.00	6730.2				
3637.024	D TIERRA	4.924	83.13	34502.9	ARENA_1	0.234	3.99	940.7
	ARENA_2	0.388	6.60	3021.7	RELLENO_ZANJA	2.896	48.60	21634.6
	ARENA_3	0.700	11.92	6742.1				
3640.000	D TIERRA	4.939	14.68	34517.6	ARENA_1	0.234	0.70	941.4
	ARENA_2	0.388	1.15	3022.9	RELLENO_ZANJA	2.911	8.64	21643.2
	ARENA_3	0.700	2.08	6744.2				
3660.000	D TIERRA	5.043	99.82	34617.4	ARENA_1	0.234	4.69	946.1
	ARENA_2	0.388	7.76	3030.6	RELLENO_ZANJA	3.015	59.26	21702.5
	ARENA_3	0.700	14.00	6758.2				
3680.000	D TIERRA	5.403	104.46	34721.9	ARENA_1	0.234	4.69	950.8
	ARENA_2	0.388	7.76	3038.4	RELLENO_ZANJA	3.376	63.90	21766.4
	ARENA_3	0.700	14.00	6772.2				
3682.107	D TIERRA	5.399	11.38	34733.3	ARENA_1	0.234	0.49	951.3
	ARENA_2	0.388	0.82	3039.2	RELLENO_ZANJA	3.371	7.11	21773.5
	ARENA_3	0.700	1.48	6773.7				
3700.000	D TIERRA	5.633	98.70	34832.0	ARENA_1	0.234	4.19	955.4
	ARENA_2	0.388	6.94	3046.2	RELLENO_ZANJA	3.605	62.41	21835.9
	ARENA_3	0.700	12.53	6786.2				
3714.125	D TIERRA	5.759	80.45	34912.4	ARENA_1	0.234	3.31	958.8
	ARENA_2	0.388	5.48	3051.6	RELLENO_ZANJA	3.731	51.81	21887.7
	ARENA_3	0.700	9.89	6796.1				
3720.000	D TIERRA	5.558	33.25	34945.7	ARENA_1	0.234	1.38	960.1
	ARENA_2	0.389	2.28	3053.9	RELLENO_ZANJA	3.531	21.33	21909.0
	ARENA_3	0.695	4.10	6800.2				
3732.486	D TIERRA	5.563	69.43	35015.1	ARENA_1	0.234	2.92	963.1
	ARENA_2	0.388	4.85	3058.8	RELLENO_ZANJA	3.536	44.11	21953.2
	ARENA_3	0.698	8.70	6808.9				
3739.494	D TIERRA	9.172	51.63	35066.7	ARENA_1	0.234	1.64	964.7
	ARENA_2	0.388	2.72	3061.5	RELLENO_ZANJA	7.144	37.42	21990.6
	ARENA_3	0.698	4.89	6813.8				
3740.000	D TIERRA	9.051	4.61	35071.3	ARENA_1	0.234	0.12	964.8
	ARENA_2	0.388	0.20	3061.7	RELLENO_ZANJA	7.023	3.58	21994.2
	ARENA_3	0.698	0.35	6814.2				
3760.000	D TIERRA	4.643	136.94	35208.3	ARENA_1	0.234	4.69	969.5
	ARENA_2	0.388	7.76	3069.4	RELLENO_ZANJA	2.615	96.38	22090.5
	ARENA_3	0.698	13.96	6828.1				
3780.000	D TIERRA	4.449	90.92	35299.2	ARENA_1	0.234	4.69	974.2
	ARENA_2	0.388	7.76	3077.2	RELLENO_ZANJA	2.421	50.36	22140.9
	ARENA_3	0.700	13.98	6842.1				
3800.000	D TIERRA	4.260	87.09	35386.3	ARENA_1	0.234	4.69	978.9
	ARENA_2	0.388	7.76	3085.0	RELLENO_ZANJA	2.232	46.53	22187.4
	ARENA_3	0.700	14.00	6856.1				
3820.000	D TIERRA	3.996	82.56	35468.8	ARENA_1	0.234	4.69	983.6
	ARENA_2	0.388	7.76	3092.7	RELLENO_ZANJA	1.968	42.00	22229.4
	ARENA_3	0.700	14.00	6870.1				
3840.000	D TIERRA	3.721	77.17	35546.0	ARENA_1	0.234	4.69	988.2
	ARENA_2	0.388	7.76	3100.5	RELLENO_ZANJA	1.693	36.61	22266.0
	ARENA_3	0.700	14.00	6884.1				

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 PROYECTO : CIDACOS COMPLETO
 EJE : 3: ETAP PRINCIPAL - ACOMETIDA DE ARNEDO

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 PROYECTO : CIDACOS COMPLETO
 EJE : 3: ETAP PRINCIPAL - ACOMETIDA DE ARNEDO

 * * * MEDICIONES DE LOS PERFILES TRANSVERSALES* * *
 * * * CAPAS DE FIRME * * *

 * * * MEDICIONES DE LOS PERFILES TRANSVERSALES* * *
 * * * CAPAS DE FIRME * * *

PERFIL	MATERIAL	AREA PERFIL	VOL. PARCIAL	VOL. ACUMUL.	MATERIAL	AREA PERFIL	VOL. PARCIAL	VOL. ACUMUL.
3853.121	D TIERRA	3.538	47.62	35593.6	ARENA_1	0.234	3.07	991.3
	ARENA_2	0.388	5.09	3105.6	RELLENO_ZANJA	1.510	21.01	22287.1
	ARENA_3	0.700	9.19	6893.3				
3860.000	D TIERRA	3.557	24.40	35618.0	ARENA_1	0.234	1.61	992.9
	ARENA_2	0.388	2.67	3108.2	RELLENO_ZANJA	1.529	10.45	22297.5
	ARENA_3	0.700	4.82	6898.1				
3880.000	D TIERRA	3.610	71.67	35689.7	ARENA_1	0.234	4.69	997.6
	ARENA_2	0.388	7.76	3116.0	RELLENO_ZANJA	1.582	31.11	22328.6
	ARENA_3	0.700	14.00	6912.1				
3900.000	D TIERRA	3.663	72.74	35762.4	ARENA_1	0.234	4.69	1002.3
	ARENA_2	0.388	7.76	3123.8	RELLENO_ZANJA	1.635	32.18	22360.8
	ARENA_3	0.700	14.00	6926.1				
3920.000	D TIERRA	3.716	73.80	35836.2	ARENA_1	0.234	4.69	1007.0
	ARENA_2	0.388	7.76	3131.5	RELLENO_ZANJA	1.688	33.24	22394.0
	ARENA_3	0.700	14.00	6940.1				
3940.000	D TIERRA	3.486	72.02	35908.3	ARENA_1	0.234	4.69	1011.7
	ARENA_2	0.388	7.76	3139.3	RELLENO_ZANJA	1.458	31.46	22425.5
	ARENA_3	0.700	14.00	6954.1				
3960.000	D TIERRA	3.574	70.59	35978.8	ARENA_1	0.234	4.69	1016.4
	ARENA_2	0.388	7.76	3147.0	RELLENO_ZANJA	1.546	30.03	22455.5
	ARENA_3	0.700	14.00	6968.1				
3980.000	D TIERRA	3.532	71.06	36049.9	ARENA_1	0.234	4.69	1021.0
	ARENA_2	0.388	7.76	3154.8	RELLENO_ZANJA	1.504	30.50	22486.0
	ARENA_3	0.700	14.00	6982.1				
3985.504	D TIERRA	4.634	22.47	36072.4	ARENA_1	0.234	1.29	1022.3
	ARENA_2	0.388	2.14	3156.9	RELLENO_ZANJA	2.606	11.31	22497.3
	ARENA_3	0.700	3.85	6986.0				
4000.000	D TIERRA	4.169	63.80	36136.2	ARENA_1	0.234	3.40	1025.7
	ARENA_2	0.388	5.62	3162.6	RELLENO_ZANJA	2.141	34.41	22531.7
	ARENA_3	0.700	10.15	6996.1				
4020.000	D TIERRA	3.532	77.01	36213.2	ARENA_1	0.234	4.69	1030.4
	ARENA_2	0.388	7.76	3170.3	RELLENO_ZANJA	1.504	36.45	22568.2
	ARENA_3	0.700	14.00	7010.1				
4040.000	D TIERRA	3.570	71.03	36284.2	ARENA_1	0.234	4.69	1035.1
	ARENA_2	0.388	7.76	3178.1	RELLENO_ZANJA	1.542	30.47	22598.7
	ARENA_3	0.700	14.00	7024.1				
4060.000	D TIERRA	3.599	71.69	36355.9	ARENA_1	0.234	4.69	1039.8
	ARENA_2	0.388	7.76	3185.8	RELLENO_ZANJA	1.571	31.13	22629.8
	ARENA_3	0.700	14.00	7038.1				
4080.000	D TIERRA	3.628	72.27	36428.2	ARENA_1	0.234	4.69	1044.5
	ARENA_2	0.388	7.76	3193.6	RELLENO_ZANJA	1.600	31.71	22661.5
	ARENA_3	0.700	14.00	7052.1				
4100.000	D TIERRA	3.576	72.04	36500.2	ARENA_1	0.234	4.69	1049.2
	ARENA_2	0.388	7.76	3201.4	RELLENO_ZANJA	1.548	31.48	22693.0
	ARENA_3	0.700	14.00	7066.1				
4120.000	D TIERRA	3.541	71.17	36571.4	ARENA_1	0.234	4.69	1053.9
	ARENA_2	0.388	7.76	3209.1	RELLENO_ZANJA	1.514	30.62	22723.6
	ARENA_3	0.700	14.00	7080.1				
4140.000	D TIERRA	3.544	70.85	36642.2	ARENA_1	0.234	4.69	1058.5
	ARENA_2	0.388	7.76	3216.9	RELLENO_ZANJA	1.516	30.29	22753.9
	ARENA_3	0.699	13.99	7094.1				
4160.000	D TIERRA	3.570	71.14	36713.4	ARENA_1	0.234	4.69	1063.2
	ARENA_2	0.388	7.76	3224.6	RELLENO_ZANJA	1.542	30.58	22784.5
	ARENA_3	0.700	14.00	7108.1				
4180.000	D TIERRA	3.577	71.47	36784.9	ARENA_1	0.234	4.69	1067.9
	ARENA_2	0.388	7.76	3232.4	RELLENO_ZANJA	1.549	30.91	22815.4
	ARENA_3	0.700	14.00	7122.1				
4200.000	D TIERRA	3.509	70.86	36855.7	ARENA_1	0.234	4.69	1072.6
	ARENA_2	0.388	7.76	3240.2	RELLENO_ZANJA	1.481	30.30	22845.7
	ARENA_3	0.700	14.00	7136.1				

PERFIL	MATERIAL	AREA PERFIL	VOL. PARCIAL	VOL. ACUMUL.	MATERIAL	AREA PERFIL	VOL. PARCIAL	VOL. ACUMUL.
4220.000	D TIERRA	3.535	70.44	36926.2	ARENA_1	0.234	4.69	1077.3
	ARENA_2	0.388	7.76	3247.9	RELLENO_ZANJA	1.507	29.88	22875.6
	ARENA_3	0.700	14.00	7150.1				
4240.000	D TIERRA	3.422	69.57	36995.7	ARENA_1	0.234	4.69	1082.0
	ARENA_2	0.388	7.76	3255.7	RELLENO_ZANJA	1.394	29.01	22904.6
	ARENA_3	0.700	14.00	7164.1				
4260.000	D TIERRA	3.511	69.33	37065.1	ARENA_1	0.234	4.69	1086.7
	ARENA_2	0.388	7.76	3263.4	RELLENO_ZANJA	1.483	28.77	22933.3
	ARENA_3	0.700	14.00	7178.1				
4280.000	D TIERRA	3.562	70.73	37135.8	ARENA_1	0.234	4.69	1091.3
	ARENA_2	0.388	7.76	3271.2	RELLENO_ZANJA	1.534	30.17	22963.5
	ARENA_3	0.700	14.00	7192.1				
4300.000	D TIERRA	3.565	71.27	37207.1	ARENA_1	0.234	4.69	1096.0
	ARENA_2	0.388	7.76	3279.0	RELLENO_ZANJA	1.537	30.71	22994.2
	ARENA_3	0.700	14.00	7206.1				
4320.000	D TIERRA	3.557	71.22	37278.3	ARENA_1	0.234	4.69	1100.7
	ARENA_2	0.388	7.76	3286.7	RELLENO_ZANJA	1.529	30.66	23024.9
	ARENA_3	0.700	14.00	7220.1				
4340.000	D TIERRA	3.549	71.07	37349.4	ARENA_1	0.234	4.69	1105.4
	ARENA_2	0.388	7.76	3294.5	RELLENO_ZANJA	1.521	30.51	23055.4
	ARENA_3	0.700	14.00	7234.1				
4360.000	D TIERRA	3.542	70.91	37420.3	ARENA_1	0.234	4.69	1110.1
	ARENA_2	0.388	7.76	3302.2	RELLENO_ZANJA	1.514	30.35	23085.8
	ARENA_3	0.700	14.00	7248.1				
4380.000	D TIERRA	3.583	71.25	37491.5	ARENA_1	0.234	4.69	1114.8
	ARENA_2	0.388	7.76	3310.0	RELLENO_ZANJA	1.555	30.69	23116.4
	ARENA_3	0.700	14.00	7262.1				
4400.000	D TIERRA	3.626	72.09	37563.6	ARENA_1	0.234	4.69	1119.5
	ARENA_2	0.388	7.76	3317.8	RELLENO_ZANJA	1.598	31.53	23148.0
	ARENA_3	0.699	13.99	7276.1				
4420.000	D TIERRA	3.409	70.34	37633.9	ARENA_1	0.234	4.69	1124.2
	ARENA_2	0.388	7.76	3325.5	RELLENO_ZANJA	1.381	29.78	23177.8
	ARENA_3	0.699	13.99	7290.1				
4440.000	D TIERRA	3.246	66.55	37700.5	ARENA_1	0.234	4.69	1128.8
	ARENA_2	0.388	7.76	3333.3	RELLENO_ZANJA	1.218	25.99	23203.7
	ARENA_3	0.700	13.99	7304.1				
4460.000	D TIERRA	3.387	66.33	37766.8	ARENA_1	0.234	4.69	1133.5
	ARENA_2	0.388	7.76	3341.0	RELLENO_ZANJA	1.359	25.77	23229.5
	ARENA_3	0.700	14.00	7318.1				
4480.000	D TIERRA	3.396	67.83	37834.7	ARENA_1	0.234	4.69	1138.2
	ARENA_2	0.388	7.76	3348.8	RELLENO_ZANJA	1.368	27.27	23256.8
	ARENA_3	0.700	14.00	7332.1				
4500.000	D TIERRA	3.405	68.01	37902.7	ARENA_1	0.234	4.69	1142.9
	ARENA_2	0.388	7.76	3356.6	RELLENO_ZANJA	1.377	27.45	23284.2
	ARENA_3	0.700	14.00	7346.1				
4520.000	D TIERRA	3.414	68.18	37970.8	ARENA_1	0.234	4.69	1147.6
	ARENA_2	0.388	7.76	3364.3	RELLENO_ZANJA	1.386	27.62	23311.9
	ARENA_3	0.700	14.00	7360.1				
4540.000	D TIERRA	3.420	68.33	38039.2	ARENA_1	0.234	4.69	1152.3
	ARENA_2	0.388	7.76	3372.1	RELLENO_ZANJA	1.392	27.77	23339.6
	ARENA_3	0.700	14.00	7374.1				
4560.000	D TIERRA	3.431	68.51	38107.7	ARENA_1	0.234	4.69	1157.0
	ARENA_2	0.388	7.76	3379.8	RELLENO_ZANJA	1.403	27.95	23367.6
	ARENA_3	0.700	14.00	7388.1				
4563.131	D TIERRA	3.446	10.77	38118.4	ARENA_1	0.234	0.73	1157.7
	ARENA_2	0.388	1.22	3381.0	RELLENO_ZANJA	1.418	4.42	23372.0
	ARENA_3	0.698	2.19	7390.3				
4580.000	D TIERRA	12.768	0.00	38118.4	ARENA_1	0.277	0.00	1157.7
	ARENA_2	1.086	0.00	3381.0	RELLENO_ZANJA	7.781	0.00	23372.0
	ARENA_3	2.918	0.00	7390.3				



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PROYECTO : CIDACOS COMPLETO
EJE : 3: ETAP PRINCIPAL - ACOMETIDA DE ARNEDO

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PROYECTO : CIDACOS COMPLETO
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*** MEDICIONES DE LOS PERFILES TRANSVERSALES ***
*** CAPAS DE FIRME ***

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PERFIL	MATERIAL	AREA PERFIL	VOL. PARCIAL	VOL. ACUMUL.	MATERIAL	AREA PERFIL	VOL. PARCIAL	VOL. ACUMUL.
4600.000	D TIERRA	14.093	268.61	38387.1	ARENA_1	0.277	5.53	1163.2
	ARENA_2	1.085	21.71	3402.8	RELLENO_ZANJA	9.107	168.87	23540.9
	ARENA_3	2.919	58.37	7448.7				
4620.000	D TIERRA	10.858	249.51	38636.6	ARENA_1	0.277	5.53	1168.8
	ARENA_2	1.085	21.71	3424.5	RELLENO_ZANJA	5.870	149.77	23690.6
	ARENA_3	2.919	58.39	7507.1				
4640.000	D TIERRA	12.165	230.23	38866.8	ARENA_1	0.277	5.53	1174.3
	ARENA_2	1.085	21.71	3446.2	RELLENO_ZANJA	7.179	130.49	23821.1
	ARENA_3	2.919	58.38	7565.5				
4660.000	D TIERRA	11.693	238.58	39105.4	ARENA_1	0.277	5.53	1179.8
	ARENA_2	1.085	21.71	3467.9	RELLENO_ZANJA	6.705	138.84	23960.0
	ARENA_3	2.919	58.38	7623.8				
4680.000	D TIERRA	11.750	234.42	39339.8	ARENA_1	0.277	5.53	1185.4
	ARENA_2	1.085	21.71	3489.6	RELLENO_ZANJA	6.763	134.68	24094.6
	ARENA_3	2.919	58.38	7682.2				
4700.000	D TIERRA	13.676	254.25	39594.1	ARENA_1	0.277	5.53	1190.9
	ARENA_2	1.085	21.71	3511.3	RELLENO_ZANJA	8.689	154.51	24249.2
	ARENA_3	2.919	58.38	7740.6				
4720.000	D TIERRA	11.690	253.65	39847.7	ARENA_1	0.277	5.53	1196.4
	ARENA_2	1.085	21.71	3533.0	RELLENO_ZANJA	6.703	153.91	24403.1
	ARENA_3	2.919	58.38	7799.0				
4734.720	D TIERRA	17.217	212.75	40060.5	ARENA_1	0.277	4.07	1200.5
	ARENA_2	1.085	15.98	3549.0	RELLENO_ZANJA	12.230	139.34	24542.4
	ARENA_3	2.919	42.97	7842.0				
4740.000	D TIERRA	17.799	92.44	40152.9	ARENA_1	0.277	1.46	1202.0
	ARENA_2	1.085	5.73	3554.7	RELLENO_ZANJA	12.812	66.11	24608.5
	ARENA_3	2.919	15.41	7857.4				
4760.000	D TIERRA	83.109	1009.08	41162.0	ARENA_1	0.277	5.53	1207.5
	ARENA_2	1.085	21.71	3576.4	RELLENO_ZANJA	78.122	909.34	25517.9
	ARENA_3	2.919	58.38	7915.8				
4770.966	D TIERRA	20.131	566.07	41728.0	ARENA_1	0.277	3.03	1210.5
	ARENA_2	1.085	11.90	3588.3	RELLENO_ZANJA	15.144	511.38	26029.2
	ARENA_3	2.919	32.01	7947.8				
4780.000	D TIERRA	15.199	159.59	41887.6	ARENA_1	0.277	2.50	1213.0
	ARENA_2	1.085	9.81	3598.1	RELLENO_ZANJA	10.212	114.54	26143.8
	ARENA_3	2.919	26.37	7974.1				
4800.000	D TIERRA	16.470	316.69	42204.3	ARENA_1	0.277	5.53	1218.6
	ARENA_2	1.085	21.71	3619.8	RELLENO_ZANJA	11.483	216.95	26360.7
	ARENA_3	2.919	58.39	8032.5				
4807.582	D TIERRA	15.270	120.32	42324.7	ARENA_1	0.277	2.10	1220.7
	ARENA_2	1.085	8.23	3628.1	RELLENO_ZANJA	10.283	82.51	26443.2
	ARENA_3	2.919	22.13	8054.7				
4820.000	D TIERRA	13.391	177.95	42502.6	ARENA_1	0.277	3.44	1224.1
	ARENA_2	1.085	13.48	3641.6	RELLENO_ZANJA	8.404	116.02	26559.3
	ARENA_3	2.919	36.25	8090.9				
4840.000	D TIERRA	13.763	271.53	42774.1	ARENA_1	0.277	5.53	1229.6
	ARENA_2	1.085	21.71	3663.3	RELLENO_ZANJA	8.776	171.80	26731.1
	ARENA_3	2.919	58.39	8149.3				
4860.000	D TIERRA	12.433	261.95	43036.1	ARENA_1	0.277	5.53	1235.2
	ARENA_2	1.085	21.71	3685.0	RELLENO_ZANJA	7.446	162.22	26893.3
	ARENA_3	2.919	58.39	8207.7				
4880.000	D TIERRA	11.767	241.99	43278.1	ARENA_1	0.277	5.53	1240.7
	ARENA_2	1.085	21.71	3706.7	RELLENO_ZANJA	6.780	142.25	27035.5
	ARENA_3	2.919	58.39	8266.1				
4900.000	D TIERRA	12.671	244.37	43522.5	ARENA_1	0.277	5.53	1246.2
	ARENA_2	1.085	21.71	3728.4	RELLENO_ZANJA	7.684	144.64	27180.2
	ARENA_3	2.919	58.39	8324.5				
4920.000	D TIERRA	11.644	243.15	43765.6	ARENA_1	0.277	5.53	1251.8
	ARENA_2	1.085	21.71	3750.1	RELLENO_ZANJA	6.657	143.41	27323.6
	ARENA_3	2.919	58.39	8382.9				

PERFIL	MATERIAL	AREA PERFIL	VOL. PARCIAL	VOL. ACUMUL.	MATERIAL	AREA PERFIL	VOL. PARCIAL	VOL. ACUMUL.
4940.000	D TIERRA	11.350	229.94	43995.5	ARENA_1	0.277	5.53	1257.3
	ARENA_2	1.085	21.71	3771.8	RELLENO_ZANJA	6.363	130.20	27453.8
	ARENA_3	2.919	58.38	8441.2				
4960.000	D TIERRA	16.487	278.36	44273.9	ARENA_1	0.277	5.53	1262.8
	ARENA_2	1.085	21.71	3793.5	RELLENO_ZANJA	11.499	178.62	27632.4
	ARENA_3	2.919	58.38	8499.6				
4980.000	D TIERRA	21.483	379.70	44653.6	ARENA_1	0.277	5.53	1268.4
	ARENA_2	1.085	21.71	3815.2	RELLENO_ZANJA	16.496	279.96	27912.4
	ARENA_3	2.919	58.38	8558.0				
5000.000	D TIERRA	11.910	333.94	44987.5	ARENA_1	0.277	5.53	1273.9
	ARENA_2	1.085	21.71	3836.9	RELLENO_ZANJA	6.923	234.20	28146.6
	ARENA_3	2.919	58.39	8616.4				
5020.000	D TIERRA	11.983	238.93	45226.5	ARENA_1	0.277	5.53	1279.4
	ARENA_2	1.086	21.71	3858.6	RELLENO_ZANJA	6.995	139.19	28285.7
	ARENA_3	2.919	58.38	8674.8				
5040.000	D TIERRA	12.159	241.41	45467.9	ARENA_1	0.277	5.53	1285.0
	ARENA_2	1.085	21.71	3880.4	RELLENO_ZANJA	7.172	141.67	28427.4
	ARENA_3	2.919	58.38	8733.2				
5040.714	D TIERRA	12.192	8.69	45476.6	ARENA_1	0.277	0.20	1285.2
	ARENA_2	1.085	0.78	3881.1	RELLENO_ZANJA	7.205	5.13	28432.5
	ARENA_3	2.919	2.08	8735.2				
5060.000	D TIERRA	11.781	231.17	45707.8	ARENA_1	0.277	5.34	1290.5
	ARENA_2	1.085	20.93	3902.1	RELLENO_ZANJA	6.794	134.99	28567.5
	ARENA_3	2.919	56.30	8791.5				
5080.000	D TIERRA	17.979	297.60	46005.4	ARENA_1	0.277	5.53	1296.0
	ARENA_2	1.085	21.71	3923.8	RELLENO_ZANJA	12.992	197.86	28765.4
	ARENA_3	2.919	58.39	8849.9				
5090.233	D TIERRA	19.597	192.26	46197.6	ARENA_1	0.277	2.83	1298.9
	ARENA_2	1.085	11.11	3934.9	RELLENO_ZANJA	14.610	141.23	28906.6
	ARENA_3	2.919	29.87	8879.8				
5100.000	D TIERRA	20.517	195.90	46393.5	ARENA_1	0.277	2.70	1301.6
	ARENA_2	1.085	10.60	3945.5	RELLENO_ZANJA	15.530	147.19	29053.8
	ARENA_3	2.919	28.51	8908.3				
5120.000	D TIERRA	17.477	379.93	46773.4	ARENA_1	0.277	5.53	1307.1
	ARENA_2	1.085	21.71	3967.2	RELLENO_ZANJA	12.490	280.19	29334.0
	ARENA_3	2.919	58.39	8966.7				
5127.898	D TIERRA	16.622	134.66	46908.1	ARENA_1	0.277	2.19	1309.3
	ARENA_2	1.085	8.57	3975.8	RELLENO_ZANJA	11.636	95.27	29429.3
	ARENA_3	2.919	23.06	8989.8				
5140.000	D TIERRA	354.048	2242.93	49151.0	ARENA_1	0.277	3.35	1312.6
	ARENA_2	1.085	13.14	3988.9	RELLENO_ZANJA	349.061	2182.58	31611.9
	ARENA_3	2.919	35.33	9025.1				
5149.857	D TIERRA	606.806	4735.57	53886.6	ARENA_1	0.277	2.73	1315.4
	ARENA_2	1.085	10.70	3999.6	RELLENO_ZANJA	601.819	4686.41	36298.3
	ARENA_3	2.919	28.78	9053.9				
5160.000	D TIERRA	869.974	7489.49	61376.1	ARENA_1	0.277	2.81	1318.2
	ARENA_2	1.085	11.01	4010.6	RELLENO_ZANJA	864.987	7438.91	43737.2
	ARENA_3	2.919	29.61	9083.5				
5180.000	D TIERRA	16.235	8862.09	70238.2	ARENA_1	0.277	5.53	1323.7
	ARENA_2	1.085	21.71	4032.3	RELLENO_ZANJA	11.248	8762.35	52499.5
	ARENA_3	2.919	58.39	9141.9				
5200.000	D TIERRA	16.013	322.48	70560.7	ARENA_1	0.277	5.53	1329.2
	ARENA_2	1.085	21.71	4054.0	RELLENO_ZANJA	11.026	222.74	52722.3
	ARENA_3	2.919	58.39	9200.2				
5220.000	D TIERRA	4.089	0.00	70560.7	ARENA_1	0.234	0.00	1329.2
	ARENA_2	0.388	0.00	4054.0	RELLENO_ZANJA	2.061	0.00	52722.3
	ARENA_3	0.700	0.00	9200.2				
5235.386	D TIERRA	3.662	59.63	70620.3	ARENA_1	0.234	3.61	1332.8
	ARENA_2	0.388	5.97	4060.0	RELLENO_ZANJA	1.634	28.43	52750.7
	ARENA_3	0.700	10.77	9211.0				



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PROYECTO : CIDACOS COMPLETO
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*** MEDICIONES DE LOS PERFILES TRANSVERSALES ***
*** CAPAS DE FIRME ***

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PERFIL	MATERIAL	AREA PERFIL	VOL. PARCIAL	VOL. ACUMUL.	MATERIAL	AREA PERFIL	VOL. PARCIAL	VOL. ACUMUL.
5240.000	D TIERRA	3.542	16.62	70636.9	ARENA_1	0.234	1.08	1333.9
	ARENA_2	0.388	1.79	4061.8	RELLENO_ZANJA	1.514	7.26	52758.0
	ARENA_3	0.700	3.23	9214.2				
5260.000	D TIERRA	3.542	70.84	70707.7	ARENA_1	0.234	4.69	1338.6
	ARENA_2	0.388	7.76	4069.5	RELLENO_ZANJA	1.514	30.28	52788.2
	ARENA_3	0.700	14.00	9228.2				
5273.346	D TIERRA	3.540	47.26	70755.0	ARENA_1	0.234	3.13	1341.7
	ARENA_2	0.388	5.18	4074.7	RELLENO_ZANJA	1.512	20.19	52808.4
	ARENA_3	0.700	9.34	9237.6				
5280.000	D TIERRA	3.560	23.62	70778.6	ARENA_1	0.234	1.56	1343.3
	ARENA_2	0.388	2.58	4077.3	RELLENO_ZANJA	1.532	10.13	52818.6
	ARENA_3	0.700	4.66	9242.3				
5300.000	D TIERRA	3.675	72.35	70851.0	ARENA_1	0.234	4.69	1348.0
	ARENA_2	0.388	7.76	4085.1	RELLENO_ZANJA	1.647	31.79	52850.3
	ARENA_3	0.700	14.00	9256.3				
5320.000	D TIERRA	4.725	84.00	70935.0	ARENA_1	0.234	4.69	1352.7
	ARENA_2	0.388	7.76	4092.8	RELLENO_ZANJA	2.697	43.44	52893.8
	ARENA_3	0.700	14.00	9270.3				
5325.726	D TIERRA	3.542	23.67	70958.6	ARENA_1	0.234	1.34	1354.0
	ARENA_2	0.388	2.22	4095.0	RELLENO_ZANJA	1.514	12.06	52905.8
	ARENA_3	0.700	4.01	9274.3				
5340.000	D TIERRA	3.474	50.08	71008.7	ARENA_1	0.234	3.34	1357.4
	ARENA_2	0.388	5.54	4100.6	RELLENO_ZANJA	1.446	21.13	52927.0
	ARENA_3	0.700	9.99	9284.3				
5360.000	D TIERRA	3.545	70.19	71078.9	ARENA_1	0.234	4.69	1362.0
	ARENA_2	0.388	7.76	4108.3	RELLENO_ZANJA	1.517	29.63	52956.6
	ARENA_3	0.700	14.00	9298.3				
5367.414	D TIERRA	3.577	26.40	71105.3	ARENA_1	0.234	1.74	1363.8
	ARENA_2	0.388	2.88	4111.2	RELLENO_ZANJA	1.549	11.37	52968.0
	ARENA_3	0.700	5.19	9303.5				
5380.000	D TIERRA	3.585	45.07	71150.4	ARENA_1	0.234	2.95	1366.7
	ARENA_2	0.388	4.88	4116.1	RELLENO_ZANJA	1.557	19.55	52987.5
	ARENA_3	0.700	8.81	9312.3				
5400.000	D TIERRA	3.605	71.90	71222.3	ARENA_1	0.234	4.69	1371.4
	ARENA_2	0.388	7.76	4123.8	RELLENO_ZANJA	1.577	31.34	53018.9
	ARENA_3	0.700	14.00	9326.3				
5420.000	D TIERRA	3.595	72.00	71294.3	ARENA_1	0.234	4.69	1376.1
	ARENA_2	0.388	7.76	4131.6	RELLENO_ZANJA	1.567	31.44	53050.3
	ARENA_3	0.700	14.00	9340.3				
5440.000	D TIERRA	3.547	71.42	71365.7	ARENA_1	0.234	4.69	1380.8
	ARENA_2	0.388	7.76	4139.4	RELLENO_ZANJA	1.519	30.86	53081.2
	ARENA_3	0.700	14.00	9354.3				
5460.000	D TIERRA	3.474	70.21	71435.9	ARENA_1	0.234	4.69	1385.5
	ARENA_2	0.388	7.76	4147.1	RELLENO_ZANJA	1.446	29.65	53110.8
	ARENA_3	0.700	14.00	9368.3				
5480.000	D TIERRA	3.500	69.74	71505.7	ARENA_1	0.234	4.69	1390.2
	ARENA_2	0.388	7.76	4154.9	RELLENO_ZANJA	1.472	29.19	53140.0
	ARENA_3	0.700	14.00	9382.3				
5500.000	D TIERRA	3.885	73.85	71579.5	ARENA_1	0.234	4.69	1394.9
	ARENA_2	0.388	7.76	4162.6	RELLENO_ZANJA	1.857	33.29	53173.3
	ARENA_3	0.700	14.00	9396.3				
5520.000	D TIERRA	3.552	74.37	71653.9	ARENA_1	0.234	4.69	1399.5
	ARENA_2	0.388	7.76	4170.4	RELLENO_ZANJA	1.524	33.81	53207.1
	ARENA_3	0.700	14.00	9410.3				
5530.953	D TIERRA	4.602	44.65	71698.5	ARENA_1	0.234	2.57	1402.1
	ARENA_2	0.388	4.25	4174.6	RELLENO_ZANJA	2.574	22.44	53229.5
	ARENA_3	0.700	7.67	9418.0				
5540.000	D TIERRA	4.521	41.27	71739.8	ARENA_1	0.234	2.12	1404.2
	ARENA_2	0.388	3.51	4178.2	RELLENO_ZANJA	2.493	22.92	53252.5
	ARENA_3	0.700	6.33	9424.3				

PERFIL	MATERIAL	AREA PERFIL	VOL. PARCIAL	VOL. ACUMUL.	MATERIAL	AREA PERFIL	VOL. PARCIAL	VOL. ACUMUL.
5560.000	D TIERRA	4.335	88.57	71828.4	ARENA_1	0.234	4.69	1408.9
	ARENA_2	0.388	7.76	4185.9	RELLENO_ZANJA	2.307	48.01	53300.5
	ARENA_3	0.700	14.00	9438.3				
5580.000	D TIERRA	4.046	83.81	71912.2	ARENA_1	0.234	4.69	1413.6
	ARENA_2	0.388	7.76	4193.7	RELLENO_ZANJA	2.018	43.26	53343.7
	ARENA_3	0.700	14.00	9452.3				
5600.000	D TIERRA	3.542	75.88	71988.1	ARENA_1	0.234	4.69	1418.3
	ARENA_2	0.388	7.76	4201.4	RELLENO_ZANJA	1.514	35.32	53379.0
	ARENA_3	0.700	14.00	9466.3				
5620.000	D TIERRA	3.502	70.43	72058.5	ARENA_1	0.234	4.69	1423.0
	ARENA_2	0.388	7.76	4209.2	RELLENO_ZANJA	1.474	29.87	53408.9
	ARENA_3	0.700	14.00	9480.3				
5640.000	D TIERRA	3.542	70.43	72128.9	ARENA_1	0.234	4.69	1427.7
	ARENA_2	0.388	7.76	4217.0	RELLENO_ZANJA	1.514	29.87	53438.8
	ARENA_3	0.700	14.00	9494.3				
5660.000	D TIERRA	3.576	71.18	72200.1	ARENA_1	0.234	4.69	1432.4
	ARENA_2	0.388	7.76	4224.7	RELLENO_ZANJA	1.548	30.62	53469.4
	ARENA_3	0.700	14.00	9508.3				
5680.000	D TIERRA	3.542	71.18	72271.3	ARENA_1	0.234	4.69	1437.0
	ARENA_2	0.388	7.76	4232.5	RELLENO_ZANJA	1.514	30.62	53500.0
	ARENA_3	0.700	14.00	9522.3				
5700.000	D TIERRA	3.649	71.91	72343.2	ARENA_1	0.234	4.69	1441.7
	ARENA_2	0.388	7.76	4240.2	RELLENO_ZANJA	1.621	31.35	53531.4
	ARENA_3	0.700	14.00	9536.3				
5720.000	D TIERRA	3.672	73.21	72416.4	ARENA_1	0.234	4.69	1446.4
	ARENA_2	0.388	7.76	4248.0	RELLENO_ZANJA	1.644	32.65	53564.0
	ARENA_3	0.700	14.00	9550.3				
5740.000	D TIERRA	3.607	72.79	72489.2	ARENA_1	0.234	4.69	1451.1
	ARENA_2	0.388	7.76	4255.7	RELLENO_ZANJA	1.579	32.23	53596.2
	ARENA_3	0.700	14.00	9564.3				
5753.295	D TIERRA	3.564	47.67	72536.8	ARENA_1	0.234	3.12	1454.2
	ARENA_2	0.388	5.16	4260.9	RELLENO_ZANJA	1.536	20.71	53617.0
	ARENA_3	0.700	9.31	9573.6				
5760.000	D TIERRA	3.546	23.83	72560.7	ARENA_1	0.234	1.57	1455.8
	ARENA_2	0.388	2.60	4263.5	RELLENO_ZANJA	1.518	10.24	53627.2
	ARENA_3	0.700	4.69	9578.3				
5780.000	D TIERRA	3.549	70.94	72631.6	ARENA_1	0.234	4.69	1460.5
	ARENA_2	0.388	7.76	4271.3	RELLENO_ZANJA	1.521	30.39	53657.6
	ARENA_3	0.700	14.00	9592.3				
5800.000	D TIERRA	3.542	70.91	72702.5	ARENA_1	0.234	4.69	1465.2
	ARENA_2	0.388	7.76	4279.0	RELLENO_ZANJA	1.514	30.35	53687.9
	ARENA_3	0.700	14.00	9606.3				
5800.238	D TIERRA	3.537	0.84	72703.4	ARENA_1	0.234	0.06	1465.2
	ARENA_2	0.388	0.09	4279.1	RELLENO_ZANJA	1.509	0.36	53688.3
	ARENA_3	0.700	0.17	9606.5				
5820.000	D TIERRA	3.774	72.23	72775.6	ARENA_1	0.234	4.63	1469.9
	ARENA_2	0.388	7.67	4286.8	RELLENO_ZANJA	1.746	32.16	53720.4
	ARENA_3	0.700	13.84	9620.3				
5840.000	D TIERRA	3.937	77.11	72852.7	ARENA_1	0.234	4.69	1474.5
	ARENA_2	0.388	7.76	4294.5	RELLENO_ZANJA	1.909	36.55	53757.0
	ARENA_3	0.700	14.00	9634.3				
5860.000	D TIERRA	5.148	90.85	72943.6	ARENA_1	0.234	4.69	1479.2
	ARENA_2	0.388	7.76	4302.3	RELLENO_ZANJA	3.120	50.30	53807.3
	ARENA_3	0.698	13.99	9648.3				
5877.256	D TIERRA	3.811	77.30	73020.9	ARENA_1	0.234	4.04	1483.3
	ARENA_2	0.388	6.70	4309.0	RELLENO_ZANJA	1.783	42.31	53849.6
	ARENA_3	0.699	12.06	9660.4				
5880.000	D TIERRA	3.542	10.09	73031.0	ARENA_1	0.234	0.64	1483.9
	ARENA_2	0.388	1.06	4310.1	RELLENO_ZANJA	1.514	4.52	53854.1
	ARENA_3	0.699	1.92	9662.3				



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PROYECTO : CIDACOS COMPLETO
EJE : 3: ETAP PRINCIPAL - ACOMETIDA DE ARNEDO

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PROYECTO : CIDACOS COMPLETO
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*** MEDICIONES DE LOS PERFILES TRANSVERSALES***
*** CAPAS DE FIRME ***

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PERFIL	MATERIAL	AREA PERFIL	VOL. PARCIAL	VOL. ACUMUL.	MATERIAL	AREA PERFIL	VOL. PARCIAL	VOL. ACUMUL.
5900.000	D TIERRA	3.566	71.07	73102.0	ARENA_1	0.234	4.69	1488.6
	ARENA_2	0.388	7.76	4317.8	RELLENO_ZANJA	1.538	30.52	53884.6
	ARENA_3	0.700	14.00	9676.3				
5920.000	D TIERRA	3.541	71.07	73173.1	ARENA_1	0.234	4.69	1493.3
	ARENA_2	0.388	7.76	4325.6	RELLENO_ZANJA	1.513	30.51	53915.1
	ARENA_3	0.700	14.00	9690.3				
5940.000	D TIERRA	3.542	70.83	73243.9	ARENA_1	0.234	4.69	1498.0
	ARENA_2	0.388	7.76	4333.3	RELLENO_ZANJA	1.514	30.27	53945.4
	ARENA_3	0.699	13.99	9704.3				
5960.000	D TIERRA	3.542	70.84	73314.8	ARENA_1	0.234	4.69	1502.7
	ARENA_2	0.388	7.76	4341.1	RELLENO_ZANJA	1.514	30.28	53975.7
	ARENA_3	0.699	13.98	9718.3				
5966.424	D TIERRA	3.640	23.07	73337.8	ARENA_1	0.234	1.51	1504.2
	ARENA_2	0.388	2.49	4343.6	RELLENO_ZANJA	1.612	10.04	53985.7
	ARENA_3	0.700	4.49	9722.8				
5975.032	D TIERRA	3.750	31.81	73369.7	ARENA_1	0.234	2.02	1506.2
	ARENA_2	0.388	3.34	4346.9	RELLENO_ZANJA	1.722	14.35	54000.1
	ARENA_3	0.700	6.03	9728.8				
5980.000	D TIERRA	3.619	18.31	73388.0	ARENA_1	0.234	1.16	1507.3
	ARENA_2	0.388	1.93	4348.9	RELLENO_ZANJA	1.591	8.23	54008.3
	ARENA_3	0.700	3.48	9732.3				
5987.560	D TIERRA	3.620	27.37	73415.3	ARENA_1	0.234	1.77	1509.1
	ARENA_2	0.388	2.93	4351.8	RELLENO_ZANJA	1.592	12.03	54020.3
	ARENA_3	0.700	5.29	9737.6				
6000.000	D TIERRA	3.577	44.76	73460.1	ARENA_1	0.234	2.92	1512.0
	ARENA_2	0.388	4.83	4356.6	RELLENO_ZANJA	1.549	19.54	54039.9
	ARENA_3	0.700	8.71	9746.3				
6020.000	D TIERRA	3.542	71.18	73531.3	ARENA_1	0.234	4.69	1516.7
	ARENA_2	0.388	7.76	4364.4	RELLENO_ZANJA	1.514	30.62	54070.5
	ARENA_3	0.698	13.98	9760.2				
6040.000	D TIERRA	3.526	70.68	73602.0	ARENA_1	0.234	4.69	1521.4
	ARENA_2	0.388	7.76	4372.1	RELLENO_ZANJA	1.498	30.12	54100.6
	ARENA_3	0.700	13.98	9774.2				
6060.000	D TIERRA	3.509	70.35	73672.3	ARENA_1	0.234	4.69	1526.1
	ARENA_2	0.388	7.76	4379.9	RELLENO_ZANJA	1.481	29.79	54130.4
	ARENA_3	0.700	14.00	9788.2				
6080.000	D TIERRA	3.494	70.03	73742.3	ARENA_1	0.234	4.69	1530.8
	ARENA_2	0.388	7.76	4387.7	RELLENO_ZANJA	1.466	29.47	54159.9
	ARENA_3	0.700	14.00	9802.2				
6100.000	D TIERRA	3.477	69.71	73812.0	ARENA_1	0.234	4.69	1535.5
	ARENA_2	0.388	7.76	4395.4	RELLENO_ZANJA	1.449	29.15	54189.0
	ARENA_3	0.700	14.00	9816.2				
6120.000	D TIERRA	3.542	70.19	73882.2	ARENA_1	0.234	4.69	1540.1
	ARENA_2	0.388	7.76	4403.2	RELLENO_ZANJA	1.514	29.63	54218.7
	ARENA_3	0.700	14.00	9830.2				
6140.000	D TIERRA	3.654	71.96	73954.2	ARENA_1	0.234	4.69	1544.8
	ARENA_2	0.388	7.76	4410.9	RELLENO_ZANJA	1.626	31.40	54250.1
	ARENA_3	0.700	14.00	9844.2				
6160.000	D TIERRA	4.075	77.29	74031.5	ARENA_1	0.234	4.69	1549.5
	ARENA_2	0.388	7.76	4418.7	RELLENO_ZANJA	2.047	36.73	54286.8
	ARENA_3	0.700	14.00	9858.2				
6180.000	D TIERRA	4.009	80.84	74112.3	ARENA_1	0.234	4.69	1554.2
	ARENA_2	0.388	7.76	4426.5	RELLENO_ZANJA	1.981	40.28	54327.1
	ARENA_3	0.700	14.00	9872.2				
6200.000	D TIERRA	3.906	79.15	74191.5	ARENA_1	0.234	4.69	1558.9
	ARENA_2	0.388	7.76	4434.2	RELLENO_ZANJA	1.878	38.59	54365.7
	ARENA_3	0.700	14.00	9886.2				
6220.000	D TIERRA	3.749	76.56	74268.0	ARENA_1	0.234	4.69	1563.6
	ARENA_2	0.388	7.76	4442.0	RELLENO_ZANJA	1.721	36.00	54401.7
	ARENA_3	0.700	14.00	9900.3				

PERFIL	MATERIAL	AREA PERFIL	VOL. PARCIAL	VOL. ACUMUL.	MATERIAL	AREA PERFIL	VOL. PARCIAL	VOL. ACUMUL.
6240.000	D TIERRA	3.542	72.91	74340.9	ARENA_1	0.234	4.69	1568.3
	ARENA_2	0.388	7.76	4449.7	RELLENO_ZANJA	1.514	32.35	54434.0
	ARENA_3	0.700	14.00	9914.3				
6260.000	D TIERRA	3.520	70.62	74411.6	ARENA_1	0.234	4.69	1573.0
	ARENA_2	0.388	7.76	4457.5	RELLENO_ZANJA	1.492	30.06	54464.1
	ARENA_3	0.700	14.00	9928.3				
6280.000	D TIERRA	3.500	70.20	74481.8	ARENA_1	0.234	4.69	1577.6
	ARENA_2	0.388	7.76	4465.3	RELLENO_ZANJA	1.472	29.64	54493.7
	ARENA_3	0.700	14.00	9942.3				
6300.000	D TIERRA	3.481	69.81	74551.6	ARENA_1	0.234	4.69	1582.3
	ARENA_2	0.388	7.76	4473.0	RELLENO_ZANJA	1.453	29.25	54523.0
	ARENA_3	0.700	14.00	9956.3				
6320.000	D TIERRA	3.467	69.47	74621.1	ARENA_1	0.234	4.69	1587.0
	ARENA_2	0.388	7.76	4480.8	RELLENO_ZANJA	1.439	28.91	54551.9
	ARENA_3	0.700	14.00	9970.3				
6340.000	D TIERRA	3.459	69.26	74690.3	ARENA_1	0.234	4.69	1591.7
	ARENA_2	0.388	7.76	4488.5	RELLENO_ZANJA	1.431	28.70	54580.6
	ARENA_3	0.700	14.00	9984.3				
6360.000	D TIERRA	3.452	69.12	74759.4	ARENA_1	0.234	4.69	1596.4
	ARENA_2	0.388	7.76	4496.3	RELLENO_ZANJA	1.424	28.56	54609.1
	ARENA_3	0.700	14.00	9998.3				
6380.000	D TIERRA	3.445	68.97	74828.4	ARENA_1	0.234	4.69	1601.1
	ARENA_2	0.388	7.76	4504.1	RELLENO_ZANJA	1.417	28.41	54637.6
	ARENA_3	0.700	14.00	10012.3				
6400.000	D TIERRA	3.501	69.46	74897.9	ARENA_1	0.234	4.69	1605.8
	ARENA_2	0.388	7.76	4511.8	RELLENO_ZANJA	1.473	28.90	54666.5
	ARENA_3	0.700	14.00	10026.3				
6420.000	D TIERRA	3.628	71.29	74969.2	ARENA_1	0.234	4.69	1610.5
	ARENA_2	0.388	7.76	4519.6	RELLENO_ZANJA	1.600	30.73	54697.2
	ARENA_3	0.700	14.00	10040.3				
6427.561	D TIERRA	3.724	27.79	74996.9	ARENA_1	0.234	1.77	1612.2
	ARENA_2	0.388	2.93	4522.5	RELLENO_ZANJA	1.696	12.46	54709.7
	ARENA_3	0.700	5.29	10045.6				
6440.000	D TIERRA	3.687	46.09	75043.0	ARENA_1	0.234	2.92	1615.1
	ARENA_2	0.388	4.83	4527.3	RELLENO_ZANJA	1.659	20.87	54730.5
	ARENA_3	0.700	8.71	10054.3				
6445.965	D TIERRA	3.671	21.95	75065.0	ARENA_1	0.234	1.40	1616.5
	ARENA_2	0.388	2.31	4529.6	RELLENO_ZANJA	1.643	9.85	54740.4
	ARENA_3	0.700	4.18	10058.5				
6460.000	D TIERRA	3.628	51.22	75116.2	ARENA_1	0.234	3.29	1619.8
	ARENA_2	0.388	5.44	4535.1	RELLENO_ZANJA	1.600	22.76	54763.1
	ARENA_3	0.700	9.83	10068.3				
6473.263	D TIERRA	3.609	47.99	75164.2	ARENA_1	0.234	3.11	1622.9
	ARENA_2	0.388	5.14	4540.2	RELLENO_ZANJA	1.581	21.09	54784.2
	ARENA_3	0.700	9.29	10077.6				
6480.000	D TIERRA	3.603	24.29	75188.5	ARENA_1	0.234	1.58	1624.5
	ARENA_2	0.388	2.61	4542.8	RELLENO_ZANJA	1.575	10.63	54794.9
	ARENA_3	0.700	4.72	10082.3				
6498.735	D TIERRA	3.591	67.39	75255.9	ARENA_1	0.234	4.39	1628.9
	ARENA_2	0.388	7.27	4550.1	RELLENO_ZANJA	1.563	29.40	54824.2
	ARENA_3	0.700	13.12	10095.4				
6500.000	D TIERRA	3.590	4.54	75260.4	ARENA_1	0.234	0.30	1629.2
	ARENA_2	0.388	0.49	4550.6	RELLENO_ZANJA	1.562	1.98	54826.2
	ARENA_3	0.700	0.89	10096.3				
6520.000	D TIERRA	3.577	71.67	75332.1	ARENA_1	0.234	4.69	1633.9
	ARENA_2	0.388	7.76	4558.4	RELLENO_ZANJA	1.549	31.11	54857.3
	ARENA_3	0.700	14.00	10110.3				
6540.000	D TIERRA	3.576	71.54	75403.6	ARENA_1	0.234	4.69	1638.6
	ARENA_2	0.388	7.76	4566.1	RELLENO_ZANJA	1.548	30.98	54888.3
	ARENA_3	0.700	14.00	10124.3				



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PROYECTO : CIDACOS COMPLETO
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*** MEDICIONES DE LOS PERFILES TRANSVERSALES ***
*** CAPAS DE FIRME ***

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PERFIL	MATERIAL	AREA PERFIL	VOL. PARCIAL	VOL. ACUMUL.	MATERIAL	AREA PERFIL	VOL. PARCIAL	VOL. ACUMUL.
6560.000	D TIERRA	3.576	71.53	75475.2	ARENA_1	0.234	4.69	1643.3
	ARENA_2	0.388	7.76	4573.9	RELLENO_ZANJA	1.548	30.97	54919.3
	ARENA_3	0.700	14.00	10138.3				
6580.000	D TIERRA	3.578	71.54	75546.7	ARENA_1	0.234	4.69	1647.9
	ARENA_2	0.388	7.76	4581.6	RELLENO_ZANJA	1.550	30.98	54950.3
	ARENA_3	0.700	14.00	10152.3				
6600.000	D TIERRA	3.572	71.50	75618.2	ARENA_1	0.234	4.69	1652.6
	ARENA_2	0.388	7.76	4589.4	RELLENO_ZANJA	1.544	30.94	54981.2
	ARENA_3	0.700	14.00	10166.3				
6620.000	D TIERRA	3.553	71.25	75689.4	ARENA_1	0.234	4.69	1657.3
	ARENA_2	0.388	7.76	4597.2	RELLENO_ZANJA	1.525	30.69	55011.9
	ARENA_3	0.700	14.00	10180.3				
6640.000	D TIERRA	3.535	70.88	75760.3	ARENA_1	0.234	4.69	1662.0
	ARENA_2	0.388	7.76	4604.9	RELLENO_ZANJA	1.507	30.32	55042.2
	ARENA_3	0.700	14.00	10194.3				
6660.000	D TIERRA	3.555	70.90	75831.2	ARENA_1	0.234	4.69	1666.7
	ARENA_2	0.388	7.76	4612.7	RELLENO_ZANJA	1.527	30.34	55072.6
	ARENA_3	0.700	14.00	10208.3				
6680.000	D TIERRA	3.674	72.29	75903.5	ARENA_1	0.234	4.69	1671.4
	ARENA_2	0.388	7.76	4620.4	RELLENO_ZANJA	1.646	31.73	55104.3
	ARENA_3	0.700	14.00	10222.3				
6700.000	D TIERRA	3.542	72.16	75975.7	ARENA_1	0.234	4.69	1676.1
	ARENA_2	0.388	7.76	4628.2	RELLENO_ZANJA	1.514	31.60	55135.9
	ARENA_3	0.700	14.00	10236.3				
6720.000	D TIERRA	3.491	70.33	76046.0	ARENA_1	0.234	4.69	1680.8
	ARENA_2	0.388	7.76	4635.9	RELLENO_ZANJA	1.463	29.77	55165.7
	ARENA_3	0.700	14.00	10250.3				
6740.000	D TIERRA	3.542	70.33	76116.3	ARENA_1	0.234	4.69	1685.4
	ARENA_2	0.388	7.76	4643.7	RELLENO_ZANJA	1.514	29.77	55195.4
	ARENA_3	0.700	14.00	10264.3				
6760.000	D TIERRA	3.483	70.24	76186.6	ARENA_1	0.234	4.69	1690.1
	ARENA_2	0.388	7.76	4651.5	RELLENO_ZANJA	1.455	29.68	55225.1
	ARENA_3	0.700	14.00	10278.3				
6780.000	D TIERRA	3.601	70.83	76257.4	ARENA_1	0.234	4.69	1694.8
	ARENA_2	0.388	7.76	4659.2	RELLENO_ZANJA	1.573	30.27	55255.4
	ARENA_3	0.700	14.00	10292.3				
6800.000	D TIERRA	3.663	72.64	76330.1	ARENA_1	0.234	4.69	1699.5
	ARENA_2	0.388	7.76	4667.0	RELLENO_ZANJA	1.635	32.08	55287.5
	ARENA_3	0.700	14.00	10306.3				
6820.000	D TIERRA	3.641	73.04	76403.1	ARENA_1	0.234	4.69	1704.2
	ARENA_2	0.388	7.76	4674.7	RELLENO_ZANJA	1.613	32.48	55319.9
	ARENA_3	0.700	14.00	10320.3				
6840.000	D TIERRA	3.591	72.33	76475.4	ARENA_1	0.234	4.69	1708.9
	ARENA_2	0.388	7.76	4682.5	RELLENO_ZANJA	1.563	31.77	55351.7
	ARENA_3	0.700	14.00	10334.3				
6860.000	D TIERRA	3.528	71.19	76546.6	ARENA_1	0.234	4.69	1713.6
	ARENA_2	0.388	7.76	4690.3	RELLENO_ZANJA	1.500	30.63	55382.3
	ARENA_3	0.700	14.00	10348.3				
6880.000	D TIERRA	3.485	70.13	76616.7	ARENA_1	0.234	4.69	1718.3
	ARENA_2	0.388	7.76	4698.0	RELLENO_ZANJA	1.457	29.57	55411.9
	ARENA_3	0.700	14.00	10362.3				
6900.000	D TIERRA	3.451	69.36	76686.1	ARENA_1	0.234	4.69	1722.9
	ARENA_2	0.388	7.76	4705.8	RELLENO_ZANJA	1.423	28.80	55440.7
	ARENA_3	0.700	14.00	10376.3				
6920.000	D TIERRA	3.417	68.68	76754.8	ARENA_1	0.234	4.69	1727.6
	ARENA_2	0.388	7.76	4713.5	RELLENO_ZANJA	1.389	28.12	55468.8
	ARENA_3	0.700	14.00	10390.4				
6940.000	D TIERRA	3.453	68.70	76823.5	ARENA_1	0.234	4.69	1732.3
	ARENA_2	0.388	7.76	4721.3	RELLENO_ZANJA	1.425	28.14	55497.0
	ARENA_3	0.700	14.00	10404.4				

PERFIL	MATERIAL	AREA PERFIL	VOL. PARCIAL	VOL. ACUMUL.	MATERIAL	AREA PERFIL	VOL. PARCIAL	VOL. ACUMUL.
6960.000	D TIERRA	3.538	69.91	76893.4	ARENA_1	0.234	4.69	1737.0
	ARENA_2	0.388	7.76	4729.0	RELLENO_ZANJA	1.510	29.35	55526.3
	ARENA_3	0.700	14.00	10418.4				
6980.000	D TIERRA	3.577	71.16	76964.5	ARENA_1	0.234	4.69	1741.7
	ARENA_2	0.388	7.76	4736.8	RELLENO_ZANJA	1.549	30.60	55556.9
	ARENA_3	0.700	14.00	10432.4				
7000.000	D TIERRA	3.503	70.80	77035.4	ARENA_1	0.234	4.69	1746.4
	ARENA_2	0.388	7.76	4744.6	RELLENO_ZANJA	1.475	30.24	55587.2
	ARENA_3	0.700	14.00	10446.4				
7020.000	D TIERRA	3.425	69.28	77104.6	ARENA_1	0.234	4.69	1751.1
	ARENA_2	0.388	7.76	4752.3	RELLENO_ZANJA	1.397	28.72	55615.9
	ARENA_3	0.700	14.00	10460.4				
7024.715	D TIERRA	3.408	16.11	77120.7	ARENA_1	0.234	1.10	1752.2
	ARENA_2	0.388	1.83	4754.2	RELLENO_ZANJA	1.380	6.55	55622.4
	ARENA_3	0.700	3.30	10463.7				
7040.000	D TIERRA	3.397	52.01	77172.8	ARENA_1	0.234	3.58	1755.8
	ARENA_2	0.388	5.93	4760.1	RELLENO_ZANJA	1.369	21.01	55643.4
	ARENA_3	0.700	10.70	10474.4				
7060.000	D TIERRA	3.437	68.35	77241.1	ARENA_1	0.234	4.69	1760.4
	ARENA_2	0.388	7.76	4767.8	RELLENO_ZANJA	1.410	27.79	55671.2
	ARENA_3	0.700	14.00	10488.4				
7080.000	D TIERRA	3.478	69.15	77310.3	ARENA_1	0.234	4.69	1765.1
	ARENA_2	0.388	7.76	4775.6	RELLENO_ZANJA	1.450	28.60	55699.8
	ARENA_3	0.700	14.00	10502.4				
7100.000	D TIERRA	3.519	69.97	77380.2	ARENA_1	0.234	4.69	1769.8
	ARENA_2	0.388	7.76	4783.4	RELLENO_ZANJA	1.491	29.41	55729.2
	ARENA_3	0.700	14.00	10516.4				
7111.502	D TIERRA	3.566	40.75	77421.0	ARENA_1	0.234	2.70	1772.5
	ARENA_2	0.388	4.46	4787.8	RELLENO_ZANJA	1.538	17.42	55746.7
	ARENA_3	0.700	8.05	10524.4				
7120.000	D TIERRA	3.567	30.31	77451.3	ARENA_1	0.234	1.99	1774.5
	ARENA_2	0.388	3.30	4791.1	RELLENO_ZANJA	1.539	13.08	55759.7
	ARENA_3	0.700	5.95	10530.4				
7140.000	D TIERRA	3.569	71.36	77522.6	ARENA_1	0.234	4.69	1779.2
	ARENA_2	0.388	7.76	4798.9	RELLENO_ZANJA	1.541	30.80	55790.5
	ARENA_3	0.700	14.00	10544.4				
7160.000	D TIERRA	3.571	71.40	77594.0	ARENA_1	0.234	4.69	1783.9
	ARENA_2	0.388	7.76	4806.6	RELLENO_ZANJA	1.543	30.84	55821.4
	ARENA_3	0.700	14.00	10558.4				
7180.000	D TIERRA	3.573	71.43	77665.5	ARENA_1	0.234	4.69	1788.6
	ARENA_2	0.388	7.76	4814.4	RELLENO_ZANJA	1.545	30.87	55852.2
	ARENA_3	0.700	14.00	10572.4				
7200.000	D TIERRA	3.574	71.47	77736.9	ARENA_1	0.234	4.69	1793.2
	ARENA_2	0.388	7.76	4822.2	RELLENO_ZANJA	1.546	30.91	55883.1
	ARENA_3	0.700	14.00	10586.4				
7220.000	D TIERRA	4.131	77.05	77814.0	ARENA_1	0.234	4.69	1797.9
	ARENA_2	0.388	7.76	4829.9	RELLENO_ZANJA	2.103	36.49	55919.6
	ARENA_3	0.700	14.00	10600.4				
7240.000	D TIERRA	3.555	76.86	77890.8	ARENA_1	0.234	4.69	1802.6
	ARENA_2	0.388	7.76	4837.7	RELLENO_ZANJA	1.527	36.30	55955.9
	ARENA_3	0.699	13.99	10614.4				
7260.000	D TIERRA	3.546	71.01	77961.8	ARENA_1	0.234	4.69	1807.3
	ARENA_2	0.388	7.76	4845.4	RELLENO_ZANJA	1.518	30.45	55986.4
	ARENA_3	0.700	14.00	10628.4				
7267.284	D TIERRA	3.545	25.82	77987.7	ARENA_1	0.234	1.71	1809.0
	ARENA_2	0.388	2.83	4848.3	RELLENO_ZANJA	1.517	11.05	55997.4
	ARENA_3	0.700	5.10	10633.5				
7280.000	D TIERRA	3.549	45.10	78032.8	ARENA_1	0.234	2.98	1812.0
	ARENA_2	0.388	4.93	4853.2	RELLENO_ZANJA	1.521	19.31	56016.7
	ARENA_3	0.700	8.90	10642.4				



Istram 9.04 15/09/21 13:28:55

PROYECTO : CIDACOS COMPLETO
EJE : 3: ETAP PRINCIPAL - ACOMETIDA DE ARNEDO

*** MEDICIONES DE LOS PERFILES TRANSVERSALES***
*** CAPAS DE FIRME ***

Table with columns: PERFIL, MATERIAL, AREA PERFIL, VOL. PARCIAL, VOL. ACUMUL., MATERIAL, AREA PERFIL, VOL. PARCIAL, VOL. ACUMUL. It lists data for various profiles from 7292.324 to 7400.004.

Istram 9.04 15/09/21 13:28:55

PROYECTO : CIDACOS COMPLETO
EJE : 3: ETAP PRINCIPAL - ACOMETIDA DE ARNEDO

*** RESUMEN DE VOLUMENES TOTALES ***

Summary table with columns: MATERIAL, VOLUMEN. Lists total volumes for TERRAPLEN, D TIERRA, ARENA 1, ARENA 2, RELLENO_ZANJA, and ARENA 3.

4. EJE 4: ACOMETIDA ARNEDO – P190 (ARQUETA PRINCIPAL)

Istram 9.04 08/05/20 09:18:12

PROYECTO : CIDACOS COMPLETO
EJE : 4: ACOMETIDA DE ARNEDO - ARQUETA PRINCIPAL (P190)

*** MEDICIONES DE LOS PERFILES TRANSVERSALES***
*** CAPAS DE FIRME ***

Table with columns: PERFIL, MATERIAL, AREA PERFIL, VOL. PARCIAL, VOL. ACUMUL., MATERIAL, AREA PERFIL, VOL. PARCIAL, VOL. ACUMUL. It lists data for various profiles from 0.000 to 260.000.



Istram 9.04 08/05/20 09:18:12

PROYECTO : CIDACOS COMPLETO
EJE : 4: ACOMETIDA DE ARNEDO - ARQUETA PRINCIPAL (P190)

Istram 9.04 08/05/20 09:18:12

PROYECTO : CIDACOS COMPLETO
EJE : 4: ACOMETIDA DE ARNEDO - ARQUETA PRINCIPAL (P190)

*** MEDICIONES DE LOS PERFILES TRANSVERSALES ***
*** CAPAS DE FIRME ***

*** MEDICIONES DE LOS PERFILES TRANSVERSALES ***
*** CAPAS DE FIRME ***

PERFIL	MATERIAL	AREA PERFIL	VOL. PARCIAL	VOL. ACUMUL.	MATERIAL	AREA PERFIL	VOL. PARCIAL	VOL. ACUMUL.
262.825	D TIERRA	3.453	9.76	1122.8	ARENA_1	0.218	0.61	54.8
	ARENA_2	0.336	0.95	105.7	RELLENO_ZANJA	1.724	4.88	598.6
	ARENA_3	0.619	1.75	228.5				
280.000	D TIERRA	3.422	59.04	1181.9	ARENA_1	0.218	3.74	58.6
	ARENA_2	0.336	5.77	111.5	RELLENO_ZANJA	1.693	29.35	627.9
	ARENA_3	0.619	10.63	239.2				
300.000	D TIERRA	3.388	68.10	1250.0	ARENA_1	0.218	4.35	62.9
	ARENA_2	0.336	6.72	118.2	RELLENO_ZANJA	1.659	33.52	661.4
	ARENA_3	0.619	12.38	251.5				
320.000	D TIERRA	3.414	68.02	1318.0	ARENA_1	0.218	4.35	67.3
	ARENA_2	0.336	6.72	124.9	RELLENO_ZANJA	1.685	33.44	694.9
	ARENA_3	0.619	12.38	263.9				
340.000	D TIERRA	3.282	66.96	1384.9	ARENA_1	0.218	4.35	71.6
	ARENA_2	0.336	6.72	131.6	RELLENO_ZANJA	1.553	32.38	727.3
	ARENA_3	0.619	12.38	276.3				
353.939	D TIERRA	3.171	44.97	1429.9	ARENA_1	0.218	3.03	74.7
	ARENA_2	0.336	4.68	136.3	RELLENO_ZANJA	1.442	20.87	748.1
	ARENA_3	0.619	8.62	284.9				
360.000	D TIERRA	3.217	19.36	1449.3	ARENA_1	0.218	1.32	76.0
	ARENA_2	0.336	2.04	138.3	RELLENO_ZANJA	1.488	8.88	757.0
	ARENA_3	0.619	3.75	288.7				
377.234	D TIERRA	3.350	56.59	1505.9	ARENA_1	0.218	3.75	79.7
	ARENA_2	0.336	5.79	144.1	RELLENO_ZANJA	1.621	26.80	783.8
	ARENA_3	0.619	10.66	299.3				
380.000	D TIERRA	3.368	9.29	1515.2	ARENA_1	0.218	0.60	80.3
	ARENA_2	0.336	0.93	145.1	RELLENO_ZANJA	1.639	4.51	788.3
	ARENA_3	0.619	1.71	301.0				
400.000	D TIERRA	3.254	66.21	1581.4	ARENA_1	0.218	4.35	84.7
	ARENA_2	0.336	6.72	151.8	RELLENO_ZANJA	1.525	31.63	820.0
	ARENA_3	0.619	12.38	313.4				
420.000	D TIERRA	3.214	64.68	1646.0	ARENA_1	0.218	4.35	89.0
	ARENA_2	0.336	6.72	158.5	RELLENO_ZANJA	1.485	30.10	850.1
	ARENA_3	0.619	12.38	325.8				
440.000	D TIERRA	3.228	64.42	1710.5	ARENA_1	0.218	4.35	93.4
	ARENA_2	0.336	6.72	165.2	RELLENO_ZANJA	1.499	29.84	879.9
	ARENA_3	0.619	12.38	338.2				
460.000	D TIERRA	3.241	64.69	1775.2	ARENA_1	0.218	4.35	97.8
	ARENA_2	0.336	6.72	172.0	RELLENO_ZANJA	1.512	30.11	910.0
	ARENA_3	0.619	12.38	350.5				
480.000	D TIERRA	3.257	64.98	1840.1	ARENA_1	0.218	4.35	102.1
	ARENA_2	0.336	6.72	178.7	RELLENO_ZANJA	1.528	30.40	940.4
	ARENA_3	0.619	12.38	362.9				
500.000	D TIERRA	3.284	65.41	1905.5	ARENA_1	0.218	4.35	106.5
	ARENA_2	0.336	6.72	185.4	RELLENO_ZANJA	1.555	30.83	971.2
	ARENA_3	0.619	12.38	375.3				
520.000	D TIERRA	3.312	65.96	1971.5	ARENA_1	0.218	4.35	110.8
	ARENA_2	0.336	6.72	192.1	RELLENO_ZANJA	1.583	31.38	1002.6
	ARENA_3	0.619	12.38	387.7				
520.645	D TIERRA	3.311	2.14	1973.6	ARENA_1	0.218	0.14	110.9
	ARENA_2	0.336	0.22	192.3	RELLENO_ZANJA	1.582	1.02	1003.6
	ARENA_3	0.619	0.40	388.1				
540.000	D TIERRA	3.284	63.82	2037.5	ARENA_1	0.218	4.21	115.2
	ARENA_2	0.336	6.50	198.8	RELLENO_ZANJA	1.555	30.36	1034.0
	ARENA_3	0.619	11.98	400.0				
560.000	D TIERRA	3.239	65.23	2102.7	ARENA_1	0.218	4.35	119.5
	ARENA_2	0.336	6.72	205.6	RELLENO_ZANJA	1.510	30.65	1064.6
	ARENA_3	0.619	12.38	412.4				
580.000	D TIERRA	3.325	65.64	2168.3	ARENA_1	0.218	4.35	123.9
	ARENA_2	0.336	6.72	212.3	RELLENO_ZANJA	1.596	31.06	1095.7
	ARENA_3	0.619	12.38	424.8				

PERFIL	MATERIAL	AREA PERFIL	VOL. PARCIAL	VOL. ACUMUL.	MATERIAL	AREA PERFIL	VOL. PARCIAL	VOL. ACUMUL.
590.088	D TIERRA	3.258	33.21	2201.5	ARENA_1	0.218	2.20	126.1
	ARENA_2	0.336	3.39	215.7	RELLENO_ZANJA	1.529	15.77	1111.5
	ARENA_3	0.619	6.24	431.0				
600.000	D TIERRA	3.140	31.71	2233.3	ARENA_1	0.218	2.16	128.2
	ARENA_2	0.336	3.33	219.0	RELLENO_ZANJA	1.411	14.57	1126.0
	ARENA_3	0.619	6.13	437.2				
620.000	D TIERRA	3.103	62.43	2295.7	ARENA_1	0.218	4.35	132.6
	ARENA_2	0.336	6.72	225.7	RELLENO_ZANJA	1.374	27.85	1153.9
	ARENA_3	0.619	12.38	449.5				
640.000	D TIERRA	3.246	63.49	2359.2	ARENA_1	0.218	4.35	136.9
	ARENA_2	0.336	6.72	232.4	RELLENO_ZANJA	1.517	28.91	1182.8
	ARENA_3	0.619	12.38	461.9				
649.577	D TIERRA	3.172	30.73	2389.9	ARENA_1	0.218	2.08	139.0
	ARENA_2	0.336	3.22	235.7	RELLENO_ZANJA	1.443	14.17	1197.0
	ARENA_3	0.619	5.93	467.8				
660.000	D TIERRA	3.122	32.80	2422.7	ARENA_1	0.218	2.27	141.3
	ARENA_2	0.336	3.50	239.2	RELLENO_ZANJA	1.393	14.78	1211.7
	ARENA_3	0.619	6.45	474.3				
680.000	D TIERRA	3.148	62.70	2485.4	ARENA_1	0.218	4.35	145.6
	ARENA_2	0.336	6.72	245.9	RELLENO_ZANJA	1.419	28.11	1239.9
	ARENA_3	0.619	12.38	486.7				
700.000	D TIERRA	3.165	63.12	2548.5	ARENA_1	0.218	4.35	150.0
	ARENA_2	0.336	6.72	252.6	RELLENO_ZANJA	1.436	28.54	1268.4
	ARENA_3	0.619	12.37	499.0				
712.666	D TIERRA	3.133	39.88	2588.4	ARENA_1	0.218	2.76	152.7
	ARENA_2	0.336	4.26	256.9	RELLENO_ZANJA	1.404	17.98	1286.4
	ARENA_3	0.619	7.84	506.9				
720.000	D TIERRA	3.149	23.04	2611.4	ARENA_1	0.218	1.60	154.3
	ARENA_2	0.336	2.46	259.3	RELLENO_ZANJA	1.420	10.35	1296.7
	ARENA_3	0.619	4.54	511.4				
740.000	D TIERRA	3.122	62.71	2674.2	ARENA_1	0.218	4.35	158.7
	ARENA_2	0.336	6.72	266.0	RELLENO_ZANJA	1.393	28.13	1324.9
	ARENA_3	0.619	12.38	523.8				
760.000	D TIERRA	3.147	62.69	2736.8	ARENA_1	0.218	4.35	163.0
	ARENA_2	0.336	6.72	272.8	RELLENO_ZANJA	1.418	28.11	1353.0
	ARENA_3	0.619	12.38	536.2				
773.844	D TIERRA	3.158	43.65	2780.5	ARENA_1	0.218	3.01	166.1
	ARENA_2	0.336	4.65	277.4	RELLENO_ZANJA	1.429	19.71	1372.7
	ARENA_3	0.619	8.57	544.7				
780.000	D TIERRA	3.186	19.53	2800.0	ARENA_1	0.218	1.34	167.4
	ARENA_2	0.336	2.07	279.5	RELLENO_ZANJA	1.457	8.88	1381.6
	ARENA_3	0.619	3.81	548.5				
788.397	D TIERRA	3.133	26.53	2826.5	ARENA_1	0.218	1.83	169.2
	ARENA_2	0.336	2.82	282.3	RELLENO_ZANJA	1.404	12.01	1393.6
	ARENA_3	0.619	5.20	553.7				
800.000	D TIERRA	3.147	36.44	2863.0	ARENA_1	0.218	2.53	171.7
	ARENA_2	0.336	3.90	286.2	RELLENO_ZANJA	1.418	16.38	1410.0
	ARENA_3	0.619	7.18	560.9				
820.000	D TIERRA	3.095	62.43	2925.4	ARENA_1	0.218	4.35	176.1
	ARENA_2	0.336	6.72	292.9	RELLENO_ZANJA	1.366	27.85	1437.8
	ARENA_3	0.619	12.38	573.3				
840.000	D TIERRA	3.141	62.36	2987.8	ARENA_1	0.218	4.35	180.4
	ARENA_2	0.336	6.72	299.6	RELLENO_ZANJA	1.412	27.78	1465.6
	ARENA_3	0.619	12.38	585.7				
860.000	D TIERRA	3.149	62.89	3050.7	ARENA_1	0.218	4.35	184.8
	ARENA_2	0.336	6.72	306.4	RELLENO_ZANJA	1.420	28.31	1493.9
	ARENA_3	0.619	12.37	598.0				
880.000	D TIERRA	3.909	70.57	3121.2	ARENA_1	0.218	4.35	189.2
	ARENA_2	0.336	6.72	313.1	RELLENO_ZANJA	2.180	35.99	1529.9
	ARENA_3	0.619	12.37	610.4				



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PROYECTO : CIDACOS COMPLETO
EJE : 4: ACOMETIDA DE ARNEDO - ARQUETA PRINCIPAL (P190)

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PROYECTO : CIDACOS COMPLETO
EJE : 4: ACOMETIDA DE ARNEDO - ARQUETA PRINCIPAL (P190)

*** MEDICIONES DE LOS PERFILES TRANSVERSALES ***
*** CAPAS DE FIRME ***

*** MEDICIONES DE LOS PERFILES TRANSVERSALES ***
*** CAPAS DE FIRME ***

PERFIL	MATERIAL	AREA PERFIL	VOL. PARCIAL	VOL. ACUMUL.	MATERIAL	AREA PERFIL	VOL. PARCIAL	VOL. ACUMUL.
900.000	D TIERRA	3.394	73.02	3194.3	ARENA_1	0.218	4.35	193.5
	ARENA_2	0.336	6.72	319.8	RELLENO_ZANJA	1.665	38.44	1568.3
	ARENA_3	0.619	12.38	622.8				
920.000	D TIERRA	3.314	67.07	3261.3	ARENA_1	0.218	4.35	197.9
	ARENA_2	0.336	6.72	326.5	RELLENO_ZANJA	1.585	32.49	1600.8
	ARENA_3	0.619	12.38	635.2				
940.000	D TIERRA	4.690	80.04	3341.4	ARENA_1	0.218	4.35	202.2
	ARENA_2	0.336	6.72	333.3	RELLENO_ZANJA	2.961	45.46	1646.3
	ARENA_3	0.619	12.38	647.5				
960.000	D TIERRA	3.147	78.38	3419.8	ARENA_1	0.218	4.35	206.6
	ARENA_2	0.336	6.72	340.0	RELLENO_ZANJA	1.418	43.80	1690.1
	ARENA_3	0.619	12.37	659.9				
980.000	D TIERRA	3.149	62.97	3482.7	ARENA_1	0.218	4.35	210.9
	ARENA_2	0.336	6.72	346.7	RELLENO_ZANJA	1.420	28.39	1718.5
	ARENA_3	0.619	12.37	672.3				
1000.000	D TIERRA	3.188	63.38	3546.1	ARENA_1	0.218	4.35	215.3
	ARENA_2	0.336	6.72	353.4	RELLENO_ZANJA	1.459	28.80	1747.3
	ARENA_3	0.619	12.37	684.7				
1014.448	D TIERRA	3.286	46.77	3592.9	ARENA_1	0.218	3.14	218.4
	ARENA_2	0.336	4.86	358.3	RELLENO_ZANJA	1.557	21.79	1769.1
	ARENA_3	0.619	8.94	693.6				
1020.000	D TIERRA	3.258	18.17	3611.0	ARENA_1	0.218	1.21	219.6
	ARENA_2	0.336	1.87	360.1	RELLENO_ZANJA	1.529	8.57	1777.6
	ARENA_3	0.619	3.44	697.0				
1040.000	D TIERRA	3.147	64.05	3675.1	ARENA_1	0.218	4.35	224.0
	ARENA_2	0.336	6.72	366.9	RELLENO_ZANJA	1.418	29.47	1807.1
	ARENA_3	0.619	12.37	709.4				
1057.625	D TIERRA	3.145	55.44	3730.5	ARENA_1	0.218	3.84	227.8
	ARENA_2	0.336	5.92	372.8	RELLENO_ZANJA	1.416	24.97	1832.1
	ARENA_3	0.619	10.90	720.3				
1060.000	D TIERRA	3.147	7.47	3738.0	ARENA_1	0.218	0.52	228.3
	ARENA_2	0.336	0.80	373.6	RELLENO_ZANJA	1.418	3.37	1835.4
	ARENA_3	0.619	1.47	721.8				
1080.000	D TIERRA	3.166	63.13	3801.1	ARENA_1	0.218	4.35	232.7
	ARENA_2	0.336	6.72	380.3	RELLENO_ZANJA	1.437	28.56	1864.0
	ARENA_3	0.619	12.38	734.2				
1088.575	D TIERRA	3.173	27.18	3828.3	ARENA_1	0.218	1.87	234.5
	ARENA_2	0.336	2.88	383.2	RELLENO_ZANJA	1.444	12.35	1876.3
	ARENA_3	0.619	5.31	739.5				
1100.000	D TIERRA	3.168	36.22	3864.5	ARENA_1	0.218	2.49	237.0
	ARENA_2	0.336	3.84	387.0	RELLENO_ZANJA	1.439	16.47	1892.8
	ARENA_3	0.619	7.07	746.5				
1113.674	D TIERRA	3.161	43.27	3907.8	ARENA_1	0.218	2.98	240.0
	ARENA_2	0.336	4.60	391.6	RELLENO_ZANJA	1.432	19.63	1912.4
	ARENA_3	0.619	8.46	755.0				
1120.000	D TIERRA	3.150	19.96	3927.8	ARENA_1	0.218	1.38	241.4
	ARENA_2	0.336	2.13	393.7	RELLENO_ZANJA	1.421	9.03	1921.5
	ARENA_3	0.619	3.91	758.9				
1123.024	D TIERRA	3.147	9.52	3937.3	ARENA_1	0.218	0.66	242.0
	ARENA_2	0.336	1.02	394.8	RELLENO_ZANJA	1.418	4.29	1925.8
	ARENA_3	0.619	1.87	760.8				
1137.230	D TIERRA	3.172	44.88	3982.2	ARENA_1	0.218	3.09	245.1
	ARENA_2	0.336	4.77	399.5	RELLENO_ZANJA	1.443	20.32	1946.1
	ARENA_3	0.619	8.79	769.6				
1140.000	D TIERRA	3.189	8.81	3991.0	ARENA_1	0.218	0.60	245.7
	ARENA_2	0.336	0.93	400.5	RELLENO_ZANJA	1.460	4.02	1950.1
	ARENA_3	0.619	1.71	771.3				
1160.000	D TIERRA	3.292	64.81	4055.8	ARENA_1	0.218	4.35	250.1
	ARENA_2	0.336	6.72	407.2	RELLENO_ZANJA	1.563	30.23	1980.3
	ARENA_3	0.619	12.37	783.7				

PERFIL	MATERIAL	AREA PERFIL	VOL. PARCIAL	VOL. ACUMUL.	MATERIAL	AREA PERFIL	VOL. PARCIAL	VOL. ACUMUL.
1180.000	D TIERRA	3.304	65.96	4121.8	ARENA_1	0.218	4.35	254.4
	ARENA_2	0.336	6.72	413.9	RELLENO_ZANJA	1.575	31.38	2011.7
	ARENA_3	0.619	12.37	796.0				
1186.641	D TIERRA	3.261	21.80	4143.6	ARENA_1	0.218	1.45	255.9
	ARENA_2	0.336	2.23	416.1	RELLENO_ZANJA	1.532	10.32	2022.0
	ARENA_3	0.619	4.11	800.2				
1200.000	D TIERRA	3.209	43.22	4186.8	ARENA_1	0.218	2.91	258.8
	ARENA_2	0.336	4.49	420.6	RELLENO_ZANJA	1.480	20.12	2042.1
	ARENA_3	0.619	8.27	808.4				
1219.640	D TIERRA	4.840	0.00	4186.8	ARENA_1	0.228	0.00	258.8
	ARENA_2	0.457	0.00	420.6	RELLENO_ZANJA	2.589	0.00	2042.1
	ARENA_3	1.010	0.00	808.4				
1220.000	D TIERRA	4.839	1.74	4188.5	ARENA_1	0.228	0.08	258.9
	ARENA_2	0.457	0.16	420.8	RELLENO_ZANJA	2.588	0.93	2043.1
	ARENA_3	1.010	0.36	808.8				
1240.000	D TIERRA	4.784	96.22	4284.7	ARENA_1	0.228	4.55	263.4
	ARENA_2	0.457	9.13	429.9	RELLENO_ZANJA	2.533	51.21	2094.3
	ARENA_3	1.010	20.20	829.0				
1260.000	D TIERRA	4.734	95.18	4379.9	ARENA_1	0.228	4.55	268.0
	ARENA_2	0.457	9.13	439.1	RELLENO_ZANJA	2.483	50.16	2144.4
	ARENA_3	1.010	20.20	849.2				
1280.000	D TIERRA	4.807	95.42	4475.3	ARENA_1	0.228	4.55	272.5
	ARENA_2	0.457	9.13	448.2	RELLENO_ZANJA	2.556	50.40	2194.8
	ARENA_3	1.010	20.20	869.4				
1299.192	D TIERRA	4.693	91.16	4566.5	ARENA_1	0.228	4.37	276.9
	ARENA_2	0.457	8.76	457.0	RELLENO_ZANJA	2.442	47.96	2242.8
	ARENA_3	1.010	19.39	888.8				
1300.000	D TIERRA	4.702	3.80	4570.3	ARENA_1	0.228	0.18	277.1
	ARENA_2	0.457	0.37	457.3	RELLENO_ZANJA	2.451	1.98	2244.8
	ARENA_3	1.010	0.82	889.6				
1320.000	D TIERRA	4.862	95.64	4665.9	ARENA_1	0.228	4.55	281.6
	ARENA_2	0.457	9.13	466.5	RELLENO_ZANJA	2.611	50.62	2295.4
	ARENA_3	1.010	20.20	909.8				
1340.000	D TIERRA	4.702	95.64	4761.6	ARENA_1	0.228	4.55	286.2
	ARENA_2	0.457	9.13	475.6	RELLENO_ZANJA	2.451	50.62	2346.0
	ARENA_3	1.010	20.20	930.0				
1360.000	D TIERRA	4.695	93.98	4855.5	ARENA_1	0.228	4.55	290.7
	ARENA_2	0.457	9.13	484.7	RELLENO_ZANJA	2.445	48.96	2395.0
	ARENA_3	1.010	20.20	950.2				
1366.594	D TIERRA	4.988	31.93	4887.5	ARENA_1	0.228	1.50	292.2
	ARENA_2	0.457	3.01	487.7	RELLENO_ZANJA	2.737	17.08	2412.1
	ARENA_3	1.010	6.66	956.9				
1380.000	D TIERRA	5.649	71.30	4958.8	ARENA_1	0.228	3.05	295.3
	ARENA_2	0.457	6.12	493.9	RELLENO_ZANJA	3.398	41.12	2453.2
	ARENA_3	1.010	13.54	970.4				
1383.128	D TIERRA	5.801	17.91	4976.7	ARENA_1	0.228	0.71	296.0
	ARENA_2	0.457	1.43	495.3	RELLENO_ZANJA	3.551	10.87	2464.1
	ARENA_3	1.010	3.16	973.6				
1400.000	D TIERRA	5.914	98.84	5075.5	ARENA_1	0.228	3.84	299.8
	ARENA_2	0.457	7.70	503.0	RELLENO_ZANJA	3.664	60.86	2524.9
	ARENA_3	1.010	17.04	990.6				
1420.000	D TIERRA	5.620	115.34	5190.9	ARENA_1	0.228	4.55	304.4
	ARENA_2	0.457	9.13	512.1	RELLENO_ZANJA	3.369	70.33	2595.2
	ARENA_3	1.010	20.20	1010.8				
1440.000	D TIERRA	5.419	110.39	5301.2	ARENA_1	0.228	4.55	308.9
	ARENA_2	0.457	9.13	521.2	RELLENO_ZANJA	3.168	65.37	2660.6
	ARENA_3	1.010	20.20	1031.0				
1456.992	D TIERRA	5.454	92.38	5393.6	ARENA_1	0.228	3.87	312.8
	ARENA_2	0.457	7.76	529.0	RELLENO_ZANJA	3.203	54.13	2714.7
	ARENA_3	1.010	17.16	1048.2				

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 PROYECTO : CIDACOS COMPLETO
 EJE : 4: ACOMETIDA DE ARNEDO - ARQUETA PRINCIPAL (P190)

 * * * MEDICIONES DE LOS PERFILES TRANSVERSALES* * *
 * * * CAPAS DE FIRME * * *

PERFIL	MATERIAL	AREA PERFIL	VOL. PARCIAL	VOL. ACUMUL.	MATERIAL	AREA PERFIL	VOL. PARCIAL	VOL. ACUMUL.
1460.000	D TIERRA	5.381	16.30	5409.9	ARENA_1	0.228	0.68	313.5
	ARENA_2	0.457	1.37	530.4	RELLENO_ZANJA	3.130	9.53	2724.3
	ARENA_3	1.010	3.04	1051.2				
1480.000	D TIERRA	4.988	103.69	5513.6	ARENA_1	0.228	4.55	318.0
	ARENA_2	0.457	9.13	539.5	RELLENO_ZANJA	2.737	58.68	2783.0
	ARENA_3	1.010	20.20	1071.4				
1500.000	D TIERRA	5.175	101.63	5615.2	ARENA_1	0.228	4.55	322.6
	ARENA_2	0.457	9.13	548.6	RELLENO_ZANJA	2.924	56.61	2839.6
	ARENA_3	1.010	20.20	1091.6				
1509.463	D TIERRA	5.040	48.33	5663.6	ARENA_1	0.228	2.15	324.7
	ARENA_2	0.457	4.32	553.0	RELLENO_ZANJA	2.789	27.03	2866.6
	ARENA_3	1.010	9.56	1101.2				
1517.984	D TIERRA	4.933	42.49	5706.1	ARENA_1	0.228	1.94	326.7
	ARENA_2	0.457	3.89	556.9	RELLENO_ZANJA	2.682	23.31	2889.9
	ARENA_3	1.010	8.61	1109.8				
1520.000	D TIERRA	4.904	9.92	5716.0	ARENA_1	0.228	0.46	327.1
	ARENA_2	0.457	0.92	557.8	RELLENO_ZANJA	2.653	5.38	2895.3
	ARENA_3	1.010	2.04	1111.8				
1540.000	D TIERRA	4.889	97.93	5813.9	ARENA_1	0.228	4.55	331.7
	ARENA_2	0.457	9.13	566.9	RELLENO_ZANJA	2.638	52.91	2948.2
	ARENA_3	1.010	20.20	1132.0				
1560.000	D TIERRA	4.789	96.78	5910.7	ARENA_1	0.228	4.55	336.2
	ARENA_2	0.457	9.13	576.0	RELLENO_ZANJA	2.538	51.77	3000.0
	ARENA_3	1.010	20.20	1152.2				
1580.000	D TIERRA	4.716	95.05	6005.7	ARENA_1	0.228	4.55	340.8
	ARENA_2	0.457	9.13	585.2	RELLENO_ZANJA	2.465	50.04	3050.0
	ARENA_3	1.010	20.20	1172.4				
1600.000	D TIERRA	4.719	94.35	6100.1	ARENA_1	0.228	4.55	345.3
	ARENA_2	0.457	9.13	594.3	RELLENO_ZANJA	2.468	49.33	3099.3
	ARENA_3	1.010	20.20	1192.6				
1620.000	D TIERRA	4.645	93.64	6193.7	ARENA_1	0.228	4.55	349.9
	ARENA_2	0.457	9.13	603.4	RELLENO_ZANJA	2.395	48.62	3147.9
	ARENA_3	1.010	20.20	1212.8				
1640.000	D TIERRA	4.814	94.60	6288.3	ARENA_1	0.228	4.55	354.4
	ARENA_2	0.457	9.13	612.6	RELLENO_ZANJA	2.563	49.58	3197.5
	ARENA_3	1.010	20.20	1233.0				
1660.000	D TIERRA	4.714	95.28	6383.6	ARENA_1	0.228	4.55	359.0
	ARENA_2	0.457	9.13	621.7	RELLENO_ZANJA	2.463	50.26	3247.8
	ARENA_3	1.010	20.20	1253.2				
1680.000	D TIERRA	5.184	98.98	6482.6	ARENA_1	0.228	4.55	363.5
	ARENA_2	0.457	9.13	630.8	RELLENO_ZANJA	2.934	53.97	3301.8
	ARENA_3	1.010	20.20	1273.4				
1700.000	D TIERRA	4.750	99.35	6581.9	ARENA_1	0.228	4.55	368.1
	ARENA_2	0.457	9.13	640.0	RELLENO_ZANJA	2.500	54.33	3356.1
	ARENA_3	1.010	20.20	1293.6				
1714.909	D TIERRA	4.672	70.24	6652.2	ARENA_1	0.228	3.39	371.5
	ARENA_2	0.457	6.81	646.8	RELLENO_ZANJA	2.421	36.68	3392.8
	ARENA_3	1.010	15.06	1308.7				
1720.000	D TIERRA	4.746	23.97	6676.1	ARENA_1	0.228	1.16	372.6
	ARENA_2	0.457	2.32	649.1	RELLENO_ZANJA	2.495	12.51	3405.3
	ARENA_3	1.010	5.14	1313.8				
1740.000	D TIERRA	21.792	0.00	6676.1	ARENA_1	0.260	0.00	372.6
	ARENA_2	0.914	0.00	649.1	RELLENO_ZANJA	17.584	0.00	3405.3
	ARENA_3	2.472	0.00	1313.8				
1760.000	D TIERRA	24.222	460.13	7136.3	ARENA_1	0.260	5.20	377.8
	ARENA_2	0.913	18.27	667.4	RELLENO_ZANJA	20.015	375.99	3781.3
	ARENA_3	2.477	49.49	1363.3				
1780.000	D TIERRA	26.453	506.75	7643.0	ARENA_1	0.260	5.21	383.1
	ARENA_2	0.913	18.26	685.6	RELLENO_ZANJA	22.246	422.61	4203.9
	ARENA_3	2.477	49.55	1412.9				

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 PROYECTO : CIDACOS COMPLETO
 EJE : 4: ACOMETIDA DE ARNEDO - ARQUETA PRINCIPAL (P190)

 * * * MEDICIONES DE LOS PERFILES TRANSVERSALES* * *
 * * * CAPAS DE FIRME * * *

PERFIL	MATERIAL	AREA PERFIL	VOL. PARCIAL	VOL. ACUMUL.	MATERIAL	AREA PERFIL	VOL. PARCIAL	VOL. ACUMUL.
1800.000	D TIERRA	27.559	540.12	8183.1	ARENA_1	0.260	5.21	388.3
	ARENA_2	0.913	18.26	703.9	RELLENO_ZANJA	23.351	455.98	4659.8
	ARENA_3	2.477	49.55	1462.4				
1806.120	D TIERRA	27.634	168.89	8352.0	ARENA_1	0.260	1.59	389.9
	ARENA_2	0.913	5.59	709.5	RELLENO_ZANJA	23.427	143.14	4803.0
	ARENA_3	2.477	15.16	1477.6				
1820.000	D TIERRA	27.192	380.50	8732.5	ARENA_1	0.260	3.61	393.5
	ARENA_2	0.913	12.67	722.1	RELLENO_ZANJA	22.985	322.10	5125.1
	ARENA_3	2.477	34.39	1512.0				
1840.000	D TIERRA	26.545	537.37	9269.9	ARENA_1	0.260	5.21	398.7
	ARENA_2	0.913	18.26	740.4	RELLENO_ZANJA	22.338	453.23	5578.3
	ARENA_3	2.477	49.55	1561.5				
1860.000	D TIERRA	25.884	524.29	9794.2	ARENA_1	0.260	5.21	403.9
	ARENA_2	0.913	18.26	758.7	RELLENO_ZANJA	21.677	440.15	6018.5
	ARENA_3	2.477	49.55	1611.1				
1860.000	D TIERRA	5.647	0.00	9794.2	ARENA_1	0.218	0.00	403.9
	ARENA_2	0.336	0.00	758.7	RELLENO_ZANJA	3.918	0.00	6018.5
	ARENA_3	0.619	0.00	1611.1				
1873.337	D TIERRA	5.589	74.93	9869.1	ARENA_1	0.218	2.90	406.8
	ARENA_2	0.336	4.48	763.1	RELLENO_ZANJA	3.860	51.87	6070.3
	ARENA_3	0.619	8.25	1619.3				
1880.000	D TIERRA	5.547	37.10	9906.2	ARENA_1	0.218	1.45	408.2
	ARENA_2	0.336	2.24	765.4	RELLENO_ZANJA	3.818	25.58	6095.9
	ARENA_3	0.619	4.12	1623.4				
1900.000	D TIERRA	5.422	109.69	10015.9	ARENA_1	0.218	4.35	412.6
	ARENA_2	0.336	6.72	772.1	RELLENO_ZANJA	3.693	75.11	6171.0
	ARENA_3	0.619	12.37	1635.8				
1920.000	D TIERRA	5.301	107.23	10123.1	ARENA_1	0.218	4.35	416.9
	ARENA_2	0.336	6.72	778.8	RELLENO_ZANJA	3.572	72.65	6243.7
	ARENA_3	0.619	12.37	1648.2				
1940.000	D TIERRA	5.183	104.83	10228.0	ARENA_1	0.218	4.35	421.3
	ARENA_2	0.336	6.72	785.5	RELLENO_ZANJA	3.454	70.25	6313.9
	ARENA_3	0.619	12.38	1660.6				
1951.267	D TIERRA	4.973	57.21	10285.2	ARENA_1	0.218	2.45	423.7
	ARENA_2	0.336	3.79	789.3	RELLENO_ZANJA	3.244	37.73	6351.6
	ARENA_3	0.619	6.97	1667.5				
1960.000	D TIERRA	4.983	43.47	10328.6	ARENA_1	0.218	1.90	425.6
	ARENA_2	0.336	2.93	792.3	RELLENO_ZANJA	3.254	28.37	6380.0
	ARENA_3	0.619	5.40	1672.9				
1971.124	D TIERRA	4.983	55.43	10384.1	ARENA_1	0.218	2.42	428.1
	ARENA_2	0.336	3.74	796.0	RELLENO_ZANJA	3.254	36.20	6416.2
	ARENA_3	0.619	6.88	1679.8				
1980.000	D TIERRA	4.660	42.80	10426.9	ARENA_1	0.218	1.93	430.0
	ARENA_2	0.336	2.98	799.0	RELLENO_ZANJA	2.931	27.45	6443.7
	ARENA_3	0.619	5.49	1685.3				
1986.535	D TIERRA	4.448	29.76	10456.6	ARENA_1	0.218	1.42	431.4
	ARENA_2	0.336	2.20	801.2	RELLENO_ZANJA	2.719	18.46	6462.1
	ARENA_3	0.619	4.04	1689.4				
2000.000	D TIERRA	4.473	60.06	10516.7	ARENA_1	0.218	2.93	434.3
	ARENA_2	0.336	4.53	805.7	RELLENO_ZANJA	2.744	36.78	6498.9
	ARENA_3	0.619	8.33	1697.7				
2003.839	D TIERRA	4.499	17.22	10533.9	ARENA_1	0.218	0.84	435.2
	ARENA_2	0.336	1.29	807.0	RELLENO_ZANJA	2.770	10.58	6509.5
	ARENA_3	0.619	2.38	1700.1				
2020.000	D TIERRA	4.494	72.66	10606.6	ARENA_1	0.218	3.52	438.7
	ARENA_2	0.336	5.43	812.4	RELLENO_ZANJA	2.765	44.72	6554.2
	ARENA_3	0.619	10.00	1710.1				
2030.800	D TIERRA	4.491	48.52	10655.1	ARENA_1	0.218	2.35	441.0
	ARENA_2	0.336	3.63	816.1	RELLENO_ZANJA	2.762	29.84	6584.1
	ARENA_3	0.619	6.68	1716.7				

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*** MEDICIONES DE LOS PERFILES TRANSVERSALES ***
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PERFIL	MATERIAL	AREA PERFIL	VOL. PARCIAL	VOL. ACUMUL.	MATERIAL	AREA PERFIL	VOL. PARCIAL	VOL. ACUMUL.	PERFIL	MATERIAL	AREA PERFIL	VOL. PARCIAL	VOL. ACUMUL.	MATERIAL	AREA PERFIL	VOL. PARCIAL	VOL. ACUMUL.
2040.000	D TIERRA	4.555	41.61	10696.7	ARENA_1	0.218	2.00	443.0	2323.418	D TIERRA	3.106	10.69	11709.0	ARENA_1	0.218	0.74	504.7
	ARENA_2	0.336	3.09	819.2	RELLENO_ZANJA	2.826	25.70	6609.8		ARENA_2	0.336	1.15	914.4	RELLENO_ZANJA	1.377	4.78	7132.0
	ARENA_3	0.619	5.69	1722.4						ARENA_3	0.618	2.11	1897.6				
2060.000	D TIERRA	4.670	92.25	10789.0	ARENA_1	0.218	4.35	447.4	2340.000	D TIERRA	3.149	51.86	11760.9	ARENA_1	0.218	3.61	508.3
	ARENA_2	0.336	6.72	825.9	RELLENO_ZANJA	2.941	57.67	6667.4		ARENA_2	0.336	5.57	920.0	RELLENO_ZANJA	1.420	23.19	7155.2
	ARENA_3	0.619	12.38	1734.8						ARENA_3	0.618	10.25	1907.9				
2080.000	D TIERRA	4.181	88.52	10877.5	ARENA_1	0.218	4.35	451.7	2360.000	D TIERRA	3.135	62.84	11823.7	ARENA_1	0.218	4.35	512.7
	ARENA_2	0.336	6.72	832.6	RELLENO_ZANJA	2.452	53.94	6721.4		ARENA_2	0.336	6.72	926.7	RELLENO_ZANJA	1.406	28.26	7183.5
	ARENA_3	0.619	12.37	1747.2						ARENA_3	0.619	12.37	1920.3				
2100.000	D TIERRA	4.021	82.02	10959.5	ARENA_1	0.218	4.35	456.1	2368.087	D TIERRA	3.270	25.90	11849.6	ARENA_1	0.218	1.76	514.4
	ARENA_2	0.336	6.72	839.3	RELLENO_ZANJA	2.292	47.44	6768.8		ARENA_2	0.336	2.72	929.4	RELLENO_ZANJA	1.541	11.92	7195.4
	ARENA_3	0.619	12.37	1759.6						ARENA_3	0.619	5.00	1925.3				
2104.924	D TIERRA	4.108	20.01	10979.5	ARENA_1	0.218	1.07	457.2	2380.000	D TIERRA	3.147	38.23	11887.8	ARENA_1	0.218	2.59	517.0
	ARENA_2	0.336	1.65	841.0	RELLENO_ZANJA	2.379	11.50	6780.3		ARENA_2	0.336	4.00	933.4	RELLENO_ZANJA	1.418	17.63	7213.0
	ARENA_3	0.619	3.05	1762.6						ARENA_3	0.619	7.37	1932.6				
2120.000	D TIERRA	3.656	58.53	11038.0	ARENA_1	0.218	3.28	460.4	2400.000	D TIERRA	3.385	65.32	11953.1	ARENA_1	0.218	4.35	521.4
	ARENA_2	0.336	5.07	846.0	RELLENO_ZANJA	1.927	32.46	6812.8		ARENA_2	0.336	6.72	940.2	RELLENO_ZANJA	1.656	30.74	7243.8
	ARENA_3	0.619	9.33	1771.9						ARENA_3	0.618	12.37	1945.0				
2140.000	D TIERRA	3.162	68.18	11106.2	ARENA_1	0.218	4.35	464.8	2410.785	D TIERRA	3.432	36.76	11989.9	ARENA_1	0.218	2.35	523.7
	ARENA_2	0.336	6.72	852.8	RELLENO_ZANJA	1.433	33.60	6846.4		ARENA_2	0.336	3.62	943.8	RELLENO_ZANJA	1.703	18.11	7261.9
	ARENA_3	0.619	12.37	1784.3						ARENA_3	0.618	6.67	1951.7				
2149.551	D TIERRA	3.175	30.26	11136.5	ARENA_1	0.218	2.08	466.9	2420.000	D TIERRA	3.198	30.55	12020.4	ARENA_1	0.218	2.01	525.7
	ARENA_2	0.336	3.21	856.0	RELLENO_ZANJA	1.446	13.75	6860.1		ARENA_2	0.336	3.10	946.9	RELLENO_ZANJA	1.469	14.61	7276.5
	ARENA_3	0.618	5.91	1790.2						ARENA_3	0.618	5.70	1957.4				
2160.000	D TIERRA	3.712	35.98	11172.5	ARENA_1	0.218	2.27	469.2	2426.869	D TIERRA	11.606	0.00	12020.4	ARENA_1	0.260	0.00	525.7
	ARENA_2	0.336	3.51	859.5	RELLENO_ZANJA	1.983	17.92	6878.0		ARENA_2	0.913	0.00	946.9	RELLENO_ZANJA	7.399	0.00	7276.5
	ARENA_3	0.619	6.46	1796.7						ARENA_3	2.477	0.00	1957.4				
2174.449	D TIERRA	3.266	50.42	11222.9	ARENA_1	0.218	3.14	472.3	2440.000	D TIERRA	10.406	144.52	12165.0	ARENA_1	0.260	3.42	529.1
	ARENA_2	0.336	4.86	864.3	RELLENO_ZANJA	1.537	25.43	6903.5		ARENA_2	0.913	11.99	958.9	RELLENO_ZANJA	6.199	89.27	7365.8
	ARENA_3	0.619	8.94	1805.6						ARENA_3	2.477	32.53	1989.9				
2180.000	D TIERRA	3.326	18.30	11241.2	ARENA_1	0.218	1.21	473.5	2460.000	D TIERRA	10.453	208.58	12373.5	ARENA_1	0.260	5.21	534.3
	ARENA_2	0.336	1.87	866.2	RELLENO_ZANJA	1.597	8.70	6912.2		ARENA_2	0.913	18.26	977.1	RELLENO_ZANJA	6.246	124.44	7490.2
	ARENA_3	0.619	3.43	1809.1						ARENA_3	2.477	49.54	2039.4				
2200.000	D TIERRA	3.154	64.80	11306.0	ARENA_1	0.218	4.35	477.9	2475.101	D TIERRA	10.605	159.00	12532.5	ARENA_1	0.260	3.93	538.3
	ARENA_2	0.336	6.72	872.9	RELLENO_ZANJA	1.425	30.22	6942.4		ARENA_2	0.913	13.79	990.9	RELLENO_ZANJA	6.398	95.46	7585.7
	ARENA_3	0.619	12.37	1821.4						ARENA_3	2.477	37.41	2076.9				
2200.712	D TIERRA	3.147	2.24	11308.2	ARENA_1	0.218	0.15	478.0	2480.000	D TIERRA	10.942	52.78	12585.3	ARENA_1	0.260	1.28	539.6
	ARENA_2	0.336	0.24	873.2	RELLENO_ZANJA	1.418	1.01	6943.4		ARENA_2	0.913	4.47	995.4	RELLENO_ZANJA	6.735	32.17	7617.8
	ARENA_3	0.617	0.44	1821.9						ARENA_3	2.477	12.14	2089.0				
2220.000	D TIERRA	3.148	60.71	11368.9	ARENA_1	0.218	4.20	482.2	2500.000	D TIERRA	3.204	0.00	12585.3	ARENA_1	0.218	0.00	539.6
	ARENA_2	0.336	6.49	879.7	RELLENO_ZANJA	1.419	27.36	6970.8		ARENA_2	0.336	0.00	995.4	RELLENO_ZANJA	1.475	0.00	7617.8
	ARENA_3	0.617	11.90	1833.8						ARENA_3	0.619	0.00	2089.0				
2240.000	D TIERRA	3.148	62.95	11431.9	ARENA_1	0.218	4.35	486.6	2520.000	D TIERRA	3.156	63.60	12648.9	ARENA_1	0.218	4.35	543.9
	ARENA_2	0.336	6.72	886.4	RELLENO_ZANJA	1.419	28.37	6999.1		ARENA_2	0.336	6.72	1002.1	RELLENO_ZANJA	1.427	29.02	7646.9
	ARENA_3	0.619	12.35	1846.1						ARENA_3	0.619	12.37	2101.4				
2260.000	D TIERRA	3.143	62.91	11494.8	ARENA_1	0.218	4.35	490.9	2522.047	D TIERRA	3.151	6.45	12655.4	ARENA_1	0.218	0.45	544.3
	ARENA_2	0.336	6.72	893.1	RELLENO_ZANJA	1.414	28.33	7027.5		ARENA_2	0.336	0.69	1002.8	RELLENO_ZANJA	1.422	2.92	7649.8
	ARENA_3	0.618	12.37	1858.5						ARENA_3	0.619	1.27	2102.6				
2280.000	D TIERRA	3.447	65.91	11560.7	ARENA_1	0.218	4.35	495.3	2540.000	D TIERRA	3.148	56.54	12711.9	ARENA_1	0.218	3.91	548.3
	ARENA_2	0.336	6.72	899.8	RELLENO_ZANJA	1.718	31.33	7058.8		ARENA_2	0.336	6.03	1008.8	RELLENO_ZANJA	1.419	25.50	7675.3
	ARENA_3	0.619	12.37	1870.9						ARENA_3	0.619	11.11	2113.7				
2294.622	D TIERRA	3.152	48.25	11608.9	ARENA_1	0.218	3.18	498.4	2542.544	D TIERRA	3.148	8.01	12719.9	ARENA_1	0.218	0.55	548.8
	ARENA_2	0.336	4.91	904.7	RELLENO_ZANJA	1.423	22.97	7081.8		ARENA_2	0.336	0.85	1009.7	RELLENO_ZANJA	1.419	3.61	7678.9
	ARENA_3	0.619	9.05	1879.9						ARENA_3	0.619	1.57	2115.3				
2300.000	D TIERRA	3.891	18.94	11627.9	ARENA_1	0.217	1.17	499.6	2560.000	D TIERRA	3.168	55.13	12775.1	ARENA_1	0.218	3.80	552.6
	ARENA_2	0.337	1.81	906.5	RELLENO_ZANJA	2.162	9.64	7091.4		ARENA_2	0.336	5.87	1015.6	RELLENO_ZANJA	1.439	24.95	7703.8
	ARENA_3	0.612	3.31	1883.2						ARENA_3	0.619	10.80	2126.1				
2320.000	D TIERRA	3.151	70.42	11698.3	ARENA_1	0.218	4.35	504.0	2580.000	D TIERRA	3.212	63.81	12838.9	ARENA_1	0.218	4.35	557.0
	ARENA_2	0.336	6.73	913.3	RELLENO_ZANJA	1.422	35.84	7127.2		ARENA_2	0.336	6.72	1022.3	RELLENO_ZANJA	1.483	29.23	7733.0
	ARENA_3	0.619	12.31	1895.5						ARENA_3	0.619	12.37	2138.5				

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PERFIL	MATERIAL	AREA PERFIL	VOL. PARCIAL	VOL. ACUMUL.	MATERIAL	AREA PERFIL	VOL. PARCIAL	VOL. ACUMUL.
2598.625	D TIERRA	3.253	60.21	12899.1	ARENA_1	0.218	4.05	561.0
	ARENA_2	0.336	6.26	1028.5	RELLENO_ZANJA	1.524	28.00	7761.1
	ARENA_3	0.619	11.52	2150.0				
2600.000	D TIERRA	3.257	4.48	12903.5	ARENA_1	0.218	0.30	561.3
	ARENA_2	0.336	0.46	1029.0	RELLENO_ZANJA	1.528	2.10	7763.2
	ARENA_3	0.619	0.85	2150.9				
2620.000	D TIERRA	3.152	64.10	12967.6	ARENA_1	0.218	4.35	565.7
	ARENA_2	0.336	6.72	1035.7	RELLENO_ZANJA	1.423	29.52	7792.7
	ARENA_3	0.619	12.37	2163.2				
2625.229	D TIERRA	3.236	16.70	12984.3	ARENA_1	0.218	1.14	566.8
	ARENA_2	0.336	1.76	1037.5	RELLENO_ZANJA	1.507	7.66	7800.3
	ARENA_3	0.619	3.24	2166.5				
2640.000	D TIERRA	3.123	46.96	13031.3	ARENA_1	0.218	3.21	570.0
	ARENA_2	0.336	4.96	1042.4	RELLENO_ZANJA	1.394	21.42	7821.8
	ARENA_3	0.619	9.14	2175.6				
2640.879	D TIERRA	3.116	2.74	13034.0	ARENA_1	0.218	0.19	570.2
	ARENA_2	0.336	0.30	1042.7	RELLENO_ZANJA	1.387	1.22	7823.0
	ARENA_3	0.619	0.54	2176.2				
2648.515	D TIERRA	3.084	23.67	13057.7	ARENA_1	0.218	1.66	571.9
	ARENA_2	0.336	2.57	1045.3	RELLENO_ZANJA	1.355	10.47	7833.4
	ARENA_3	0.619	4.72	2180.9				
2660.000	D TIERRA	3.194	36.05	13093.8	ARENA_1	0.218	2.50	574.4
	ARENA_2	0.336	3.86	1049.2	RELLENO_ZANJA	1.465	16.20	7849.6
	ARENA_3	0.619	7.11	2188.0				
2664.024	D TIERRA	3.236	12.94	13106.7	ARENA_1	0.218	0.88	575.2
	ARENA_2	0.336	1.35	1050.5	RELLENO_ZANJA	1.507	5.98	7855.6
	ARENA_3	0.619	2.49	2190.5				
2680.000	D TIERRA	3.243	51.76	13158.5	ARENA_1	0.218	3.48	578.7
	ARENA_2	0.336	5.37	1055.9	RELLENO_ZANJA	1.514	24.14	7879.8
	ARENA_3	0.619	9.88	2200.4				
2700.000	D TIERRA	3.128	63.71	13222.2	ARENA_1	0.218	4.35	583.1
	ARENA_2	0.336	6.72	1062.6	RELLENO_ZANJA	1.399	29.13	7908.9
	ARENA_3	0.619	12.37	2212.7				
2714.525	D TIERRA	3.238	46.23	13268.4	ARENA_1	0.218	3.16	586.2
	ARENA_2	0.336	4.88	1067.5	RELLENO_ZANJA	1.509	21.11	7930.0
	ARENA_3	0.619	8.99	2221.7				
2720.000	D TIERRA	3.167	17.53	13285.9	ARENA_1	0.218	1.19	587.4
	ARENA_2	0.336	1.84	1069.3	RELLENO_ZANJA	1.438	8.07	7938.1
	ARENA_3	0.619	3.39	2225.1				
2720.000	D TIERRA	17.603	0.00	13285.9	ARENA_1	0.260	0.00	587.4
	ARENA_2	0.913	0.00	1069.3	RELLENO_ZANJA	13.395	0.00	7938.1
	ARENA_3	2.477	0.00	2225.1				
2737.107	TERRAPLEN	0.012	0.10	0.1	D TIERRA	14.947	278.41	13564.3
	ARENA_1	0.260	4.45	591.9	ARENA_2	0.913	15.62	1084.9
	RELLENO_ZANJA	10.775	206.74	8144.8	ARENA_3	2.477	42.38	2267.5
2740.000	TERRAPLEN	0.020	0.05	0.1	D TIERRA	14.855	43.11	13607.5
	ARENA_1	0.260	0.75	592.6	ARENA_2	0.913	2.64	1087.6
	RELLENO_ZANJA	10.682	31.04	8175.8	ARENA_3	2.477	7.17	2274.7
2760.000	TERRAPLEN	0.007	0.27	0.4	D TIERRA	14.039	288.94	13896.4
	ARENA_1	0.260	5.21	597.8	ARENA_2	0.913	18.26	1105.8
	RELLENO_ZANJA	9.842	205.24	8381.1	ARENA_3	2.477	49.55	2324.2
2780.000	TERRAPLEN	0.003	0.09	0.5	D TIERRA	12.955	269.94	14166.3
	ARENA_1	0.260	5.21	603.0	ARENA_2	0.913	18.26	1124.1
	RELLENO_ZANJA	8.752	185.95	8567.0	ARENA_3	2.477	49.55	2373.7
2800.000	TERRAPLEN	0.003	0.05	0.6	D TIERRA	11.702	246.57	14412.9
	ARENA_1	0.260	5.21	608.3	ARENA_2	0.913	18.26	1142.4
	RELLENO_ZANJA	7.500	162.52	8729.6	ARENA_3	2.477	49.55	2423.3
2820.000	TERRAPLEN	0.000	0.03	0.6	D TIERRA	11.014	227.16	14640.1
	ARENA_1	0.260	5.21	613.5	ARENA_2	0.913	18.26	1160.6
	RELLENO_ZANJA	6.807	143.07	8872.6	ARENA_3	2.477	49.55	2472.8

PERFIL	MATERIAL	AREA PERFIL	VOL. PARCIAL	VOL. ACUMUL.	MATERIAL	AREA PERFIL	VOL. PARCIAL	VOL. ACUMUL.
2840.000	TERRAPLEN	0.000	0.00	0.6	D TIERRA	10.191	212.05	14852.1
	ARENA_1	0.260	5.21	618.7	ARENA_2	0.913	18.26	1178.9
	RELLENO_ZANJA	5.984	127.91	9000.5	ARENA_3	2.477	49.55	2522.4
2860.000	TERRAPLEN	0.000	0.00	0.6	D TIERRA	9.260	194.51	15046.6
	ARENA_1	0.260	5.21	623.9	ARENA_2	0.913	18.26	1197.1
	RELLENO_ZANJA	5.053	110.37	9110.9	ARENA_3	2.477	49.55	2571.9
2869.672	TERRAPLEN	0.000	0.00	0.6	D TIERRA	8.791	87.29	15133.9
	ARENA_1	0.260	2.52	626.4	ARENA_2	0.913	8.83	1206.0
	RELLENO_ZANJA	4.584	46.60	9157.5	ARENA_3	2.477	23.96	2595.9
2875.991	TERRAPLEN	0.000	0.00	0.6	D TIERRA	9.767	58.63	15192.6
	ARENA_1	0.260	1.64	628.0	ARENA_2	0.913	5.77	1211.7
	RELLENO_ZANJA	5.559	32.05	9189.6	ARENA_3	2.477	15.65	2611.5
2880.000	TERRAPLEN	0.000	0.00	0.6	D TIERRA	10.447	40.52	15233.1
	ARENA_1	0.260	1.04	629.1	ARENA_2	0.913	3.66	1215.4
	RELLENO_ZANJA	6.240	23.65	9213.2	ARENA_3	2.477	9.93	2621.5
2883.458	TERRAPLEN	0.000	0.00	0.6	D TIERRA	11.017	37.11	15270.2
	ARENA_1	0.260	0.90	630.0	ARENA_2	0.913	3.16	1218.6
	RELLENO_ZANJA	6.810	22.56	9235.8	ARENA_3	2.477	8.56	2630.0
2899.767	TERRAPLEN	0.000	0.00	0.6	D TIERRA	12.458	191.43	15461.6
	ARENA_1	0.260	4.24	634.2	ARENA_2	0.913	14.89	1233.4
	RELLENO_ZANJA	8.251	122.82	9358.6	ARENA_3	2.477	40.40	2670.4
2900.000	TERRAPLEN	0.000	0.00	0.6	D TIERRA	12.487	2.91	15464.5
	ARENA_1	0.260	0.06	634.3	ARENA_2	0.913	0.21	1233.7
	RELLENO_ZANJA	8.280	1.93	9360.5	ARENA_3	2.477	0.58	2671.0
2920.000	TERRAPLEN	0.000	0.00	0.6	D TIERRA	13.307	25.94	15722.5
	ARENA_1	0.260	5.21	639.5	ARENA_2	0.913	18.26	1251.9
	RELLENO_ZANJA	9.100	173.80	9534.3	ARENA_3	2.477	49.54	2720.5
2940.000	TERRAPLEN	0.000	0.00	0.6	D TIERRA	13.855	271.62	15994.1
	ARENA_1	0.260	5.21	644.7	ARENA_2	0.913	18.26	1270.2
	RELLENO_ZANJA	9.648	187.47	9721.8	ARENA_3	2.477	49.54	2770.1
2960.000	TERRAPLEN	0.000	0.00	0.6	D TIERRA	14.145	280.00	16274.1
	ARENA_1	0.260	5.21	649.9	ARENA_2	0.913	18.26	1288.4
	RELLENO_ZANJA	9.938	195.86	9917.6	ARENA_3	2.477	49.54	2819.6
2960.720	TERRAPLEN	0.000	0.00	0.6	D TIERRA	13.796	10.06	16284.1
	ARENA_1	0.260	0.19	650.1	ARENA_2	0.913	0.66	1289.1
	RELLENO_ZANJA	9.589	7.03	9924.7	ARENA_3	2.476	1.78	2821.4
2968.529	TERRAPLEN	0.000	0.00	0.6	D TIERRA	13.387	106.14	16390.3
	ARENA_1	0.260	2.03	652.1	ARENA_2	0.913	7.13	1296.2
	RELLENO_ZANJA	9.180	73.28	9998.0	ARENA_3	2.476	19.34	2840.8
2979.210	TERRAPLEN	0.000	0.00	0.6	D TIERRA	13.717	144.75	16535.0
	ARENA_1	0.260	2.78	654.9	ARENA_2	0.913	9.75	1306.0
	RELLENO_ZANJA	9.510	99.81	10097.8	ARENA_3	2.476	26.45	2867.2
2980.000	TERRAPLEN	0.000	0.00	0.6	D TIERRA	13.804	10.87	16545.9
	ARENA_1	0.260	0.21	655.1	ARENA_2	0.913	0.72	1306.7
	RELLENO_ZANJA	9.597	7.55	10105.3	ARENA_3	2.476	1.96	2869.2
3000.000	TERRAPLEN	0.000	0.00	0.6	D TIERRA	13.553	273.57	16819.5
	ARENA_1	0.260	5.20	660.3	ARENA_2	0.913	18.26	1325.0
	RELLENO_ZANJA	9.345	189.42	10294.7	ARENA_3	2.476	49.52	2918.7
3020.000	TERRAPLEN	0.000	0.00	0.6	D TIERRA	15.089	286.41	17105.9
	ARENA_1	0.260	5.20	665.5	ARENA_2	0.913	18.26	1343.2
	RELLENO_ZANJA	10.882	202.27	10497.0	ARENA_3	2.476	49.53	2968.2
3037.546	TERRAPLEN	0.000	0.00	0.6	D TIERRA	11.227	230.87	17336.7
	ARENA_1	0.260	4.57	670.1	ARENA_2	0.913	16.02	1359.2
	RELLENO_ZANJA	7.020	157.05	10654.1	ARENA_3	2.477	43.46	3011.7
3040.000	TERRAPLEN	0.000	0.00	0.6	D TIERRA	11.373	27.73	17364.5
	ARENA_1	0.260	0.64	670.7	ARENA_2	0.913	2.24	1361.5
	RELLENO_ZANJA	7.166	17.41	10671.5	ARENA_3	2.477	6.08	3017.7
3060.000	TERRAPLEN	0.000	0.00	0.6	D TIERRA	11.991	233.63	17598.1
	ARENA_1	0.260	5.21	675.9	ARENA_2	0.913	18.26	1379.8
	RELLENO_ZANJA	7.783	149.49	10821.0	ARENA_3	2.477	49.55	3067.3

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 PROYECTO : CIDACOS COMPLETO
 EJE : 4: ACOMETIDA DE ARNEADO - ARQUETA PRINCIPAL (P190)

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***** MEDICIONES DE LOS PERFILES TRANSVERSALES*****
 ***** CAPAS DE FIRME *****

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PERFIL	MATERIAL	AREA PERFIL	VOL. PARCIAL	VOL. ACUMUL.	MATERIAL	AREA PERFIL	VOL. PARCIAL	VOL. ACUMUL.
3060.000	TERRAPLEN	0.000	0.00	0.6	D TIERRA	3.148	0.00	17598.1
	ARENA_1	0.218	0.00	675.9	ARENA_2	0.336	0.00	1379.8
	RELLENO_ZANJA	1.419	0.00	10821.0	ARENA_3	0.619	0.00	3067.3
3080.000	TERRAPLEN	0.000	0.00	0.6	D TIERRA	3.286	64.34	17662.4
	ARENA_1	0.218	4.35	680.3	ARENA_2	0.336	6.72	1386.5
	RELLENO_ZANJA	1.557	29.76	10850.7	ARENA_3	0.619	12.37	3079.7
3087.953	TERRAPLEN	0.000	0.00	0.6	D TIERRA	3.243	25.96	17688.4
	ARENA_1	0.218	1.73	682.0	ARENA_2	0.336	2.67	1389.1
	RELLENO_ZANJA	1.514	12.21	10862.9	ARENA_3	0.619	4.92	3084.6
3100.000	TERRAPLEN	0.000	0.00	0.6	D TIERRA	3.299	39.41	17727.8
	ARENA_1	0.218	2.62	684.6	ARENA_2	0.336	4.05	1393.2
	RELLENO_ZANJA	1.570	18.58	10881.5	ARENA_3	0.619	7.45	3092.0
3103.992	TERRAPLEN	0.000	0.00	0.6	D TIERRA	3.258	13.09	17740.9
	ARENA_1	0.218	0.87	685.5	ARENA_2	0.336	1.34	1394.5
	RELLENO_ZANJA	1.529	6.19	10887.7	ARENA_3	0.619	2.47	3094.5
3120.000	TERRAPLEN	0.000	0.00	0.6	D TIERRA	3.232	51.95	17792.9
	ARENA_1	0.218	3.48	689.0	ARENA_2	0.336	5.38	1399.9
	RELLENO_ZANJA	1.503	24.27	10912.0	ARENA_3	0.619	9.90	3104.4
3140.000	TERRAPLEN	0.000	0.00	0.6	D TIERRA	3.147	63.79	17856.6
	ARENA_1	0.218	4.35	693.3	ARENA_2	0.336	6.72	1406.6
	RELLENO_ZANJA	1.418	29.22	10941.2	ARENA_3	0.619	12.38	3116.8
3151.584	TERRAPLEN	0.000	0.00	0.6	D TIERRA	10.105	0.00	17856.6
	ARENA_1	0.260	0.00	693.3	ARENA_2	0.913	0.00	1406.6
	RELLENO_ZANJA	5.898	0.00	10941.2	ARENA_3	2.477	0.00	3116.8
3160.000	TERRAPLEN	0.000	0.00	0.6	D TIERRA	10.688	87.50	17944.1
	ARENA_1	0.260	2.19	695.5	ARENA_2	0.913	7.68	1414.3
	RELLENO_ZANJA	6.481	52.09	10993.3	ARENA_3	2.477	20.85	3137.6
3180.000	TERRAPLEN	0.000	0.00	0.6	D TIERRA	10.700	213.88	18158.0
	ARENA_1	0.260	5.21	700.7	ARENA_2	0.913	18.26	1432.6
	RELLENO_ZANJA	6.493	129.74	11123.0	ARENA_3	2.477	49.54	3187.2
3200.000	TERRAPLEN	0.000	0.00	0.6	D TIERRA	10.370	210.70	18368.7
	ARENA_1	0.260	5.21	705.9	ARENA_2	0.913	18.26	1450.8
	RELLENO_ZANJA	6.163	126.56	11249.6	ARENA_3	2.477	49.54	3236.7
3220.000	TERRAPLEN	0.000	0.00	0.6	D TIERRA	10.497	208.67	18577.4
	ARENA_1	0.260	5.21	711.1	ARENA_2	0.913	18.26	1469.1
	RELLENO_ZANJA	6.290	124.53	11374.1	ARENA_3	2.477	49.54	3286.3
3223.400	TERRAPLEN	0.000	0.00	0.6	D TIERRA	10.214	35.21	18612.6
	ARENA_1	0.260	0.89	712.0	ARENA_2	0.913	3.10	1472.2
	RELLENO_ZANJA	6.007	20.90	11395.0	ARENA_3	2.477	8.42	3294.7
3240.000	TERRAPLEN	0.000	0.00	0.6	D TIERRA	3.150	0.00	18612.6
	ARENA_1	0.218	0.00	712.0	ARENA_2	0.336	0.00	1472.2
	RELLENO_ZANJA	1.421	0.00	11395.0	ARENA_3	0.619	0.00	3294.7
3260.000	TERRAPLEN	0.000	0.00	0.6	D TIERRA	3.151	63.01	18675.6
	ARENA_1	0.218	4.35	716.4	ARENA_2	0.336	6.72	1478.9
	RELLENO_ZANJA	1.422	28.43	11423.4	ARENA_3	0.619	12.37	3307.1
3268.345	TERRAPLEN	0.000	0.00	0.6	D TIERRA	3.239	26.66	18702.3
	ARENA_1	0.218	1.82	718.2	ARENA_2	0.336	2.80	1481.7
	RELLENO_ZANJA	1.510	12.23	11435.7	ARENA_3	0.618	5.16	3312.2
3280.000	TERRAPLEN	0.000	0.00	0.6	D TIERRA	3.140	37.17	18739.5
	ARENA_1	0.218	2.54	720.7	ARENA_2	0.336	3.92	1485.6
	RELLENO_ZANJA	1.411	17.02	11452.7	ARENA_3	0.618	7.20	3319.4
3300.000	TERRAPLEN	0.000	0.00	0.6	D TIERRA	3.115	62.54	18802.0
	ARENA_1	0.218	4.35	725.1	ARENA_2	0.336	6.72	1492.4
	RELLENO_ZANJA	1.386	27.97	11480.7	ARENA_3	0.618	12.36	3331.8
3305.203	TERRAPLEN	0.000	0.00	0.6	D TIERRA	3.136	16.26	18818.3
	ARENA_1	0.218	1.13	726.2	ARENA_2	0.336	1.75	1494.1
	RELLENO_ZANJA	1.407	7.27	11487.9	ARENA_3	0.618	3.21	3335.0
3316.015	TERRAPLEN	0.000	0.00	0.6	D TIERRA	3.225	34.39	18852.7
	ARENA_1	0.218	2.35	728.6	ARENA_2	0.336	3.63	1497.8
	RELLENO_ZANJA	1.496	15.69	11503.6	ARENA_3	0.618	6.68	3341.7

PERFIL	MATERIAL	AREA PERFIL	VOL. PARCIAL	VOL. ACUMUL.	MATERIAL	AREA PERFIL	VOL. PARCIAL	VOL. ACUMUL.
3320.000	TERRAPLEN	0.000	0.00	0.6	D TIERRA	3.219	12.84	18865.5
	ARENA_1	0.218	0.87	729.4	ARENA_2	0.336	1.34	1499.1
	RELLENO_ZANJA	1.490	5.95	11509.6	ARENA_3	0.618	2.46	3344.1
3321.759	TERRAPLEN	0.000	0.00	0.6	D TIERRA	3.217	5.66	18871.2
	ARENA_1	0.218	0.38	729.8	ARENA_2	0.336	0.59	1499.7
	RELLENO_ZANJA	1.488	2.62	11512.2	ARENA_3	0.618	1.09	3345.2
3340.000	TERRAPLEN	0.000	0.00	0.6	D TIERRA	3.149	58.06	18929.2
	ARENA_1	0.218	3.97	733.8	ARENA_2	0.336	6.13	1505.8
	RELLENO_ZANJA	1.420	26.52	11538.7	ARENA_3	0.618	11.27	3356.5
3360.000	TERRAPLEN	0.000	0.00	0.6	D TIERRA	3.140	62.89	18992.1
	ARENA_1	0.218	4.35	738.1	ARENA_2	0.336	6.72	1512.5
	RELLENO_ZANJA	1.411	28.31	11567.0	ARENA_3	0.619	12.37	3368.9
3376.087	TERRAPLEN	0.000	0.00	0.6	D TIERRA	3.139	50.50	19042.6
	ARENA_1	0.218	3.50	741.6	ARENA_2	0.336	5.41	1517.9
	RELLENO_ZANJA	1.410	22.69	11589.7	ARENA_3	0.619	9.95	3378.8
3380.000	TERRAPLEN	0.000	0.00	0.6	D TIERRA	3.139	12.28	19054.9
	ARENA_1	0.218	0.85	742.5	ARENA_2	0.336	1.32	1519.3
	RELLENO_ZANJA	1.410	5.52	11595.2	ARENA_3	0.619	2.42	3381.2
3400.000	TERRAPLEN	0.000	0.00	0.6	D TIERRA	3.140	62.79	19117.7
	ARENA_1	0.218	4.35	746.8	ARENA_2	0.336	6.72	1526.0
	RELLENO_ZANJA	1.411	28.21	11623.4	ARENA_3	0.618	12.37	3393.6
3404.382	TERRAPLEN	0.000	0.00	0.6	D TIERRA	3.077	13.62	19131.3
	ARENA_1	0.218	0.95	747.8	ARENA_2	0.336	1.47	1527.5
	RELLENO_ZANJA	1.348	6.05	11629.5	ARENA_3	0.618	2.71	3396.3
3420.000	TERRAPLEN	0.000	0.00	0.6	D TIERRA	3.147	48.61	19179.9
	ARENA_1	0.218	3.40	751.2	ARENA_2	0.336	5.25	1532.7
	RELLENO_ZANJA	1.418	21.60	11651.1	ARENA_3	0.618	9.66	3406.0
3440.000	TERRAPLEN	0.000	0.00	0.6	D TIERRA	3.125	62.72	19242.6
	ARENA_1	0.218	4.35	755.5	ARENA_2	0.336	6.72	1539.4
	RELLENO_ZANJA	1.396	28.14	11679.2	ARENA_3	0.619	12.37	3418.4
3448.050	TERRAPLEN	0.000	0.00	0.6	D TIERRA	3.167	25.33	19268.0
	ARENA_1	0.218	1.75	757.3	ARENA_2	0.336	2.71	1542.1
	RELLENO_ZANJA	1.438	11.41	11690.6	ARENA_3	0.619	4.98	3423.3
3460.000	TERRAPLEN	0.000	0.00	0.6	D TIERRA	3.181	37.93	19305.9
	ARENA_1	0.218	2.60	759.9	ARENA_2	0.336	4.02	1546.1
	RELLENO_ZANJA	1.452	17.27	11707.9	ARENA_3	0.619	7.39	3430.7
3467.640	TERRAPLEN	0.000	0.00	0.6	D TIERRA	3.154	24.20	19330.1
	ARENA_1	0.218	1.66	761.6	ARENA_2	0.336	2.57	1548.7
	RELLENO_ZANJA	1.425	10.99	11718.9	ARENA_3	0.619	4.73	3435.5
3480.000	TERRAPLEN	0.000	0.00	0.6	D TIERRA	3.164	39.04	19369.1
	ARENA_1	0.218	2.69	764.2	ARENA_2	0.336	4.15	1552.9
	RELLENO_ZANJA	1.435	17.67	11736.6	ARENA_3	0.619	7.65	3443.1
3492.043	TERRAPLEN	0.000	0.00	0.6	D TIERRA	3.227	38.48	19407.6
	ARENA_1	0.218	2.62	766.9	ARENA_2	0.336	4.05	1556.9
	RELLENO_ZANJA	1.498	17.66	11754.2	ARENA_3	0.619	7.45	3450.5
3500.000	TERRAPLEN	0.000	0.00	0.6	D TIERRA	3.147	25.36	19433.0
	ARENA_1	0.218	1.73	768.6	ARENA_2	0.336	2.67	1559.6
	RELLENO_ZANJA	1.418	11.60	11765.8	ARENA_3	0.619	4.92	3455.5
3520.000	TERRAPLEN	0.000	0.00	0.6	D TIERRA	3.147	62.95	19495.9
	ARENA_1	0.218	4.35	772.9	ARENA_2	0.336	6.72	1566.3
	RELLENO_ZANJA	1.418	28.37	11794.2	ARENA_3	0.619	12.37	3467.8
3536.354	TERRAPLEN	0.000	0.00	0.6	D TIERRA	3.151	51.50	19547.4
	ARENA_1	0.218	3.56	776.5	ARENA_2	0.336	5.50	1571.8
	RELLENO_ZANJA	1.422	23.22	11817.4	ARENA_3	0.619	10.12	3478.0
3540.000	TERRAPLEN	0.000	0.00	0.6	D TIERRA	3.147	11.48	19558.9
	ARENA_1	0.218	0.79	777.3	ARENA_2	0.336	1.23	1573.0
	RELLENO_ZANJA	1.418	5.18	11822.6	ARENA_3	0.619	2.26	3480.2
3560.000	TERRAPLEN	0.000	0.00	0.6	D TIERRA	3.120	62.67	19621.6
	ARENA_1	0.218	4.35	781.7	ARENA_2	0.336	6.72	1579.8
	RELLENO_ZANJA	1.391	28.09	11850.7	ARENA_3	0.619	12.37	3492.6

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***** MEDICIONES DE LOS PERFILES TRANSVERSALES* * *
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PERFIL	MATERIAL	AREA PERFIL	VOL. PARCIAL	VOL. ACUMUL.	MATERIAL	AREA PERFIL	VOL. PARCIAL	VOL. ACUMUL.
3580.000	TERRAPLEN	0.000	0.00	0.6	D TIERRA	3.148	62.68	19684.3
	ARENA_1	0.218	4.35	786.0	ARENA_2	0.336	6.72	1586.5
	RELLENO_ZANJA	1.419	28.10	11878.8	ARENA_3	0.619	12.37	3505.0
3594.958	TERRAPLEN	0.000	0.00	0.6	D TIERRA	3.148	47.09	19731.3
	ARENA_1	0.218	3.25	789.3	ARENA_2	0.336	5.03	1591.5
	RELLENO_ZANJA	1.419	21.23	11900.0	ARENA_3	0.619	9.25	3514.2
3598.337	TERRAPLEN	0.000	0.00	0.6	D TIERRA	3.155	10.65	19742.0
	ARENA_1	0.218	0.74	790.0	ARENA_2	0.336	1.14	1592.6
	RELLENO_ZANJA	1.426	4.81	11904.8	ARENA_3	0.619	2.09	3516.3
3600.000	TERRAPLEN	0.000	0.00	0.6	D TIERRA	3.169	5.26	19747.3
	ARENA_1	0.218	0.36	790.4	ARENA_2	0.336	0.56	1593.2
	RELLENO_ZANJA	1.440	2.38	11907.2	ARENA_3	0.619	1.03	3517.3
3613.343	TERRAPLEN	0.000	0.00	0.6	D TIERRA	3.147	42.14	19789.4
	ARENA_1	0.218	2.90	793.3	ARENA_2	0.336	4.48	1597.7
	RELLENO_ZANJA	1.418	19.07	11926.3	ARENA_3	0.619	8.26	3525.6
3620.000	TERRAPLEN	0.000	0.00	0.6	D TIERRA	3.170	21.03	19810.4
	ARENA_1	0.218	1.45	794.7	ARENA_2	0.336	2.24	1599.9
	RELLENO_ZANJA	1.441	9.52	11935.8	ARENA_3	0.619	4.12	3529.7
3640.000	TERRAPLEN	0.000	0.00	0.6	D TIERRA	3.238	64.09	19874.5
	ARENA_1	0.218	4.35	799.1	ARENA_2	0.336	6.72	1606.6
	RELLENO_ZANJA	1.509	29.51	11965.3	ARENA_3	0.619	12.37	3542.1
3648.338	TERRAPLEN	0.000	0.00	0.6	D TIERRA	3.265	27.11	19901.6
	ARENA_1	0.218	1.81	800.9	ARENA_2	0.336	2.80	1609.4
	RELLENO_ZANJA	1.536	12.69	11978.0	ARENA_3	0.619	5.16	3547.2
3660.000	TERRAPLEN	0.000	0.00	0.6	D TIERRA	3.152	37.42	19939.0
	ARENA_1	0.218	2.54	803.4	ARENA_2	0.336	3.92	1613.4
	RELLENO_ZANJA	1.423	17.25	11995.3	ARENA_3	0.619	7.22	3554.5
3680.000	TERRAPLEN	0.000	0.00	0.6	D TIERRA	3.089	62.41	20001.4
	ARENA_1	0.218	4.35	807.8	ARENA_2	0.336	6.72	1620.1
	RELLENO_ZANJA	1.360	27.83	12023.1	ARENA_3	0.619	12.37	3566.8
3700.000	TERRAPLEN	0.000	0.00	0.6	D TIERRA	3.113	62.02	20063.5
	ARENA_1	0.218	4.35	812.1	ARENA_2	0.336	6.72	1626.8
	RELLENO_ZANJA	1.384	27.44	12050.5	ARENA_3	0.619	12.37	3579.2
3720.000	TERRAPLEN	0.000	0.00	0.6	D TIERRA	3.270	63.83	20127.3
	ARENA_1	0.218	4.35	816.5	ARENA_2	0.336	6.72	1633.5
	RELLENO_ZANJA	1.541	29.25	12079.8	ARENA_3	0.619	12.37	3591.6
3724.758	TERRAPLEN	0.000	0.00	0.6	D TIERRA	3.260	15.53	20142.8
	ARENA_1	0.218	1.04	817.5	ARENA_2	0.336	1.60	1635.1
	RELLENO_ZANJA	1.531	7.31	12087.1	ARENA_3	0.619	2.94	3594.5
3724.758	TERRAPLEN	0.000	0.00	0.6	D TIERRA	0.000	0.00	20142.8
	ARENA_1	0.000	0.00	817.5	ARENA_2	0.000	0.00	1635.1
	RELLENO_ZANJA	0.000	0.00	12087.1	ARENA_3	0.000	0.00	3594.5
3740.000	TERRAPLEN	0.000	0.00	0.6	D TIERRA	0.000	0.00	20142.8
	ARENA_1	0.000	0.00	817.5	ARENA_2	0.000	0.00	1635.1
	RELLENO_ZANJA	0.000	0.00	12087.1	ARENA_3	0.000	0.00	3594.5
3760.000	TERRAPLEN	0.000	0.00	0.6	D TIERRA	3.212	0.00	20142.8
	ARENA_1	0.218	0.00	817.5	ARENA_2	0.336	0.00	1635.1
	RELLENO_ZANJA	1.483	0.00	12087.1	ARENA_3	0.619	0.00	3594.5
3773.357	TERRAPLEN	0.000	0.00	0.6	D TIERRA	3.144	42.45	20185.3
	ARENA_1	0.218	2.91	820.4	ARENA_2	0.336	4.49	1639.6
	RELLENO_ZANJA	1.415	19.35	12106.4	ARENA_3	0.619	8.26	3602.8
3780.000	TERRAPLEN	0.000	0.00	0.6	D TIERRA	3.161	20.94	20206.2
	ARENA_1	0.218	1.45	821.9	ARENA_2	0.336	2.23	1641.8
	RELLENO_ZANJA	1.432	9.45	12115.9	ARENA_3	0.619	4.11	3606.9
3797.221	TERRAPLEN	0.000	0.00	0.6	D TIERRA	3.187	54.66	20260.9
	ARENA_1	0.218	3.75	825.6	ARENA_2	0.336	5.79	1647.6
	RELLENO_ZANJA	1.458	24.88	12140.8	ARENA_3	0.619	10.65	3617.6
3800.000	TERRAPLEN	0.000	0.00	0.6	D TIERRA	3.208	8.89	20269.8
	ARENA_1	0.218	0.60	826.2	ARENA_2	0.336	0.93	1648.6
	RELLENO_ZANJA	1.479	4.08	12144.9	ARENA_3	0.619	1.72	3619.3

PERFIL	MATERIAL	AREA PERFIL	VOL. PARCIAL	VOL. ACUMUL.	MATERIAL	AREA PERFIL	VOL. PARCIAL	VOL. ACUMUL.
3806.010	TERRAPLEN	0.000	0.00	0.6	D TIERRA	3.242	19.38	20289.1
	ARENA_1	0.218	1.31	827.5	ARENA_2	0.336	2.02	1650.6
	RELLENO_ZANJA	1.513	8.99	12153.8	ARENA_3	0.619	3.72	3623.0
3820.000	TERRAPLEN	0.000	0.00	0.6	D TIERRA	3.311	45.84	20335.0
	ARENA_1	0.218	3.04	830.6	ARENA_2	0.336	4.70	1655.3
	RELLENO_ZANJA	1.582	21.65	12175.5	ARENA_3	0.619	8.65	3631.6
3840.000	TERRAPLEN	0.000	0.00	0.6	D TIERRA	9.673	0.00	20335.0
	ARENA_1	0.260	0.00	830.6	ARENA_2	0.913	0.00	1655.3
	RELLENO_ZANJA	5.466	0.00	12175.5	ARENA_3	2.477	0.00	3631.6
3860.000	TERRAPLEN	0.000	0.00	0.6	D TIERRA	11.400	210.73	20545.7
	ARENA_1	0.260	5.21	835.8	ARENA_2	0.913	18.26	1673.5
	RELLENO_ZANJA	7.193	126.59	12302.1	ARENA_3	2.477	49.54	3681.2
3862.161	TERRAPLEN	0.000	0.00	0.6	D TIERRA	11.217	24.44	20570.2
	ARENA_1	0.260	0.56	836.3	ARENA_2	0.913	1.97	1675.5
	RELLENO_ZANJA	7.010	15.35	12317.4	ARENA_3	2.477	5.35	3686.5
3880.000	TERRAPLEN	0.000	0.00	0.6	D TIERRA	10.874	197.04	20767.2
	ARENA_1	0.260	4.64	841.0	ARENA_2	0.913	16.29	1691.8
	RELLENO_ZANJA	6.667	121.99	12439.4	ARENA_3	2.477	44.19	3730.7
3900.000	TERRAPLEN	0.000	0.00	0.6	D TIERRA	10.611	214.85	20982.0
	ARENA_1	0.260	5.21	846.2	ARENA_2	0.913	18.26	1710.1
	RELLENO_ZANJA	6.404	130.71	12570.1	ARENA_3	2.477	49.54	3780.3
3911.994	TERRAPLEN	0.000	0.00	0.6	D TIERRA	3.118	0.00	20982.0
	ARENA_1	0.218	0.00	846.2	ARENA_2	0.336	0.00	1710.1
	RELLENO_ZANJA	1.389	0.00	12570.1	ARENA_3	0.619	0.00	3780.3
3920.000	TERRAPLEN	0.000	0.00	0.6	D TIERRA	3.177	25.20	21007.3
	ARENA_1	0.218	1.74	847.9	ARENA_2	0.336	2.69	1712.8
	RELLENO_ZANJA	1.448	11.36	12581.5	ARENA_3	0.619	4.95	3785.2
3921.304	TERRAPLEN	0.000	0.00	0.6	D TIERRA	3.187	4.15	21011.4
	ARENA_1	0.218	0.28	848.2	ARENA_2	0.336	0.44	1713.2
	RELLENO_ZANJA	1.458	1.89	12583.4	ARENA_3	0.619	0.81	3786.0
3931.915	TERRAPLEN	0.000	0.00	0.6	D TIERRA	3.190	33.83	21045.2
	ARENA_1	0.218	2.31	850.5	ARENA_2	0.336	3.57	1716.8
	RELLENO_ZANJA	1.461	15.49	12598.9	ARENA_3	0.619	6.56	3792.6
3940.000	TERRAPLEN	0.000	0.00	0.6	D TIERRA	3.125	25.53	21070.8
	ARENA_1	0.218	1.76	852.3	ARENA_2	0.336	2.72	1719.5
	RELLENO_ZANJA	1.396	11.55	12610.4	ARENA_3	0.619	5.00	3797.6
3942.007	TERRAPLEN	0.000	0.00	0.6	D TIERRA	3.122	6.27	21077.0
	ARENA_1	0.218	0.44	852.7	ARENA_2	0.336	0.67	1720.2
	RELLENO_ZANJA	1.393	2.80	12613.2	ARENA_3	0.619	1.24	3798.8
3953.488	TERRAPLEN	0.000	0.00	0.6	D TIERRA	3.163	36.08	21113.1
	ARENA_1	0.218	2.50	855.2	ARENA_2	0.336	3.86	1724.0
	RELLENO_ZANJA	1.434	16.23	12629.5	ARENA_3	0.619	7.10	3805.9
3960.000	TERRAPLEN	0.000	0.00	0.6	D TIERRA	3.143	20.54	21133.6
	ARENA_1	0.218	1.42	856.6	ARENA_2	0.336	2.19	1726.2
	RELLENO_ZANJA	1.414	9.28	12638.7	ARENA_3	0.619	4.03	3810.0
3976.927	TERRAPLEN	0.000	0.00	0.6	D TIERRA	3.132	53.11	21186.8
	ARENA_1	0.218	3.68	860.3	ARENA_2	0.336	5.69	1731.9
	RELLENO_ZANJA	1.403	23.84	12662.6	ARENA_3	0.619	10.47	3820.4
3980.000	TERRAPLEN	0.000	0.00	0.6	D TIERRA	3.125	9.61	21196.4
	ARENA_1	0.218	0.67	861.0	ARENA_2	0.336	1.03	1732.9
	RELLENO_ZANJA	1.396	4.30	12666.9	ARENA_3	0.619	1.90	3822.3
4000.000	TERRAPLEN	0.000	0.00	0.6	D TIERRA	3.129	62.53	21258.9
	ARENA_1	0.218	4.35	865.3	ARENA_2	0.336	6.72	1739.6
	RELLENO_ZANJA	1.400	27.95	12694.8	ARENA_3	0.619	12.37	3834.7
4011.209	TERRAPLEN	0.000	0.00	0.6	D TIERRA	3.135	35.10	21294.0
	ARENA_1	0.218	2.44	867.8	ARENA_2	0.336	3.77	1743.4
	RELLENO_ZANJA	1.406	15.72	12710.6	ARENA_3	0.619	6.94	3841.7
4020.000	TERRAPLEN	0.000	0.00	0.6	D TIERRA	3.130	27.54	21321.5
	ARENA_1	0.218	1.91	869.7	ARENA_2	0.336	2.95	1746.4
	RELLENO_ZANJA	1.401	12.34	12722.9	ARENA_3	0.619	5.44	3847.1

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 PROYECTO : CIDACOS COMPLETO
 EJE : 4: ACOMETIDA DE ARNEDO - ARQUETA PRINCIPAL (P190)

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 PROYECTO : CIDACOS COMPLETO
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*** MEDICIONES DE LOS PERFILES TRANSVERSALES ***
 *** CAPAS DE FIRME ***

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PERFIL	MATERIAL	AREA PERFIL	VOL. PARCIAL	VOL. ACUMUL.	MATERIAL	AREA PERFIL	VOL. PARCIAL	VOL. ACUMUL.
4040.000	TERRAPLEN	0.000	0.00	0.6	D TIERRA	3.140	62.70	21384.2
	ARENA_1	0.218	4.35	874.0	ARENA_2	0.336	6.72	1753.1
	RELLENO_ZANJA	1.411	28.12	12751.0	ARENA_3	0.619	12.37	3859.5
4044.792	TERRAPLEN	0.000	0.00	0.6	D TIERRA	3.142	15.05	21399.3
	ARENA_1	0.218	1.04	875.1	ARENA_2	0.336	1.61	1754.7
	RELLENO_ZANJA	1.413	6.77	12757.8	ARENA_3	0.619	2.96	3862.4
4060.000	TERRAPLEN	0.000	0.00	0.6	D TIERRA	3.136	47.74	21447.0
	ARENA_1	0.218	3.31	878.4	ARENA_2	0.336	5.11	1759.8
	RELLENO_ZANJA	1.407	21.44	12779.2	ARENA_3	0.619	9.41	3871.8
4062.151	TERRAPLEN	0.000	0.00	0.6	D TIERRA	3.118	6.73	21453.8
	ARENA_1	0.218	0.47	878.9	ARENA_2	0.336	0.72	1760.5
	RELLENO_ZANJA	1.389	3.01	12782.2	ARENA_3	0.619	1.33	3873.2
4080.000	TERRAPLEN	0.000	0.00	0.6	D TIERRA	3.147	55.91	21509.7
	ARENA_1	0.218	3.88	882.7	ARENA_2	0.336	6.00	1766.5
	RELLENO_ZANJA	1.418	25.05	12807.3	ARENA_3	0.619	11.04	3884.2
4100.000	TERRAPLEN	0.000	0.00	0.6	D TIERRA	3.226	63.74	21573.4
	ARENA_1	0.218	4.35	887.1	ARENA_2	0.336	6.72	1773.3
	RELLENO_ZANJA	1.497	29.16	12836.4	ARENA_3	0.619	12.37	3896.6
4101.846	TERRAPLEN	0.000	0.00	0.6	D TIERRA	3.231	5.96	21579.4
	ARENA_1	0.218	0.40	887.5	ARENA_2	0.336	0.62	1773.9
	RELLENO_ZANJA	1.502	2.77	12839.2	ARENA_3	0.619	1.14	3897.7
4114.545	TERRAPLEN	0.000	0.00	0.6	D TIERRA	3.163	40.60	21620.0
	ARENA_1	0.218	2.76	890.3	ARENA_2	0.336	4.27	1778.1
	RELLENO_ZANJA	1.434	18.65	12857.9	ARENA_3	0.619	7.86	3905.6
4120.000	TERRAPLEN	0.000	0.00	0.6	D TIERRA	3.141	17.20	21637.2
	ARENA_1	0.218	1.19	891.4	ARENA_2	0.336	1.83	1780.0
	RELLENO_ZANJA	1.412	7.76	12865.6	ARENA_3	0.619	3.38	3909.0
4140.000	TERRAPLEN	0.000	0.00	0.6	D TIERRA	3.122	62.63	21699.8
	ARENA_1	0.218	4.35	895.8	ARENA_2	0.336	6.72	1786.7
	RELLENO_ZANJA	1.393	28.05	12893.7	ARENA_3	0.619	12.37	3921.3
4160.000	TERRAPLEN	0.000	0.00	0.6	D TIERRA	3.132	62.54	21762.3
	ARENA_1	0.218	4.35	900.1	ARENA_2	0.336	6.72	1793.4
	RELLENO_ZANJA	1.403	27.96	12921.6	ARENA_3	0.619	12.37	3933.7
4180.000	TERRAPLEN	0.000	0.00	0.6	D TIERRA	3.155	62.87	21825.2
	ARENA_1	0.218	4.35	904.5	ARENA_2	0.336	6.72	1800.1
	RELLENO_ZANJA	1.426	28.29	12949.9	ARENA_3	0.619	12.37	3946.1
4200.000	TERRAPLEN	0.000	0.00	0.6	D TIERRA	3.171	63.25	21888.5
	ARENA_1	0.218	4.35	908.9	ARENA_2	0.336	6.72	1806.9
	RELLENO_ZANJA	1.442	28.67	12978.6	ARENA_3	0.619	12.37	3958.5
4220.000	TERRAPLEN	0.000	0.00	0.6	D TIERRA	3.168	63.38	21951.9
	ARENA_1	0.218	4.35	913.2	ARENA_2	0.336	6.72	1813.6
	RELLENO_ZANJA	1.439	28.80	13007.4	ARENA_3	0.619	12.37	3970.8
4223.617	TERRAPLEN	0.000	0.00	0.6	D TIERRA	3.162	11.45	21963.3
	ARENA_1	0.218	0.79	914.0	ARENA_2	0.336	1.22	1814.8
	RELLENO_ZANJA	1.433	5.19	13012.6	ARENA_3	0.619	2.24	3973.1
4240.000	TERRAPLEN	0.000	0.00	0.6	D TIERRA	3.147	51.68	22015.0
	ARENA_1	0.218	3.56	917.6	ARENA_2	0.336	5.51	1820.3
	RELLENO_ZANJA	1.418	23.35	13036.0	ARENA_3	0.619	10.14	3983.2
4260.000	TERRAPLEN	0.000	0.00	0.6	D TIERRA	3.121	62.69	22077.7
	ARENA_1	0.218	4.35	921.9	ARENA_2	0.336	6.72	1827.0
	RELLENO_ZANJA	1.392	28.11	13064.1	ARENA_3	0.619	12.38	3995.6
4280.000	TERRAPLEN	0.000	0.00	0.6	D TIERRA	3.147	62.69	22140.3
	ARENA_1	0.218	4.35	926.3	ARENA_2	0.336	6.72	1833.7
	RELLENO_ZANJA	1.418	28.11	13092.2	ARENA_3	0.619	12.38	4008.0
4293.929	TERRAPLEN	0.000	0.00	0.6	D TIERRA	3.158	43.91	22184.3
	ARENA_1	0.218	3.03	929.3	ARENA_2	0.336	4.68	1838.4
	RELLENO_ZANJA	1.429	19.83	13112.0	ARENA_3	0.619	8.62	4016.6
4300.000	TERRAPLEN	0.000	0.00	0.6	D TIERRA	3.278	19.54	22203.8
	ARENA_1	0.218	1.32	930.6	ARENA_2	0.336	2.04	1840.5
	RELLENO_ZANJA	1.549	9.04	13121.0	ARENA_3	0.619	3.76	4020.3

PERFIL	MATERIAL	AREA PERFIL	VOL. PARCIAL	VOL. ACUMUL.	MATERIAL	AREA PERFIL	VOL. PARCIAL	VOL. ACUMUL.
4320.000	TERRAPLEN	0.000	0.00	0.6	D TIERRA	3.407	66.85	22270.7
	ARENA_1	0.218	4.35	935.0	ARENA_2	0.336	6.72	1847.2
	RELLENO_ZANJA	1.678	32.27	13153.3	ARENA_3	0.619	12.37	4032.7
4326.180	TERRAPLEN	0.000	0.00	0.6	D TIERRA	3.571	21.56	22292.2
	ARENA_1	0.218	1.34	936.3	ARENA_2	0.336	2.08	1849.3
	RELLENO_ZANJA	1.842	10.88	13164.2	ARENA_3	0.619	3.82	4036.5
4340.000	TERRAPLEN	0.000	0.00	0.6	D TIERRA	3.752	50.60	22342.8
	ARENA_1	0.218	3.01	939.3	ARENA_2	0.336	4.64	1853.9
	RELLENO_ZANJA	2.023	26.71	13190.9	ARENA_3	0.619	8.55	4045.1
4353.518	TERRAPLEN	0.000	0.00	0.6	D TIERRA	3.918	51.84	22394.7
	ARENA_1	0.218	2.94	942.3	ARENA_2	0.336	4.54	1858.5
	RELLENO_ZANJA	2.189	28.47	13219.4	ARENA_3	0.619	8.36	4053.5
4360.000	TERRAPLEN	0.000	0.00	0.6	D TIERRA	3.876	25.26	22419.9
	ARENA_1	0.218	1.41	943.7	ARENA_2	0.336	2.18	1860.6
	RELLENO_ZANJA	2.147	14.05	13233.4	ARENA_3	0.619	4.01	4057.5
4380.000	TERRAPLEN	0.000	0.00	0.6	D TIERRA	3.783	76.60	22496.5
	ARENA_1	0.218	4.35	948.0	ARENA_2	0.336	6.72	1867.3
	RELLENO_ZANJA	2.054	42.02	13275.4	ARENA_3	0.619	12.37	4069.8
4400.000	TERRAPLEN	0.000	0.00	0.6	D TIERRA	3.799	75.82	22572.3
	ARENA_1	0.218	4.35	952.4	ARENA_2	0.336	6.72	1874.1
	RELLENO_ZANJA	2.070	41.24	13316.7	ARENA_3	0.619	12.37	4082.2
4415.107	TERRAPLEN	0.000	0.00	0.6	D TIERRA	3.746	56.99	22629.3
	ARENA_1	0.218	3.29	955.7	ARENA_2	0.336	5.08	1879.1
	RELLENO_ZANJA	2.017	30.87	13347.5	ARENA_3	0.619	9.35	4091.6
4420.000	TERRAPLEN	0.000	0.00	0.6	D TIERRA	3.740	18.32	22647.6
	ARENA_1	0.218	1.06	956.7	ARENA_2	0.336	1.64	1880.8
	RELLENO_ZANJA	2.011	9.86	13357.4	ARENA_3	0.619	3.03	4094.6
4427.254	TERRAPLEN	0.000	0.00	0.6	D TIERRA	3.185	25.12	22672.8
	ARENA_1	0.218	1.58	958.3	ARENA_2	0.336	2.44	1883.2
	RELLENO_ZANJA	1.456	12.57	13370.0	ARENA_3	0.619	4.49	4099.1
4440.000	TERRAPLEN	0.000	0.00	0.6	D TIERRA	3.194	40.65	22713.4
	ARENA_1	0.218	2.77	961.1	ARENA_2	0.336	4.28	1887.5
	RELLENO_ZANJA	1.465	18.61	13388.6	ARENA_3	0.619	7.89	4107.0
4459.855	TERRAPLEN	0.000	0.00	0.6	D TIERRA	3.415	65.61	22779.0
	ARENA_1	0.218	4.32	965.4	ARENA_2	0.336	6.67	1894.2
	RELLENO_ZANJA	1.686	31.28	13419.9	ARENA_3	0.619	12.29	4119.2
4460.000	TERRAPLEN	0.000	0.00	0.6	D TIERRA	3.402	0.49	22779.5
	ARENA_1	0.218	0.03	965.4	ARENA_2	0.336	0.05	1894.2
	RELLENO_ZANJA	1.673	0.24	13420.1	ARENA_3	0.619	0.09	4119.3
4469.470	TERRAPLEN	0.000	0.00	0.6	D TIERRA	3.210	31.31	22810.8
	ARENA_1	0.218	2.06	967.5	ARENA_2	0.336	3.18	1897.4
	RELLENO_ZANJA	1.481	14.94	13435.0	ARENA_3	0.619	5.86	4125.2
4480.000	TERRAPLEN	0.000	0.00	0.6	D TIERRA	3.211	33.81	22844.6
	ARENA_1	0.218	2.29	969.8	ARENA_2	0.336	3.54	1901.0
	RELLENO_ZANJA	1.482	15.60	13450.7	ARENA_3	0.619	6.52	4131.7
4500.000	TERRAPLEN	0.000	0.00	0.6	D TIERRA	3.285	64.96	22909.6
	ARENA_1	0.218	4.35	974.1	ARENA_2	0.336	6.72	1907.7
	RELLENO_ZANJA	1.556	30.38	13481.0	ARENA_3	0.619	12.38	4144.1
4510.564	TERRAPLEN	0.000	0.00	0.6	D TIERRA	3.207	34.29	22943.9
	ARENA_1	0.218	2.30	976.4	ARENA_2	0.336	3.55	1911.2
	RELLENO_ZANJA	1.478	16.02	13497.1	ARENA_3	0.619	6.54	4150.6
4520.000	TERRAPLEN	0.000	0.00	0.6	D TIERRA	3.481	31.55	22975.4
	ARENA_1	0.218	2.05	978.5	ARENA_2	0.336	3.17	1914.4
	RELLENO_ZANJA	1.752	15.24	13512.3	ARENA_3	0.619	5.84	4156.5
4540.000	TERRAPLEN	0.000	0.00	0.6	D TIERRA	3.492	69.73	23045.2
	ARENA_1	0.218	4.35	982.8	ARENA_2	0.336	6.72	1921.1
	RELLENO_ZANJA	1.763	35.15	13547.4	ARENA_3	0.619	12.38	4168.8
4560.000	TERRAPLEN	0.000	0.00	0.6	D TIERRA	3.356	68.48	23113.6
	ARENA_1	0.218	4.35	987.2	ARENA_2	0.336	6.72	1927.8
	RELLENO_ZANJA	1.627	33.90	13581.3	ARENA_3	0.619	12.38	4181.2

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PERFIL	MATERIAL	AREA PERFIL	VOL. PARCIAL	VOL. ACUMUL.	MATERIAL	AREA PERFIL	VOL. PARCIAL	VOL. ACUMUL.
4580.000	TERRAPLEN	0.000	0.00	0.6	D TIERRA	3.375	67.31	23181.0
	ARENA_1	0.218	4.35	991.5	ARENA_2	0.336	6.72	1934.6
	RELLENO_ZANJA	1.646	32.73	13614.1	ARENA_3	0.619	12.37	4193.6
4582.097	TERRAPLEN	0.000	0.00	0.6	D TIERRA	3.383	7.09	23188.0
	ARENA_1	0.218	0.46	992.0	ARENA_2	0.336	0.70	1935.3
	RELLENO_ZANJA	1.654	3.46	13617.5	ARENA_3	0.619	1.30	4194.9
4600.000	TERRAPLEN	0.000	0.00	0.6	D TIERRA	3.296	59.78	23247.8
	ARENA_1	0.218	3.90	995.9	ARENA_2	0.336	6.02	1941.3
	RELLENO_ZANJA	1.567	28.83	13646.4	ARENA_3	0.619	11.08	4206.0
4620.000	TERRAPLEN	0.000	0.00	0.6	D TIERRA	3.408	67.04	23314.9
	ARENA_1	0.218	4.35	1000.2	ARENA_2	0.336	6.72	1948.0
	RELLENO_ZANJA	1.679	32.46	13678.8	ARENA_3	0.619	12.38	4218.3
4636.590	TERRAPLEN	0.000	0.00	0.6	D TIERRA	3.525	57.51	23372.4
	ARENA_1	0.218	3.61	1003.9	ARENA_2	0.336	5.58	1953.6
	RELLENO_ZANJA	1.796	28.83	13707.7	ARENA_3	0.619	10.26	4228.6
4640.000	TERRAPLEN	0.000	0.00	0.6	D TIERRA	3.496	11.97	23384.3
	ARENA_1	0.218	0.74	1004.6	ARENA_2	0.336	1.15	1954.7
	RELLENO_ZANJA	1.767	6.07	13713.7	ARENA_3	0.619	2.11	4230.7
4660.000	TERRAPLEN	0.000	0.00	0.6	D TIERRA	3.565	70.61	23455.0
	ARENA_1	0.218	4.35	1008.9	ARENA_2	0.336	6.72	1961.5
	RELLENO_ZANJA	1.836	36.03	13749.8	ARENA_3	0.619	12.38	4243.1
4680.000	TERRAPLEN	0.000	0.00	0.6	D TIERRA	3.340	69.05	23524.0
	ARENA_1	0.218	4.35	1013.3	ARENA_2	0.336	6.72	1968.2
	RELLENO_ZANJA	1.611	34.47	13784.2	ARENA_3	0.619	12.38	4255.5
4700.000	TERRAPLEN	0.000	0.00	0.6	D TIERRA	3.151	64.91	23588.9
	ARENA_1	0.218	4.35	1017.6	ARENA_2	0.336	6.72	1974.9
	RELLENO_ZANJA	1.422	30.33	13814.6	ARENA_3	0.619	12.37	4267.8
4720.000	TERRAPLEN	0.000	0.00	0.6	D TIERRA	3.296	64.47	23653.4
	ARENA_1	0.218	4.35	1022.0	ARENA_2	0.336	6.72	1981.6
	RELLENO_ZANJA	1.567	29.89	13844.5	ARENA_3	0.619	12.37	4280.2
4732.874	TERRAPLEN	0.000	0.00	0.6	D TIERRA	3.160	41.56	23694.9
	ARENA_1	0.218	2.80	1024.8	ARENA_2	0.336	4.33	1985.9
	RELLENO_ZANJA	1.431	19.30	13863.8	ARENA_3	0.619	7.97	4288.2
4740.000	TERRAPLEN	0.000	0.00	0.6	D TIERRA	3.304	23.03	23718.0
	ARENA_1	0.218	1.55	1026.4	ARENA_2	0.336	2.39	1988.3
	RELLENO_ZANJA	1.575	10.71	13874.5	ARENA_3	0.619	4.41	4292.6
4760.000	TERRAPLEN	0.000	0.00	0.6	D TIERRA	3.469	67.74	23785.7
	ARENA_1	0.218	4.35	1030.7	ARENA_2	0.336	6.72	1995.1
	RELLENO_ZANJA	1.740	33.16	13907.6	ARENA_3	0.619	12.37	4305.0
4780.000	TERRAPLEN	0.000	0.00	0.6	D TIERRA	3.393	68.62	23854.3
	ARENA_1	0.218	4.35	1035.1	ARENA_2	0.336	6.72	2001.8
	RELLENO_ZANJA	1.664	34.04	13941.7	ARENA_3	0.619	12.37	4317.3
4800.000	TERRAPLEN	0.000	0.00	0.6	D TIERRA	3.292	66.85	23921.2
	ARENA_1	0.218	4.35	1039.4	ARENA_2	0.336	6.72	2008.5
	RELLENO_ZANJA	1.563	32.27	13973.9	ARENA_3	0.619	12.37	4329.7
4804.825	TERRAPLEN	0.000	0.00	0.6	D TIERRA	3.215	15.70	23936.9
	ARENA_1	0.218	1.05	1040.5	ARENA_2	0.336	1.62	2010.1
	RELLENO_ZANJA	1.486	7.35	13981.3	ARENA_3	0.619	2.99	4332.7
4815.506	TERRAPLEN	0.000	0.00	0.6	D TIERRA	3.181	34.16	23971.0
	ARENA_1	0.218	2.32	1042.8	ARENA_2	0.336	3.59	2013.7
	RELLENO_ZANJA	1.452	15.69	13997.0	ARENA_3	0.619	6.61	4339.3
4820.000	TERRAPLEN	0.000	0.00	0.6	D TIERRA	3.148	14.22	23985.3
	ARENA_1	0.218	0.98	1043.8	ARENA_2	0.336	1.51	2015.2
	RELLENO_ZANJA	1.419	6.45	14003.4	ARENA_3	0.619	2.78	4342.1
4829.276	TERRAPLEN	0.000	0.00	0.6	D TIERRA	3.720	31.85	24017.1
	ARENA_1	0.218	2.02	1045.8	ARENA_2	0.336	3.12	2018.3
	RELLENO_ZANJA	1.991	15.81	14019.2	ARENA_3	0.619	5.74	4347.8
4840.000	TERRAPLEN	0.000	0.00	0.6	D TIERRA	3.668	39.62	24056.7
	ARENA_1	0.218	2.33	1048.1	ARENA_2	0.336	3.60	2021.9
	RELLENO_ZANJA	1.939	21.08	14040.3	ARENA_3	0.619	6.64	4354.5

PERFIL	MATERIAL	AREA PERFIL	VOL. PARCIAL	VOL. ACUMUL.	MATERIAL	AREA PERFIL	VOL. PARCIAL	VOL. ACUMUL.
4851.241	TERRAPLEN	0.000	0.00	0.6	D TIERRA	3.509	40.34	24097.1
	ARENA_1	0.218	2.45	1050.6	ARENA_2	0.336	3.78	2025.7
	RELLENO_ZANJA	1.780	20.91	14061.2	ARENA_3	0.619	6.96	4361.4
4860.000	TERRAPLEN	0.000	0.00	0.6	D TIERRA	4.004	32.91	24130.0
	ARENA_1	0.218	1.91	1052.5	ARENA_2	0.336	2.94	2028.7
	RELLENO_ZANJA	2.275	17.76	14079.0	ARENA_3	0.619	5.42	4366.8
4880.000	TERRAPLEN	0.000	0.00	0.6	D TIERRA	3.277	72.81	24202.8
	ARENA_1	0.218	4.35	1056.8	ARENA_2	0.336	6.72	2035.4
	RELLENO_ZANJA	1.548	38.23	14117.2	ARENA_3	0.619	12.38	4379.2
4885.905	TERRAPLEN	0.000	0.00	0.6	D TIERRA	3.267	19.32	24222.1
	ARENA_1	0.218	1.28	1058.1	ARENA_2	0.336	1.98	2037.4
	RELLENO_ZANJA	1.538	9.11	14126.3	ARENA_3	0.619	3.65	4382.9
4900.000	TERRAPLEN	0.000	0.00	0.6	D TIERRA	3.153	45.25	24267.4
	ARENA_1	0.218	3.07	1061.2	ARENA_2	0.336	4.74	2042.1
	RELLENO_ZANJA	1.424	20.88	14147.2	ARENA_3	0.619	8.72	4391.6
4920.000	TERRAPLEN	0.000	0.00	0.6	D TIERRA	3.315	64.68	24332.0
	ARENA_1	0.218	4.35	1065.5	ARENA_2	0.336	6.72	2048.8
	RELLENO_ZANJA	1.586	30.10	14177.3	ARENA_3	0.619	12.37	4404.0
4940.000	TERRAPLEN	0.000	0.00	0.6	D TIERRA	3.342	66.57	24398.6
	ARENA_1	0.218	4.35	1069.9	ARENA_2	0.336	6.72	2055.5
	RELLENO_ZANJA	1.613	31.99	14209.3	ARENA_3	0.619	12.37	4416.3
4943.726	TERRAPLEN	0.000	0.00	0.6	D TIERRA	3.229	12.24	24410.9
	ARENA_1	0.218	0.81	1070.7	ARENA_2	0.336	1.25	2056.8
	RELLENO_ZANJA	1.500	5.80	14215.1	ARENA_3	0.619	2.31	4418.6
4956.236	TERRAPLEN	0.000	0.00	0.6	D TIERRA	3.223	40.35	24451.2
	ARENA_1	0.218	2.72	1073.4	ARENA_2	0.336	4.20	2061.0
	RELLENO_ZANJA	1.494	18.72	14233.8	ARENA_3	0.619	7.74	4426.4
4960.000	TERRAPLEN	0.000	0.00	0.6	D TIERRA	10.856	0.00	24451.2
	ARENA_1	0.260	0.00	1073.4	ARENA_2	0.913	0.00	2061.0
	RELLENO_ZANJA	6.649	0.00	14233.8	ARENA_3	2.477	0.00	4426.4
4980.000	TERRAPLEN	0.000	0.00	0.6	D TIERRA	24.795	356.51	24807.7
	ARENA_1	0.260	5.20	1078.6	ARENA_2	0.914	18.27	2079.3
	RELLENO_ZANJA	20.588	272.37	14506.2	ARENA_3	2.472	49.49	4475.9
5000.000	TERRAPLEN	0.000	0.00	0.6	D TIERRA	23.886	486.81	25294.5
	ARENA_1	0.260	5.20	1083.8	ARENA_2	0.913	18.27	2097.5
	RELLENO_ZANJA	19.679	402.67	14908.9	ARENA_3	2.477	49.49	4525.4
5010.680	TERRAPLEN	0.000	0.00	0.6	D TIERRA	19.310	230.67	25525.2
	ARENA_1	0.260	2.78	1086.6	ARENA_2	0.914	9.75	2107.3
	RELLENO_ZANJA	15.103	185.74	15094.6	ARENA_3	2.473	26.43	4551.8
5020.000	TERRAPLEN	0.000	0.00	0.6	D TIERRA	12.731	149.31	25674.5
	ARENA_1	0.260	2.42	1089.0	ARENA_2	0.914	8.51	2115.8
	RELLENO_ZANJA	8.524	110.10	15204.7	ARENA_3	2.473	23.05	4574.8
5040.000	TERRAPLEN	0.000	0.00	0.6	D TIERRA	10.385	231.16	25905.7
	ARENA_1	0.260	5.20	1094.2	ARENA_2	0.913	18.27	2134.1
	RELLENO_ZANJA	6.178	147.02	15351.7	ARENA_3	2.477	49.50	4624.3
5054.915	TERRAPLEN	0.000	0.00	0.6	D TIERRA	3.161	0.00	25905.7
	ARENA_1	0.218	0.00	1094.2	ARENA_2	0.336	0.00	2134.1
	RELLENO_ZANJA	1.432	0.00	15351.7	ARENA_3	0.619	0.00	4624.3
5060.000	TERRAPLEN	0.000	0.00	0.6	D TIERRA	3.148	16.04	25921.7
	ARENA_1	0.218	1.11	1095.3	ARENA_2	0.336	1.71	2135.8
	RELLENO_ZANJA	1.419	7.25	15359.0	ARENA_3	0.619	3.15	4627.5
5067.004	TERRAPLEN	0.000	0.00	0.6	D TIERRA	3.153	22.07	25943.8
	ARENA_1	0.218	1.52	1096.8	ARENA_2	0.336	2.35	2138.1
	RELLENO_ZANJA	1.424	9.96	15368.9	ARENA_3	0.617	4.33	4631.8
5080.000	TERRAPLEN	0.000	0.00	0.6	D TIERRA	3.267	41.72	25985.5
	ARENA_1	0.218	2.83	1099.7	ARENA_2	0.336	4.37	2142.5
	RELLENO_ZANJA	1.538	19.25	15388.2	ARENA_3	0.617	8.02	4639.8
5100.000	TERRAPLEN	0.000	0.00	0.6	D TIERRA	4.887	81.54	26067.0
	ARENA_1	0.218	4.35	1104.0	ARENA_2	0.336	6.72	2149.2
	RELLENO_ZANJA	3.158	46.96	15435.1	ARENA_3	0.619	12.36	4652.2

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PERFIL	MATERIAL	AREA PERFIL	VOL. PARCIAL	VOL. ACUMUL.	MATERIAL	AREA PERFIL	VOL. PARCIAL	VOL. ACUMUL.
5120.000	TERRAPLEN	0.000	0.00	0.6	D TIERRA	3.421	83.08	26150.1
	ARENA_1	0.218	4.35	1108.4	ARENA_2	0.336	6.72	2156.0
	RELLENO_ZANJA	1.692	48.50	15483.6	ARENA_3	0.619	12.37	4664.6
5123.595	TERRAPLEN	0.000	0.00	0.6	D TIERRA	4.007	13.35	26163.5
	ARENA_1	0.218	0.78	1109.2	ARENA_2	0.336	1.21	2157.2
	RELLENO_ZANJA	2.278	7.14	15490.8	ARENA_3	0.619	2.22	4666.8
5140.000	TERRAPLEN	0.000	0.00	0.6	D TIERRA	4.787	72.13	26235.6
	ARENA_1	0.218	3.57	1112.7	ARENA_2	0.336	5.51	2162.7
	RELLENO_ZANJA	3.058	43.76	15534.5	ARENA_3	0.619	10.15	4676.9
5160.000	TERRAPLEN	0.000	0.00	0.6	D TIERRA	3.232	80.19	26315.8
	ARENA_1	0.218	4.35	1117.1	ARENA_2	0.336	6.72	2169.4
	RELLENO_ZANJA	1.503	45.61	15580.1	ARENA_3	0.619	12.38	4689.3
5180.000	TERRAPLEN	0.000	0.00	0.6	D TIERRA	4.361	75.94	26391.7
	ARENA_1	0.218	4.35	1121.4	ARENA_2	0.336	6.72	2176.1
	RELLENO_ZANJA	2.633	41.36	15621.5	ARENA_3	0.619	12.38	4701.7
5200.000	TERRAPLEN	0.000	0.00	0.6	D TIERRA	4.165	85.27	26477.0
	ARENA_1	0.218	4.35	1125.8	ARENA_2	0.336	6.72	2182.8
	RELLENO_ZANJA	2.436	50.69	15672.2	ARENA_3	0.619	12.38	4714.1
5203.751	TERRAPLEN	0.000	0.00	0.6	D TIERRA	4.064	15.43	26492.4
	ARENA_1	0.218	0.82	1126.6	ARENA_2	0.336	1.26	2184.1
	RELLENO_ZANJA	2.335	8.95	15681.1	ARENA_3	0.619	2.32	4716.4
5214.837	TERRAPLEN	0.000	0.00	0.6	D TIERRA	3.827	43.74	26536.2
	ARENA_1	0.218	2.41	1129.0	ARENA_2	0.336	3.73	2187.8
	RELLENO_ZANJA	2.098	24.58	15705.7	ARENA_3	0.619	6.86	4723.2
5220.000	TERRAPLEN	0.000	0.00	0.6	D TIERRA	3.796	19.68	26555.8
	ARENA_1	0.218	1.12	1130.1	ARENA_2	0.336	1.74	2189.6
	RELLENO_ZANJA	2.067	10.75	15716.5	ARENA_3	0.619	3.19	4726.4
5225.650	TERRAPLEN	0.000	0.00	0.6	D TIERRA	3.793	21.44	26577.3
	ARENA_1	0.218	1.23	1131.4	ARENA_2	0.336	1.90	2191.5
	RELLENO_ZANJA	2.064	11.67	15728.1	ARENA_3	0.619	3.50	4729.9
5240.000	TERRAPLEN	0.000	0.00	0.6	D TIERRA	3.666	53.51	26630.8
	ARENA_1	0.218	3.12	1134.5	ARENA_2	0.336	4.82	2196.3
	RELLENO_ZANJA	1.937	28.70	15756.8	ARENA_3	0.619	8.88	4738.8
5244.397	TERRAPLEN	0.000	0.00	0.6	D TIERRA	3.630	16.04	26646.8
	ARENA_1	0.218	0.96	1135.4	ARENA_2	0.336	1.48	2197.8
	RELLENO_ZANJA	1.901	8.44	15765.3	ARENA_3	0.619	2.72	4741.5
5260.000	TERRAPLEN	0.000	0.00	0.6	D TIERRA	3.428	55.06	26701.9
	ARENA_1	0.218	3.40	1138.8	ARENA_2	0.336	5.24	2203.0
	RELLENO_ZANJA	1.699	28.08	15793.4	ARENA_3	0.619	9.65	4751.2
5279.951	TERRAPLEN	0.000	0.00	0.6	D TIERRA	3.224	66.35	26768.3
	ARENA_1	0.218	4.34	1143.2	ARENA_2	0.336	6.71	2209.7
	RELLENO_ZANJA	1.495	31.86	15825.2	ARENA_3	0.619	12.34	4763.5
5280.000	TERRAPLEN	0.000	0.00	0.6	D TIERRA	3.224	0.16	26768.4
	ARENA_1	0.218	0.01	1143.2	ARENA_2	0.336	0.02	2209.7
	RELLENO_ZANJA	1.495	0.07	15825.3	ARENA_3	0.619	0.03	4763.6
5290.202	TERRAPLEN	0.000	0.00	0.6	D TIERRA	3.157	32.55	26801.0
	ARENA_1	0.218	2.22	1145.4	ARENA_2	0.336	3.43	2213.2
	RELLENO_ZANJA	1.428	14.91	15840.2	ARENA_3	0.619	6.31	4769.9
5300.000	TERRAPLEN	0.000	0.00	0.6	D TIERRA	11.527	0.00	26801.0
	ARENA_1	0.260	0.00	1145.4	ARENA_2	0.913	0.00	2213.2
	RELLENO_ZANJA	7.320	0.00	15840.2	ARENA_3	2.477	0.00	4769.9
5313.192	TERRAPLEN	0.000	0.00	0.6	D TIERRA	11.694	153.17	26954.1
	ARENA_1	0.260	3.43	1148.8	ARENA_2	0.913	12.04	2225.2
	RELLENO_ZANJA	7.487	97.67	15937.9	ARENA_3	2.477	32.68	4802.5
5320.000	TERRAPLEN	0.000	0.00	0.6	D TIERRA	10.817	76.63	27030.8
	ARENA_1	0.260	1.77	1150.6	ARENA_2	0.913	6.22	2231.4
	RELLENO_ZANJA	6.610	47.98	15985.8	ARENA_3	2.477	16.86	4819.4
5340.000	TERRAPLEN	0.000	0.00	0.6	D TIERRA	12.019	228.36	27259.1
	ARENA_1	0.260	5.21	1155.8	ARENA_2	0.913	18.26	2249.7
	RELLENO_ZANJA	7.812	144.22	16130.1	ARENA_3	2.477	49.54	4869.0

PERFIL	MATERIAL	AREA PERFIL	VOL. PARCIAL	VOL. ACUMUL.	MATERIAL	AREA PERFIL	VOL. PARCIAL	VOL. ACUMUL.
5360.000	TERRAPLEN	0.000	0.00	0.6	D TIERRA	11.832	238.51	27497.6
	ARENA_1	0.260	5.21	1161.0	ARENA_2	0.913	18.26	2267.9
	RELLENO_ZANJA	7.625	154.37	16284.4	ARENA_3	2.477	49.54	4918.5
5380.000	TERRAPLEN	0.000	0.00	0.6	D TIERRA	3.332	0.00	27497.6
	ARENA_1	0.218	0.00	1161.0	ARENA_2	0.336	0.00	2267.9
	RELLENO_ZANJA	1.603	0.00	16284.4	ARENA_3	0.618	0.00	4918.5
5392.669	TERRAPLEN	0.000	0.00	0.6	D TIERRA	3.287	41.93	27539.6
	ARENA_1	0.218	2.76	1163.8	ARENA_2	0.336	4.26	2272.2
	RELLENO_ZANJA	1.558	20.03	16304.5	ARENA_3	0.618	7.84	4926.3
5400.000	TERRAPLEN	0.000	0.00	0.6	D TIERRA	3.305	24.17	27563.7
	ARENA_1	0.218	1.60	1165.4	ARENA_2	0.336	2.46	2274.7
	RELLENO_ZANJA	1.576	11.49	16316.0	ARENA_3	0.618	4.53	4930.9
5420.000	TERRAPLEN	0.000	0.00	0.6	D TIERRA	3.345	66.50	27630.2
	ARENA_1	0.218	4.35	1169.7	ARENA_2	0.336	6.72	2281.4
	RELLENO_ZANJA	1.616	31.92	16347.9	ARENA_3	0.618	12.37	4943.2
5431.665	TERRAPLEN	0.000	0.00	0.6	D TIERRA	3.272	38.59	27668.8
	ARENA_1	0.218	2.54	1172.3	ARENA_2	0.336	3.92	2285.3
	RELLENO_ZANJA	1.543	18.42	16366.3	ARENA_3	0.618	7.21	4950.4
5440.000	TERRAPLEN	0.000	0.00	0.6	D TIERRA	3.308	27.42	27696.2
	ARENA_1	0.218	1.81	1174.1	ARENA_2	0.336	2.80	2288.1
	RELLENO_ZANJA	1.579	13.01	16379.3	ARENA_3	0.618	5.16	4955.6
5448.405	TERRAPLEN	0.000	0.00	0.6	D TIERRA	3.346	27.96	27724.2
	ARENA_1	0.218	1.83	1175.9	ARENA_2	0.336	2.82	2290.9
	RELLENO_ZANJA	1.617	13.43	16392.7	ARENA_3	0.618	5.20	4960.8
5460.000	TERRAPLEN	0.000	0.00	0.6	D TIERRA	3.345	38.79	27763.0
	ARENA_1	0.218	2.52	1178.4	ARENA_2	0.336	3.90	2294.8
	RELLENO_ZANJA	1.616	18.74	16411.5	ARENA_3	0.618	7.17	4968.0
5480.000	TERRAPLEN	0.000	0.00	0.6	D TIERRA	3.343	66.87	27829.9
	ARENA_1	0.218	4.35	1182.8	ARENA_2	0.336	6.72	2301.5
	RELLENO_ZANJA	1.614	32.29	16443.8	ARENA_3	0.618	12.37	4980.3
5480.080	TERRAPLEN	0.000	0.00	0.6	D TIERRA	3.343	0.27	27830.1
	ARENA_1	0.218	0.02	1182.8	ARENA_2	0.336	0.03	2301.6
	RELLENO_ZANJA	1.614	0.13	16443.9	ARENA_3	0.618	0.05	4980.4
5495.814	TERRAPLEN	0.000	0.00	0.6	D TIERRA	3.237	51.76	27881.9
	ARENA_1	0.218	3.42	1186.2	ARENA_2	0.336	5.29	2306.9
	RELLENO_ZANJA	1.508	24.56	16468.5	ARENA_3	0.618	9.73	4990.1
5500.000	TERRAPLEN	0.000	0.00	0.6	D TIERRA	3.174	13.42	27895.3
	ARENA_1	0.218	0.91	1187.1	ARENA_2	0.336	1.41	2308.3
	RELLENO_ZANJA	1.445	6.18	16474.6	ARENA_3	0.618	2.59	4992.7
5508.158	TERRAPLEN	0.000	0.00	0.6	D TIERRA	3.079	25.51	27920.8
	ARENA_1	0.218	1.78	1188.9	ARENA_2	0.336	2.74	2311.0
	RELLENO_ZANJA	1.350	11.40	16486.0	ARENA_3	0.618	5.05	4997.8
5520.000	TERRAPLEN	0.000	0.00	0.6	D TIERRA	3.109	36.64	27957.5
	ARENA_1	0.218	2.58	1191.5	ARENA_2	0.336	3.98	2315.0
	RELLENO_ZANJA	1.380	16.17	16502.2	ARENA_3	0.618	7.32	5005.1
5527.968	TERRAPLEN	0.000	0.00	0.6	D TIERRA	3.128	24.85	27982.3
	ARENA_1	0.218	1.73	1193.2	ARENA_2	0.336	2.68	2317.7
	RELLENO_ZANJA	1.399	11.07	16513.3	ARENA_3	0.618	4.93	5010.0
5540.000	TERRAPLEN	0.000	0.00	0.6	D TIERRA	3.221	38.20	28020.5
	ARENA_1	0.218	2.62	1195.9	ARENA_2	0.336	4.04	2321.7
	RELLENO_ZANJA	1.492	17.39	16530.7	ARENA_3	0.618	7.44	5017.4
5555.254	TERRAPLEN	0.000	0.00	0.6	D TIERRA	3.339	50.03	28070.5
	ARENA_1	0.218	3.32	1199.2	ARENA_2	0.336	5.13	2326.8
	RELLENO_ZANJA	1.610	23.66	16554.3	ARENA_3	0.618	9.43	5026.9
5560.000	TERRAPLEN	0.000	0.00	0.6	D TIERRA	3.306	15.77	28086.3
	ARENA_1	0.218	1.03	1200.2	ARENA_2	0.336	1.60	2328.4
	RELLENO_ZANJA	1.577	7.56	16561.9	ARENA_3	0.618	2.94	5029.8
5573.776	TERRAPLEN	0.000	0.00	0.6	D TIERRA	3.195	44.78	28131.1
	ARENA_1	0.218	3.00	1203.2	ARENA_2	0.336	4.63	2333.1
	RELLENO_ZANJA	1.466	20.96	16582.9	ARENA_3	0.618	8.52	5038.3

Istram 9.04 08/05/20 09:18:12
 PROYECTO : CIDACOS COMPLETO
 EJE : 4: ACOMETIDA DE ARNEDO - ARQUETA PRINCIPAL (P190)

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***** MEDICIONES DE LOS PERFILES TRANSVERSALES*****
 ***** CAPAS DE FIRME *****

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PERFIL	MATERIAL	AREA PERFIL	VOL. PARCIAL	VOL. ACUMUL.	MATERIAL	AREA PERFIL	VOL. PARCIAL	VOL. ACUMUL.
5580.000	TERRAPLEN	0.000	0.00	0.6	D TIERRA	3.030	19.37	28150.5
	ARENA_1	0.218	1.35	1204.6	ARENA_2	0.336	2.09	2335.1
	RELLENO_ZANJA	1.301	8.61	16591.5	ARENA_3	0.618	3.85	5042.2
5592.959	TERRAPLEN	0.000	0.00	0.6	D TIERRA	2.915	38.53	28189.0
	ARENA_1	0.218	2.82	1207.4	ARENA_2	0.336	4.36	2339.5
	RELLENO_ZANJA	1.186	16.12	16607.6	ARENA_3	0.618	8.01	5050.2
5600.000	TERRAPLEN	0.000	0.00	0.6	D TIERRA	2.927	20.57	28209.6
	ARENA_1	0.218	1.53	1208.9	ARENA_2	0.336	2.37	2341.9
	RELLENO_ZANJA	1.198	8.40	16616.0	ARENA_3	0.618	4.35	5054.6
5601.621	TERRAPLEN	0.000	0.00	0.6	D TIERRA	2.930	4.75	28214.3
	ARENA_1	0.218	0.35	1209.3	ARENA_2	0.336	0.54	2342.4
	RELLENO_ZANJA	1.201	1.94	16617.9	ARENA_3	0.618	1.00	5055.6
5620.000	TERRAPLEN	0.000	0.00	0.6	D TIERRA	3.033	54.80	28269.1
	ARENA_1	0.218	4.00	1213.3	ARENA_2	0.336	6.18	2348.6
	RELLENO_ZANJA	1.304	23.02	16641.0	ARENA_3	0.618	11.37	5066.9
5628.134	TERRAPLEN	0.000	0.00	0.6	D TIERRA	3.147	25.14	28294.2
	ARENA_1	0.218	1.77	1215.0	ARENA_2	0.336	2.73	2351.3
	RELLENO_ZANJA	1.418	11.07	16652.0	ARENA_3	0.618	5.03	5072.0
5640.000	TERRAPLEN	0.000	0.00	0.6	D TIERRA	3.477	39.30	28333.5
	ARENA_1	0.218	2.58	1217.6	ARENA_2	0.336	3.99	2355.3
	RELLENO_ZANJA	1.748	18.79	16670.8	ARENA_3	0.618	7.34	5079.3
5648.185	TERRAPLEN	0.000	0.00	0.6	D TIERRA	3.422	28.23	28361.8
	ARENA_1	0.218	1.78	1219.4	ARENA_2	0.336	2.75	2358.1
	RELLENO_ZANJA	1.693	14.08	16684.9	ARENA_3	0.618	5.06	5084.4
5660.000	TERRAPLEN	0.000	0.00	0.6	D TIERRA	3.153	38.84	28400.6
	ARENA_1	0.218	2.57	1222.0	ARENA_2	0.336	3.97	2362.0
	RELLENO_ZANJA	1.424	18.41	16703.3	ARENA_3	0.618	7.30	5091.7
5663.991	TERRAPLEN	0.000	0.00	0.6	D TIERRA	3.259	12.79	28413.4
	ARENA_1	0.218	0.87	1222.8	ARENA_2	0.336	1.34	2363.4
	RELLENO_ZANJA	1.530	5.89	16709.2	ARENA_3	0.618	2.47	5094.1
5680.000	TERRAPLEN	0.000	0.00	0.6	D TIERRA	3.344	52.86	28466.3
	ARENA_1	0.218	3.48	1226.3	ARENA_2	0.336	5.38	2368.8
	RELLENO_ZANJA	1.615	25.18	16734.4	ARENA_3	0.618	9.89	5104.0
5682.804	TERRAPLEN	0.000	0.00	0.6	D TIERRA	3.245	9.24	28475.5
	ARENA_1	0.218	0.61	1226.9	ARENA_2	0.336	0.94	2369.7
	RELLENO_ZANJA	1.516	4.39	16738.8	ARENA_3	0.618	1.73	5105.7
5700.000	TERRAPLEN	0.000	0.00	0.6	D TIERRA	3.148	54.97	28530.5
	ARENA_1	0.218	3.74	1230.7	ARENA_2	0.336	5.78	2375.5
	RELLENO_ZANJA	1.419	25.24	16764.0	ARENA_3	0.619	10.63	5116.4
5709.376	TERRAPLEN	0.000	0.00	0.6	D TIERRA	3.984	33.44	28563.9
	ARENA_1	0.218	2.04	1232.7	ARENA_2	0.336	3.15	2378.6
	RELLENO_ZANJA	2.255	17.23	16781.2	ARENA_3	0.619	5.80	5122.2
5720.000	TERRAPLEN	0.000	0.00	0.6	D TIERRA	3.200	38.16	28602.1
	ARENA_1	0.218	2.31	1235.0	ARENA_2	0.336	3.57	2382.2
	RELLENO_ZANJA	1.471	19.80	16801.0	ARENA_3	0.619	6.57	5128.8
5722.921	TERRAPLEN	0.000	0.00	0.6	D TIERRA	3.147	9.27	28611.4
	ARENA_1	0.218	0.64	1235.7	ARENA_2	0.336	0.98	2383.2
	RELLENO_ZANJA	1.418	4.22	16805.3	ARENA_3	0.619	1.81	5130.6
5722.921	TERRAPLEN	0.000	0.00	0.6	D TIERRA	0.000	0.00	28611.4
	ARENA_1	0.000	0.00	1235.7	ARENA_2	0.000	0.00	2383.2
	RELLENO_ZANJA	0.000	0.00	16805.3	ARENA_3	0.000	0.00	5130.6
5740.000	TERRAPLEN	0.000	0.00	0.6	D TIERRA	0.000	0.00	28611.4
	ARENA_1	0.000	0.00	1235.7	ARENA_2	0.000	0.00	2383.2
	RELLENO_ZANJA	0.000	0.00	16805.3	ARENA_3	0.000	0.00	5130.6
5760.000	TERRAPLEN	0.000	0.00	0.6	D TIERRA	4.049	0.00	28611.4
	ARENA_1	0.218	0.00	1235.7	ARENA_2	0.336	0.00	2383.2
	RELLENO_ZANJA	2.320	0.00	16805.3	ARENA_3	0.618	0.00	5130.6
5780.000	TERRAPLEN	0.000	0.00	0.6	D TIERRA	3.147	71.96	28683.3
	ARENA_1	0.218	4.35	1240.0	ARENA_2	0.336	6.72	2389.9
	RELLENO_ZANJA	1.418	37.38	16842.6	ARENA_3	0.619	12.37	5142.9

PERFIL	MATERIAL	AREA PERFIL	VOL. PARCIAL	VOL. ACUMUL.	MATERIAL	AREA PERFIL	VOL. PARCIAL	VOL. ACUMUL.
5794.917	TERRAPLEN	0.000	0.00	0.6	D TIERRA	3.147	46.95	28730.3
	ARENA_1	0.218	3.25	1243.3	ARENA_2	0.336	5.01	2394.9
	RELLENO_ZANJA	1.418	21.16	16863.8	ARENA_3	0.618	9.22	5152.2
5800.000	TERRAPLEN	0.000	0.00	0.6	D TIERRA	3.372	16.57	28746.8
	ARENA_1	0.218	1.11	1244.4	ARENA_2	0.336	1.71	2396.6
	RELLENO_ZANJA	1.643	7.78	16871.6	ARENA_3	0.618	3.14	5155.3
5800.000	TERRAPLEN	0.000	0.00	0.6	D TIERRA	0.000	0.00	28746.8
	ARENA_1	0.000	0.00	1244.4	ARENA_2	0.000	0.00	2396.6
	RELLENO_ZANJA	0.000	0.00	16871.6	ARENA_3	0.000	0.00	5155.3
5820.000	TERRAPLEN	0.000	0.00	0.6	D TIERRA	0.000	0.00	28746.8
	ARENA_1	0.000	0.00	1244.4	ARENA_2	0.000	0.00	2396.6
	RELLENO_ZANJA	0.000	0.00	16871.6	ARENA_3	0.000	0.00	5155.3
5832.098	TERRAPLEN	0.000	0.00	0.6	D TIERRA	3.788	0.00	28746.8
	ARENA_1	0.218	0.00	1244.4	ARENA_2	0.336	0.00	2396.6
	RELLENO_ZANJA	2.059	0.00	16871.6	ARENA_3	0.618	0.00	5155.3
5840.000	TERRAPLEN	0.000	0.00	0.6	D TIERRA	3.259	27.84	28774.7
	ARENA_1	0.218	1.72	1246.1	ARENA_2	0.336	2.66	2399.3
	RELLENO_ZANJA	1.530	14.18	16885.8	ARENA_3	0.618	4.88	5160.2
5860.000	TERRAPLEN	0.000	0.00	0.6	D TIERRA	3.147	64.06	28838.7
	ARENA_1	0.218	4.35	1250.4	ARENA_2	0.336	6.73	2406.0
	RELLENO_ZANJA	1.418	29.48	16915.2	ARENA_3	0.616	12.34	5172.5
5863.598	TERRAPLEN	0.000	0.00	0.6	D TIERRA	3.313	11.62	28850.4
	ARENA_1	0.218	0.78	1251.2	ARENA_2	0.336	1.21	2407.2
	RELLENO_ZANJA	1.584	5.40	16920.6	ARENA_3	0.618	2.22	5174.7
5880.000	TERRAPLEN	0.000	0.00	0.6	D TIERRA	3.578	56.52	28906.9
	ARENA_1	0.218	3.57	1254.8	ARENA_2	0.336	5.51	2412.7
	RELLENO_ZANJA	1.849	28.16	16948.8	ARENA_3	0.618	10.14	5184.9
5888.888	TERRAPLEN	0.000	0.00	0.6	D TIERRA	3.793	32.76	28939.6
	ARENA_1	0.218	1.93	1256.7	ARENA_2	0.336	2.99	2415.7
	RELLENO_ZANJA	2.064	17.39	16966.2	ARENA_3	0.618	5.50	5190.4
5900.000	TERRAPLEN	0.000	0.00	0.6	D TIERRA	3.156	38.61	28978.2
	ARENA_1	0.218	2.42	1259.1	ARENA_2	0.336	3.73	2419.5
	RELLENO_ZANJA	1.427	19.39	16985.6	ARENA_3	0.619	6.87	5197.2
5900.000	TERRAPLEN	0.000	0.00	0.6	D TIERRA	19.861	0.00	28978.2
	ARENA_1	0.240	0.00	1259.1	ARENA_2	0.607	0.00	2419.5
	RELLENO_ZANJA	16.958	0.00	16985.6	ARENA_3	1.499	0.00	5197.2
5920.000	TERRAPLEN	0.000	0.00	0.6	D TIERRA	25.063	449.25	29427.5
	ARENA_1	0.238	4.78	1263.9	ARENA_2	0.612	12.19	2431.6
	RELLENO_ZANJA	22.160	391.19	17376.8	ARENA_3	1.453	29.53	5226.8
5926.942	TERRAPLEN	0.000	0.00	0.6	D TIERRA	9.052	118.41	29545.9
	ARENA_1	0.239	1.66	1265.6	ARENA_2	0.610	4.24	2435.9
	RELLENO_ZANJA	6.149	98.26	17475.0	ARENA_3	1.475	10.16	5236.9
5940.000	TERRAPLEN	0.000	0.00	0.6	D TIERRA	8.663	115.66	29661.6
	ARENA_1	0.239	3.12	1268.7	ARENA_2	0.610	7.97	2443.8
	RELLENO_ZANJA	5.760	77.75	17552.8	ARENA_3	1.475	19.25	5256.2
5955.948	TERRAPLEN	0.000	0.00	0.6	D TIERRA	8.044	133.22	29794.8
	ARENA_1	0.239	3.81	1272.5	ARENA_2	0.610	9.73	2453.6
	RELLENO_ZANJA	5.141	86.92	17639.7	ARENA_3	1.475	23.52	5279.7
5960.000	TERRAPLEN	0.000	0.00	0.6	D TIERRA	7.342	31.17	29825.9
	ARENA_1	0.239	0.97	1273.5	ARENA_2	0.610	2.47	2456.0
	RELLENO_ZANJA	4.439	19.41	17659.1	ARENA_3	1.475	5.98	5285.7
5980.000	TERRAPLEN	0.000	0.00	0.6	D TIERRA	7.593	149.34	29975.3
	ARENA_1	0.240	4.79	1278.3	ARENA_2	0.608	12.18	2468.2
	RELLENO_ZANJA	4.690	91.28	17750.4	ARENA_3	1.492	29.67	5315.3
5992.360	TERRAPLEN	0.000	0.00	0.6	D TIERRA	6.594	87.67	30063.0
	ARENA_1	0.240	2.97	1281.2	ARENA_2	0.607	7.51	2475.7
	RELLENO_ZANJA	3.691	51.79	17802.2	ARENA_3	1.495	18.46	5333.8
6000.000	TERRAPLEN	0.000	0.00	0.6	D TIERRA	6.778	51.08	30114.0
	ARENA_1	0.240	1.83	1283.1	ARENA_2	0.607	4.64	2480.4
	RELLENO_ZANJA	3.874	28.90	17831.1	ARENA_3	1.495	11.43	5345.2

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 PROYECTO : CIDACOS COMPLETO
 EJE : 4: ACOMETIDA DE ARNEADO - ARQUETA PRINCIPAL (P190)

*** MEDICIONES DE LOS PERFILES TRANSVERSALES***
 *** CAPAS DE FIRME ***

PERFIL	MATERIAL	AREA PERFIL	VOL. PARCIAL	VOL. ACUMUL.	MATERIAL	AREA PERFIL	VOL. PARCIAL	VOL. ACUMUL.
6009.728	TERRAPLEN	0.000	0.00	0.6	D_TIERRA	6.941	66.73	30180.8
	ARENA_1	0.240	2.34	1285.4	ARENA_2	0.607	5.91	2486.3
	RELLENO_ZANJA	4.038	38.49	17869.6	ARENA_3	1.499	14.57	5359.8
6020.000	TERRAPLEN	0.000	0.00	0.6	D_TIERRA	6.711	70.12	30250.9
	ARENA_1	0.240	2.47	1287.9	ARENA_2	0.607	6.23	2492.5
	RELLENO_ZANJA	3.808	40.30	17909.9	ARENA_3	1.499	15.40	5375.2
6033.844	TERRAPLEN	0.000	0.00	0.6	D_TIERRA	6.644	92.45	30343.3
	ARENA_1	0.240	3.33	1291.2	ARENA_2	0.607	8.40	2500.9
	RELLENO_ZANJA	3.741	52.26	17962.1	ARENA_3	1.499	20.76	5396.0

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 PROYECTO : CIDACOS COMPLETO
 EJE : 4: ACOMETIDA DE ARNEADO - ARQUETA PRINCIPAL (P190)

*** RESUMEN DE VOLUMENES TOTALES ***

MATERIAL	VOLUMEN
TERRAPLEN	0.6
D_TIERRA	30343.3
ARENA_1	1291.2
ARENA_2	2500.9
RELLENO_ZANJA	17962.1
ARENA_3	5396.0

5. EJE 5: P190 (ARQUETA PRINCIPAL) – P240 (ALDEANUEVA DE EBRO)

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 PROYECTO : CIDACOS COMPLETO
 EJE : 5: P190 (Arqueta principal)-P240 (Aldeanueva)

*** MEDICIONES DE LOS PERFILES TRANSVERSALES***
 *** CAPAS DE FIRME ***

PERFIL	MATERIAL	AREA PERFIL	VOL. PARCIAL	VOL. ACUMUL.	MATERIAL	AREA PERFIL	VOL. PARCIAL	VOL. ACUMUL.
0.000	D_TIERRA	3.598	0.00	0.0	ARENA_1	0.178	0.00	0.0
	ARENA_2	0.226	0.00	0.0	RELLENO_ZANJA	2.452	0.00	0.0
	ARENA_3	0.519	0.00	0.0				
20.000	D_TIERRA	3.695	72.93	72.9	ARENA_1	0.178	3.57	3.6
	ARENA_2	0.226	4.52	4.5	RELLENO_ZANJA	2.550	50.02	50.0
	ARENA_3	0.519	10.39	10.4				
23.602	D_TIERRA	3.541	13.03	86.0	ARENA_1	0.178	0.64	4.2
	ARENA_2	0.226	0.81	5.3	RELLENO_ZANJA	2.395	8.91	58.9
	ARENA_3	0.519	1.87	12.3				
40.000	D_TIERRA	3.567	58.28	144.2	ARENA_1	0.178	2.92	7.1
	ARENA_2	0.226	3.70	9.0	RELLENO_ZANJA	2.422	39.50	98.4
	ARENA_3	0.519	8.52	20.8				
60.000	D_TIERRA	3.710	72.77	217.0	ARENA_1	0.178	3.57	10.7
	ARENA_2	0.226	4.52	13.5	RELLENO_ZANJA	2.564	49.86	148.3
	ARENA_3	0.519	10.39	31.2				
60.192	D_TIERRA	3.711	0.71	217.7	ARENA_1	0.178	0.03	10.7
	ARENA_2	0.226	0.04	13.6	RELLENO_ZANJA	2.566	0.49	148.8
	ARENA_3	0.519	0.10	31.3				
80.000	D_TIERRA	4.088	77.24	295.0	ARENA_1	0.178	3.53	14.3
	ARENA_2	0.226	4.47	18.1	RELLENO_ZANJA	2.942	54.55	203.3
	ARENA_3	0.519	10.29	41.5				
100.000	D_TIERRA	4.051	81.39	376.4	ARENA_1	0.178	3.57	17.8
	ARENA_2	0.226	4.52	22.6	RELLENO_ZANJA	2.905	58.48	261.8
	ARENA_3	0.519	10.39	51.9				
112.309	D_TIERRA	4.092	50.12	426.5	ARENA_1	0.178	2.19	20.0
	ARENA_2	0.226	2.78	25.4	RELLENO_ZANJA	2.947	36.02	297.8
	ARENA_3	0.519	6.39	58.3				
120.000	D_TIERRA	4.131	31.62	458.1	ARENA_1	0.178	1.37	21.4
	ARENA_2	0.226	1.74	27.1	RELLENO_ZANJA	2.985	22.81	320.6
	ARENA_3	0.519	3.99	62.3				
124.050	D_TIERRA	4.288	17.05	475.1	ARENA_1	0.178	0.72	22.1
	ARENA_2	0.226	0.91	28.0	RELLENO_ZANJA	3.142	12.41	333.0
	ARENA_3	0.519	2.10	64.4				
140.000	D_TIERRA	4.156	67.34	542.5	ARENA_1	0.178	2.84	25.0
	ARENA_2	0.226	3.60	31.6	RELLENO_ZANJA	3.011	49.07	382.1
	ARENA_3	0.519	8.28	72.7				
160.000	D_TIERRA	4.001	81.58	624.1	ARENA_1	0.178	3.57	28.5
	ARENA_2	0.226	4.52	36.1	RELLENO_ZANJA	2.856	58.67	440.8
	ARENA_3	0.519	10.39	83.1				
169.701	D_TIERRA	9.640	66.17	690.2	ARENA_1	0.178	1.73	30.3
	ARENA_2	0.226	2.19	38.3	RELLENO_ZANJA	8.495	55.06	495.8
	ARENA_3	0.519	5.04	88.1				
180.000	D_TIERRA	13.389	118.59	808.8	ARENA_1	0.178	1.84	32.1
	ARENA_2	0.226	2.33	40.7	RELLENO_ZANJA	12.243	106.79	602.6
	ARENA_3	0.519	5.35	93.5				
184.935	D_TIERRA	12.556	64.02	872.8	ARENA_1	0.178	0.88	33.0
	ARENA_2	0.226	1.11	41.8	RELLENO_ZANJA	11.410	58.36	661.0
	ARENA_3	0.519	2.56	96.0				
200.000	D_TIERRA	6.416	142.90	1015.7	ARENA_1	0.178	2.69	35.7
	ARENA_2	0.226	3.40	45.2	RELLENO_ZANJA	5.270	125.64	786.6
	ARENA_3	0.519	7.82	103.9				
200.693	D_TIERRA	6.513	4.48	1020.2	ARENA_1	0.178	0.12	35.8
	ARENA_2	0.226	0.16	45.3	RELLENO_ZANJA	5.367	3.69	790.3
	ARENA_3	0.519	0.36	104.2				
210.457	D_TIERRA	2.771	45.32	1065.5	ARENA_1	0.178	1.74	37.5
	ARENA_2	0.226	2.21	47.5	RELLENO_ZANJA	1.625	34.14	824.5
	ARENA_3	0.519	5.07	109.3				

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 PROYECTO : CIDACOS COMPLETO
 EJE : 5: P190 (Arqueta principal)-P240 (Aldeanueva)

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 PROYECTO : CIDACOS COMPLETO
 EJE : 5: P190 (Arqueta principal)-P240 (Aldeanueva)

 * * * MEDICIONES DE LOS PERFILES TRANSVERSALES* * *
 * * * CAPAS DE FIRME * * *

 * * * MEDICIONES DE LOS PERFILES TRANSVERSALES* * *
 * * * CAPAS DE FIRME * * *

PERFIL	MATERIAL	AREA PERFIL	VOL. PARCIAL	VOL. ACUMUL.	MATERIAL	AREA PERFIL	VOL. PARCIAL	VOL. ACUMUL.	PERFIL	MATERIAL	AREA PERFIL	VOL. PARCIAL	VOL. ACUMUL.	MATERIAL	AREA PERFIL	VOL. PARCIAL	VOL. ACUMUL.
220.000	D TIERRA	3.261	28.78	1094.3	ARENA_1	0.178	1.70	39.2	480.000	D TIERRA	2.757	7.66	1964.0	ARENA_1	0.178	0.50	85.6
	ARENA_2	0.226	2.16	49.7	RELLENO_ZANJA	2.116	17.85	842.3		ARENA_2	0.226	0.63	108.4	RELLENO_ZANJA	1.611	4.45	1414.2
	ARENA_3	0.519	4.95	114.2						ARENA_3	0.519	1.45	249.2				
240.000	D TIERRA	3.082	63.43	1157.8	ARENA_1	0.178	3.57	42.8	500.000	D TIERRA	3.766	65.23	2029.3	ARENA_1	0.178	3.57	89.1
	ARENA_2	0.226	4.52	54.2	RELLENO_ZANJA	1.937	40.52	882.8		ARENA_2	0.226	4.52	112.9	RELLENO_ZANJA	2.621	42.32	1456.5
	ARENA_3	0.519	10.38	124.6						ARENA_3	0.519	10.39	259.6				
260.000	D TIERRA	2.764	58.46	1216.2	ARENA_1	0.178	3.57	46.4	520.000	D TIERRA	2.950	67.16	2096.4	ARENA_1	0.178	3.57	92.7
	ARENA_2	0.226	4.52	58.7	RELLENO_ZANJA	1.619	35.55	918.4		ARENA_2	0.226	4.52	117.4	RELLENO_ZANJA	1.804	44.25	1500.7
	ARENA_3	0.519	10.38	135.0						ARENA_3	0.519	10.39	270.0				
280.000	D TIERRA	2.752	55.16	1271.4	ARENA_1	0.178	3.57	49.9	540.000	D TIERRA	2.757	57.07	2153.5	ARENA_1	0.178	3.57	96.3
	ARENA_2	0.226	4.52	63.2	RELLENO_ZANJA	1.606	32.25	950.6		ARENA_2	0.226	4.52	122.0	RELLENO_ZANJA	1.611	34.16	1534.9
	ARENA_3	0.519	10.38	145.4						ARENA_3	0.519	10.39	280.4				
300.000	D TIERRA	2.996	57.47	1328.9	ARENA_1	0.178	3.57	53.5	557.946	D TIERRA	3.433	55.54	2209.0	ARENA_1	0.178	3.20	99.5
	ARENA_2	0.226	4.52	67.8	RELLENO_ZANJA	1.850	34.56	985.2		ARENA_2	0.226	4.05	126.0	RELLENO_ZANJA	2.287	34.98	1569.9
	ARENA_3	0.519	10.38	155.8						ARENA_3	0.519	9.32	289.7				
303.371	D TIERRA	2.757	9.70	1338.6	ARENA_1	0.178	0.60	54.1	560.000	D TIERRA	3.440	7.06	2216.1	ARENA_1	0.178	0.37	99.8
	ARENA_2	0.226	0.76	68.5	RELLENO_ZANJA	1.611	5.83	991.0		ARENA_2	0.226	0.46	126.5	RELLENO_ZANJA	2.295	4.71	1574.6
	ARENA_3	0.519	1.75	157.5						ARENA_3	0.519	1.07	290.8				
320.000	D TIERRA	3.465	51.73	1390.3	ARENA_1	0.178	2.97	57.1	566.784	D TIERRA	2.757	21.02	2237.1	ARENA_1	0.178	1.21	101.1
	ARENA_2	0.226	3.76	72.3	RELLENO_ZANJA	2.319	32.68	1023.7		ARENA_2	0.226	1.53	128.0	RELLENO_ZANJA	1.611	13.25	1587.8
	ARENA_3	0.519	8.64	166.2						ARENA_3	0.519	3.52	294.3				
322.807	D TIERRA	3.561	9.86	1400.1	ARENA_1	0.178	0.50	57.6	580.000	D TIERRA	2.615	35.50	2272.6	ARENA_1	0.178	2.36	103.4
	ARENA_2	0.226	0.63	72.9	RELLENO_ZANJA	2.415	6.64	1030.3		ARENA_2	0.226	2.99	131.0	RELLENO_ZANJA	1.470	20.36	1608.2
	ARENA_3	0.519	1.46	167.6						ARENA_3	0.519	6.86	301.2				
340.000	D TIERRA	4.076	65.65	1465.8	ARENA_1	0.178	3.07	60.6	600.000	D TIERRA	2.757	53.72	2326.3	ARENA_1	0.178	3.57	107.0
	ARENA_2	0.226	3.88	76.8	RELLENO_ZANJA	2.931	45.96	1076.3		ARENA_2	0.226	4.52	135.5	RELLENO_ZANJA	1.611	30.81	1639.0
	ARENA_3	0.519	8.93	176.5						ARENA_3	0.519	10.38	311.6				
348.941	D TIERRA	5.443	42.55	1508.3	ARENA_1	0.178	1.59	62.2	620.000	D TIERRA	2.872	56.29	2382.6	ARENA_1	0.178	3.57	110.5
	ARENA_2	0.226	2.02	78.8	RELLENO_ZANJA	4.297	32.31	1108.6		ARENA_2	0.226	4.52	140.0	RELLENO_ZANJA	1.726	33.38	1672.4
	ARENA_3	0.519	4.64	181.2						ARENA_3	0.519	10.38	321.9				
360.000	D TIERRA	5.060	58.07	1566.4	ARENA_1	0.178	1.97	64.2	640.000	D TIERRA	2.675	55.47	2438.1	ARENA_1	0.178	3.57	114.1
	ARENA_2	0.226	2.50	81.3	RELLENO_ZANJA	3.914	45.40	1154.0		ARENA_2	0.226	4.52	144.5	RELLENO_ZANJA	1.529	32.55	1704.9
	ARENA_3	0.519	5.74	186.9						ARENA_3	0.519	10.38	332.3				
362.005	D TIERRA	5.008	10.09	1576.5	ARENA_1	0.178	0.36	64.5	660.000	D TIERRA	2.757	54.32	2492.4	ARENA_1	0.178	3.57	117.7
	ARENA_2	0.226	0.45	81.8	RELLENO_ZANJA	3.862	7.80	1161.8		ARENA_2	0.226	4.52	149.1	RELLENO_ZANJA	1.611	31.40	1736.3
	ARENA_3	0.519	1.04	188.0						ARENA_3	0.519	10.38	342.7				
379.684	D TIERRA	3.341	73.80	1650.3	ARENA_1	0.178	3.15	67.7	666.543	D TIERRA	3.777	21.38	2513.8	ARENA_1	0.178	1.17	118.8
	ARENA_2	0.226	3.99	85.8	RELLENO_ZANJA	2.195	53.55	1215.4		ARENA_2	0.226	1.48	150.5	RELLENO_ZANJA	2.632	13.88	1750.2
	ARENA_3	0.519	9.18	197.2						ARENA_3	0.519	3.40	346.1				
380.000	D TIERRA	3.317	1.05	1651.4	ARENA_1	0.178	0.06	67.8	680.000	D TIERRA	3.049	45.93	2559.7	ARENA_1	0.178	2.40	121.2
	ARENA_2	0.226	0.07	85.8	RELLENO_ZANJA	2.171	0.69	1216.0		ARENA_2	0.226	3.04	153.6	RELLENO_ZANJA	1.904	30.52	1780.7
	ARENA_3	0.519	0.16	197.3						ARENA_3	0.519	6.98	353.1				
400.000	D TIERRA	4.346	76.63	1728.0	ARENA_1	0.178	3.57	71.3	688.309	D TIERRA	2.709	23.93	2583.6	ARENA_1	0.178	1.48	122.7
	ARENA_2	0.226	4.52	90.3	RELLENO_ZANJA	3.200	53.72	1269.8		ARENA_2	0.226	1.88	155.5	RELLENO_ZANJA	1.564	14.41	1795.1
	ARENA_3	0.519	10.39	207.7						ARENA_3	0.519	4.31	357.4				
420.000	D TIERRA	2.761	71.06	1799.1	ARENA_1	0.178	3.57	74.9	700.000	D TIERRA	2.728	31.79	2615.4	ARENA_1	0.178	2.08	124.8
	ARENA_2	0.226	4.52	94.9	RELLENO_ZANJA	1.615	48.15	1317.9		ARENA_2	0.226	2.64	158.1	RELLENO_ZANJA	1.583	18.39	1813.5
	ARENA_3	0.519	10.39	218.1						ARENA_3	0.519	6.07	363.5				
440.000	D TIERRA	2.757	55.18	1854.2	ARENA_1	0.178	3.57	78.5	720.000	D TIERRA	2.759	54.87	2670.3	ARENA_1	0.178	3.57	128.4
	ARENA_2	0.226	4.52	99.4	RELLENO_ZANJA	1.611	32.26	1350.2		ARENA_2	0.226	4.52	162.6	RELLENO_ZANJA	1.613	31.96	1845.5
	ARENA_3	0.519	10.38	228.5						ARENA_3	0.519	10.39	373.9				
460.000	D TIERRA	2.757	55.14	1909.4	ARENA_1	0.178	3.57	82.0	732.195	D TIERRA	4.797	46.07	2716.4	ARENA_1	0.178	2.17	130.5
	ARENA_2	0.226	4.52	103.9	RELLENO_ZANJA	1.611	32.22	1382.4		ARENA_2	0.226	2.75	165.4	RELLENO_ZANJA	3.651	32.10	1877.6
	ARENA_3	0.519	10.38	238.9						ARENA_3	0.519	6.33	380.2				
463.079	D TIERRA	2.738	8.46	1917.8	ARENA_1	0.178	0.55	82.6	740.000	D TIERRA	6.285	43.25	2759.6	ARENA_1	0.178	1.39	131.9
	ARENA_2	0.226	0.70	104.6	RELLENO_ZANJA	1.593	4.93	1387.3		ARENA_2	0.226	1.76	167.1	RELLENO_ZANJA	5.139	34.30	1911.9
	ARENA_3	0.519	1.60	240.5						ARENA_3	0.519	4.05	384.2				
477.204	D TIERRA	2.720	38.54	1956.4	ARENA_1	0.178	2.52	85.1	758.031	D TIERRA	5.675	107.82	2867.4	ARENA_1	0.178	3.22	135.2
	ARENA_2	0.226	3.19	107.8	RELLENO_ZANJA	1.574	22.36	1409.7		ARENA_2	0.226	4.07	171.2	RELLENO_ZANJA	4.529	87.16	1999.0
	ARENA_3	0.519	7.33	247.8						ARENA_3	0.519	9.36	393.6				



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PROYECTO : CIDACOS COMPLETO
EJE : 5: P190 (Arqueta principal)-P240 (Aldeanueva)

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PROYECTO : CIDACOS COMPLETO
EJE : 5: P190 (Arqueta principal)-P240 (Aldeanueva)

*** MEDICIONES DE LOS PERFILES TRANSVERSALES ***
*** CAPAS DE FIRME ***

*** MEDICIONES DE LOS PERFILES TRANSVERSALES ***
*** CAPAS DE FIRME ***

PERFIL	MATERIAL	AREA PERFIL	VOL. PARCIAL	VOL. ACUMUL.	MATERIAL	AREA PERFIL	VOL. PARCIAL	VOL. ACUMUL.
760.000	D TIERRA	5.469	10.97	2878.4	ARENA_1	0.178	0.35	135.5
	ARENA_2	0.226	0.44	171.7	RELLENO_ZANJA	4.323	8.72	2007.8
	ARENA_3	0.519	1.02	394.6				
775.328	D TIERRA	3.386	67.87	2946.3	ARENA_1	0.178	2.73	138.2
	ARENA_2	0.226	3.46	175.1	RELLENO_ZANJA	2.241	50.31	2058.1
	ARENA_3	0.519	7.96	402.6				
780.000	D TIERRA	3.789	16.76	2963.0	ARENA_1	0.178	0.83	139.1
	ARENA_2	0.226	1.06	176.2	RELLENO_ZANJA	2.643	11.41	2069.5
	ARENA_3	0.519	2.43	405.0				
784.290	D TIERRA	3.415	15.45	2978.5	ARENA_1	0.178	0.76	139.8
	ARENA_2	0.226	0.97	177.1	RELLENO_ZANJA	2.269	10.54	2080.0
	ARENA_3	0.519	2.23	407.2				
800.000	D TIERRA	2.791	48.75	3027.2	ARENA_1	0.178	2.80	142.6
	ARENA_2	0.226	3.55	180.7	RELLENO_ZANJA	1.646	30.75	2110.8
	ARENA_3	0.519	8.15	415.4				
820.000	D TIERRA	2.782	55.73	3082.9	ARENA_1	0.178	3.57	146.2
	ARENA_2	0.226	4.52	185.2	RELLENO_ZANJA	1.636	32.82	2143.6
	ARENA_3	0.519	10.38	425.8				
840.000	D TIERRA	2.886	56.68	3139.6	ARENA_1	0.178	3.57	149.8
	ARENA_2	0.226	4.52	189.7	RELLENO_ZANJA	1.741	33.77	2177.4
	ARENA_3	0.519	10.38	436.1				
851.009	D TIERRA	2.880	31.74	3171.4	ARENA_1	0.178	1.96	151.7
	ARENA_2	0.226	2.49	192.2	RELLENO_ZANJA	1.735	19.13	2196.5
	ARENA_3	0.519	5.71	441.9				
860.000	D TIERRA	4.239	32.00	3203.4	ARENA_1	0.178	1.60	153.3
	ARENA_2	0.226	2.03	194.2	RELLENO_ZANJA	3.093	21.70	2218.2
	ARENA_3	0.519	4.67	446.5				
880.000	D TIERRA	3.283	75.22	3278.6	ARENA_1	0.178	3.57	156.9
	ARENA_2	0.226	4.52	198.8	RELLENO_ZANJA	2.138	52.31	2270.5
	ARENA_3	0.519	10.38	456.9				
900.000	D TIERRA	2.555	58.38	3337.0	ARENA_1	0.178	3.57	160.5
	ARENA_2	0.226	4.52	203.3	RELLENO_ZANJA	1.409	35.47	2306.0
	ARENA_3	0.518	10.37	467.3				
920.000	D TIERRA	2.757	53.12	3390.1	ARENA_1	0.178	3.56	164.0
	ARENA_2	0.226	4.52	207.8	RELLENO_ZANJA	1.611	30.21	2336.2
	ARENA_3	0.518	10.36	477.6				
925.809	D TIERRA	2.872	16.35	3406.4	ARENA_1	0.178	1.04	165.1
	ARENA_2	0.226	1.31	209.1	RELLENO_ZANJA	1.727	9.70	2345.9
	ARENA_3	0.519	3.01	480.6				
940.000	D TIERRA	2.759	39.96	3446.4	ARENA_1	0.178	2.53	167.6
	ARENA_2	0.226	3.20	212.3	RELLENO_ZANJA	1.613	23.70	2369.6
	ARENA_3	0.519	7.37	488.0				
951.281	D TIERRA	4.970	43.60	3490.0	ARENA_1	0.178	2.01	169.6
	ARENA_2	0.226	2.55	214.9	RELLENO_ZANJA	3.825	30.67	2400.2
	ARENA_3	0.516	5.84	493.9				
960.000	D TIERRA	2.892	34.27	3524.3	ARENA_1	0.178	1.55	171.2
	ARENA_2	0.226	1.97	216.8	RELLENO_ZANJA	1.746	24.28	2424.5
	ARENA_3	0.516	4.50	498.4				
980.000	D TIERRA	2.627	55.18	3579.5	ARENA_1	0.178	3.56	174.7
	ARENA_2	0.226	4.52	221.4	RELLENO_ZANJA	1.481	32.27	2456.8
	ARENA_3	0.519	10.35	508.7				
1000.000	D TIERRA	2.764	53.91	3633.4	ARENA_1	0.178	3.56	178.3
	ARENA_2	0.226	4.52	225.9	RELLENO_ZANJA	1.619	31.00	2487.8
	ARENA_3	0.515	10.34	519.1				
1020.000	D TIERRA	2.758	55.23	3688.6	ARENA_1	0.178	3.56	181.9
	ARENA_2	0.226	4.52	230.4	RELLENO_ZANJA	1.613	32.32	2520.1
	ARENA_3	0.519	10.34	529.4				
1040.000	D TIERRA	5.070	78.29	3766.9	ARENA_1	0.178	3.57	185.4
	ARENA_2	0.226	4.52	234.9	RELLENO_ZANJA	3.925	55.38	2575.5
	ARENA_3	0.519	10.38	539.8				

PERFIL	MATERIAL	AREA PERFIL	VOL. PARCIAL	VOL. ACUMUL.	MATERIAL	AREA PERFIL	VOL. PARCIAL	VOL. ACUMUL.
1042.832	D TIERRA	4.911	14.13	3781.0	ARENA_1	0.178	0.50	185.9
	ARENA_2	0.226	0.64	235.6	RELLENO_ZANJA	3.765	10.89	2586.4
	ARENA_3	0.519	1.47	541.2				
1059.233	D TIERRA	3.072	65.47	3846.5	ARENA_1	0.178	2.92	188.8
	ARENA_2	0.226	3.70	239.3	RELLENO_ZANJA	1.927	46.68	2633.1
	ARENA_3	0.519	8.52	549.8				
1060.000	D TIERRA	2.938	2.30	3848.8	ARENA_1	0.178	0.14	189.0
	ARENA_2	0.226	0.17	239.4	RELLENO_ZANJA	1.792	1.43	2634.5
	ARENA_3	0.519	0.40	550.2				
1071.664	D TIERRA	4.812	45.20	3894.0	ARENA_1	0.178	2.08	191.1
	ARENA_2	0.226	2.63	242.1	RELLENO_ZANJA	3.667	31.83	2666.3
	ARENA_3	0.519	6.06	556.2				
1080.000	D TIERRA	2.759	31.56	3925.5	ARENA_1	0.178	1.49	192.5
	ARENA_2	0.226	1.88	244.0	RELLENO_ZANJA	1.613	22.01	2688.3
	ARENA_3	0.519	4.33	560.5				
1080.326	D TIERRA	2.646	0.88	3926.4	ARENA_1	0.178	0.06	192.6
	ARENA_2	0.226	0.07	244.0	RELLENO_ZANJA	1.500	0.51	2688.8
	ARENA_3	0.519	0.17	560.7				
1100.000	D TIERRA	2.600	51.60	3978.0	ARENA_1	0.178	3.51	196.1
	ARENA_2	0.226	4.44	248.5	RELLENO_ZANJA	1.454	29.06	2717.9
	ARENA_3	0.519	10.21	570.9				
1120.000	D TIERRA	2.768	53.68	4031.7	ARENA_1	0.178	3.56	199.7
	ARENA_2	0.226	4.52	253.0	RELLENO_ZANJA	1.623	30.77	2748.7
	ARENA_3	0.516	10.35	581.3				
1124.976	D TIERRA	3.096	14.59	4046.3	ARENA_1	0.178	0.89	200.6
	ARENA_2	0.226	1.12	254.1	RELLENO_ZANJA	1.950	8.89	2757.6
	ARENA_3	0.519	2.58	583.9				
1140.000	D TIERRA	2.969	45.56	4091.9	ARENA_1	0.178	2.68	203.2
	ARENA_2	0.226	3.39	257.5	RELLENO_ZANJA	1.824	28.35	2785.9
	ARENA_3	0.519	7.80	591.7				
1159.411	D TIERRA	2.757	55.58	4147.4	ARENA_1	0.178	3.46	206.7
	ARENA_2	0.226	4.38	261.9	RELLENO_ZANJA	1.611	33.34	2819.3
	ARENA_3	0.519	10.08	601.7				
1160.000	D TIERRA	2.782	1.63	4149.1	ARENA_1	0.178	0.11	206.8
	ARENA_2	0.226	0.13	262.0	RELLENO_ZANJA	1.636	0.96	2820.2
	ARENA_3	0.519	0.31	602.0				
1180.000	D TIERRA	2.765	55.47	4204.5	ARENA_1	0.178	3.57	210.4
	ARENA_2	0.226	4.52	266.6	RELLENO_ZANJA	1.620	32.56	2852.8
	ARENA_3	0.519	10.38	612.4				
1197.217	D TIERRA	2.758	47.54	4252.1	ARENA_1	0.178	3.07	213.4
	ARENA_2	0.226	3.89	270.4	RELLENO_ZANJA	1.612	27.82	2880.6
	ARENA_3	0.519	8.94	621.4				
1200.000	D TIERRA	2.757	7.67	4259.7	ARENA_1	0.178	0.50	213.9
	ARENA_2	0.226	0.63	271.1	RELLENO_ZANJA	1.611	4.49	2885.1
	ARENA_3	0.519	1.44	622.8				
1214.475	D TIERRA	2.708	39.55	4299.3	ARENA_1	0.178	2.58	216.5
	ARENA_2	0.226	3.27	274.3	RELLENO_ZANJA	1.562	22.97	2908.0
	ARENA_3	0.519	7.51	630.3				
1220.000	D TIERRA	2.713	14.98	4314.3	ARENA_1	0.178	0.99	217.5
	ARENA_2	0.226	1.25	275.6	RELLENO_ZANJA	1.568	8.65	2916.7
	ARENA_3	0.519	2.87	633.2				
1229.997	D TIERRA	2.758	27.35	4341.6	ARENA_1	0.178	1.78	219.3
	ARENA_2	0.226	2.26	277.8	RELLENO_ZANJA	1.612	15.90	2932.6
	ARENA_3	0.519	5.19	638.4				
1236.866	D TIERRA	3.047	19.94	4361.6	ARENA_1	0.178	1.22	220.5
	ARENA_2	0.226	1.55	279.4	RELLENO_ZANJA	1.901	12.07	2944.7
	ARENA_3	0.519	3.57	641.9				
1240.000	D TIERRA	3.170	9.74	4371.3	ARENA_1	0.178	0.56	221.1
	ARENA_2	0.226	0.71	280.1	RELLENO_ZANJA	2.024	6.15	2950.8
	ARENA_3	0.519	1.63	643.6				



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PROYECTO : CIDACOS COMPLETO
EJE : 5: P190 (Arqueta principal)-P240 (Aldeanueva)

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PROYECTO : CIDACOS COMPLETO
EJE : 5: P190 (Arqueta principal)-P240 (Aldeanueva)

*** MEDICIONES DE LOS PERFILES TRANSVERSALES ***
*** CAPAS DE FIRME ***

*** MEDICIONES DE LOS PERFILES TRANSVERSALES ***
*** CAPAS DE FIRME ***

PERFIL	MATERIAL	AREA PERFIL	VOL. PARCIAL	VOL. ACUMUL.	MATERIAL	AREA PERFIL	VOL. PARCIAL	VOL. ACUMUL.
1260.000	D TIERRA	2.761	59.31	4430.6	ARENA_1	0.178	3.57	224.6
	ARENA_2	0.226	4.52	284.6	RELLENO_ZANJA	1.616	36.40	2987.2
	ARENA_3	0.519	10.39	654.0				
1280.000	D TIERRA	2.759	55.20	4485.8	ARENA_1	0.178	3.57	228.2
	ARENA_2	0.226	4.52	289.1	RELLENO_ZANJA	1.613	32.29	3019.5
	ARENA_3	0.519	10.38	664.3				
1300.000	D TIERRA	3.096	58.54	4544.4	ARENA_1	0.178	3.57	231.8
	ARENA_2	0.226	4.52	293.7	RELLENO_ZANJA	1.950	35.63	3055.1
	ARENA_3	0.519	10.38	674.7				
1320.000	D TIERRA	2.758	58.54	4602.9	ARENA_1	0.178	3.57	235.3
	ARENA_2	0.226	4.52	298.2	RELLENO_ZANJA	1.612	35.63	3090.8
	ARENA_3	0.519	10.38	685.1				
1340.000	D TIERRA	2.752	55.10	4658.0	ARENA_1	0.178	3.57	238.9
	ARENA_2	0.226	4.52	302.7	RELLENO_ZANJA	1.607	32.19	3122.9
	ARENA_3	0.519	10.38	695.5				
1340.931	D TIERRA	2.757	2.56	4660.6	ARENA_1	0.178	0.17	239.1
	ARENA_2	0.226	0.21	302.9	RELLENO_ZANJA	1.611	1.50	3124.4
	ARENA_3	0.519	0.48	696.0				
1360.000	D TIERRA	2.757	52.57	4713.1	ARENA_1	0.178	3.40	242.5
	ARENA_2	0.226	4.31	307.2	RELLENO_ZANJA	1.611	30.72	3155.2
	ARENA_3	0.519	9.90	705.9				
1379.839	D TIERRA	2.615	53.28	4766.4	ARENA_1	0.178	3.54	246.0
	ARENA_2	0.226	4.48	311.7	RELLENO_ZANJA	1.469	30.56	3185.7
	ARENA_3	0.519	10.29	716.2				
1380.000	D TIERRA	2.610	0.42	4766.8	ARENA_1	0.178	0.03	246.0
	ARENA_2	0.226	0.04	311.7	RELLENO_ZANJA	1.464	0.24	3186.0
	ARENA_3	0.519	0.08	716.2				
1394.608	D TIERRA	2.757	39.20	4806.0	ARENA_1	0.178	2.60	248.6
	ARENA_2	0.226	3.30	315.0	RELLENO_ZANJA	1.611	22.46	3208.4
	ARENA_3	0.519	7.58	723.8				
1400.000	D TIERRA	2.884	15.21	4821.2	ARENA_1	0.178	0.96	249.6
	ARENA_2	0.226	1.22	316.2	RELLENO_ZANJA	1.738	9.03	3217.4
	ARENA_3	0.519	2.80	726.6				
1420.000	D TIERRA	3.173	60.57	4881.8	ARENA_1	0.178	3.56	253.2
	ARENA_2	0.226	4.52	320.8	RELLENO_ZANJA	2.027	37.66	3255.1
	ARENA_3	0.519	10.37	737.0				
1420.165	D TIERRA	3.177	0.52	4882.3	ARENA_1	0.178	0.03	253.2
	ARENA_2	0.226	0.04	320.8	RELLENO_ZANJA	2.032	0.33	3255.4
	ARENA_3	0.519	0.09	737.1				
1440.000	D TIERRA	2.760	58.88	4941.2	ARENA_1	0.178	3.53	256.7
	ARENA_2	0.226	4.48	325.3	RELLENO_ZANJA	1.614	36.16	3291.6
	ARENA_3	0.519	10.29	747.4				
1460.000	D TIERRA	2.757	55.17	4996.4	ARENA_1	0.178	3.56	260.3
	ARENA_2	0.226	4.52	329.8	RELLENO_ZANJA	1.612	32.26	3323.9
	ARENA_3	0.519	10.38	757.7				
1475.462	D TIERRA	2.823	43.14	5039.5	ARENA_1	0.178	2.76	263.0
	ARENA_2	0.226	3.49	333.3	RELLENO_ZANJA	1.678	25.43	3349.3
	ARENA_3	0.517	8.01	765.8				
1480.000	D TIERRA	2.809	12.78	5052.3	ARENA_1	0.178	0.81	263.9
	ARENA_2	0.226	1.03	334.3	RELLENO_ZANJA	1.664	7.58	3356.9
	ARENA_3	0.519	2.35	768.1				
1488.902	D TIERRA	2.757	24.78	5077.1	ARENA_1	0.178	1.59	265.4
	ARENA_2	0.226	2.01	336.3	RELLENO_ZANJA	1.612	14.58	3371.4
	ARENA_3	0.519	4.62	772.7				
1500.000	D TIERRA	3.290	33.56	5110.6	ARENA_1	0.178	1.98	267.4
	ARENA_2	0.226	2.51	338.8	RELLENO_ZANJA	2.144	20.84	3392.3
	ARENA_3	0.519	5.76	778.5				
1503.444	D TIERRA	3.267	11.29	5121.9	ARENA_1	0.178	0.61	268.0
	ARENA_2	0.226	0.78	339.6	RELLENO_ZANJA	2.121	7.35	3399.6
	ARENA_3	0.519	1.79	780.3				

PERFIL	MATERIAL	AREA PERFIL	VOL. PARCIAL	VOL. ACUMUL.	MATERIAL	AREA PERFIL	VOL. PARCIAL	VOL. ACUMUL.
1520.000	D TIERRA	2.758	49.87	5171.8	ARENA_1	0.178	2.95	271.0
	ARENA_2	0.226	3.74	343.4	RELLENO_ZANJA	1.612	30.91	3430.5
	ARENA_3	0.519	8.59	788.9				
1536.994	D TIERRA	2.757	46.86	5218.7	ARENA_1	0.178	3.03	274.0
	ARENA_2	0.226	3.84	347.2	RELLENO_ZANJA	1.612	27.40	3457.9
	ARENA_3	0.519	8.82	797.7				
1540.000	D TIERRA	2.783	8.33	5227.0	ARENA_1	0.178	0.54	274.6
	ARENA_2	0.226	0.68	347.9	RELLENO_ZANJA	1.638	4.88	3462.8
	ARENA_3	0.519	1.56	799.3				
1560.000	D TIERRA	2.706	54.89	5281.9	ARENA_1	0.178	3.57	278.1
	ARENA_2	0.226	4.52	352.4	RELLENO_ZANJA	1.560	31.98	3494.8
	ARENA_3	0.519	10.38	809.7				
1577.897	D TIERRA	2.764	48.95	5330.8	ARENA_1	0.178	3.19	281.3
	ARENA_2	0.226	4.04	356.4	RELLENO_ZANJA	1.619	28.45	3523.2
	ARENA_3	0.519	9.29	818.9				
1580.000	D TIERRA	2.942	6.00	5336.8	ARENA_1	0.178	0.37	281.7
	ARENA_2	0.226	0.48	356.9	RELLENO_ZANJA	1.797	3.59	3526.8
	ARENA_3	0.519	1.09	820.0				
1591.697	D TIERRA	2.763	33.37	5370.2	ARENA_1	0.178	2.08	283.8
	ARENA_2	0.226	2.64	359.6	RELLENO_ZANJA	1.617	19.97	3546.8
	ARENA_3	0.519	6.07	826.1				
1600.000	D TIERRA	2.852	23.31	5393.5	ARENA_1	0.178	1.48	285.2
	ARENA_2	0.226	1.88	361.4	RELLENO_ZANJA	1.707	13.80	3560.6
	ARENA_3	0.519	4.31	830.4				
1620.000	D TIERRA	3.657	65.10	5458.6	ARENA_1	0.178	3.57	288.8
	ARENA_2	0.226	4.52	365.9	RELLENO_ZANJA	2.512	42.18	3602.8
	ARENA_3	0.519	10.39	840.8				
1640.000	D TIERRA	4.846	85.03	5543.6	ARENA_1	0.178	3.57	292.4
	ARENA_2	0.226	4.52	370.5	RELLENO_ZANJA	3.700	62.12	3664.9
	ARENA_3	0.519	10.39	851.2				
1647.226	D TIERRA	5.404	37.03	5580.7	ARENA_1	0.178	1.29	293.7
	ARENA_2	0.226	1.63	372.1	RELLENO_ZANJA	4.259	28.75	3693.7
	ARENA_3	0.519	3.75	855.0				
1660.000	D TIERRA	6.439	75.64	5656.3	ARENA_1	0.178	2.28	295.9
	ARENA_2	0.226	2.88	375.0	RELLENO_ZANJA	5.293	61.01	3754.7
	ARENA_3	0.519	6.63	861.6				
1680.000	D TIERRA	3.575	100.13	5756.4	ARENA_1	0.178	3.57	299.5
	ARENA_2	0.226	4.52	379.5	RELLENO_ZANJA	2.429	77.22	3831.9
	ARENA_3	0.519	10.39	872.0				
1691.917	D TIERRA	2.877	38.44	5794.9	ARENA_1	0.178	2.12	301.6
	ARENA_2	0.226	2.69	382.2	RELLENO_ZANJA	1.731	24.79	3856.7
	ARENA_3	0.519	6.19	878.2				
1700.000	D TIERRA	2.666	22.40	5817.3	ARENA_1	0.178	1.44	303.1
	ARENA_2	0.226	1.83	384.0	RELLENO_ZANJA	1.520	13.14	3869.8
	ARENA_3	0.519	4.19	882.4				
1708.335	D TIERRA	3.075	23.93	5841.2	ARENA_1	0.178	1.49	304.6
	ARENA_2	0.226	1.88	385.9	RELLENO_ZANJA	1.930	14.38	3884.2
	ARENA_3	0.519	4.33	886.7				
1720.000	D TIERRA	2.676	33.54	5874.8	ARENA_1	0.178	2.08	306.6
	ARENA_2	0.226	2.63	388.5	RELLENO_ZANJA	1.530	20.18	3904.4
	ARENA_3	0.519	6.06	892.7				
1721.853	D TIERRA	2.616	4.90	5879.7	ARENA_1	0.178	0.33	307.0
	ARENA_2	0.226	0.42	388.9	RELLENO_ZANJA	1.470	2.78	3907.2
	ARENA_3	0.519	0.96	893.7				
1740.000	D TIERRA	2.753	48.71	5928.4	ARENA_1	0.178	3.23	310.2
	ARENA_2	0.226	4.10	393.0	RELLENO_ZANJA	1.607	27.92	3935.1
	ARENA_3	0.519	9.43	903.1				
1760.000	D TIERRA	2.975	57.27	5985.6	ARENA_1	0.178	3.57	313.8
	ARENA_2	0.226	4.52	397.6	RELLENO_ZANJA	1.829	34.36	3969.4
	ARENA_3	0.519	10.39	913.5				



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PROYECTO : CIDACOS COMPLETO
EJE : 5: P190 (Arqueta principal)-P240 (Aldeanueva)

Istram 9.04 12/05/20 12:33:22
PROYECTO : CIDACOS COMPLETO
EJE : 5: P190 (Arqueta principal)-P240 (Aldeanueva)

MEDICIONES DE LOS PERFILES TRANSVERSALES
CAPAS DE FIRME

MEDICIONES DE LOS PERFILES TRANSVERSALES
CAPAS DE FIRME

Table with columns: PERFIL, MATERIAL, AREA PERFIL, VOL. PARCIAL, VOL. ACUMUL., MATERIAL, AREA PERFIL, VOL. PARCIAL, VOL. ACUMUL. Rows include profiles 1780.000 to 2120.000 with materials like TIERRA, ARENA, and RELLENO_ZANJA.

Table with columns: PERFIL, MATERIAL, AREA PERFIL, VOL. PARCIAL, VOL. ACUMUL., MATERIAL, AREA PERFIL, VOL. PARCIAL, VOL. ACUMUL. Rows include profiles 2140.000 to 2330.446 with materials like TIERRA, ARENA, and RELLENO_ZANJA.

Istram 9.04 12/05/20 12:33:22

 PROYECTO : CIDACOS COMPLETO
 EJE : 5: P190 (Arqueta principal)-P240 (Aldeanueva)

Istram 9.04 12/05/20 12:33:22

 PROYECTO : CIDACOS COMPLETO
 EJE : 5: P190 (Arqueta principal)-P240 (Aldeanueva)

 * * * MEDICIONES DE LOS PERFILES TRANSVERSALES* * *
 * * * CAPAS DE FIRME * * *

 * * * MEDICIONES DE LOS PERFILES TRANSVERSALES* * *
 * * * CAPAS DE FIRME * * *

PERFIL	MATERIAL	AREA PERFIL	VOL. PARCIAL	VOL. ACUMUL.	MATERIAL	AREA PERFIL	VOL. PARCIAL	VOL. ACUMUL.	PERFIL	MATERIAL	AREA PERFIL	VOL. PARCIAL	VOL. ACUMUL.	MATERIAL	AREA PERFIL	VOL. PARCIAL	VOL. ACUMUL.
2340.000	D TIERRA	2.916	28.92	7676.2	ARENA_1	0.178	1.70	417.1	2560.000	D TIERRA	3.098	20.53	8620.0	ARENA_1	0.183	1.21	457.1
	ARENA_2	0.226	2.16	528.6	RELLENO_ZANJA	1.770	17.97	4995.6		ARENA_2	0.250	1.67	582.7	RELLENO_ZANJA	1.837	12.15	5666.5
	ARENA_3	0.519	4.96	1214.4						ARENA_3	0.606	4.03	1344.3				
2360.000	D TIERRA	2.684	56.00	7732.2	ARENA_1	0.178	3.57	420.7	2580.000	D TIERRA	3.207	63.04	8683.0	ARENA_1	0.183	3.65	460.8
	ARENA_2	0.226	4.52	533.1	RELLENO_ZANJA	1.538	33.08	5028.6		ARENA_2	0.250	5.01	587.7	RELLENO_ZANJA	1.945	37.82	5704.3
	ARENA_3	0.519	10.39	1224.8						ARENA_3	0.606	12.12	1356.4				
2380.000	D TIERRA	2.644	53.28	7785.5	ARENA_1	0.178	3.57	424.3	2600.000	D TIERRA	3.094	63.00	8746.0	ARENA_1	0.183	3.65	464.4
	ARENA_2	0.226	4.52	537.6	RELLENO_ZANJA	1.499	30.37	5059.0		ARENA_2	0.250	5.01	592.8	RELLENO_ZANJA	1.832	37.78	5742.1
	ARENA_3	0.519	10.38	1235.2						ARENA_3	0.606	12.12	1368.5				
2380.000	D TIERRA	3.080	0.00	7785.5	ARENA_1	0.183	0.00	424.3	2620.000	D TIERRA	3.289	63.82	8809.9	ARENA_1	0.183	3.65	468.1
	ARENA_2	0.251	0.00	537.6	RELLENO_ZANJA	1.819	0.00	5059.0		ARENA_2	0.250	5.01	597.8	RELLENO_ZANJA	2.028	38.60	5780.7
	ARENA_3	0.606	0.00	1235.2						ARENA_3	0.606	12.12	1380.7				
2394.726	D TIERRA	3.220	46.39	7831.9	ARENA_1	0.183	2.69	427.0	2640.000	D TIERRA	3.637	69.26	8879.1	ARENA_1	0.183	3.65	471.7
	ARENA_2	0.251	3.69	541.3	RELLENO_ZANJA	1.959	27.82	5086.8		ARENA_2	0.250	5.01	602.8	RELLENO_ZANJA	2.376	44.03	5824.7
	ARENA_3	0.606	8.92	1244.1						ARENA_3	0.606	12.12	1392.8				
2400.000	D TIERRA	3.132	16.75	7848.6	ARENA_1	0.183	0.96	427.9	2646.265	D TIERRA	3.668	22.88	8902.0	ARENA_1	0.183	1.14	472.9
	ARENA_2	0.250	1.32	542.7	RELLENO_ZANJA	1.870	10.10	5096.9		ARENA_2	0.250	1.57	604.3	RELLENO_ZANJA	2.406	14.98	5839.7
	ARENA_3	0.606	3.20	1247.3						ARENA_3	0.606	3.80	1396.6				
2419.090	D TIERRA	3.077	59.26	7907.9	ARENA_1	0.183	3.48	431.4	2658.057	D TIERRA	3.156	40.23	8942.2	ARENA_1	0.183	2.15	475.0
	ARENA_2	0.250	4.78	547.4	RELLENO_ZANJA	1.816	35.19	5132.1		ARENA_2	0.250	2.95	607.3	RELLENO_ZANJA	1.895	25.36	5865.1
	ARENA_3	0.606	11.57	1258.9						ARENA_3	0.606	7.15	1403.7				
2420.000	D TIERRA	3.092	2.81	7910.7	ARENA_1	0.183	0.17	431.6	2660.000	D TIERRA	3.153	6.13	8948.4	ARENA_1	0.183	0.35	475.4
	ARENA_2	0.250	0.23	547.7	RELLENO_ZANJA	1.831	1.66	5133.8		ARENA_2	0.250	0.49	607.8	RELLENO_ZANJA	1.892	3.68	5868.7
	ARENA_3	0.606	0.55	1259.5						ARENA_3	0.606	1.18	1404.9				
2430.793	D TIERRA	5.862	48.32	7959.0	ARENA_1	0.183	1.97	433.5	2669.318	D TIERRA	3.512	31.05	8979.4	ARENA_1	0.183	1.70	477.1
	ARENA_2	0.250	2.70	550.4	RELLENO_ZANJA	4.601	34.71	5168.5		ARENA_2	0.250	2.33	610.1	RELLENO_ZANJA	2.251	19.30	5888.0
	ARENA_3	0.606	6.54	1266.0						ARENA_3	0.606	5.65	1410.6				
2440.000	D TIERRA	5.678	53.12	8012.1	ARENA_1	0.183	1.68	435.2	2680.000	D TIERRA	4.382	42.16	9021.6	ARENA_1	0.183	1.95	479.0
	ARENA_2	0.250	2.31	552.7	RELLENO_ZANJA	4.416	41.51	5210.0		ARENA_2	0.250	2.68	612.8	RELLENO_ZANJA	3.120	28.69	5916.7
	ARENA_3	0.606	5.58	1271.6						ARENA_3	0.606	6.47	1417.0				
2459.875	D TIERRA	6.384	119.86	8132.0	ARENA_1	0.183	3.63	438.9	2683.773	D TIERRA	4.752	17.23	9038.8	ARENA_1	0.183	0.69	479.7
	ARENA_2	0.250	4.98	557.7	RELLENO_ZANJA	5.123	94.79	5304.8		ARENA_2	0.250	0.95	613.7	RELLENO_ZANJA	3.491	12.47	5929.2
	ARENA_3	0.606	12.05	1283.6						ARENA_3	0.606	2.29	1419.3				
2460.000	D TIERRA	6.383	0.80	8132.8	ARENA_1	0.183	0.02	438.9	2700.000	D TIERRA	5.115	80.06	9118.9	ARENA_1	0.183	2.96	482.7
	ARENA_2	0.250	0.03	557.7	RELLENO_ZANJA	5.122	0.64	5305.4		ARENA_2	0.250	4.06	617.8	RELLENO_ZANJA	3.854	59.59	5988.8
	ARENA_3	0.606	0.08	1283.7						ARENA_3	0.606	9.84	1429.2				
2480.000	D TIERRA	6.482	128.66	8261.5	ARENA_1	0.183	3.65	442.5	2708.002	D TIERRA	5.300	41.67	9160.5	ARENA_1	0.183	1.46	484.1
	ARENA_2	0.250	5.01	562.7	RELLENO_ZANJA	5.221	103.43	5408.9		ARENA_2	0.250	2.00	619.8	RELLENO_ZANJA	4.039	31.58	6020.4
	ARENA_3	0.606	12.12	1295.8						ARENA_3	0.606	4.85	1434.0				
2500.000	D TIERRA	5.978	124.61	8386.1	ARENA_1	0.183	3.65	446.2	2720.000	D TIERRA	6.257	69.33	9229.9	ARENA_1	0.183	2.19	486.3
	ARENA_2	0.250	5.01	567.7	RELLENO_ZANJA	4.717	99.38	5508.2		ARENA_2	0.250	3.01	622.8	RELLENO_ZANJA	4.996	54.20	6074.6
	ARENA_3	0.606	12.12	1307.9						ARENA_3	0.606	7.27	1441.3				
2502.281	D TIERRA	5.975	13.63	8399.7	ARENA_1	0.183	0.42	446.6	2732.755	D TIERRA	8.796	96.00	9325.9	ARENA_1	0.183	2.33	488.7
	ARENA_2	0.250	0.57	568.3	RELLENO_ZANJA	4.713	10.76	5519.0		ARENA_2	0.250	3.19	626.0	RELLENO_ZANJA	7.535	79.91	6154.5
	ARENA_3	0.606	1.38	1309.3						ARENA_3	0.606	7.73	1449.0				
2518.221	D TIERRA	3.870	78.46	8478.2	ARENA_1	0.183	2.91	449.5	2740.000	D TIERRA	8.587	62.97	9388.9	ARENA_1	0.183	1.32	490.0
	ARENA_2	0.250	3.99	572.3	RELLENO_ZANJA	2.608	58.35	5577.3		ARENA_2	0.250	1.81	627.8	RELLENO_ZANJA	7.326	53.83	6208.3
	ARENA_3	0.606	9.66	1319.0						ARENA_3	0.606	4.39	1453.4				
2520.000	D TIERRA	3.850	6.87	8485.0	ARENA_1	0.183	0.32	449.8	2760.000	D TIERRA	6.035	146.22	9535.1	ARENA_1	0.183	3.65	493.6
	ARENA_2	0.250	0.45	572.7	RELLENO_ZANJA	2.588	4.62	5582.0		ARENA_2	0.250	5.01	632.8	RELLENO_ZANJA	4.774	120.99	6329.3
	ARENA_3	0.606	1.08	1320.1						ARENA_3	0.606	12.12	1465.5				
2534.864	D TIERRA	3.551	55.00	8540.0	ARENA_1	0.183	2.71	452.5	2780.000	D TIERRA	5.084	111.19	9646.3	ARENA_1	0.183	3.65	497.3
	ARENA_2	0.250	3.72	576.4	RELLENO_ZANJA	2.290	36.25	5618.2		ARENA_2	0.250	5.01	637.8	RELLENO_ZANJA	3.823	85.96	6415.3
	ARENA_3	0.606	9.01	1329.1						ARENA_3	0.606	12.12	1477.6				
2540.000	D TIERRA	3.221	17.39	8557.4	ARENA_1	0.183	0.94	453.5	2800.000	D TIERRA	3.759	88.43	9734.7	ARENA_1	0.183	3.65	500.9
	ARENA_2	0.250	1.29	577.7	RELLENO_ZANJA	1.960	10.91	5629.1		ARENA_2	0.250	5.01	642.9	RELLENO_ZANJA	2.498	63.21	6478.5
	ARENA_3	0.606	3.11	1332.2						ARENA_3	0.606	12.12	1489.8				
2553.351	D TIERRA	3.079	42.05	8599.5	ARENA_1	0.183	2.44	455.9	2817.252	D TIERRA	4.600	72.10	9806.8	ARENA_1	0.183	3.15	504.1
	ARENA_2	0.250	3.34	581.1	RELLENO_ZANJA	1.817	25.21	5654.3		ARENA_2	0.250	4.32	647.2	RELLENO_ZANJA	3.338	50.34	6528.8
	ARENA_3	0.606	8.09	1340.3						ARENA_3	0.606	10.46	1500.2				



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PROYECTO : CIDACOS COMPLETO
EJE : 5: P190 (Arqueta principal)-P240 (Aldeanueva)

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PROYECTO : CIDACOS COMPLETO
EJE : 5: P190 (Arqueta principal)-P240 (Aldeanueva)

*** MEDICIONES DE LOS PERFILES TRANSVERSALES ***
*** CAPAS DE FIRME ***

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PERFIL	MATERIAL	AREA PERFIL	VOL. PARCIAL	VOL. ACUMUL.	MATERIAL	AREA PERFIL	VOL. PARCIAL	VOL. ACUMUL.
2820.000	D TIERRA	5.281	13.58	9820.4	ARENA_1	0.183	0.50	504.6
	ARENA_2	0.250	0.69	647.9	RELLENO_ZANJA	4.020	10.11	6538.9
	ARENA_3	0.606	1.67	1501.9				
2831.962	D TIERRA	8.918	84.92	9905.3	ARENA_1	0.183	2.18	506.8
	ARENA_2	0.250	3.00	650.9	RELLENO_ZANJA	7.656	69.83	6608.8
	ARENA_3	0.606	7.25	1509.1				
2840.000	D TIERRA	9.132	72.54	9977.8	ARENA_1	0.183	1.47	508.2
	ARENA_2	0.250	2.01	652.9	RELLENO_ZANJA	7.871	62.40	6671.2
	ARENA_3	0.606	4.87	1514.0				
2845.114	D TIERRA	9.297	47.12	10025.0	ARENA_1	0.183	0.93	509.2
	ARENA_2	0.250	1.28	654.2	RELLENO_ZANJA	8.036	40.67	6711.8
	ARENA_3	0.606	3.10	1517.1				
2860.000	D TIERRA	7.331	123.76	10148.7	ARENA_1	0.183	2.72	511.9
	ARENA_2	0.250	3.73	657.9	RELLENO_ZANJA	6.070	104.99	6816.8
	ARENA_3	0.606	9.02	1526.1				
2880.000	D TIERRA	3.265	105.96	10254.7	ARENA_1	0.183	3.65	515.5
	ARENA_2	0.250	5.01	662.9	RELLENO_ZANJA	2.004	80.74	6897.6
	ARENA_3	0.606	12.12	1538.3				
2889.855	D TIERRA	3.544	33.55	10288.2	ARENA_1	0.183	1.80	517.3
	ARENA_2	0.251	2.47	665.4	RELLENO_ZANJA	2.282	21.12	6918.7
	ARENA_3	0.606	5.97	1544.2				
2900.000	D TIERRA	3.545	35.96	10324.2	ARENA_1	0.183	1.85	519.2
	ARENA_2	0.250	2.54	667.9	RELLENO_ZANJA	2.283	23.16	6941.9
	ARENA_3	0.606	6.15	1550.4				
2920.000	D TIERRA	3.514	70.59	10394.8	ARENA_1	0.183	3.65	522.8
	ARENA_2	0.251	5.01	672.9	RELLENO_ZANJA	2.253	45.36	6987.2
	ARENA_3	0.606	12.12	1562.5				
2940.000	D TIERRA	3.163	66.77	10461.6	ARENA_1	0.183	3.65	526.5
	ARENA_2	0.251	5.01	677.9	RELLENO_ZANJA	1.901	41.54	7028.8
	ARENA_3	0.606	12.12	1574.6				
2943.962	D TIERRA	3.222	12.65	10474.2	ARENA_1	0.183	0.72	527.2
	ARENA_2	0.250	0.99	678.9	RELLENO_ZANJA	1.961	7.65	7036.4
	ARENA_3	0.606	2.40	1577.0				
2960.000	D TIERRA	3.350	52.70	10526.9	ARENA_1	0.183	2.93	530.1
	ARENA_2	0.250	4.02	682.9	RELLENO_ZANJA	2.089	32.47	7068.9
	ARENA_3	0.606	9.72	1586.7				
2965.388	D TIERRA	3.488	18.42	10545.3	ARENA_1	0.183	0.98	531.1
	ARENA_2	0.250	1.35	684.3	RELLENO_ZANJA	2.227	11.63	7080.5
	ARENA_3	0.606	3.27	1590.0				
2980.000	D TIERRA	3.581	51.65	10597.0	ARENA_1	0.183	2.67	533.8
	ARENA_2	0.250	3.66	687.9	RELLENO_ZANJA	2.319	33.22	7113.7
	ARENA_3	0.606	8.86	1598.9				
2991.177	D TIERRA	3.502	39.58	10636.6	ARENA_1	0.183	2.04	535.8
	ARENA_2	0.250	2.80	690.7	RELLENO_ZANJA	2.241	25.48	7139.2
	ARENA_3	0.606	6.77	1605.6				
3000.000	D TIERRA	3.197	29.55	10666.1	ARENA_1	0.183	1.61	537.4
	ARENA_2	0.250	2.21	692.9	RELLENO_ZANJA	1.936	18.42	7157.6
	ARENA_3	0.606	5.35	1611.0				
3020.000	D TIERRA	3.234	64.31	10730.4	ARENA_1	0.183	3.65	541.1
	ARENA_2	0.250	5.01	698.0	RELLENO_ZANJA	1.972	39.08	7196.7
	ARENA_3	0.606	12.12	1623.1				
3031.280	D TIERRA	3.394	37.38	10767.8	ARENA_1	0.183	2.06	543.2
	ARENA_2	0.250	2.83	700.8	RELLENO_ZANJA	2.132	23.15	7219.9
	ARENA_3	0.606	6.84	1629.9				
3040.000	D TIERRA	3.406	29.64	10797.4	ARENA_1	0.183	1.59	544.7
	ARENA_2	0.250	2.18	703.0	RELLENO_ZANJA	2.144	18.65	7238.5
	ARENA_3	0.606	5.28	1635.2				
3059.552	D TIERRA	3.766	70.11	10867.5	ARENA_1	0.183	3.57	548.3
	ARENA_2	0.250	4.90	707.9	RELLENO_ZANJA	2.505	45.45	7284.0
	ARENA_3	0.606	11.85	1647.1				

PERFIL	MATERIAL	AREA PERFIL	VOL. PARCIAL	VOL. ACUMUL.	MATERIAL	AREA PERFIL	VOL. PARCIAL	VOL. ACUMUL.
3060.000	D TIERRA	3.767	1.69	10869.2	ARENA_1	0.183	0.08	548.4
	ARENA_2	0.250	0.11	708.0	RELLENO_ZANJA	2.506	1.12	7285.1
	ARENA_3	0.606	0.27	1647.3				
3072.155	D TIERRA	3.800	45.99	10915.2	ARENA_1	0.183	2.22	550.6
	ARENA_2	0.250	3.04	711.0	RELLENO_ZANJA	2.539	30.66	7315.7
	ARENA_3	0.606	7.37	1654.7				
3080.000	D TIERRA	3.641	29.19	10944.4	ARENA_1	0.183	1.43	552.0
	ARENA_2	0.250	1.97	713.0	RELLENO_ZANJA	2.380	19.29	7335.0
	ARENA_3	0.606	4.75	1659.5				
3100.000	D TIERRA	3.365	70.06	11014.5	ARENA_1	0.183	3.65	555.7
	ARENA_2	0.250	5.01	718.0	RELLENO_ZANJA	2.104	44.84	7379.9
	ARENA_3	0.606	12.12	1671.6				
3110.887	D TIERRA	3.448	37.09	11051.6	ARENA_1	0.183	1.99	557.7
	ARENA_2	0.250	2.73	720.7	RELLENO_ZANJA	2.187	23.36	7403.2
	ARENA_3	0.606	6.60	1678.2				
3120.000	D TIERRA	3.480	31.56	11083.1	ARENA_1	0.183	1.66	559.3
	ARENA_2	0.250	2.28	723.0	RELLENO_ZANJA	2.218	20.07	7423.3
	ARENA_3	0.606	5.52	1683.7				
3140.000	D TIERRA	3.197	66.76	11149.9	ARENA_1	0.183	3.65	563.0
	ARENA_2	0.250	5.01	728.0	RELLENO_ZANJA	1.935	41.54	7464.8
	ARENA_3	0.606	12.12	1695.8				
3152.804	D TIERRA	3.297	41.57	11191.5	ARENA_1	0.183	2.34	565.3
	ARENA_2	0.251	3.21	731.2	RELLENO_ZANJA	2.035	25.42	7490.3
	ARENA_3	0.606	7.76	1703.6				
3160.000	D TIERRA	3.346	23.90	11215.4	ARENA_1	0.183	1.31	566.6
	ARENA_2	0.250	1.80	733.0	RELLENO_ZANJA	2.084	14.82	7505.1
	ARENA_3	0.606	4.36	1707.9				
3180.000	D TIERRA	3.292	66.37	11281.7	ARENA_1	0.183	3.65	570.3
	ARENA_2	0.251	5.01	738.0	RELLENO_ZANJA	2.031	41.15	7546.2
	ARENA_3	0.606	12.12	1720.1				
3183.513	D TIERRA	3.258	11.51	11293.2	ARENA_1	0.183	0.64	570.9
	ARENA_2	0.250	0.88	738.9	RELLENO_ZANJA	1.997	7.07	7553.3
	ARENA_3	0.606	2.13	1722.2				
3200.000	D TIERRA	3.212	53.34	11346.6	ARENA_1	0.183	3.01	573.9
	ARENA_2	0.250	4.13	743.0	RELLENO_ZANJA	1.950	32.54	7585.8
	ARENA_3	0.606	9.99	1732.2				
3220.000	D TIERRA	3.169	63.81	11410.4	ARENA_1	0.183	3.65	577.6
	ARENA_2	0.250	5.01	748.1	RELLENO_ZANJA	1.908	38.58	7624.4
	ARENA_3	0.606	12.12	1744.3				
3240.000	D TIERRA	3.074	62.43	11472.8	ARENA_1	0.183	3.65	581.2
	ARENA_2	0.250	5.01	753.1	RELLENO_ZANJA	1.813	37.21	7661.6
	ARENA_3	0.606	12.12	1756.4				
3254.036	D TIERRA	3.176	43.86	11516.7	ARENA_1	0.183	2.56	583.8
	ARENA_2	0.250	3.52	756.6	RELLENO_ZANJA	1.915	26.16	7687.8
	ARENA_3	0.606	8.51	1764.9				
3260.000	D TIERRA	3.217	19.06	11535.7	ARENA_1	0.183	1.09	584.9
	ARENA_2	0.250	1.49	758.1	RELLENO_ZANJA	1.956	11.54	7699.3
	ARENA_3	0.606	3.61	1768.5				
3280.000	D TIERRA	3.120	63.37	11599.1	ARENA_1	0.183	3.65	588.6
	ARENA_2	0.250	5.01	763.1	RELLENO_ZANJA	1.859	38.14	7737.5
	ARENA_3	0.606	12.12	1780.7				
3300.000	D TIERRA	3.222	63.42	11662.5	ARENA_1	0.183	3.65	592.2
	ARENA_2	0.250	5.01	768.1	RELLENO_ZANJA	1.961	38.19	7775.7
	ARENA_3	0.606	12.12	1792.8				
3304.379	D TIERRA	3.269	14.21	11676.7	ARENA_1	0.183	0.80	593.0
	ARENA_2	0.250	1.10	769.2	RELLENO_ZANJA	2.007	8.69	7784.4
	ARENA_3	0.606	2.65	1795.4				
3320.000	D TIERRA	3.562	53.35	11730.1	ARENA_1	0.183	2.85	595.9
	ARENA_2	0.250	3.91	773.1	RELLENO_ZANJA	2.300	33.64	7818.0
	ARENA_3	0.606	9.47	1804.9				

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 PROYECTO : CIDACOS COMPLETO
 EJE : 5: P190 (Arqueta principal)-P240 (Aldeanueva)

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 PROYECTO : CIDACOS COMPLETO
 EJE : 5: P190 (Arqueta principal)-P240 (Aldeanueva)

*** MEDICIONES DE LOS PERFILES TRANSVERSALES ***
 *** CAPAS DE FIRME ***

*** MEDICIONES DE LOS PERFILES TRANSVERSALES ***
 *** CAPAS DE FIRME ***

PERFIL	MATERIAL	AREA PERFIL	VOL. PARCIAL	VOL. ACUMUL.	MATERIAL	AREA PERFIL	VOL. PARCIAL	VOL. ACUMUL.	PERFIL	MATERIAL	AREA PERFIL	VOL. PARCIAL	VOL. ACUMUL.	MATERIAL	AREA PERFIL	VOL. PARCIAL	VOL. ACUMUL.
3340.000	D TIERRA	4.122	76.84	11806.9	ARENA_1	0.183	3.65	599.5	3560.000	D TIERRA	3.758	19.19	12553.1	ARENA_1	0.183	1.00	639.7
	ARENA_2	0.250	5.01	778.1	RELLENO_ZANJA	2.861	51.61	7869.6		ARENA_2	0.250	1.38	833.2	RELLENO_ZANJA	2.497	12.26	8338.3
	ARENA_3	0.606	12.12	1817.0						ARENA_3	0.606	3.33	1950.4				
3356.163	D TIERRA	3.746	63.59	11870.5	ARENA_1	0.183	2.95	602.5	3562.623	D TIERRA	4.338	10.62	12563.7	ARENA_1	0.183	0.48	640.1
	ARENA_2	0.250	4.05	782.2	RELLENO_ZANJA	2.485	43.20	7912.8		ARENA_2	0.250	0.66	833.9	RELLENO_ZANJA	3.076	7.31	8345.6
	ARENA_3	0.606	9.80	1826.8						ARENA_3	0.606	1.59	1952.0				
3360.000	D TIERRA	3.679	14.25	11884.8	ARENA_1	0.183	0.70	603.2	3580.000	D TIERRA	3.636	69.28	12633.0	ARENA_1	0.183	3.17	643.3
	ARENA_2	0.250	0.96	783.1	RELLENO_ZANJA	2.418	9.41	7922.2		ARENA_2	0.250	4.35	838.2	RELLENO_ZANJA	2.375	47.36	8392.9
	ARENA_3	0.606	2.33	1829.2						ARENA_3	0.606	10.53	1962.5				
3371.894	D TIERRA	3.414	42.18	11926.9	ARENA_1	0.183	2.17	605.3	3583.283	D TIERRA	3.496	11.71	12644.7	ARENA_1	0.183	0.60	643.9
	ARENA_2	0.250	2.98	786.1	RELLENO_ZANJA	2.153	27.18	7949.4		ARENA_2	0.250	0.82	839.1	RELLENO_ZANJA	2.235	7.57	8400.5
	ARENA_3	0.606	7.21	1836.4						ARENA_3	0.606	1.99	1964.5				
3380.000	D TIERRA	3.239	26.97	11953.9	ARENA_1	0.183	1.48	606.8	3600.000	D TIERRA	4.088	63.40	12708.1	ARENA_1	0.183	3.05	647.0
	ARENA_2	0.250	2.03	788.1	RELLENO_ZANJA	1.978	16.74	7966.1		ARENA_2	0.250	4.19	843.2	RELLENO_ZANJA	2.827	42.31	8442.8
	ARENA_3	0.606	4.91	1841.3						ARENA_3	0.606	10.13	1974.6				
3389.134	D TIERRA	3.263	29.70	11983.6	ARENA_1	0.183	1.67	608.5	3612.045	D TIERRA	4.020	48.83	12756.9	ARENA_1	0.183	2.20	649.2
	ARENA_2	0.250	2.29	790.4	RELLENO_ZANJA	2.002	18.18	7984.3		ARENA_2	0.250	3.02	846.3	RELLENO_ZANJA	2.759	33.64	8476.5
	ARENA_3	0.606	5.54	1846.8						ARENA_3	0.606	7.30	1981.9				
3400.000	D TIERRA	3.273	35.51	12019.1	ARENA_1	0.183	1.98	610.5	3620.000	D TIERRA	4.042	32.07	12789.0	ARENA_1	0.183	1.45	650.6
	ARENA_2	0.250	2.72	793.1	RELLENO_ZANJA	2.011	21.80	8006.1		ARENA_2	0.250	1.99	848.2	RELLENO_ZANJA	2.781	22.03	8498.5
	ARENA_3	0.606	6.59	1853.4						ARENA_3	0.606	4.82	1986.7				
3407.156	D TIERRA	3.161	23.02	12042.1	ARENA_1	0.183	1.31	611.8	3640.000	D TIERRA	4.338	83.80	12872.8	ARENA_1	0.183	3.65	654.3
	ARENA_2	0.250	1.79	794.9	RELLENO_ZANJA	1.899	13.99	8020.1		ARENA_2	0.250	5.01	853.3	RELLENO_ZANJA	3.077	58.57	8557.1
	ARENA_3	0.606	4.34	1857.7						ARENA_3	0.606	12.12	1998.9				
3420.000	D TIERRA	3.143	40.48	12082.6	ARENA_1	0.183	2.34	614.1	3660.000	D TIERRA	5.058	93.96	12966.7	ARENA_1	0.183	3.65	657.9
	ARENA_2	0.250	3.22	798.2	RELLENO_ZANJA	1.882	24.28	8044.4		ARENA_2	0.250	5.01	858.3	RELLENO_ZANJA	3.797	68.74	8625.8
	ARENA_3	0.606	7.78	1865.5						ARENA_3	0.606	12.12	2011.0				
3440.000	D TIERRA	3.190	63.33	12145.9	ARENA_1	0.183	3.65	617.8	3680.000	D TIERRA	5.046	101.04	13067.8	ARENA_1	0.183	3.65	661.6
	ARENA_2	0.250	5.01	803.2	RELLENO_ZANJA	1.929	38.10	8082.5		ARENA_2	0.250	5.01	863.3	RELLENO_ZANJA	3.785	75.82	8701.6
	ARENA_3	0.606	12.12	1877.6						ARENA_3	0.606	12.12	2023.1				
3441.480	D TIERRA	3.193	4.72	12150.7	ARENA_1	0.183	0.27	618.0	3684.114	D TIERRA	4.981	20.63	13088.4	ARENA_1	0.183	0.75	662.3
	ARENA_2	0.250	0.37	803.5	RELLENO_ZANJA	1.932	2.86	8085.3		ARENA_2	0.250	1.03	864.3	RELLENO_ZANJA	3.720	15.44	8717.0
	ARENA_3	0.606	0.90	1878.5						ARENA_3	0.606	2.49	2025.6				
3453.965	D TIERRA	3.142	39.55	12190.2	ARENA_1	0.183	2.28	620.3	3696.302	D TIERRA	5.012	60.90	13149.3	ARENA_1	0.183	2.22	664.5
	ARENA_2	0.250	3.13	806.7	RELLENO_ZANJA	1.881	23.80	8109.2		ARENA_2	0.250	3.05	867.4	RELLENO_ZANJA	3.751	45.53	8762.6
	ARENA_3	0.606	7.57	1886.1						ARENA_3	0.606	7.39	2033.0				
3460.000	D TIERRA	3.308	19.47	12209.7	ARENA_1	0.183	1.10	621.4	3700.000	D TIERRA	5.309	19.08	13168.4	ARENA_1	0.183	0.68	665.2
	ARENA_2	0.251	1.51	808.2	RELLENO_ZANJA	2.047	11.85	8121.0		ARENA_2	0.250	0.93	868.3	RELLENO_ZANJA	4.048	14.42	8777.0
	ARENA_3	0.606	3.66	1889.8						ARENA_3	0.606	2.24	2035.2				
3477.285	D TIERRA	3.172	56.01	12265.7	ARENA_1	0.183	3.16	624.6	3720.000	D TIERRA	5.079	103.88	13272.3	ARENA_1	0.183	3.65	668.9
	ARENA_2	0.251	4.33	812.5	RELLENO_ZANJA	1.911	34.21	8155.2		ARENA_2	0.250	5.01	873.3	RELLENO_ZANJA	3.818	78.66	8855.6
	ARENA_3	0.606	10.47	1900.2						ARENA_3	0.606	12.12	2047.3				
3480.000	D TIERRA	3.196	8.64	12274.3	ARENA_1	0.183	0.50	625.1	3720.341	D TIERRA	5.057	1.73	13274.0	ARENA_1	0.183	0.06	668.9
	ARENA_2	0.251	0.68	813.2	RELLENO_ZANJA	1.934	5.22	8160.4		ARENA_2	0.250	0.09	873.4	RELLENO_ZANJA	3.795	1.30	8856.9
	ARENA_3	0.606	1.64	1901.9						ARENA_3	0.606	0.21	2047.5				
3485.417	D TIERRA	3.245	17.45	12291.8	ARENA_1	0.183	0.99	626.0	3740.000	D TIERRA	4.672	95.63	13369.6	ARENA_1	0.183	3.59	672.5
	ARENA_2	0.250	1.36	814.5	RELLENO_ZANJA	1.984	10.61	8171.0		ARENA_2	0.250	4.92	878.3	RELLENO_ZANJA	3.411	70.83	8927.8
	ARENA_3	0.606	3.28	1905.2						ARENA_3	0.606	11.92	2059.5				
3500.000	D TIERRA	3.048	45.89	12337.7	ARENA_1	0.183	2.66	628.7	3757.977	D TIERRA	4.029	78.21	13447.8	ARENA_1	0.183	3.28	675.8
	ARENA_2	0.250	3.65	818.2	RELLENO_ZANJA	1.787	27.49	8198.5		ARENA_2	0.250	4.50	882.8	RELLENO_ZANJA	2.768	55.54	8983.3
	ARENA_3	0.606	8.84	1914.0						ARENA_3	0.606	10.90	2070.4				
3520.000	D TIERRA	3.591	66.39	12404.1	ARENA_1	0.183	3.65	632.4	3760.000	D TIERRA	4.118	8.24	13456.1	ARENA_1	0.183	0.37	676.2
	ARENA_2	0.250	5.01	823.2	RELLENO_ZANJA	2.330	41.16	8239.7		ARENA_2	0.250	0.51	883.3	RELLENO_ZANJA	2.856	5.69	8989.0
	ARENA_3	0.606	12.12	1926.1						ARENA_3	0.606	1.23	2071.6				
3540.000	D TIERRA	4.089	76.80	12480.9	ARENA_1	0.183	3.65	636.0	3775.265	D TIERRA	5.423	72.82	13528.9	ARENA_1	0.183	2.79	679.0
	ARENA_2	0.250	5.01	828.2	RELLENO_ZANJA	2.828	51.58	8291.3		ARENA_2	0.250	3.82	887.1	RELLENO_ZANJA	4.161	53.56	9042.6
	ARENA_3	0.606	12.12	1938.2						ARENA_3	0.606	9.25	2080.8				
3554.501	D TIERRA	3.223	53.02	12533.9	ARENA_1	0.183	2.65	638.7	3780.000	D TIERRA	5.255	25.28	13554.2	ARENA_1	0.183	0.86	679.8
	ARENA_2	0.250	3.63	831.8	RELLENO_ZANJA	1.962	34.73	8326.0		ARENA_2	0.250	1.19	888.3	RELLENO_ZANJA	3.994	19.31	9061.9
	ARENA_3	0.606	8.79	1947.0						ARENA_3	0.606	2.87	2083.7				



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PROYECTO : CIDACOS COMPLETO
EJE : 5: P190 (Arqueta principal)-P240 (Aldeanueva)

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PROYECTO : CIDACOS COMPLETO
EJE : 5: P190 (Arqueta principal)-P240 (Aldeanueva)

*** MEDICIONES DE LOS PERFILES TRANSVERSALES ***
*** CAPAS DE FIRME ***

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PERFIL	MATERIAL	AREA PERFIL	VOL. PARCIAL	VOL. ACUMUL.	MATERIAL	AREA PERFIL	VOL. PARCIAL	VOL. ACUMUL.
3790.466	D TIERRA	9.487	77.14	13631.3	ARENA_1	0.183	1.91	681.7
	ARENA_2	0.250	2.62	890.9	RELLENO_ZANJA	8.225	63.94	9125.8
	ARENA_3	0.606	6.34	2090.1				
3800.000	D TIERRA	4.606	67.18	13698.5	ARENA_1	0.183	1.74	683.5
	ARENA_2	0.250	2.39	893.3	RELLENO_ZANJA	3.345	55.16	9181.0
	ARENA_3	0.606	5.78	2095.8				
3819.540	D TIERRA	3.716	81.31	13779.8	ARENA_1	0.183	3.57	687.0
	ARENA_2	0.250	4.89	898.2	RELLENO_ZANJA	2.455	56.66	9237.6
	ARENA_3	0.606	11.84	2107.7				
3820.000	D TIERRA	3.749	1.72	13781.5	ARENA_1	0.183	0.08	687.1
	ARENA_2	0.250	0.12	898.3	RELLENO_ZANJA	2.487	1.14	9238.8
	ARENA_3	0.606	0.28	2108.0				
3840.000	D TIERRA	4.226	79.74	13861.3	ARENA_1	0.183	3.65	690.8
	ARENA_2	0.250	5.01	903.4	RELLENO_ZANJA	2.965	54.52	9293.3
	ARENA_3	0.606	12.12	2120.1				
3843.215	D TIERRA	3.735	12.80	13874.1	ARENA_1	0.183	0.59	691.4
	ARENA_2	0.250	0.81	904.2	RELLENO_ZANJA	2.474	8.74	9302.0
	ARENA_3	0.606	1.95	2122.0				
3860.000	D TIERRA	3.518	60.87	13934.9	ARENA_1	0.183	3.06	694.4
	ARENA_2	0.250	4.20	908.4	RELLENO_ZANJA	2.257	39.70	9341.7
	ARENA_3	0.606	10.17	2132.2				
3880.000	D TIERRA	3.314	68.32	14003.3	ARENA_1	0.183	3.65	698.1
	ARENA_2	0.251	5.01	913.4	RELLENO_ZANJA	2.053	43.09	9384.8
	ARENA_3	0.606	12.12	2144.3				
3900.000	D TIERRA	3.573	68.87	14072.1	ARENA_1	0.183	3.65	701.7
	ARENA_2	0.251	5.01	918.4	RELLENO_ZANJA	2.312	43.64	9428.5
	ARENA_3	0.606	12.12	2156.4				
3920.000	D TIERRA	3.038	66.11	14138.2	ARENA_1	0.183	3.65	705.4
	ARENA_2	0.250	5.01	923.4	RELLENO_ZANJA	1.777	40.88	9469.4
	ARENA_3	0.606	12.12	2168.6				
3940.000	D TIERRA	4.625	76.63	14214.9	ARENA_1	0.182	3.65	709.0
	ARENA_2	0.251	5.01	928.4	RELLENO_ZANJA	3.364	51.40	9520.8
	ARENA_3	0.605	12.11	2180.7				
3950.211	D TIERRA	4.765	47.94	14262.8	ARENA_1	0.183	1.86	710.9
	ARENA_2	0.250	2.56	931.0	RELLENO_ZANJA	3.504	35.06	9555.8
	ARENA_3	0.606	6.18	2186.9				
3960.000	D TIERRA	5.407	49.79	14312.6	ARENA_1	0.183	1.79	712.7
	ARENA_2	0.250	2.45	933.4	RELLENO_ZANJA	4.146	37.44	9593.3
	ARENA_3	0.606	5.93	2192.8				
3968.204	D TIERRA	3.589	36.90	14349.5	ARENA_1	0.183	1.50	714.2
	ARENA_2	0.250	2.05	935.5	RELLENO_ZANJA	2.327	26.55	9619.8
	ARENA_3	0.606	4.97	2197.8				
3977.734	D TIERRA	3.958	35.96	14385.5	ARENA_1	0.183	1.74	715.9
	ARENA_2	0.250	2.39	937.9	RELLENO_ZANJA	2.696	23.94	9643.8
	ARENA_3	0.606	5.78	2203.5				
3980.000	D TIERRA	3.220	8.13	14393.6	ARENA_1	0.183	0.41	716.3
	ARENA_2	0.250	0.57	938.4	RELLENO_ZANJA	1.959	5.27	9649.0
	ARENA_3	0.606	1.37	2204.9				
4000.000	D TIERRA	4.218	74.38	14468.0	ARENA_1	0.183	3.65	720.0
	ARENA_2	0.251	5.01	943.4	RELLENO_ZANJA	2.956	49.15	9698.2
	ARENA_3	0.606	12.12	2217.0				
4001.904	D TIERRA	4.280	8.09	14476.1	ARENA_1	0.183	0.35	720.3
	ARENA_2	0.251	0.48	943.9	RELLENO_ZANJA	3.018	5.69	9703.9
	ARENA_3	0.606	1.15	2218.2				
4020.000	D TIERRA	3.332	68.87	14544.9	ARENA_1	0.183	3.30	723.6
	ARENA_2	0.250	4.53	948.4	RELLENO_ZANJA	2.071	46.05	9749.9
	ARENA_3	0.606	10.97	2229.1				
4039.254	D TIERRA	3.388	64.69	14609.6	ARENA_1	0.183	3.51	727.1
	ARENA_2	0.251	4.82	953.3	RELLENO_ZANJA	2.127	40.41	9790.3
	ARENA_3	0.606	11.67	2240.8				

PERFIL	MATERIAL	AREA PERFIL	VOL. PARCIAL	VOL. ACUMUL.	MATERIAL	AREA PERFIL	VOL. PARCIAL	VOL. ACUMUL.
4040.000	D TIERRA	3.335	2.51	14612.1	ARENA_1	0.183	0.14	727.3
	ARENA_2	0.251	0.19	953.5	RELLENO_ZANJA	2.074	1.57	9791.9
	ARENA_3	0.606	0.45	2241.3				
4060.000	D TIERRA	3.295	66.30	14678.4	ARENA_1	0.183	3.65	730.9
	ARENA_2	0.251	5.01	958.5	RELLENO_ZANJA	2.033	41.07	9833.0
	ARENA_3	0.606	12.12	2253.4				
4069.995	D TIERRA	4.861	40.76	14719.2	ARENA_1	0.183	1.82	732.8
	ARENA_2	0.250	2.50	961.0	RELLENO_ZANJA	3.600	28.15	9861.1
	ARENA_3	0.606	6.06	2259.4				
4080.000	D TIERRA	4.668	47.67	14766.9	ARENA_1	0.183	1.83	734.6
	ARENA_2	0.250	2.51	963.5	RELLENO_ZANJA	3.407	35.05	9896.2
	ARENA_3	0.606	6.06	2265.5				
4092.095	D TIERRA	3.302	48.20	14815.1	ARENA_1	0.183	2.21	736.8
	ARENA_2	0.250	3.03	966.5	RELLENO_ZANJA	2.041	32.94	9929.1
	ARENA_3	0.606	7.33	2272.8				
4100.000	D TIERRA	3.601	27.28	14842.3	ARENA_1	0.183	1.44	738.2
	ARENA_2	0.250	1.98	968.5	RELLENO_ZANJA	2.339	17.31	9946.4
	ARENA_3	0.606	4.79	2277.6				
4115.777	D TIERRA	4.652	65.10	14907.4	ARENA_1	0.183	2.88	741.1
	ARENA_2	0.250	3.95	972.4	RELLENO_ZANJA	3.391	45.20	9991.6
	ARENA_3	0.606	9.56	2287.2				
4120.000	D TIERRA	4.060	18.39	14925.8	ARENA_1	0.183	0.77	741.9
	ARENA_2	0.250	1.06	973.5	RELLENO_ZANJA	2.798	13.07	10004.7
	ARENA_3	0.606	2.56	2289.7				
4140.000	D TIERRA	3.375	74.35	15000.2	ARENA_1	0.183	3.65	745.5
	ARENA_2	0.250	5.01	978.5	RELLENO_ZANJA	2.114	49.12	10053.8
	ARENA_3	0.606	12.12	2301.9				
4160.000	D TIERRA	4.566	79.41	15079.6	ARENA_1	0.183	3.65	749.2
	ARENA_2	0.250	5.01	983.5	RELLENO_ZANJA	3.304	54.18	10108.0
	ARENA_3	0.606	12.12	2314.0				
4180.000	D TIERRA	8.795	133.61	15213.2	ARENA_1	0.183	3.65	752.8
	ARENA_2	0.250	5.01	988.5	RELLENO_ZANJA	7.534	108.38	10216.4
	ARENA_3	0.606	12.12	2326.1				
4196.339	D TIERRA	6.831	127.65	15340.9	ARENA_1	0.182	2.98	755.8
	ARENA_2	0.251	4.10	992.6	RELLENO_ZANJA	5.569	107.04	10323.4
	ARENA_3	0.599	9.85	2336.0				
4200.000	D TIERRA	3.371	18.67	15359.5	ARENA_1	0.182	0.67	756.5
	ARENA_2	0.251	0.92	993.5	RELLENO_ZANJA	2.110	14.06	10337.5
	ARENA_3	0.599	2.19	2338.2				
4220.000	D TIERRA	3.095	64.67	15424.2	ARENA_1	0.182	3.65	760.1
	ARENA_2	0.251	5.02	998.6	RELLENO_ZANJA	1.834	39.44	10376.9
	ARENA_3	0.605	12.04	2350.2				
4240.000	D TIERRA	3.426	65.21	15489.4	ARENA_1	0.182	3.65	763.8
	ARENA_2	0.251	5.01	1003.6	RELLENO_ZANJA	2.164	39.99	10416.9
	ARENA_3	0.605	12.11	2362.3				
4256.418	D TIERRA	3.378	55.85	15545.3	ARENA_1	0.183	3.00	766.8
	ARENA_2	0.250	4.11	1007.7	RELLENO_ZANJA	2.117	35.14	10452.0
	ARENA_3	0.606	9.94	2372.2				
4260.000	D TIERRA	3.506	12.33	15557.6	ARENA_1	0.183	0.65	767.4
	ARENA_2	0.250	0.90	1008.6	RELLENO_ZANJA	2.245	7.81	10459.9
	ARENA_3	0.606	2.17	2374.4				
4280.000	D TIERRA	0.000	0.00	15557.6	ARENA_1	0.000	0.00	767.4
	ARENA_2	0.000	0.00	1008.6	RELLENO_ZANJA	0.000	0.00	10459.9
	ARENA_3	0.000	0.00	2374.4				
4295.315	D TIERRA	7.706	0.00	15557.6	ARENA_1	0.183	0.00	767.4
	ARENA_2	0.251	0.00	1008.6	RELLENO_ZANJA	6.445	0.00	10459.9
	ARENA_3	0.606	0.00	2374.4				
4300.000	D TIERRA	3.221	25.60	15583.2	ARENA_1	0.183	0.86	768.3
	ARENA_2	0.251	1.17	1009.8	RELLENO_ZANJA	1.959	19.69	10479.5
	ARENA_3	0.606	2.84	2377.3				



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PROYECTO : CIDACOS COMPLETO
EJE : 5: P190 (Arqueta principal)-P240 (Aldeanueva)

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PROYECTO : CIDACOS COMPLETO
EJE : 5: P190 (Arqueta principal)-P240 (Aldeanueva)

*** MEDICIONES DE LOS PERFILES TRANSVERSALES ***
*** CAPAS DE FIRME ***

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*** CAPAS DE FIRME ***

PERFIL	MATERIAL	AREA PERFIL	VOL. PARCIAL	VOL. ACUMUL.	MATERIAL	AREA PERFIL	VOL. PARCIAL	VOL. ACUMUL.
4316.884	D TIERRA	2.974	52.29	15635.5	ARENA_1	0.182	3.08	771.4
	ARENA_2	0.251	4.23	1014.0	RELLENO_ZANJA	1.712	31.00	10510.5
	ARENA_3	0.604	10.22	2387.5				
4320.000	D TIERRA	3.224	9.66	15645.1	ARENA_1	0.182	0.57	771.9
	ARENA_2	0.251	0.78	1014.8	RELLENO_ZANJA	1.963	5.73	10516.3
	ARENA_3	0.604	1.88	2389.4				
4325.736	D TIERRA	4.154	21.16	15666.3	ARENA_1	0.183	1.05	773.0
	ARENA_2	0.251	1.44	1016.2	RELLENO_ZANJA	2.893	13.93	10530.2
	ARENA_3	0.606	3.47	2392.8				
4339.951	D TIERRA	3.474	54.22	15720.5	ARENA_1	0.183	2.59	775.6
	ARENA_2	0.250	3.56	1019.8	RELLENO_ZANJA	2.213	36.29	10566.5
	ARENA_3	0.606	8.61	2401.4				
4340.000	D TIERRA	3.489	0.17	15720.7	ARENA_1	0.183	0.01	775.6
	ARENA_2	0.250	0.01	1019.8	RELLENO_ZANJA	2.228	0.11	10566.6
	ARENA_3	0.606	0.03	2401.5				
4357.473	D TIERRA	3.223	58.64	15779.3	ARENA_1	0.183	3.19	778.8
	ARENA_2	0.250	4.38	1024.2	RELLENO_ZANJA	1.961	36.60	10603.2
	ARENA_3	0.606	10.59	2412.1				
4360.000	D TIERRA	3.679	8.72	15788.0	ARENA_1	0.183	0.46	779.2
	ARENA_2	0.251	0.63	1024.8	RELLENO_ZANJA	2.417	5.53	10608.7
	ARENA_3	0.606	1.53	2413.6				
4372.429	D TIERRA	3.850	46.79	15834.8	ARENA_1	0.183	2.27	781.5
	ARENA_2	0.251	3.11	1027.9	RELLENO_ZANJA	2.589	31.11	10639.8
	ARENA_3	0.606	7.53	2421.1				
4380.000	D TIERRA	3.878	29.26	15864.1	ARENA_1	0.183	1.38	782.9
	ARENA_2	0.251	1.90	1029.8	RELLENO_ZANJA	2.617	19.71	10659.5
	ARENA_3	0.606	4.59	2425.7				
4400.000	D TIERRA	3.757	76.35	15940.4	ARENA_1	0.183	3.65	786.5
	ARENA_2	0.251	5.01	1034.8	RELLENO_ZANJA	2.495	51.12	10710.7
	ARENA_3	0.606	12.11	2437.8				
4420.000	D TIERRA	3.463	72.19	16012.6	ARENA_1	0.183	3.65	790.2
	ARENA_2	0.250	5.01	1039.8	RELLENO_ZANJA	2.201	46.97	10757.6
	ARENA_3	0.606	12.12	2449.9				
4440.000	D TIERRA	3.417	68.80	16081.4	ARENA_1	0.183	3.65	793.8
	ARENA_2	0.250	5.01	1044.8	RELLENO_ZANJA	2.156	43.57	10801.2
	ARENA_3	0.606	12.12	2462.1				
4460.000	D TIERRA	6.711	101.28	16182.7	ARENA_1	0.183	3.65	797.5
	ARENA_2	0.250	5.01	1049.8	RELLENO_ZANJA	5.450	76.06	10877.3
	ARENA_3	0.606	12.12	2474.2				
4468.455	D TIERRA	5.830	53.02	16235.7	ARENA_1	0.183	1.54	799.0
	ARENA_2	0.250	2.12	1052.0	RELLENO_ZANJA	4.569	42.35	10919.6
	ARENA_3	0.606	5.12	2479.3				
4480.000	D TIERRA	3.935	56.37	16292.1	ARENA_1	0.183	2.11	801.1
	ARENA_2	0.250	2.89	1054.9	RELLENO_ZANJA	2.673	41.81	10961.4
	ARENA_3	0.606	7.00	2486.3				
4488.307	D TIERRA	2.812	28.02	16320.1	ARENA_1	0.182	1.52	802.6
	ARENA_2	0.251	2.08	1056.9	RELLENO_ZANJA	1.551	17.55	10979.0
	ARENA_3	0.603	5.02	2491.3				
4494.568	D TIERRA	3.361	19.32	16339.4	ARENA_1	0.182	1.14	803.8
	ARENA_2	0.251	1.57	1058.5	RELLENO_ZANJA	2.099	11.43	10990.4
	ARENA_3	0.606	3.78	2495.1				
4500.000	D TIERRA	3.397	18.35	16357.8	ARENA_1	0.182	0.99	804.8
	ARENA_2	0.251	1.36	1059.9	RELLENO_ZANJA	2.136	11.50	11001.9
	ARENA_3	0.606	3.29	2498.4				
4505.658	D TIERRA	4.062	21.10	16378.9	ARENA_1	0.183	1.03	805.8
	ARENA_2	0.251	1.42	1061.3	RELLENO_ZANJA	2.801	13.97	11015.9
	ARENA_3	0.606	3.43	2501.8				
4511.221	D TIERRA	3.349	20.62	16399.5	ARENA_1	0.183	1.02	806.8
	ARENA_2	0.251	1.39	1062.7	RELLENO_ZANJA	2.088	13.60	11029.5
	ARENA_3	0.606	3.37	2505.2				

PERFIL	MATERIAL	AREA PERFIL	VOL. PARCIAL	VOL. ACUMUL.	MATERIAL	AREA PERFIL	VOL. PARCIAL	VOL. ACUMUL.
4520.000	D TIERRA	3.469	29.93	16429.4	ARENA_1	0.183	1.60	808.4
	ARENA_2	0.250	2.20	1064.9	RELLENO_ZANJA	2.207	18.85	11048.3
	ARENA_3	0.606	5.32	2510.5				
4540.000	D TIERRA	3.572	70.41	16499.9	ARENA_1	0.183	3.65	812.1
	ARENA_2	0.250	5.01	1069.9	RELLENO_ZANJA	2.311	45.18	11093.5
	ARENA_3	0.606	12.12	2522.6				
4543.094	D TIERRA	3.365	10.73	16510.6	ARENA_1	0.183	0.56	812.6
	ARENA_2	0.250	0.78	1070.7	RELLENO_ZANJA	2.104	6.83	11100.3
	ARENA_3	0.606	1.88	2524.5				
4560.000	D TIERRA	3.169	55.23	16565.8	ARENA_1	0.183	3.09	815.7
	ARENA_2	0.250	4.23	1074.9	RELLENO_ZANJA	1.908	33.91	11134.2
	ARENA_3	0.606	10.25	2534.8				
4560.154	D TIERRA	3.173	0.49	16566.3	ARENA_1	0.183	0.03	815.8
	ARENA_2	0.250	0.04	1074.9	RELLENO_ZANJA	1.912	0.29	11134.5
	ARENA_3	0.606	0.09	2534.8				
4580.000	D TIERRA	3.285	64.08	16630.4	ARENA_1	0.183	3.62	819.4
	ARENA_2	0.250	4.97	1079.9	RELLENO_ZANJA	2.024	39.05	11173.6
	ARENA_3	0.606	12.03	2546.9				
4600.000	D TIERRA	3.502	67.87	16698.3	ARENA_1	0.183	3.65	823.0
	ARENA_2	0.250	5.01	1084.9	RELLENO_ZANJA	2.240	42.64	11216.2
	ARENA_3	0.606	12.12	2559.0				
4620.000	D TIERRA	3.238	67.39	16765.6	ARENA_1	0.183	3.65	826.7
	ARENA_2	0.250	5.01	1089.9	RELLENO_ZANJA	1.976	42.17	11258.4
	ARENA_3	0.606	12.12	2571.1				
4622.543	D TIERRA	3.227	8.22	16773.9	ARENA_1	0.183	0.46	827.1
	ARENA_2	0.250	0.64	1090.6	RELLENO_ZANJA	1.965	5.01	11263.4
	ARENA_3	0.606	1.54	2572.7				
4640.000	D TIERRA	3.545	59.10	16833.0	ARENA_1	0.183	3.19	830.3
	ARENA_2	0.250	4.37	1094.9	RELLENO_ZANJA	2.283	37.08	11300.5
	ARENA_3	0.606	10.58	2583.2				
4645.125	D TIERRA	3.690	18.54	16851.5	ARENA_1	0.183	0.94	831.3
	ARENA_2	0.250	1.28	1096.2	RELLENO_ZANJA	2.429	12.08	11312.6
	ARENA_3	0.606	3.11	2586.3				
4660.000	D TIERRA	3.574	54.03	16905.5	ARENA_1	0.183	2.72	834.0
	ARENA_2	0.250	3.73	1099.9	RELLENO_ZANJA	2.312	35.26	11347.8
	ARENA_3	0.606	9.02	2595.4				
4680.000	D TIERRA	3.254	68.28	16973.8	ARENA_1	0.183	3.65	837.6
	ARENA_2	0.250	5.01	1105.0	RELLENO_ZANJA	1.993	43.05	11390.9
	ARENA_3	0.606	12.12	2607.5				
4682.355	D TIERRA	3.264	7.68	16981.5	ARENA_1	0.183	0.43	838.1
	ARENA_2	0.250	0.59	1105.5	RELLENO_ZANJA	2.003	4.71	11395.6
	ARENA_3	0.606	1.43	2608.9				
4700.000	D TIERRA	3.531	59.95	17041.4	ARENA_1	0.183	3.22	841.3
	ARENA_2	0.250	4.42	1110.0	RELLENO_ZANJA	2.270	37.70	11433.3
	ARENA_3	0.606	10.69	2619.6				
4720.000	D TIERRA	2.985	65.16	17106.6	ARENA_1	0.183	3.65	844.9
	ARENA_2	0.250	5.01	1115.0	RELLENO_ZANJA	1.723	39.93	11473.2
	ARENA_3	0.606	12.12	2631.7				
4740.000	D TIERRA	4.512	74.97	17181.6	ARENA_1	0.183	3.65	848.6
	ARENA_2	0.250	5.01	1120.0	RELLENO_ZANJA	3.251	49.75	11523.0
	ARENA_3	0.606	12.12	2643.9				
4760.000	D TIERRA	4.343	88.55	17270.1	ARENA_1	0.183	3.65	852.2
	ARENA_2	0.250	5.01	1125.0	RELLENO_ZANJA	3.081	63.32	11586.3
	ARENA_3	0.606	12.12	2656.0				
4775.513	D TIERRA	4.214	66.37	17336.5	ARENA_1	0.183	2.83	855.1
	ARENA_2	0.250	3.89	1128.9	RELLENO_ZANJA	2.953	46.80	11633.1
	ARENA_3	0.606	9.40	2665.4				
4780.000	D TIERRA	4.174	18.82	17355.3	ARENA_1	0.183	0.82	855.9
	ARENA_2	0.250	1.12	1130.0	RELLENO_ZANJA	2.912	13.16	11646.2
	ARENA_3	0.606	2.72	2668.1				



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PROYECTO : CIDACOS COMPLETO
EJE : 5: P190 (Arqueta principal)-P240 (Aldeanueva)

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PROYECTO : CIDACOS COMPLETO
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*** MEDICIONES DE LOS PERFILES TRANSVERSALES ***
*** CAPAS DE FIRME ***

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PERFIL	MATERIAL	AREA PERFIL	VOL. PARCIAL	VOL. ACUMUL.	MATERIAL	AREA PERFIL	VOL. PARCIAL	VOL. ACUMUL.
4800.000	D TIERRA	4.157	83.31	17438.6	ARENA_1	0.183	3.65	859.5
	ARENA_2	0.250	5.01	1135.0	RELLENO_ZANJA	2.896	58.08	11704.3
	ARENA_3	0.606	12.12	2680.2				
4820.000	D TIERRA	3.221	73.78	17512.4	ARENA_1	0.183	3.65	863.2
	ARENA_2	0.250	5.01	1140.0	RELLENO_ZANJA	1.960	48.55	11752.9
	ARENA_3	0.606	12.12	2692.3				
4832.152	D TIERRA	4.768	48.54	17560.9	ARENA_1	0.183	2.22	865.4
	ARENA_2	0.250	3.04	1143.1	RELLENO_ZANJA	3.507	33.22	11786.1
	ARENA_3	0.606	7.37	2699.7				
4840.000	D TIERRA	5.872	41.75	17602.7	ARENA_1	0.183	1.43	866.8
	ARENA_2	0.250	1.97	1145.0	RELLENO_ZANJA	4.611	31.86	11817.9
	ARENA_3	0.606	4.76	2704.5				
4850.172	D TIERRA	5.462	57.65	17660.3	ARENA_1	0.183	1.86	868.7
	ARENA_2	0.250	2.55	1147.6	RELLENO_ZANJA	4.201	44.82	11862.8
	ARENA_3	0.606	6.17	2710.6				
4860.000	D TIERRA	5.651	54.61	17715.0	ARENA_1	0.183	1.79	870.5
	ARENA_2	0.250	2.46	1150.0	RELLENO_ZANJA	4.389	42.21	11905.0
	ARENA_3	0.606	5.96	2716.6				
4873.634	D TIERRA	4.266	67.60	17782.6	ARENA_1	0.183	2.49	873.0
	ARENA_2	0.250	3.42	1153.5	RELLENO_ZANJA	3.005	50.41	11955.4
	ARENA_3	0.606	8.26	2724.9				
4880.000	D TIERRA	3.442	24.54	17807.1	ARENA_1	0.183	1.16	874.1
	ARENA_2	0.250	1.59	1155.1	RELLENO_ZANJA	2.181	16.51	11971.9
	ARENA_3	0.606	3.86	2728.7				
4900.000	D TIERRA	3.429	68.72	17875.8	ARENA_1	0.182	3.65	877.8
	ARENA_2	0.251	5.01	1160.1	RELLENO_ZANJA	2.168	43.49	12015.4
	ARENA_3	0.606	12.12	2740.8				
4906.049	D TIERRA	3.219	20.11	17895.9	ARENA_1	0.183	1.10	878.9
	ARENA_2	0.250	1.52	1161.6	RELLENO_ZANJA	1.958	12.48	12027.9
	ARENA_3	0.606	3.67	2744.5				
4920.000	D TIERRA	3.395	46.14	17942.1	ARENA_1	0.183	2.55	881.4
	ARENA_2	0.250	3.49	1165.1	RELLENO_ZANJA	2.134	28.54	12056.4
	ARENA_3	0.606	8.46	2752.9				
4940.000	D TIERRA	3.650	70.45	18012.5	ARENA_1	0.183	3.65	885.1
	ARENA_2	0.250	5.01	1170.1	RELLENO_ZANJA	2.388	45.22	12101.6
	ARENA_3	0.606	12.12	2765.1				
4960.000	D TIERRA	3.817	74.67	18087.2	ARENA_1	0.183	3.65	888.7
	ARENA_2	0.250	5.01	1175.1	RELLENO_ZANJA	2.556	49.44	12151.1
	ARENA_3	0.606	12.12	2777.2				
4976.780	D TIERRA	3.941	65.09	18152.3	ARENA_1	0.183	3.06	891.8
	ARENA_2	0.250	4.20	1179.3	RELLENO_ZANJA	2.680	43.93	12195.0
	ARENA_3	0.606	10.17	2787.4				
4980.000	D TIERRA	3.960	12.72	18165.0	ARENA_1	0.183	0.59	892.4
	ARENA_2	0.250	0.81	1180.1	RELLENO_ZANJA	2.698	8.66	12203.7
	ARENA_3	0.606	1.95	2789.3				
5000.000	D TIERRA	4.036	79.95	18244.9	ARENA_1	0.183	3.65	896.0
	ARENA_2	0.250	5.01	1185.1	RELLENO_ZANJA	2.774	54.73	12258.4
	ARENA_3	0.606	12.12	2801.4				
5020.000	D TIERRA	4.014	80.49	18325.4	ARENA_1	0.183	3.65	899.7
	ARENA_2	0.250	5.01	1190.1	RELLENO_ZANJA	2.752	55.27	12313.7
	ARENA_3	0.606	12.12	2813.6				
5031.910	D TIERRA	3.854	46.85	18372.3	ARENA_1	0.183	2.17	901.9
	ARENA_2	0.250	2.98	1193.1	RELLENO_ZANJA	2.593	31.83	12345.5
	ARENA_3	0.606	7.22	2820.8				
5040.000	D TIERRA	3.869	31.24	18403.5	ARENA_1	0.183	1.48	903.3
	ARENA_2	0.250	2.03	1195.1	RELLENO_ZANJA	2.607	21.03	12366.5
	ARENA_3	0.606	4.90	2825.7				
5060.000	D TIERRA	3.844	77.12	18480.7	ARENA_1	0.183	3.65	907.0
	ARENA_2	0.250	5.01	1200.1	RELLENO_ZANJA	2.583	51.90	12418.4
	ARENA_3	0.606	12.12	2837.8				

PERFIL	MATERIAL	AREA PERFIL	VOL. PARCIAL	VOL. ACUMUL.	MATERIAL	AREA PERFIL	VOL. PARCIAL	VOL. ACUMUL.
5061.687	D TIERRA	3.907	6.54	18487.2	ARENA_1	0.183	0.31	907.3
	ARENA_2	0.250	0.42	1200.6	RELLENO_ZANJA	2.646	4.41	12422.8
	ARENA_3	0.606	1.02	2838.8				
5075.109	D TIERRA	3.808	51.78	18539.0	ARENA_1	0.183	2.45	909.8
	ARENA_2	0.250	3.36	1203.9	RELLENO_ZANJA	2.547	34.85	12457.7
	ARENA_3	0.606	8.14	2847.0				
5080.000	D TIERRA	3.822	18.66	18557.6	ARENA_1	0.183	0.89	910.6
	ARENA_2	0.250	1.23	1205.1	RELLENO_ZANJA	2.561	12.49	12470.2
	ARENA_3	0.606	2.96	2849.9				
5100.000	D TIERRA	3.871	76.93	18634.6	ARENA_1	0.183	3.65	914.3
	ARENA_2	0.250	5.01	1210.2	RELLENO_ZANJA	2.610	51.70	12521.9
	ARENA_3	0.606	12.12	2862.1				
5120.000	D TIERRA	3.220	70.91	18705.5	ARENA_1	0.183	3.65	917.9
	ARENA_2	0.250	5.01	1215.2	RELLENO_ZANJA	1.959	45.69	12567.6
	ARENA_3	0.606	12.12	2874.2				
5132.598	D TIERRA	3.284	40.97	18746.4	ARENA_1	0.183	2.30	920.2
	ARENA_2	0.250	3.16	1218.3	RELLENO_ZANJA	2.023	25.08	12592.6
	ARENA_3	0.606	7.64	2881.8				
5140.000	D TIERRA	3.360	24.59	18771.0	ARENA_1	0.183	1.35	921.6
	ARENA_2	0.250	1.85	1220.2	RELLENO_ZANJA	2.099	15.26	12607.9
	ARENA_3	0.606	4.49	2886.3				
5160.000	D TIERRA	3.629	69.89	18840.9	ARENA_1	0.183	3.65	925.3
	ARENA_2	0.250	5.01	1225.2	RELLENO_ZANJA	2.368	44.67	12652.6
	ARENA_3	0.606	12.12	2898.4				
5180.000	D TIERRA	3.905	75.34	18916.3	ARENA_1	0.183	3.65	928.9
	ARENA_2	0.250	5.01	1230.2	RELLENO_ZANJA	2.644	50.12	12702.7
	ARENA_3	0.606	12.12	2910.5				
5193.337	D TIERRA	4.289	54.64	18970.9	ARENA_1	0.183	2.43	931.3
	ARENA_2	0.250	3.34	1233.5	RELLENO_ZANJA	3.028	37.82	12740.5
	ARENA_3	0.606	8.08	2918.6				
5200.000	D TIERRA	4.237	28.41	18999.3	ARENA_1	0.183	1.22	932.6
	ARENA_2	0.250	1.67	1235.2	RELLENO_ZANJA	2.976	20.00	12760.5
	ARENA_3	0.606	4.04	2922.7				
5220.000	D TIERRA	5.047	92.84	19092.2	ARENA_1	0.183	3.65	936.2
	ARENA_2	0.250	5.01	1240.2	RELLENO_ZANJA	3.786	67.61	12828.1
	ARENA_3	0.606	12.12	2934.8				
5229.754	D TIERRA	5.375	50.83	19143.0	ARENA_1	0.183	1.78	938.0
	ARENA_2	0.250	2.44	1242.7	RELLENO_ZANJA	4.114	38.53	12866.6
	ARENA_3	0.606	5.91	2940.7				
5240.000	D TIERRA	5.776	57.13	19200.1	ARENA_1	0.183	1.87	939.9
	ARENA_2	0.250	2.57	1245.2	RELLENO_ZANJA	4.514	44.20	12910.8
	ARENA_3	0.606	6.21	2946.9				
5260.000	D TIERRA	6.345	121.21	19321.3	ARENA_1	0.183	3.65	943.5
	ARENA_2	0.250	5.01	1250.2	RELLENO_ZANJA	5.084	95.98	13006.8
	ARENA_3	0.606	12.12	2959.0				
5280.000	D TIERRA	6.614	129.60	19450.9	ARENA_1	0.183	3.65	947.2
	ARENA_2	0.250	5.01	1255.2	RELLENO_ZANJA	5.353	104.37	13111.2
	ARENA_3	0.606	12.12	2971.2				
5300.000	D TIERRA	6.685	132.99	19583.9	ARENA_1	0.183	3.65	950.8
	ARENA_2	0.250	5.01	1260.3	RELLENO_ZANJA	5.424	107.77	13219.0
	ARENA_3	0.606	12.12	2983.3				
5308.454	D TIERRA	6.476	55.63	19639.5	ARENA_1	0.183	1.54	952.3
	ARENA_2	0.250	2.12	1262.4	RELLENO_ZANJA	5.215	44.97	13263.9
	ARENA_3	0.606	5.12	2988.4				
5318.412	D TIERRA	6.289	63.56	19703.1	ARENA_1	0.183	1.82	954.2
	ARENA_2	0.250	2.49	1264.9	RELLENO_ZANJA	5.027	51.00	13314.9
	ARENA_3	0.606	6.04	2994.4				
5320.000	D TIERRA	6.278	9.98	19713.1	ARENA_1	0.183	0.29	954.5
	ARENA_2	0.250	0.40	1265.3	RELLENO_ZANJA	5.017	7.98	13322.9
	ARENA_3	0.606	0.96	2995.4				

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 PROYECTO : CIDACOS COMPLETO
 EJE : 5: P190 (Arqueta principal)-P240 (Aldeanueva)

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 PROYECTO : CIDACOS COMPLETO
 EJE : 5: P190 (Arqueta principal)-P240 (Aldeanueva)

***** MEDICIONES DE LOS PERFILES TRANSVERSALES*****
 ***** CAPAS DE FIRME *****

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 ***** CAPAS DE FIRME *****

PERFIL	MATERIAL	AREA PERFIL	VOL. PARCIAL	VOL. ACUMUL.	MATERIAL	AREA PERFIL	VOL. PARCIAL	VOL. ACUMUL.
5328.194	D TIERRA	6.242	51.30	19764.4	ARENA_1	0.183	1.50	956.0
	ARENA_2	0.250	2.05	1267.3	RELLENO_ZANJA	4.981	40.96	13363.9
	ARENA_3	0.606	4.97	3000.4				
5340.000	D TIERRA	6.290	73.98	19838.4	ARENA_1	0.183	2.16	958.1
	ARENA_2	0.250	2.96	1270.3	RELLENO_ZANJA	5.029	59.09	13422.9
	ARENA_3	0.606	7.16	3007.5				
5340.381	D TIERRA	6.292	2.40	19840.8	ARENA_1	0.183	0.07	958.2
	ARENA_2	0.250	0.10	1270.4	RELLENO_ZANJA	5.031	1.92	13424.9
	ARENA_3	0.606	0.23	3007.7				
5360.000	D TIERRA	7.093	131.30	19972.0	ARENA_1	0.183	3.58	961.8
	ARENA_2	0.250	4.91	1275.3	RELLENO_ZANJA	5.831	106.55	13531.4
	ARENA_3	0.606	11.89	3019.6				
5380.000	D TIERRA	6.624	137.17	20109.2	ARENA_1	0.183	3.65	965.4
	ARENA_2	0.250	5.01	1280.3	RELLENO_ZANJA	5.363	111.94	13643.4
	ARENA_3	0.606	12.12	3031.8				
5400.000	D TIERRA	8.951	155.75	20265.0	ARENA_1	0.183	3.65	969.1
	ARENA_2	0.250	5.01	1285.3	RELLENO_ZANJA	7.690	130.52	13773.9
	ARENA_3	0.606	12.12	3043.9				
5420.000	D TIERRA	9.872	188.23	20453.2	ARENA_1	0.183	3.65	972.7
	ARENA_2	0.250	5.01	1290.3	RELLENO_ZANJA	8.611	163.00	13936.9
	ARENA_3	0.606	12.12	3056.0				
5420.380	D TIERRA	10.046	3.78	20457.0	ARENA_1	0.183	0.07	972.8
	ARENA_2	0.251	0.10	1290.4	RELLENO_ZANJA	8.785	3.31	13940.2
	ARENA_3	0.606	0.23	3056.2				
5440.000	D TIERRA	6.488	162.20	20619.2	ARENA_1	0.183	3.58	976.4
	ARENA_2	0.251	4.92	1295.3	RELLENO_ZANJA	5.227	137.45	14077.6
	ARENA_3	0.606	11.89	3068.1				
5460.000	D TIERRA	11.307	177.94	20797.1	ARENA_1	0.183	3.65	980.0
	ARENA_2	0.250	5.01	1300.3	RELLENO_ZANJA	10.045	152.72	14230.4
	ARENA_3	0.606	12.12	3080.2				
5460.000	D TIERRA	5.588	0.00	20797.1	ARENA_1	0.172	0.00	980.0
	ARENA_2	0.191	0.00	1300.3	RELLENO_ZANJA	4.604	0.00	14230.4
	ARENA_3	0.398	0.00	3080.2				
5480.000	D TIERRA	2.110	76.97	20874.1	ARENA_1	0.172	3.45	983.5
	ARENA_2	0.192	3.83	1304.2	RELLENO_ZANJA	1.125	57.29	14287.6
	ARENA_3	0.397	7.95	3088.2				
5491.786	D TIERRA	2.027	24.38	20898.5	ARENA_1	0.172	2.03	985.5
	ARENA_2	0.191	2.26	1306.4	RELLENO_ZANJA	1.043	12.78	14300.4
	ARENA_3	0.398	4.68	3092.9				
5500.000	D TIERRA	2.040	16.71	20915.2	ARENA_1	0.172	1.42	986.9
	ARENA_2	0.191	1.57	1308.0	RELLENO_ZANJA	1.056	8.62	14309.0
	ARENA_3	0.398	3.27	3096.1				
5520.000	D TIERRA	2.137	41.78	20957.0	ARENA_1	0.172	3.45	990.3
	ARENA_2	0.191	3.83	1311.8	RELLENO_ZANJA	1.153	22.09	14331.1
	ARENA_3	0.398	7.96	3104.1				
5540.000	D TIERRA	2.306	44.44	21001.4	ARENA_1	0.172	3.45	993.8
	ARENA_2	0.191	3.83	1315.7	RELLENO_ZANJA	1.322	24.75	14355.9
	ARENA_3	0.398	7.96	3112.1				
5560.000	D TIERRA	2.425	47.32	21048.7	ARENA_1	0.172	3.45	997.2
	ARENA_2	0.191	3.83	1319.5	RELLENO_ZANJA	1.441	27.63	14383.5
	ARENA_3	0.398	7.96	3120.0				
5567.010	D TIERRA	2.266	16.44	21065.2	ARENA_1	0.172	1.21	998.5
	ARENA_2	0.191	1.34	1320.8	RELLENO_ZANJA	1.282	9.54	14393.1
	ARENA_3	0.398	2.79	3122.8				
5580.000	D TIERRA	2.110	28.42	21093.6	ARENA_1	0.172	2.24	1000.7
	ARENA_2	0.191	2.49	1323.3	RELLENO_ZANJA	1.125	15.63	14408.7
	ARENA_3	0.398	5.17	3128.0				
5580.882	D TIERRA	2.079	1.85	21095.4	ARENA_1	0.172	0.15	1000.8
	ARENA_2	0.192	0.17	1323.5	RELLENO_ZANJA	1.095	0.98	14409.7
	ARENA_3	0.398	0.35	3128.3				

PERFIL	MATERIAL	AREA PERFIL	VOL. PARCIAL	VOL. ACUMUL.	MATERIAL	AREA PERFIL	VOL. PARCIAL	VOL. ACUMUL.
5600.000	D TIERRA	2.287	41.74	21137.2	ARENA_1	0.172	3.29	1004.1
	ARENA_2	0.192	3.66	1327.1	RELLENO_ZANJA	1.303	22.92	14432.6
	ARENA_3	0.398	7.60	3136.0				
5603.631	D TIERRA	2.393	8.50	21145.7	ARENA_1	0.172	0.63	1004.8
	ARENA_2	0.192	0.70	1327.8	RELLENO_ZANJA	1.409	4.92	14437.5
	ARENA_3	0.398	1.44	3137.4				
5618.874	D TIERRA	2.634	38.31	21184.0	ARENA_1	0.172	2.63	1007.4
	ARENA_2	0.192	2.92	1330.8	RELLENO_ZANJA	1.649	23.31	14460.8
	ARENA_3	0.398	6.06	3143.5				
5620.000	D TIERRA	2.641	2.97	21186.9	ARENA_1	0.172	0.19	1007.6
	ARENA_2	0.192	0.22	1331.0	RELLENO_ZANJA	1.656	1.86	14462.7
	ARENA_3	0.398	0.45	3143.9				
5625.241	D TIERRA	2.696	13.98	21200.9	ARENA_1	0.172	0.90	1008.5
	ARENA_2	0.192	1.00	1332.0	RELLENO_ZANJA	1.711	8.83	14471.5
	ARENA_3	0.398	2.08	3146.0				
5632.074	D TIERRA	2.864	19.00	21219.9	ARENA_1	0.172	1.18	1009.7
	ARENA_2	0.192	1.31	1333.3	RELLENO_ZANJA	1.880	12.27	14483.8
	ARENA_3	0.398	2.72	3148.7				
5640.000	D TIERRA	3.277	24.34	21244.3	ARENA_1	0.172	1.37	1011.0
	ARENA_2	0.192	1.52	1334.8	RELLENO_ZANJA	2.293	16.54	14500.3
	ARENA_3	0.398	3.15	3151.9				
5641.938	D TIERRA	3.343	6.42	21250.7	ARENA_1	0.172	0.33	1011.4
	ARENA_2	0.192	0.37	1335.2	RELLENO_ZANJA	2.359	4.51	14504.8
	ARENA_3	0.398	0.77	3152.6				
5650.789	D TIERRA	3.386	29.78	21280.5	ARENA_1	0.172	1.53	1012.9
	ARENA_2	0.192	1.70	1336.9	RELLENO_ZANJA	2.402	21.07	14525.9
	ARENA_3	0.398	3.52	3156.1				
5660.000	D TIERRA	3.405	31.28	21311.7	ARENA_1	0.172	1.59	1014.5
	ARENA_2	0.192	1.76	1338.6	RELLENO_ZANJA	2.421	22.21	14548.1
	ARENA_3	0.398	3.66	3159.8				
5678.581	D TIERRA	2.474	54.62	21366.4	ARENA_1	0.172	3.20	1017.7
	ARENA_2	0.192	3.56	1342.2	RELLENO_ZANJA	1.490	36.34	14584.4
	ARENA_3	0.398	7.39	3167.2				
5680.000	D TIERRA	2.358	3.43	21369.8	ARENA_1	0.172	0.24	1017.9
	ARENA_2	0.192	0.27	1342.5	RELLENO_ZANJA	1.374	2.03	14586.5
	ARENA_3	0.398	0.56	3167.8				
5700.000	D TIERRA	2.191	45.49	21415.3	ARENA_1	0.172	3.45	1021.4
	ARENA_2	0.192	3.83	1346.3	RELLENO_ZANJA	1.207	25.81	14612.3
	ARENA_3	0.398	7.95	3175.7				
5720.000	D TIERRA	2.269	44.60	21459.9	ARENA_1	0.172	3.45	1024.8
	ARENA_2	0.192	3.83	1350.1	RELLENO_ZANJA	1.285	24.92	14637.2
	ARENA_3	0.398	7.95	3183.7				
5740.000	D TIERRA	2.105	43.74	21503.6	ARENA_1	0.172	3.45	1028.3
	ARENA_2	0.192	3.83	1353.9	RELLENO_ZANJA	1.121	24.06	14661.3
	ARENA_3	0.398	7.95	3191.6				
5742.548	D TIERRA	2.081	5.33	21509.0	ARENA_1	0.172	0.44	1028.7
	ARENA_2	0.191	0.49	1354.4	RELLENO_ZANJA	1.097	2.83	14664.1
	ARENA_3	0.398	1.01	3192.6				
5760.000	D TIERRA	2.368	38.83	21547.8	ARENA_1	0.172	3.01	1031.7
	ARENA_2	0.191	3.34	1357.8	RELLENO_ZANJA	1.384	21.65	14685.7
	ARENA_3	0.398	6.95	3199.6				
5764.635	D TIERRA	2.378	11.00	21558.8	ARENA_1	0.172	0.80	1032.5
	ARENA_2	0.191	0.89	1358.7	RELLENO_ZANJA	1.393	6.44	14692.2
	ARENA_3	0.398	1.85	3201.4				
5780.000	D TIERRA	2.125	34.59	21593.4	ARENA_1	0.172	2.65	1035.2
	ARENA_2	0.191	2.94	1361.6	RELLENO_ZANJA	1.140	19.47	14711.6
	ARENA_3	0.398	6.12	3207.5				
5785.505	D TIERRA	2.060	11.52	21604.9	ARENA_1	0.172	0.95	1036.1
	ARENA_2	0.191	1.05	1362.7	RELLENO_ZANJA	1.076	6.10	14717.7
	ARENA_3	0.398	2.19	3209.7				



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PROYECTO : CIDACOS COMPLETO
EJE : 5: P190 (Arqueta principal)-P240 (Aldeanueva)

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PROYECTO : CIDACOS COMPLETO
EJE : 5: P190 (Arqueta principal)-P240 (Aldeanueva)

*** MEDICIONES DE LOS PERFILES TRANSVERSALES ***
*** CAPAS DE FIRME ***

*** MEDICIONES DE LOS PERFILES TRANSVERSALES ***
*** CAPAS DE FIRME ***

PERFIL	MATERIAL	AREA PERFIL	VOL. PARCIAL	VOL. ACUMUL.	MATERIAL	AREA PERFIL	VOL. PARCIAL	VOL. ACUMUL.
5793.727	D TIERRA	2.110	17.14	21622.0	ARENA_1	0.172	1.42	1037.5
	ARENA_2	0.191	1.57	1364.2	RELLENO_ZANJA	1.126	9.05	14726.8
	ARENA_3	0.398	3.27	3213.0				
5800.000	D TIERRA	2.058	13.07	21635.1	ARENA_1	0.172	1.08	1038.6
	ARENA_2	0.191	1.20	1365.4	RELLENO_ZANJA	1.073	6.90	14733.7
	ARENA_3	0.398	2.50	3215.5				
5820.000	D TIERRA	2.110	41.67	21676.8	ARENA_1	0.172	3.45	1042.0
	ARENA_2	0.191	3.83	1369.3	RELLENO_ZANJA	1.126	21.99	14755.7
	ARENA_3	0.398	7.96	3223.5				
5821.228	D TIERRA	2.107	2.59	21679.4	ARENA_1	0.172	0.21	1042.3
	ARENA_2	0.191	0.24	1369.5	RELLENO_ZANJA	1.123	1.38	14757.1
	ARENA_3	0.398	0.49	3224.0				
5840.000	D TIERRA	2.341	41.75	21721.1	ARENA_1	0.172	3.23	1045.5
	ARENA_2	0.191	3.59	1373.1	RELLENO_ZANJA	1.357	23.28	14780.3
	ARENA_3	0.398	7.47	3231.4				
5850.748	D TIERRA	2.173	24.26	21745.4	ARENA_1	0.172	1.85	1047.3
	ARENA_2	0.191	2.06	1375.2	RELLENO_ZANJA	1.189	13.68	14794.0
	ARENA_3	0.398	4.28	3235.7				
5860.000	D TIERRA	2.110	19.81	21765.2	ARENA_1	0.172	1.59	1048.9
	ARENA_2	0.191	1.77	1376.9	RELLENO_ZANJA	1.125	10.71	14804.7
	ARENA_3	0.398	3.68	3239.4				
5879.543	D TIERRA	2.079	40.93	21806.1	ARENA_1	0.172	3.37	1052.3
	ARENA_2	0.192	3.74	1380.7	RELLENO_ZANJA	1.095	21.69	14826.4
	ARENA_3	0.398	7.77	3247.2				
5880.000	D TIERRA	2.091	0.95	21807.1	ARENA_1	0.172	0.08	1052.4
	ARENA_2	0.192	0.09	1380.8	RELLENO_ZANJA	1.106	0.50	14826.9
	ARENA_3	0.398	0.18	3247.3				
5889.463	D TIERRA	2.125	19.94	21827.0	ARENA_1	0.172	1.63	1054.0
	ARENA_2	0.192	1.81	1382.6	RELLENO_ZANJA	1.140	10.63	14837.6
	ARENA_3	0.398	3.76	3251.1				
5900.000	D TIERRA	2.107	22.29	21849.3	ARENA_1	0.172	1.82	1055.8
	ARENA_2	0.192	2.02	1384.6	RELLENO_ZANJA	1.123	11.92	14849.5
	ARENA_3	0.398	4.19	3255.3				
5900.498	D TIERRA	2.133	1.06	21850.4	ARENA_1	0.172	0.09	1055.9
	ARENA_2	0.191	0.10	1384.7	RELLENO_ZANJA	1.149	0.57	14850.0
	ARENA_3	0.398	0.20	3255.5				
5920.000	D TIERRA	2.467	44.86	21895.2	ARENA_1	0.172	3.36	1059.3
	ARENA_2	0.191	3.73	1388.4	RELLENO_ZANJA	1.483	25.66	14875.7
	ARENA_3	0.398	7.76	3263.2				
5940.000	D TIERRA	2.098	45.65	21940.9	ARENA_1	0.172	3.45	1062.7
	ARENA_2	0.191	3.83	1392.2	RELLENO_ZANJA	1.114	25.97	14901.7
	ARENA_3	0.398	7.96	3271.2				
5960.000	D TIERRA	2.253	43.51	21984.4	ARENA_1	0.172	3.45	1066.2
	ARENA_2	0.191	3.83	1396.1	RELLENO_ZANJA	1.268	23.83	14925.5
	ARENA_3	0.398	7.96	3279.2				
5980.000	D TIERRA	2.163	44.16	22028.6	ARENA_1	0.172	3.45	1069.6
	ARENA_2	0.191	3.83	1399.9	RELLENO_ZANJA	1.179	24.48	14950.0
	ARENA_3	0.398	7.97	3287.1				
5985.155	D TIERRA	2.129	11.06	22039.6	ARENA_1	0.172	0.89	1070.5
	ARENA_2	0.191	0.99	1400.9	RELLENO_ZANJA	1.145	5.99	14956.0
	ARENA_3	0.398	2.05	3289.2				
6000.000	D TIERRA	2.110	31.46	22071.1	ARENA_1	0.172	2.56	1073.1
	ARENA_2	0.191	2.84	1403.7	RELLENO_ZANJA	1.126	16.85	14972.8
	ARENA_3	0.398	5.91	3295.1				
6020.000	D TIERRA	2.240	43.50	22114.6	ARENA_1	0.172	3.45	1076.5
	ARENA_2	0.191	3.83	1407.6	RELLENO_ZANJA	1.256	23.82	14996.6
	ARENA_3	0.398	7.97	3303.1				
6040.000	D TIERRA	2.343	45.83	22160.4	ARENA_1	0.172	3.45	1080.0
	ARENA_2	0.191	3.83	1411.4	RELLENO_ZANJA	1.359	26.15	15022.8
	ARENA_3	0.398	7.97	3311.0				

PERFIL	MATERIAL	AREA PERFIL	VOL. PARCIAL	VOL. ACUMUL.	MATERIAL	AREA PERFIL	VOL. PARCIAL	VOL. ACUMUL.
6041.803	D TIERRA	2.356	4.24	22164.7	ARENA_1	0.172	0.31	1080.3
	ARENA_2	0.191	0.35	1411.7	RELLENO_ZANJA	1.372	2.46	15025.2
	ARENA_3	0.398	0.72	3311.8				
6048.990	D TIERRA	2.414	17.14	22181.8	ARENA_1	0.172	1.24	1081.5
	ARENA_2	0.191	1.38	1413.1	RELLENO_ZANJA	1.429	10.07	15035.3
	ARENA_3	0.398	2.86	3314.6				
6060.000	D TIERRA	2.487	26.98	22208.8	ARENA_1	0.172	1.90	1083.4
	ARENA_2	0.191	2.11	1415.2	RELLENO_ZANJA	1.503	16.14	15051.5
	ARENA_3	0.398	4.39	3319.0				
6080.000	D TIERRA	2.528	50.15	22258.9	ARENA_1	0.172	3.45	1086.9
	ARENA_2	0.191	3.83	1419.0	RELLENO_ZANJA	1.544	30.47	15081.9
	ARENA_3	0.398	7.97	3327.0				
6100.000	D TIERRA	2.717	52.46	22311.4	ARENA_1	0.172	3.45	1090.3
	ARENA_2	0.191	3.83	1422.9	RELLENO_ZANJA	1.733	32.77	15114.7
	ARENA_3	0.398	7.97	3334.9				
6120.000	D TIERRA	2.892	56.09	22367.5	ARENA_1	0.172	3.45	1093.8
	ARENA_2	0.191	3.83	1426.7	RELLENO_ZANJA	1.908	36.41	15151.1
	ARENA_3	0.398	7.97	3342.9				
6127.648	D TIERRA	2.794	21.74	22389.2	ARENA_1	0.172	1.32	1095.1
	ARENA_2	0.191	1.46	1428.2	RELLENO_ZANJA	1.809	14.21	15165.3
	ARENA_3	0.398	3.05	3346.0				
6140.000	D TIERRA	2.760	34.30	22423.5	ARENA_1	0.172	2.13	1097.2
	ARENA_2	0.191	2.36	1430.5	RELLENO_ZANJA	1.776	22.15	15187.5
	ARENA_3	0.398	4.92	3350.9				
6160.000	D TIERRA	2.247	50.07	22473.6	ARENA_1	0.172	3.45	1100.6
	ARENA_2	0.191	3.83	1434.3	RELLENO_ZANJA	1.263	30.39	15217.8
	ARENA_3	0.398	7.97	3358.8				
6180.000	D TIERRA	2.110	43.56	22517.2	ARENA_1	0.172	3.45	1104.1
	ARENA_2	0.191	3.83	1438.2	RELLENO_ZANJA	1.125	23.88	15241.7
	ARENA_3	0.398	7.97	3366.8				
6200.000	D TIERRA	2.310	44.19	22561.4	ARENA_1	0.172	3.45	1107.5
	ARENA_2	0.191	3.83	1442.0	RELLENO_ZANJA	1.325	24.51	15266.2
	ARENA_3	0.398	7.97	3374.8				
6220.000	D TIERRA	2.475	47.85	22609.2	ARENA_1	0.172	3.45	1111.0
	ARENA_2	0.191	3.83	1445.8	RELLENO_ZANJA	1.491	28.17	15294.4
	ARENA_3	0.398	7.97	3382.7				
6220.404	D TIERRA	2.482	1.00	22610.2	ARENA_1	0.172	0.07	1111.1
	ARENA_2	0.191	0.08	1445.9	RELLENO_ZANJA	1.498	0.60	15295.0
	ARENA_3	0.398	0.16	3382.9				
6240.000	D TIERRA	2.509	48.90	22659.1	ARENA_1	0.172	3.38	1114.4
	ARENA_2	0.191	3.75	1449.7	RELLENO_ZANJA	1.525	29.62	15324.6
	ARENA_3	0.398	7.81	3390.7				
6260.000	D TIERRA	2.110	46.19	22705.3	ARENA_1	0.172	3.45	1117.9
	ARENA_2	0.191	3.83	1453.5	RELLENO_ZANJA	1.126	26.51	15351.1
	ARENA_3	0.398	7.97	3398.7				
6280.000	D TIERRA	2.294	44.05	22749.4	ARENA_1	0.172	3.45	1121.3
	ARENA_2	0.192	3.83	1457.3	RELLENO_ZANJA	1.310	24.36	15375.5
	ARENA_3	0.397	7.96	3406.6				
6300.000	D TIERRA	2.232	45.26	22794.6	ARENA_1	0.172	3.45	1124.8
	ARENA_2	0.191	3.83	1461.1	RELLENO_ZANJA	1.247	25.57	15401.1
	ARENA_3	0.398	7.96	3414.6				
6304.741	D TIERRA	2.119	10.31	22804.9	ARENA_1	0.172	0.82	1125.6
	ARENA_2	0.191	0.91	1462.1	RELLENO_ZANJA	1.135	5.65	15406.7
	ARENA_3	0.398	1.89	3416.5				
6320.000	D TIERRA	2.567	35.76	22840.7	ARENA_1	0.172	2.63	1128.2
	ARENA_2	0.192	2.92	1465.0	RELLENO_ZANJA	1.583	20.74	15427.5
	ARENA_3	0.395	6.06	3422.5				
6320.435	D TIERRA	2.564	1.12	22841.8	ARENA_1	0.172	0.07	1128.3
	ARENA_2	0.192	0.08	1465.1	RELLENO_ZANJA	1.579	0.69	15428.1
	ARENA_3	0.395	0.17	3422.7				



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PROYECTO : CIDACOS COMPLETO
EJE : 5: P190 (Arqueta principal)-P240 (Aldeanueva)

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PROYECTO : CIDACOS COMPLETO
EJE : 5: P190 (Arqueta principal)-P240 (Aldeanueva)

*** MEDICIONES DE LOS PERFILES TRANSVERSALES ***
*** CAPAS DE FIRME ***

*** MEDICIONES DE LOS PERFILES TRANSVERSALES ***
*** CAPAS DE FIRME ***

PERFIL	MATERIAL	AREA PERFIL	VOL. PARCIAL	VOL. ACUMUL.	MATERIAL	AREA PERFIL	VOL. PARCIAL	VOL. ACUMUL.
6327.986	D TIERRA	2.066	17.48	22859.3	ARENA_1	0.172	1.30	1129.6
	ARENA_2	0.192	1.45	1466.5	RELLENO_ZANJA	1.081	10.05	15438.2
	ARENA_3	0.395	2.99	3425.7				
6340.000	D TIERRA	2.121	25.15	22884.4	ARENA_1	0.172	2.07	1131.7
	ARENA_2	0.192	2.30	1468.8	RELLENO_ZANJA	1.137	13.33	15451.5
	ARENA_3	0.395	4.75	3430.4				
6346.512	D TIERRA	2.000	13.42	22897.8	ARENA_1	0.172	1.12	1132.8
	ARENA_2	0.191	1.25	1470.1	RELLENO_ZANJA	1.015	7.01	15458.5
	ARENA_3	0.398	2.58	3433.0				
6360.000	D TIERRA	1.982	26.85	22924.7	ARENA_1	0.172	2.32	1135.1
	ARENA_2	0.191	2.58	1472.6	RELLENO_ZANJA	0.997	13.57	15472.1
	ARENA_3	0.398	5.37	3438.4				
6380.000	D TIERRA	2.110	40.91	22965.6	ARENA_1	0.172	3.45	1138.6
	ARENA_2	0.191	3.83	1476.5	RELLENO_ZANJA	1.125	21.23	15493.3
	ARENA_3	0.398	7.96	3446.3				
6400.000	D TIERRA	2.040	41.49	23007.1	ARENA_1	0.172	3.45	1142.0
	ARENA_2	0.191	3.83	1480.3	RELLENO_ZANJA	1.055	21.81	15515.1
	ARENA_3	0.398	7.96	3454.3				
6420.000	D TIERRA	2.155	41.95	23049.0	ARENA_1	0.172	3.45	1145.5
	ARENA_2	0.191	3.83	1484.1	RELLENO_ZANJA	1.171	22.26	15537.4
	ARENA_3	0.398	7.96	3462.3				
6440.000	D TIERRA	2.345	45.00	23094.0	ARENA_1	0.172	3.45	1148.9
	ARENA_2	0.191	3.83	1488.0	RELLENO_ZANJA	1.361	25.32	15562.7
	ARENA_3	0.398	7.96	3470.2				
6446.259	D TIERRA	2.402	14.86	23108.9	ARENA_1	0.172	1.08	1150.0
	ARENA_2	0.191	1.20	1489.2	RELLENO_ZANJA	1.418	8.70	15571.4
	ARENA_3	0.398	2.49	3472.7				
6458.701	D TIERRA	2.320	29.38	23138.3	ARENA_1	0.172	2.14	1152.1
	ARENA_2	0.191	2.38	1491.5	RELLENO_ZANJA	1.336	17.13	15588.5
	ARENA_3	0.398	4.95	3477.7				
6460.000	D TIERRA	2.275	2.98	23141.3	ARENA_1	0.172	0.22	1152.3
	ARENA_2	0.191	0.25	1491.8	RELLENO_ZANJA	1.291	1.71	15590.2
	ARENA_3	0.398	0.52	3478.2				
6480.000	D TIERRA	2.181	44.56	23185.8	ARENA_1	0.172	3.45	1155.8
	ARENA_2	0.191	3.83	1495.6	RELLENO_ZANJA	1.196	24.87	15615.1
	ARENA_3	0.398	7.96	3486.2				
6481.577	D TIERRA	2.172	3.43	23189.3	ARENA_1	0.172	0.27	1156.1
	ARENA_2	0.191	0.30	1495.9	RELLENO_ZANJA	1.188	1.88	15617.0
	ARENA_3	0.398	0.63	3486.8				
6494.005	D TIERRA	2.127	26.71	23216.0	ARENA_1	0.172	2.14	1158.2
	ARENA_2	0.191	2.38	1498.3	RELLENO_ZANJA	1.142	14.48	15631.5
	ARENA_3	0.398	4.95	3491.7				
6500.000	D TIERRA	2.133	12.77	23228.7	ARENA_1	0.172	1.03	1159.2
	ARENA_2	0.191	1.15	1499.4	RELLENO_ZANJA	1.148	6.87	15638.3
	ARENA_3	0.398	2.39	3494.1				
6506.095	D TIERRA	2.160	13.08	23241.8	ARENA_1	0.172	1.05	1160.3
	ARENA_2	0.191	1.17	1500.6	RELLENO_ZANJA	1.176	7.08	15645.4
	ARENA_3	0.398	2.43	3496.6				
6520.000	D TIERRA	2.236	30.56	23272.4	ARENA_1	0.172	2.40	1162.7
	ARENA_2	0.191	2.66	1503.3	RELLENO_ZANJA	1.252	16.88	15662.3
	ARENA_3	0.398	5.54	3502.1				
6540.000	D TIERRA	2.110	43.45	23315.8	ARENA_1	0.172	3.45	1166.1
	ARENA_2	0.191	3.83	1507.1	RELLENO_ZANJA	1.125	23.77	15686.1
	ARENA_3	0.398	7.97	3510.1				
6549.432	D TIERRA	2.094	19.82	23335.7	ARENA_1	0.172	1.63	1167.8
	ARENA_2	0.191	1.81	1508.9	RELLENO_ZANJA	1.110	10.54	15696.6
	ARENA_3	0.398	3.76	3513.8				
6560.000	D TIERRA	2.110	22.21	23357.9	ARENA_1	0.172	1.82	1169.6
	ARENA_2	0.191	2.02	1510.9	RELLENO_ZANJA	1.125	11.81	15708.4
	ARENA_3	0.398	4.21	3518.0				

PERFIL	MATERIAL	AREA PERFIL	VOL. PARCIAL	VOL. ACUMUL.	MATERIAL	AREA PERFIL	VOL. PARCIAL	VOL. ACUMUL.
6572.720	D TIERRA	2.094	26.73	23384.6	ARENA_1	0.172	2.19	1171.8
	ARENA_2	0.191	2.43	1513.4	RELLENO_ZANJA	1.110	14.21	15722.6
	ARENA_3	0.398	5.07	3523.1				
6580.000	D TIERRA	2.109	15.30	23399.9	ARENA_1	0.172	1.25	1173.0
	ARENA_2	0.191	1.39	1514.8	RELLENO_ZANJA	1.125	8.13	15730.8
	ARENA_3	0.398	2.90	3526.0				
6583.966	D TIERRA	2.125	8.40	23408.3	ARENA_1	0.172	0.68	1173.7
	ARENA_2	0.191	0.76	1515.5	RELLENO_ZANJA	1.141	4.49	15735.3
	ARENA_3	0.398	1.58	3527.6				
6590.292	D TIERRA	2.235	13.79	23422.1	ARENA_1	0.172	1.09	1174.8
	ARENA_2	0.191	1.21	1516.7	RELLENO_ZANJA	1.251	7.57	15742.8
	ARENA_3	0.398	2.52	3530.1				
6600.000	D TIERRA	2.110	21.09	23443.2	ARENA_1	0.172	1.67	1176.5
	ARENA_2	0.191	1.86	1518.6	RELLENO_ZANJA	1.126	11.54	15754.4
	ARENA_3	0.398	3.86	3534.0				
6620.000	D TIERRA	2.157	42.67	23485.9	ARENA_1	0.172	3.45	1179.9
	ARENA_2	0.191	3.83	1522.4	RELLENO_ZANJA	1.172	22.99	15777.4
	ARENA_3	0.398	7.96	3541.9				
6640.000	D TIERRA	2.110	42.66	23528.5	ARENA_1	0.172	3.45	1183.4
	ARENA_2	0.191	3.83	1526.2	RELLENO_ZANJA	1.125	22.98	15800.3
	ARENA_3	0.398	7.96	3549.9				
6653.102	D TIERRA	2.361	29.29	23557.8	ARENA_1	0.172	2.26	1185.6
	ARENA_2	0.191	2.51	1528.8	RELLENO_ZANJA	1.377	16.39	15816.7
	ARENA_3	0.398	5.22	3555.1				
6660.000	D TIERRA	2.378	16.35	23574.2	ARENA_1	0.172	1.19	1186.8
	ARENA_2	0.191	1.32	1530.1	RELLENO_ZANJA	1.394	9.56	15826.3
	ARENA_3	0.398	2.75	3557.8				
6680.000	D TIERRA	2.129	45.08	23619.2	ARENA_1	0.172	3.45	1190.3
	ARENA_2	0.191	3.83	1533.9	RELLENO_ZANJA	1.145	25.39	15851.7
	ARENA_3	0.398	7.96	3565.8				
6684.949	D TIERRA	2.081	10.42	23629.7	ARENA_1	0.172	0.85	1191.1
	ARENA_2	0.191	0.95	1534.8	RELLENO_ZANJA	1.096	5.55	15857.2
	ARENA_3	0.398	1.97	3567.8				
6700.000	D TIERRA	2.206	32.26	23661.9	ARENA_1	0.172	2.59	1193.7
	ARENA_2	0.191	2.88	1537.7	RELLENO_ZANJA	1.222	17.45	15874.7
	ARENA_3	0.398	5.99	3573.8				
6713.985	D TIERRA	2.110	30.18	23692.1	ARENA_1	0.172	2.41	1196.1
	ARENA_2	0.191	2.68	1540.4	RELLENO_ZANJA	1.125	16.41	15891.1
	ARENA_3	0.398	5.57	3579.3				
6720.000	D TIERRA	2.038	12.47	23704.6	ARENA_1	0.172	1.04	1197.2
	ARENA_2	0.191	1.15	1541.6	RELLENO_ZANJA	1.054	6.55	15897.6
	ARENA_3	0.398	2.39	3581.7				
6740.000	D TIERRA	2.104	41.42	23746.0	ARENA_1	0.172	3.45	1200.6
	ARENA_2	0.191	3.83	1545.4	RELLENO_ZANJA	1.120	21.73	15919.4
	ARENA_3	0.398	7.96	3589.7				
6760.000	D TIERRA	2.089	41.93	23787.9	ARENA_1	0.172	3.45	1204.0
	ARENA_2	0.191	3.83	1549.2	RELLENO_ZANJA	1.104	22.24	15941.6
	ARENA_3	0.398	7.96	3597.7				
6763.205	D TIERRA	2.285	7.01	23794.9	ARENA_1	0.172	0.55	1204.6
	ARENA_2	0.191	0.61	1549.8	RELLENO_ZANJA	1.301	3.85	15945.5
	ARENA_3	0.398	1.28	3598.9				
6771.198	D TIERRA	2.394	18.70	23813.6	ARENA_1	0.172	1.38	1206.0
	ARENA_2	0.191	1.53	1551.4	RELLENO_ZANJA	1.410	10.83	15956.3
	ARENA_3	0.398	3.18	3602.1				
6780.000	D TIERRA	2.308	20.70	23834.3	ARENA_1	0.172	1.52	1207.5
	ARENA_2	0.191	1.68	1553.0	RELLENO_ZANJA	1.324	12.03	15968.3
	ARENA_3	0.398	3.51	3605.6				
6788.945	D TIERRA	2.222	20.26	23854.6	ARENA_1	0.172	1.54	1209.0
	ARENA_2	0.191	1.71	1554.8	RELLENO_ZANJA	1.238	11.46	15979.8
	ARENA_3	0.398	3.56	3609.2				



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PROYECTO : CIDACOS COMPLETO
EJE : 5: P190 (Arqueta principal)-P240 (Aldeanueva)

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PROYECTO : CIDACOS COMPLETO
EJE : 5: P190 (Arqueta principal)-P240 (Aldeanueva)

MEDICIONES DE LOS PERFILES TRANSVERSALES
CAPAS DE FIRME

MEDICIONES DE LOS PERFILES TRANSVERSALES
CAPAS DE FIRME

Table with columns: PERFIL, MATERIAL, AREA PERFIL, VOL. PARCIAL, VOL. ACUMUL., MATERIAL, AREA PERFIL, VOL. PARCIAL, VOL. ACUMUL. It lists data for profiles 6800.000 to 7040.000.

Table with columns: PERFIL, MATERIAL, AREA PERFIL, VOL. PARCIAL, VOL. ACUMUL., MATERIAL, AREA PERFIL, VOL. PARCIAL, VOL. ACUMUL. It lists data for profiles 7049.886 to 7300.000.



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PROYECTO : CIDACOS COMPLETO
EJE : 5: P190 (Arqueta principal)-P240 (Aldeanueva)

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PROYECTO : CIDACOS COMPLETO
EJE : 5: P190 (Arqueta principal)-P240 (Aldeanueva)

*** MEDICIONES DE LOS PERFILES TRANSVERSALES ***
*** CAPAS DE FIRME ***

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PERFIL	MATERIAL	AREA PERFIL	VOL. PARCIAL	VOL. ACUMUL.	MATERIAL	AREA PERFIL	VOL. PARCIAL	VOL. ACUMUL.
7320.000	D TIERRA	2.104	42.03	25039.4	ARENA_1	0.172	3.45	1300.6
	ARENA_2	0.191	3.83	1656.4	RELLENO_ZANJA	1.120	22.35	16641.9
	ARENA_3	0.398	7.97	3820.7				
7340.000	D TIERRA	2.196	43.00	25082.4	ARENA_1	0.172	3.45	1304.0
	ARENA_2	0.191	3.83	1660.2	RELLENO_ZANJA	1.212	23.32	16665.3
	ARENA_3	0.398	7.97	3828.7				
7360.000	D TIERRA	2.148	43.44	25125.9	ARENA_1	0.172	3.45	1307.5
	ARENA_2	0.191	3.83	1664.1	RELLENO_ZANJA	1.164	23.75	16689.0
	ARENA_3	0.398	7.97	3836.6				
7380.000	D TIERRA	2.120	42.68	25168.5	ARENA_1	0.172	3.45	1310.9
	ARENA_2	0.191	3.83	1667.9	RELLENO_ZANJA	1.136	23.00	16712.0
	ARENA_3	0.398	7.97	3844.6				
7400.000	D TIERRA	2.356	44.76	25213.3	ARENA_1	0.172	3.45	1314.4
	ARENA_2	0.191	3.83	1671.7	RELLENO_ZANJA	1.372	25.08	16737.1
	ARENA_3	0.398	7.96	3852.5				
7419.407	D TIERRA	2.110	43.34	25256.6	ARENA_1	0.172	3.35	1317.7
	ARENA_2	0.191	3.71	1675.4	RELLENO_ZANJA	1.126	24.23	16761.3
	ARENA_3	0.398	7.73	3860.3				
7420.000	D TIERRA	2.111	1.25	25257.9	ARENA_1	0.172	0.10	1317.8
	ARENA_2	0.191	0.11	1675.5	RELLENO_ZANJA	1.127	0.67	16762.0
	ARENA_3	0.398	0.24	3860.5				
7440.000	D TIERRA	2.636	47.47	25305.4	ARENA_1	0.172	3.45	1321.3
	ARENA_2	0.191	3.83	1679.4	RELLENO_ZANJA	1.651	27.78	16789.8
	ARENA_3	0.398	7.97	3868.5				
7460.000	D TIERRA	3.134	57.70	25363.1	ARENA_1	0.172	3.45	1324.7
	ARENA_2	0.191	3.83	1683.2	RELLENO_ZANJA	2.150	38.01	16827.8
	ARENA_3	0.398	7.97	3876.4				
7480.000	D TIERRA	2.767	59.01	25422.1	ARENA_1	0.172	3.45	1328.1
	ARENA_2	0.191	3.83	1687.0	RELLENO_ZANJA	1.783	39.33	16867.1
	ARENA_3	0.398	7.97	3884.4				
7480.000	D TIERRA	4.550	0.00	25422.1	ARENA_1	0.183	0.00	1328.1
	ARENA_2	0.250	0.00	1687.0	RELLENO_ZANJA	3.288	0.00	16867.1
	ARENA_3	0.606	0.00	3884.4				
7484.951	D TIERRA	4.341	22.01	25444.1	ARENA_1	0.183	0.90	1329.0
	ARENA_2	0.250	1.24	1688.3	RELLENO_ZANJA	3.080	15.76	16882.9
	ARENA_3	0.606	3.00	3887.4				
7500.000	D TIERRA	3.980	62.61	25506.7	ARENA_1	0.183	2.75	1331.8
	ARENA_2	0.250	3.77	1692.0	RELLENO_ZANJA	2.718	43.63	16926.5
	ARENA_3	0.606	9.12	3896.5				
7507.439	D TIERRA	3.778	28.85	25535.5	ARENA_1	0.183	1.36	1333.2
	ARENA_2	0.250	1.86	1693.9	RELLENO_ZANJA	2.516	19.47	16946.0
	ARENA_3	0.606	4.51	3901.0				
7520.000	D TIERRA	3.449	45.39	25580.9	ARENA_1	0.183	2.29	1335.4
	ARENA_2	0.250	3.15	1697.0	RELLENO_ZANJA	2.187	29.54	16975.5
	ARENA_3	0.606	7.61	3908.7				
7523.721	D TIERRA	3.317	12.59	25593.5	ARENA_1	0.183	0.68	1336.1
	ARENA_2	0.250	0.93	1698.0	RELLENO_ZANJA	2.056	7.90	16983.4
	ARENA_3	0.606	2.26	3910.9				
7540.000	D TIERRA	3.135	52.52	25646.0	ARENA_1	0.183	2.97	1339.1
	ARENA_2	0.250	4.08	1702.1	RELLENO_ZANJA	1.874	31.99	17015.4
	ARENA_3	0.606	9.87	3920.8				
7560.000	D TIERRA	3.147	62.82	25708.9	ARENA_1	0.183	3.65	1342.7
	ARENA_2	0.250	5.01	1707.1	RELLENO_ZANJA	1.886	37.59	17053.0
	ARENA_3	0.606	12.12	3932.9				
7580.000	D TIERRA	3.769	69.16	25778.0	ARENA_1	0.183	3.65	1346.4
	ARENA_2	0.250	5.01	1712.1	RELLENO_ZANJA	2.508	43.93	17096.9
	ARENA_3	0.606	12.12	3945.0				
7587.918	D TIERRA	3.477	28.69	25806.7	ARENA_1	0.183	1.45	1347.8
	ARENA_2	0.250	1.98	1714.1	RELLENO_ZANJA	2.216	18.70	17115.6
	ARENA_3	0.606	4.80	3949.8				

PERFIL	MATERIAL	AREA PERFIL	VOL. PARCIAL	VOL. ACUMUL.	MATERIAL	AREA PERFIL	VOL. PARCIAL	VOL. ACUMUL.
7600.000	D TIERRA	3.754	43.68	25850.4	ARENA_1	0.183	2.21	1350.0
	ARENA_2	0.250	3.03	1717.1	RELLENO_ZANJA	2.492	28.44	17144.1
	ARENA_3	0.606	7.32	3957.1				
7620.000	D TIERRA	5.086	88.40	25938.8	ARENA_1	0.183	3.65	1353.7
	ARENA_2	0.250	5.01	1722.1	RELLENO_ZANJA	3.825	63.17	17207.2
	ARENA_3	0.606	12.12	3969.3				
7640.000	D TIERRA	4.280	93.67	26032.5	ARENA_1	0.183	3.65	1357.4
	ARENA_2	0.250	5.01	1727.1	RELLENO_ZANJA	3.019	68.44	17275.7
	ARENA_3	0.606	12.12	3981.4				
7660.000	D TIERRA	5.027	93.08	26125.5	ARENA_1	0.183	3.65	1361.0
	ARENA_2	0.250	5.01	1732.1	RELLENO_ZANJA	3.766	67.85	17343.5
	ARENA_3	0.606	12.12	3993.5				
7680.000	D TIERRA	5.387	104.14	26229.7	ARENA_1	0.183	3.65	1364.7
	ARENA_2	0.250	5.01	1737.1	RELLENO_ZANJA	4.125	78.91	17422.4
	ARENA_3	0.606	12.12	4005.6				
7700.000	D TIERRA	5.701	110.87	26340.5	ARENA_1	0.183	3.65	1368.3
	ARENA_2	0.250	5.01	1742.1	RELLENO_ZANJA	4.439	85.65	17508.1
	ARENA_3	0.606	12.12	4017.8				
7717.100	D TIERRA	6.026	100.26	26440.8	ARENA_1	0.183	3.12	1371.4
	ARENA_2	0.250	4.28	1746.4	RELLENO_ZANJA	4.765	78.70	17586.8
	ARENA_3	0.606	10.36	4028.1				
7720.000	D TIERRA	6.100	17.58	26458.4	ARENA_1	0.183	0.53	1372.0
	ARENA_2	0.250	0.73	1747.1	RELLENO_ZANJA	4.838	13.92	17600.7
	ARENA_3	0.606	1.76	4029.9				
7740.000	D TIERRA	6.631	127.30	26585.7	ARENA_1	0.183	3.65	1375.6
	ARENA_2	0.250	5.01	1752.2	RELLENO_ZANJA	5.369	102.08	17702.8
	ARENA_3	0.606	12.12	4042.0				
7760.000	D TIERRA	7.133	137.64	26723.3	ARENA_1	0.183	3.65	1379.3
	ARENA_2	0.250	5.01	1757.2	RELLENO_ZANJA	5.872	112.41	17815.2
	ARENA_3	0.606	12.12	4054.1				
7777.929	D TIERRA	6.917	125.96	26849.3	ARENA_1	0.183	3.27	1382.5
	ARENA_2	0.250	4.49	1761.7	RELLENO_ZANJA	5.656	103.34	17918.5
	ARENA_3	0.606	10.87	4065.0				
7780.000	D TIERRA	6.925	14.33	26863.6	ARENA_1	0.183	0.38	1382.9
	ARENA_2	0.250	0.52	1762.2	RELLENO_ZANJA	5.664	11.72	17930.3
	ARENA_3	0.606	1.26	4066.2				
7800.000	D TIERRA	6.305	132.30	26995.9	ARENA_1	0.183	3.65	1386.6
	ARENA_2	0.250	5.01	1767.2	RELLENO_ZANJA	5.044	107.07	18037.3
	ARENA_3	0.606	12.12	4078.4				
7801.942	D TIERRA	6.215	12.16	27008.1	ARENA_1	0.183	0.35	1386.9
	ARENA_2	0.250	0.49	1767.7	RELLENO_ZANJA	4.954	9.71	18047.0
	ARENA_3	0.606	1.18	4079.5				
7808.017	D TIERRA	6.010	37.13	27045.2	ARENA_1	0.183	1.11	1388.0
	ARENA_2	0.250	1.52	1769.2	RELLENO_ZANJA	4.748	29.47	18076.5
	ARENA_3	0.606	3.68	4083.2				
7820.000	D TIERRA	5.576	69.42	27114.6	ARENA_1	0.183	2.19	1390.2
	ARENA_2	0.250	3.00	1772.2	RELLENO_ZANJA	4.315	54.30	18130.8
	ARENA_3	0.606	7.26	4090.5				
7832.536	D TIERRA	4.470	62.97	27177.6	ARENA_1	0.183	2.29	1392.5
	ARENA_2	0.250	3.14	1775.3	RELLENO_ZANJA	3.209	47.16	18178.0
	ARENA_3	0.606	7.60	4098.1				
7840.000	D TIERRA	4.015	31.67	27209.3	ARENA_1	0.183	1.36	1393.9
	ARENA_2	0.250	1.87	1777.2	RELLENO_ZANJA	2.754	22.25	18200.2
	ARENA_3	0.606	4.52	4102.6				
7855.633	D TIERRA	3.963	62.36	27271.6	ARENA_1	0.183	2.85	1396.7
	ARENA_2	0.250	3.92	1781.1	RELLENO_ZANJA	2.702	42.64	18242.9
	ARENA_3	0.606	9.48	4112.1				
7860.000	D TIERRA	3.765	16.87	27288.5	ARENA_1	0.183	0.80	1397.5
	ARENA_2	0.250	1.09	1782.2	RELLENO_ZANJA	2.504	11.37	18254.2
	ARENA_3	0.606	2.65	4114.7				

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 PROYECTO : CIDACOS COMPLETO
 EJE : 5: P190 (Arqueta principal)-P240 (Aldeanueva)

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 PROYECTO : CIDACOS COMPLETO
 EJE : 5: P190 (Arqueta principal)-P240 (Aldeanueva)

***** MEDICIONES DE LOS PERFILES TRANSVERSALES*****
 ***** CAPAS DE FIRME *****

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PERFIL	MATERIAL	AREA PERFIL	VOL. PARCIAL	VOL. ACUMUL.	MATERIAL	AREA PERFIL	VOL. PARCIAL	VOL. ACUMUL.
7880.000	D TIERRA	3.194	69.59	27358.1	ARENA_1	0.183	3.65	1401.2
	ARENA_2	0.250	5.01	1787.2	RELLENO_ZANJA	1.932	44.36	18298.6
	ARENA_3	0.606	12.12	4126.9				
7900.000	D TIERRA	3.210	64.04	27422.1	ARENA_1	0.183	3.65	1404.8
	ARENA_2	0.250	5.01	1792.2	RELLENO_ZANJA	1.949	38.81	18337.4
	ARENA_3	0.606	12.12	4139.0				
7920.000	D TIERRA	3.161	63.72	27485.8	ARENA_1	0.183	3.65	1408.5
	ARENA_2	0.250	5.01	1797.2	RELLENO_ZANJA	1.900	38.49	18375.9
	ARENA_3	0.606	12.12	4151.1				
7940.000	D TIERRA	3.253	64.14	27550.0	ARENA_1	0.183	3.65	1412.1
	ARENA_2	0.250	5.01	1802.2	RELLENO_ZANJA	1.992	38.91	18414.8
	ARENA_3	0.606	12.12	4163.2				
7957.347	D TIERRA	3.431	57.97	27608.0	ARENA_1	0.183	3.17	1415.3
	ARENA_2	0.250	4.35	1806.6	RELLENO_ZANJA	2.170	36.09	18450.9
	ARENA_3	0.606	10.51	4173.7				
7960.000	D TIERRA	3.460	9.14	27617.1	ARENA_1	0.183	0.48	1415.8
	ARENA_2	0.250	0.66	1807.3	RELLENO_ZANJA	2.199	5.80	18456.7
	ARENA_3	0.606	1.61	4175.3				
7974.505	D TIERRA	3.222	48.46	27665.6	ARENA_1	0.183	2.65	1418.4
	ARENA_2	0.250	3.63	1810.9	RELLENO_ZANJA	1.961	30.17	18486.9
	ARENA_3	0.606	8.79	4184.1				
7980.000	D TIERRA	3.256	17.80	27683.4	ARENA_1	0.183	1.00	1419.4
	ARENA_2	0.250	1.38	1812.3	RELLENO_ZANJA	1.994	10.87	18497.7
	ARENA_3	0.606	3.33	4187.5				
8000.000	D TIERRA	3.144	64.00	27747.4	ARENA_1	0.183	3.65	1423.1
	ARENA_2	0.250	5.01	1817.3	RELLENO_ZANJA	1.883	38.77	18536.5
	ARENA_3	0.606	12.12	4199.6				
8001.977	D TIERRA	3.127	6.20	27753.6	ARENA_1	0.183	0.36	1423.4
	ARENA_2	0.250	0.50	1817.8	RELLENO_ZANJA	1.866	3.71	18540.2
	ARENA_3	0.606	1.20	4200.8				
8020.000	D TIERRA	3.175	56.79	27810.4	ARENA_1	0.183	3.29	1426.7
	ARENA_2	0.250	4.51	1822.3	RELLENO_ZANJA	1.914	34.06	18574.3
	ARENA_3	0.606	10.92	4211.7				
8040.000	D TIERRA	3.514	66.89	27877.2	ARENA_1	0.183	3.65	1430.4
	ARENA_2	0.250	5.01	1827.3	RELLENO_ZANJA	2.253	41.67	18615.9
	ARENA_3	0.606	12.12	4223.8				
8056.587	D TIERRA	3.321	56.69	27933.9	ARENA_1	0.183	3.03	1433.4
	ARENA_2	0.250	4.15	1831.5	RELLENO_ZANJA	2.060	35.76	18651.7
	ARENA_3	0.606	10.05	4233.9				
8060.000	D TIERRA	3.220	11.16	27945.1	ARENA_1	0.183	0.62	1434.0
	ARENA_2	0.250	0.85	1832.3	RELLENO_ZANJA	1.958	6.86	18658.6
	ARENA_3	0.606	2.07	4235.9				
8080.000	D TIERRA	3.277	64.96	28010.1	ARENA_1	0.183	3.65	1437.7
	ARENA_2	0.251	5.01	1837.3	RELLENO_ZANJA	2.015	39.74	18698.3
	ARENA_3	0.606	12.12	4248.1				
8090.475	D TIERRA	3.512	35.55	28045.6	ARENA_1	0.183	1.91	1439.6
	ARENA_2	0.251	2.62	1839.9	RELLENO_ZANJA	2.250	22.34	18720.6
	ARENA_3	0.606	6.35	4254.4				
8100.000	D TIERRA	3.292	32.40	28078.0	ARENA_1	0.183	1.74	1441.3
	ARENA_2	0.250	2.39	1842.3	RELLENO_ZANJA	2.031	20.39	18741.0
	ARENA_3	0.606	5.77	4260.2				
8120.000	D TIERRA	3.359	66.52	28144.5	ARENA_1	0.183	3.65	1445.0
	ARENA_2	0.250	5.01	1847.3	RELLENO_ZANJA	2.098	41.29	18782.3
	ARENA_3	0.606	12.12	4272.3				
8129.213	D TIERRA	3.227	30.34	28174.9	ARENA_1	0.183	1.68	1446.7
	ARENA_2	0.250	2.31	1849.6	RELLENO_ZANJA	1.966	18.72	18801.1
	ARENA_3	0.606	5.58	4277.9				
8140.000	D TIERRA	3.182	34.57	28209.4	ARENA_1	0.183	1.97	1448.6
	ARENA_2	0.250	2.70	1852.3	RELLENO_ZANJA	1.921	20.96	18822.0
	ARENA_3	0.606	6.54	4284.4				

PERFIL	MATERIAL	AREA PERFIL	VOL. PARCIAL	VOL. ACUMUL.	MATERIAL	AREA PERFIL	VOL. PARCIAL	VOL. ACUMUL.
8147.914	D TIERRA	3.326	25.75	28235.2	ARENA_1	0.183	1.44	1450.1
	ARENA_2	0.250	1.98	1854.3	RELLENO_ZANJA	2.064	15.77	18837.8
	ARENA_3	0.606	4.80	4289.2				
8160.000	D TIERRA	3.476	41.10	28276.3	ARENA_1	0.183	2.21	1452.3
	ARENA_2	0.251	3.03	1857.4	RELLENO_ZANJA	2.214	25.86	18863.6
	ARENA_3	0.606	7.32	4296.5				
8180.000	D TIERRA	3.235	67.10	28343.4	ARENA_1	0.183	3.65	1455.9
	ARENA_2	0.251	5.01	1862.4	RELLENO_ZANJA	1.973	41.88	18905.5
	ARENA_3	0.606	12.12	4308.7				
8200.000	D TIERRA	3.418	66.53	28409.9	ARENA_1	0.183	3.65	1459.6
	ARENA_2	0.250	5.01	1867.4	RELLENO_ZANJA	2.157	41.30	18946.8
	ARENA_3	0.606	12.12	4320.8				
8206.087	D TIERRA	3.236	20.25	28430.2	ARENA_1	0.183	1.11	1460.7
	ARENA_2	0.250	1.52	1868.9	RELLENO_ZANJA	1.975	12.58	18959.4
	ARENA_3	0.606	3.69	4324.5				
8214.719	D TIERRA	3.539	29.24	28459.4	ARENA_1	0.183	1.58	1462.3
	ARENA_2	0.250	2.16	1871.1	RELLENO_ZANJA	2.278	18.35	18977.7
	ARENA_3	0.606	5.23	4329.7				
8220.000	D TIERRA	3.776	19.31	28478.7	ARENA_1	0.183	0.96	1463.2
	ARENA_2	0.250	1.32	1872.4	RELLENO_ZANJA	2.514	12.65	18990.4
	ARENA_3	0.606	3.20	4332.9				
8240.000	D TIERRA	3.511	72.86	28551.6	ARENA_1	0.183	3.65	1466.9
	ARENA_2	0.250	5.01	1877.4	RELLENO_ZANJA	2.249	47.64	19038.0
	ARENA_3	0.606	12.12	4345.0				
8260.000	D TIERRA	3.226	67.37	28619.0	ARENA_1	0.183	3.65	1470.5
	ARENA_2	0.250	5.01	1882.4	RELLENO_ZANJA	1.964	42.14	19080.2
	ARENA_3	0.606	12.12	4357.2				
8270.696	D TIERRA	3.740	37.25	28656.2	ARENA_1	0.183	1.95	1472.5
	ARENA_2	0.250	2.68	1885.1	RELLENO_ZANJA	2.479	23.76	19103.9
	ARENA_3	0.606	6.48	4363.6				
8280.000	D TIERRA	3.463	33.51	28689.7	ARENA_1	0.183	1.70	1474.2
	ARENA_2	0.250	2.33	1887.4	RELLENO_ZANJA	2.202	21.77	19125.7
	ARENA_3	0.606	5.64	4369.3				
8300.000	D TIERRA	3.275	67.38	28757.1	ARENA_1	0.183	3.65	1477.8
	ARENA_2	0.250	5.01	1892.4	RELLENO_ZANJA	2.013	42.15	19167.9
	ARENA_3	0.606	12.12	4381.4				
8307.691	D TIERRA	3.452	25.87	28783.0	ARENA_1	0.183	1.40	1479.2
	ARENA_2	0.250	1.93	1894.3	RELLENO_ZANJA	2.191	16.17	19184.0
	ARENA_3	0.606	4.66	4386.1				
8320.000	D TIERRA	4.486	48.86	28831.8	ARENA_1	0.183	2.25	1481.5
	ARENA_2	0.250	3.08	1897.4	RELLENO_ZANJA	3.225	33.33	19217.4
	ARENA_3	0.606	7.46	4393.5				
8335.134	D TIERRA	4.537	68.28	28900.1	ARENA_1	0.183	2.76	1484.2
	ARENA_2	0.250	3.79	1901.2	RELLENO_ZANJA	3.275	49.19	19266.6
	ARENA_3	0.606	9.17	4402.7				
8340.000	D TIERRA	3.345	19.18	28919.3	ARENA_1	0.183	0.89	1485.1
	ARENA_2	0.250	1.22	1902.4	RELLENO_ZANJA	2.084	13.04	19279.6
	ARENA_3	0.606	2.95	4405.6				
8354.463	D TIERRA	3.577	50.06	28969.3	ARENA_1	0.183	2.64	1487.8
	ARENA_2	0.250	3.62	1906.1	RELLENO_ZANJA	2.316	31.81	19311.4
	ARENA_3	0.606	8.77	4414.4				
8360.000	D TIERRA	3.221	18.82	28988.2	ARENA_1	0.183	1.01	1488.8
	ARENA_2	0.250	1.39	1907.5	RELLENO_ZANJA	1.959	11.84	19323.2
	ARENA_3	0.606	3.36	4417.8				
8371.300	D TIERRA	3.639	38.76	29026.9	ARENA_1	0.183	2.06	1490.8
	ARENA_2	0.251	2.83	1910.3	RELLENO_ZANJA	2.378	24.51	19347.8
	ARENA_3	0.606	6.85	4424.6				
8380.000	D TIERRA	3.227	29.87	29056.8	ARENA_1	0.183	1.59	1492.4
	ARENA_2	0.251	2.18	1912.5	RELLENO_ZANJA	1.965	18.89	19366.6
	ARENA_3	0.606	5.27	4429.9				



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PROYECTO : CIDACOS COMPLETO
EJE : 5: P190 (Arqueta principal)-P240 (Aldeanueva)

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PROYECTO : CIDACOS COMPLETO
EJE : 5: P190 (Arqueta principal)-P240 (Aldeanueva)

*** MEDICIONES DE LOS PERFILES TRANSVERSALES ***
*** CAPAS DE FIRME ***

*** MEDICIONES DE LOS PERFILES TRANSVERSALES ***
*** CAPAS DE FIRME ***

PERFIL	MATERIAL	AREA PERFIL	VOL. PARCIAL	VOL. ACUMUL.	MATERIAL	AREA PERFIL	VOL. PARCIAL	VOL. ACUMUL.
8400.000	D TIERRA	3.304	65.30	29122.1	ARENA_1	0.183	3.65	1496.1
	ARENA_2	0.251	5.01	1917.5	RELLENO_ZANJA	2.042	40.08	19406.7
	ARENA_3	0.606	12.12	4442.0				
8402.232	D TIERRA	3.211	7.27	29129.4	ARENA_1	0.183	0.41	1496.5
	ARENA_2	0.251	0.56	1918.0	RELLENO_ZANJA	1.949	4.45	19411.2
	ARENA_3	0.606	1.35	4443.3				
8420.000	D TIERRA	3.538	59.96	29189.3	ARENA_1	0.183	3.24	1499.7
	ARENA_2	0.251	4.45	1922.5	RELLENO_ZANJA	2.277	37.55	19448.7
	ARENA_3	0.606	10.76	4454.1				
8430.005	D TIERRA	3.698	36.20	29225.5	ARENA_1	0.183	1.83	1501.6
	ARENA_2	0.250	2.51	1925.0	RELLENO_ZANJA	2.437	23.58	19472.3
	ARENA_3	0.606	6.06	4460.2				
8440.000	D TIERRA	3.496	35.96	29261.5	ARENA_1	0.183	1.82	1503.4
	ARENA_2	0.250	2.50	1927.5	RELLENO_ZANJA	2.235	23.35	19495.7
	ARENA_3	0.606	6.06	4466.2				
8452.144	D TIERRA	3.238	40.89	29302.4	ARENA_1	0.183	2.22	1505.6
	ARENA_2	0.250	3.04	1930.5	RELLENO_ZANJA	1.977	25.57	19521.2
	ARENA_3	0.606	7.36	4473.6				
8460.000	D TIERRA	3.430	26.19	29328.6	ARENA_1	0.183	1.43	1507.0
	ARENA_2	0.250	1.97	1932.5	RELLENO_ZANJA	2.169	16.28	19537.5
	ARENA_3	0.606	4.76	4478.3				
8480.000	D TIERRA	3.152	65.83	29394.4	ARENA_1	0.183	3.65	1510.7
	ARENA_2	0.250	5.01	1937.5	RELLENO_ZANJA	1.891	40.60	19578.1
	ARENA_3	0.606	12.12	4490.5				
8500.000	D TIERRA	3.733	68.86	29463.2	ARENA_1	0.183	3.65	1514.3
	ARENA_2	0.250	5.01	1942.5	RELLENO_ZANJA	2.472	43.63	19621.7
	ARENA_3	0.606	12.12	4502.6				
8504.778	D TIERRA	3.507	17.30	29480.5	ARENA_1	0.182	0.87	1515.2
	ARENA_2	0.251	1.20	1943.7	RELLENO_ZANJA	2.246	11.27	19633.0
	ARENA_3	0.605	2.89	4505.5				
8520.000	D TIERRA	3.118	50.43	29531.0	ARENA_1	0.182	2.78	1518.0
	ARENA_2	0.251	3.82	1947.5	RELLENO_ZANJA	1.857	31.23	19664.2
	ARENA_3	0.605	9.21	4514.7				
8540.000	D TIERRA	3.163	62.81	29593.8	ARENA_1	0.182	3.65	1521.6
	ARENA_2	0.251	5.01	1952.5	RELLENO_ZANJA	1.901	37.58	19701.8
	ARENA_3	0.605	12.10	4526.8				
8560.000	D TIERRA	3.196	63.59	29657.4	ARENA_1	0.183	3.65	1525.3
	ARENA_2	0.251	5.01	1957.6	RELLENO_ZANJA	1.935	38.36	19740.2
	ARENA_3	0.606	12.11	4538.9				
8580.000	D TIERRA	3.475	66.71	29724.1	ARENA_1	0.182	3.65	1528.9
	ARENA_2	0.251	5.01	1962.6	RELLENO_ZANJA	2.213	41.48	19781.7
	ARENA_3	0.606	12.11	4551.0				
8583.352	D TIERRA	3.617	11.89	29736.0	ARENA_1	0.182	0.61	1529.5
	ARENA_2	0.251	0.84	1963.4	RELLENO_ZANJA	2.356	7.66	19789.3
	ARENA_3	0.606	2.03	4553.0				
8591.333	D TIERRA	3.674	29.09	29765.1	ARENA_1	0.182	1.46	1531.0
	ARENA_2	0.251	2.00	1965.4	RELLENO_ZANJA	2.412	19.03	19808.4
	ARENA_3	0.606	4.83	4557.9				
8600.000	D TIERRA	3.612	31.57	29796.6	ARENA_1	0.183	1.58	1532.6
	ARENA_2	0.251	2.17	1967.6	RELLENO_ZANJA	2.351	20.64	19829.0
	ARENA_3	0.606	5.25	4563.1				
8620.000	D TIERRA	3.228	68.40	29865.0	ARENA_1	0.182	3.65	1536.2
	ARENA_2	0.251	5.01	1972.6	RELLENO_ZANJA	1.966	43.17	19872.2
	ARENA_3	0.606	12.11	4575.2				
8640.000	D TIERRA	3.413	66.41	29931.4	ARENA_1	0.183	3.65	1539.9
	ARENA_2	0.251	5.01	1977.6	RELLENO_ZANJA	2.152	41.18	19913.4
	ARENA_3	0.606	12.12	4587.4				
8660.000	D TIERRA	3.299	67.12	29998.6	ARENA_1	0.183	3.65	1543.5
	ARENA_2	0.250	5.01	1982.6	RELLENO_ZANJA	2.037	41.89	19955.2
	ARENA_3	0.606	12.12	4599.5				

PERFIL	MATERIAL	AREA PERFIL	VOL. PARCIAL	VOL. ACUMUL.	MATERIAL	AREA PERFIL	VOL. PARCIAL	VOL. ACUMUL.
8664.287	D TIERRA	3.230	13.99	30012.6	ARENA_1	0.183	0.78	1544.3
	ARENA_2	0.250	1.07	1983.7	RELLENO_ZANJA	1.969	8.59	19963.8
	ARENA_3	0.606	2.60	4602.1				
8680.000	D TIERRA	3.246	50.88	30063.4	ARENA_1	0.183	2.87	1547.2
	ARENA_2	0.251	3.94	1987.6	RELLENO_ZANJA	1.985	31.06	19994.9
	ARENA_3	0.606	9.52	4611.6				
8700.000	D TIERRA	3.221	64.67	30128.1	ARENA_1	0.183	3.65	1550.8
	ARENA_2	0.251	5.01	1992.6	RELLENO_ZANJA	1.960	39.45	20034.3
	ARENA_3	0.606	12.12	4623.7				
8705.103	D TIERRA	3.220	16.43	30144.5	ARENA_1	0.183	0.93	1551.8
	ARENA_2	0.251	1.28	1993.9	RELLENO_ZANJA	1.959	10.00	20044.3
	ARENA_3	0.606	3.09	4626.8				
8720.000	D TIERRA	3.275	48.38	30192.9	ARENA_1	0.183	2.72	1554.5
	ARENA_2	0.251	3.73	1997.6	RELLENO_ZANJA	2.014	29.59	20073.9
	ARENA_3	0.606	9.03	4635.8				
8740.000	D TIERRA	3.356	66.32	30259.2	ARENA_1	0.183	3.65	1558.1
	ARENA_2	0.251	5.01	2002.7	RELLENO_ZANJA	2.095	41.09	20115.0
	ARENA_3	0.606	12.12	4647.9				
8751.411	D TIERRA	3.265	37.78	30297.0	ARENA_1	0.183	2.08	1560.2
	ARENA_2	0.251	2.86	2005.5	RELLENO_ZANJA	2.004	23.39	20138.4
	ARENA_3	0.606	6.91	4654.9				
8760.000	D TIERRA	3.103	27.35	30324.4	ARENA_1	0.183	1.57	1561.8
	ARENA_2	0.251	2.15	2007.7	RELLENO_ZANJA	1.842	16.52	20154.9
	ARENA_3	0.606	5.20	4660.1				
8773.551	D TIERRA	3.155	42.40	30366.8	ARENA_1	0.183	2.47	1564.3
	ARENA_2	0.251	3.39	2011.1	RELLENO_ZANJA	1.893	25.31	20180.2
	ARENA_3	0.606	8.21	4668.3				
8780.000	D TIERRA	3.219	20.55	30387.3	ARENA_1	0.183	1.18	1565.4
	ARENA_2	0.251	1.62	2012.7	RELLENO_ZANJA	1.957	12.42	20192.7
	ARENA_3	0.606	3.91	4672.2				
8800.000	D TIERRA	3.717	69.36	30456.7	ARENA_1	0.183	3.65	1569.1
	ARENA_2	0.251	5.01	2017.7	RELLENO_ZANJA	2.456	44.13	20236.8
	ARENA_3	0.606	12.12	4684.3				
8820.000	D TIERRA	3.513	72.30	30529.0	ARENA_1	0.183	3.65	1572.7
	ARENA_2	0.251	5.01	2022.7	RELLENO_ZANJA	2.252	47.08	20283.9
	ARENA_3	0.606	12.12	4696.4				
8821.464	D TIERRA	3.505	5.14	30534.1	ARENA_1	0.183	0.27	1573.0
	ARENA_2	0.251	0.37	2023.1	RELLENO_ZANJA	2.244	3.29	20287.2
	ARENA_3	0.606	0.89	4697.3				
8838.737	D TIERRA	3.402	59.65	30593.8	ARENA_1	0.183	3.15	1576.2
	ARENA_2	0.251	4.33	2027.4	RELLENO_ZANJA	2.140	37.86	20325.0
	ARENA_3	0.606	10.46	4707.8				
8840.000	D TIERRA	3.406	4.30	30598.1	ARENA_1	0.183	0.23	1576.4
	ARENA_2	0.251	0.32	2027.7	RELLENO_ZANJA	2.144	2.71	20327.7
	ARENA_3	0.606	0.77	4708.5				
8859.775	D TIERRA	3.581	69.08	30667.1	ARENA_1	0.183	3.61	1580.0
	ARENA_2	0.251	4.95	2032.7	RELLENO_ZANJA	2.319	44.13	20371.9
	ARENA_3	0.606	11.98	4720.5				
8860.000	D TIERRA	3.585	0.81	30668.0	ARENA_1	0.183	0.04	1580.0
	ARENA_2	0.251	0.06	2032.7	RELLENO_ZANJA	2.323	0.52	20372.4
	ARENA_3	0.606	0.14	4720.6				
8880.000	D TIERRA	3.685	72.69	30740.6	ARENA_1	0.183	3.65	1583.7
	ARENA_2	0.251	5.01	2037.7	RELLENO_ZANJA	2.424	47.47	20419.8
	ARENA_3	0.606	12.12	4732.8				
8890.742	D TIERRA	3.459	38.37	30779.0	ARENA_1	0.183	1.96	1585.6
	ARENA_2	0.251	2.69	2040.4	RELLENO_ZANJA	2.197	24.82	20444.7
	ARENA_3	0.606	6.51	4739.3				
8900.000	D TIERRA	3.341	31.48	30810.5	ARENA_1	0.183	1.69	1587.3
	ARENA_2	0.251	2.32	2042.7	RELLENO_ZANJA	2.080	19.80	20464.5
	ARENA_3	0.606	5.61	4744.9				



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PROYECTO : CIDACOS COMPLETO
EJE : 5: P190 (Arqueta principal)-P240 (Aldeanueva)

Istram 9.04 12/05/20 12:33:22

PROYECTO : CIDACOS COMPLETO
EJE : 5: P190 (Arqueta principal)-P240 (Aldeanueva)

*** MEDICIONES DE LOS PERFILES TRANSVERSALES ***
*** CAPAS DE FIRME ***

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PERFIL	MATERIAL	AREA PERFIL	VOL. PARCIAL	VOL. ACUMUL.	MATERIAL	AREA PERFIL	VOL. PARCIAL	VOL. ACUMUL.
8910.953	D TIERRA	3.171	35.66	30846.2	ARENA_1	0.183	2.00	1589.3
	ARENA_2	0.251	2.74	2045.5	RELLENO_ZANJA	1.910	21.85	20486.3
	ARENA_3	0.606	6.64	4751.5				
8920.000	D TIERRA	3.102	28.37	30874.5	ARENA_1	0.183	1.65	1591.0
	ARENA_2	0.251	2.27	2047.7	RELLENO_ZANJA	1.840	16.96	20503.3
	ARENA_3	0.606	5.48	4757.0				
8940.000	D TIERRA	3.169	62.71	30937.2	ARENA_1	0.183	3.65	1594.6
	ARENA_2	0.251	5.01	2052.8	RELLENO_ZANJA	1.908	37.48	20540.8
	ARENA_3	0.606	12.11	4769.1				
8940.771	D TIERRA	3.158	2.44	30939.7	ARENA_1	0.183	0.14	1594.8
	ARENA_2	0.251	0.19	2053.0	RELLENO_ZANJA	1.897	1.47	20542.2
	ARENA_3	0.606	0.47	4769.6				
8960.000	D TIERRA	3.400	63.05	31002.7	ARENA_1	0.183	3.51	1598.3
	ARENA_2	0.250	4.82	2057.8	RELLENO_ZANJA	2.138	38.80	20581.0
	ARENA_3	0.606	11.65	4781.2				
8975.621	D TIERRA	3.226	51.75	31054.5	ARENA_1	0.183	2.85	1601.1
	ARENA_2	0.250	3.91	2061.7	RELLENO_ZANJA	1.965	32.04	20613.1
	ARENA_3	0.606	9.47	4790.7				
8980.000	D TIERRA	3.385	14.47	31068.9	ARENA_1	0.183	0.80	1601.9
	ARENA_2	0.250	1.10	2062.8	RELLENO_ZANJA	2.124	8.95	20622.0
	ARENA_3	0.606	2.65	4793.3				
9000.000	D TIERRA	4.701	80.86	31149.8	ARENA_1	0.183	3.65	1605.6
	ARENA_2	0.250	5.01	2067.8	RELLENO_ZANJA	3.440	55.64	20677.7
	ARENA_3	0.606	12.12	4805.5				
9007.235	D TIERRA	4.659	33.86	31183.7	ARENA_1	0.183	1.32	1606.9
	ARENA_2	0.250	1.81	2069.6	RELLENO_ZANJA	3.398	24.74	20702.4
	ARENA_3	0.606	4.39	4809.9				
9020.000	D TIERRA	5.510	64.91	31248.6	ARENA_1	0.183	2.33	1609.2
	ARENA_2	0.250	3.20	2072.8	RELLENO_ZANJA	4.248	48.80	20751.2
	ARENA_3	0.606	7.74	4817.6				
9040.000	D TIERRA	4.963	104.73	31353.3	ARENA_1	0.183	3.65	1612.9
	ARENA_2	0.250	5.01	2077.8	RELLENO_ZANJA	3.702	79.50	20830.7
	ARENA_3	0.606	12.12	4829.7				
9060.000	D TIERRA	4.068	90.31	31443.6	ARENA_1	0.183	3.65	1616.5
	ARENA_2	0.250	5.01	2082.8	RELLENO_ZANJA	2.807	65.08	20895.8
	ARENA_3	0.606	12.12	4841.8				
9080.000	D TIERRA	3.020	70.88	31514.5	ARENA_1	0.183	3.65	1620.2
	ARENA_2	0.250	5.01	2087.8	RELLENO_ZANJA	1.758	45.65	20941.4
	ARENA_3	0.606	12.12	4854.0				
9100.000	D TIERRA	3.254	62.74	31577.2	ARENA_1	0.183	3.65	1623.8
	ARENA_2	0.250	5.01	2092.8	RELLENO_ZANJA	1.993	37.51	20978.9
	ARENA_3	0.606	12.12	4866.1				
9120.000	D TIERRA	3.934	71.88	31649.1	ARENA_1	0.183	3.65	1627.5
	ARENA_2	0.250	5.01	2097.8	RELLENO_ZANJA	2.673	46.66	21025.6
	ARENA_3	0.606	12.12	4878.2				
9140.000	D TIERRA	3.343	72.77	31721.9	ARENA_1	0.183	3.65	1631.1
	ARENA_2	0.250	5.01	2102.9	RELLENO_ZANJA	2.082	47.55	21073.1
	ARENA_3	0.606	12.12	4890.3				
9160.000	D TIERRA	3.164	65.08	31787.0	ARENA_1	0.183	3.65	1634.8
	ARENA_2	0.250	5.01	2107.9	RELLENO_ZANJA	1.903	39.85	21113.0
	ARENA_3	0.606	12.12	4902.4				
9161.170	D TIERRA	3.089	3.66	31790.6	ARENA_1	0.183	0.21	1635.0
	ARENA_2	0.250	0.29	2108.2	RELLENO_ZANJA	1.827	2.18	21115.2
	ARENA_3	0.606	0.71	4903.2				
9180.000	D TIERRA	3.435	61.42	31852.0	ARENA_1	0.183	3.44	1638.4
	ARENA_2	0.250	4.72	2112.9	RELLENO_ZANJA	2.174	37.67	21152.8
	ARENA_3	0.606	11.41	4914.6				
9186.281	D TIERRA	3.609	22.12	31874.2	ARENA_1	0.183	1.15	1639.6
	ARENA_2	0.250	1.57	2114.4	RELLENO_ZANJA	2.348	14.20	21167.0
	ARENA_3	0.606	3.81	4918.4				

PERFIL	MATERIAL	AREA PERFIL	VOL. PARCIAL	VOL. ACUMUL.	MATERIAL	AREA PERFIL	VOL. PARCIAL	VOL. ACUMUL.
9194.654	D TIERRA	3.647	30.38	31904.5	ARENA_1	0.183	1.53	1641.1
	ARENA_2	0.250	2.10	2116.5	RELLENO_ZANJA	2.385	19.82	21186.9
	ARENA_3	0.606	5.07	4923.4				
9200.000	D TIERRA	3.545	19.22	31923.8	ARENA_1	0.183	0.98	1642.1
	ARENA_2	0.250	1.34	2117.9	RELLENO_ZANJA	2.284	12.48	21199.3
	ARENA_3	0.606	3.24	4926.7				
9220.000	D TIERRA	3.201	67.46	31991.2	ARENA_1	0.183	3.65	1645.7
	ARENA_2	0.251	5.01	2122.9	RELLENO_ZANJA	1.940	42.23	21241.6
	ARENA_3	0.606	12.12	4938.8				
9240.000	D TIERRA	3.221	64.21	32055.4	ARENA_1	0.183	3.65	1649.4
	ARENA_2	0.251	5.01	2127.9	RELLENO_ZANJA	1.959	38.99	21280.6
	ARENA_3	0.606	12.11	4950.9				
9260.000	D TIERRA	3.822	70.43	32125.9	ARENA_1	0.182	3.65	1653.0
	ARENA_2	0.251	5.01	2132.9	RELLENO_ZANJA	2.561	45.20	21325.8
	ARENA_3	0.605	12.11	4963.0				
9280.000	D TIERRA	3.204	70.26	32196.1	ARENA_1	0.182	3.65	1656.7
	ARENA_2	0.251	5.01	2137.9	RELLENO_ZANJA	1.942	45.03	21370.8
	ARENA_3	0.605	12.10	4975.1				
9300.000	D TIERRA	3.222	64.26	32260.4	ARENA_1	0.182	3.65	1660.3
	ARENA_2	0.251	5.01	2142.9	RELLENO_ZANJA	1.961	39.03	21409.8
	ARENA_3	0.605	12.10	4987.2				
9320.000	D TIERRA	3.093	63.16	32323.5	ARENA_1	0.182	3.65	1664.0
	ARENA_2	0.251	5.01	2148.0	RELLENO_ZANJA	1.832	37.93	21447.8
	ARENA_3	0.605	12.10	4999.3				
9328.853	D TIERRA	3.199	27.85	32351.4	ARENA_1	0.182	1.62	1665.6
	ARENA_2	0.251	2.22	2150.2	RELLENO_ZANJA	1.938	16.69	21464.4
	ARENA_3	0.605	5.36	5004.7				
9340.000	D TIERRA	3.351	36.51	32387.9	ARENA_1	0.182	2.03	1667.6
	ARENA_2	0.251	2.79	2153.0	RELLENO_ZANJA	2.090	22.45	21486.9
	ARENA_3	0.605	6.75	5011.4				
9360.000	D TIERRA	3.215	65.66	32453.5	ARENA_1	0.183	3.65	1671.3
	ARENA_2	0.251	5.01	2158.0	RELLENO_ZANJA	1.953	40.43	21527.3
	ARENA_3	0.606	12.11	5023.5				
9380.000	D TIERRA	3.395	66.10	32519.6	ARENA_1	0.183	3.65	1674.9
	ARENA_2	0.251	5.01	2163.0	RELLENO_ZANJA	2.134	40.87	21568.2
	ARENA_3	0.606	12.11	5035.7				
9386.441	D TIERRA	3.479	22.14	32541.8	ARENA_1	0.183	1.18	1676.1
	ARENA_2	0.251	1.61	2164.6	RELLENO_ZANJA	2.218	14.01	21582.2
	ARENA_3	0.606	3.90	5039.6				
9400.000	D TIERRA	3.453	46.99	32588.8	ARENA_1	0.183	2.47	1678.6
	ARENA_2	0.251	3.40	2168.0	RELLENO_ZANJA	2.191	29.89	21612.1
	ARENA_3	0.606	8.21	5047.8				
9420.000	D TIERRA	3.168	66.20	32655.0	ARENA_1	0.183	3.65	1682.2
	ARENA_2	0.251	5.01	2173.0	RELLENO_ZANJA	1.906	40.98	21653.1
	ARENA_3	0.606	12.11	5059.9				
9435.356	D TIERRA	3.248	49.26	32704.2	ARENA_1	0.183	2.80	1685.0
	ARENA_2	0.251	3.85	2176.9	RELLENO_ZANJA	1.987	29.89	21683.0
	ARENA_3	0.606	9.30	5069.2				
9440.000	D TIERRA	3.251	15.09	32719.3	ARENA_1	0.183	0.85	1685.9
	ARENA_2	0.251	1.16	2178.0	RELLENO_ZANJA	1.989	9.23	21692.2
	ARENA_3	0.606	2.81	5072.0				
9444.858	D TIERRA	3.255	15.80	32735.1	ARENA_1	0.183	0.89	1686.8
	ARENA_2	0.251	1.22	2179.2	RELLENO_ZANJA	1.994	9.68	21701.9
	ARENA_3	0.606	2.94	5074.9				
9460.000	D TIERRA	3.169	48.64	32783.8	ARENA_1	0.183	2.76	1689.5
	ARENA_2	0.251	3.79	2183.0	RELLENO_ZANJA	1.908	29.54	21731.4
	ARENA_3	0.606	9.17	5084.1				
9480.000	D TIERRA	3.231	64.00	32847.8	ARENA_1	0.183	3.65	1693.2
	ARENA_2	0.251	5.01	2188.0	RELLENO_ZANJA	1.970	38.78	21770.2
	ARENA_3	0.606	12.12	5096.2				



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PROYECTO : CIDACOS COMPLETO
EJE : 5: P190 (Arqueta principal)-P240 (Aldeanueva)

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PROYECTO : CIDACOS COMPLETO
EJE : 5: P190 (Arqueta principal)-P240 (Aldeanueva)

*** MEDICIONES DE LOS PERFILES TRANSVERSALES ***
*** CAPAS DE FIRME ***

*** MEDICIONES DE LOS PERFILES TRANSVERSALES ***
*** CAPAS DE FIRME ***

PERFIL	MATERIAL	AREA PERFIL	VOL. PARCIAL	VOL. ACUMUL.	MATERIAL	AREA PERFIL	VOL. PARCIAL	VOL. ACUMUL.
9500.000	D TIERRA	3.251	64.82	32912.6	ARENA_1	0.182	3.65	1696.8
	ARENA_2	0.251	5.01	2193.1	RELLENO_ZANJA	1.989	39.59	21809.8
	ARENA_3	0.606	12.11	5108.3				
9520.000	D TIERRA	3.350	66.01	32978.6	ARENA_1	0.183	3.65	1700.5
	ARENA_2	0.251	5.01	2198.1	RELLENO_ZANJA	2.089	40.78	21850.6
	ARENA_3	0.606	12.11	5120.5				
9540.000	D TIERRA	3.607	69.57	33048.2	ARENA_1	0.183	3.65	1704.1
	ARENA_2	0.251	5.01	2203.1	RELLENO_ZANJA	2.345	44.34	21894.9
	ARENA_3	0.606	12.11	5132.6				
9560.000	D TIERRA	3.479	70.86	33119.0	ARENA_1	0.183	3.65	1707.8
	ARENA_2	0.251	5.01	2208.1	RELLENO_ZANJA	2.218	45.63	21940.5
	ARENA_3	0.606	12.12	5144.7				
9580.000	D TIERRA	3.318	67.97	33187.0	ARENA_1	0.183	3.65	1711.4
	ARENA_2	0.251	5.01	2213.1	RELLENO_ZANJA	2.057	42.75	21983.3
	ARENA_3	0.606	12.12	5156.8				
9600.000	D TIERRA	3.359	66.77	33253.8	ARENA_1	0.183	3.65	1715.1
	ARENA_2	0.251	5.01	2218.1	RELLENO_ZANJA	2.098	41.54	22024.8
	ARENA_3	0.606	12.12	5168.9				
9618.374	D TIERRA	3.689	64.75	33318.5	ARENA_1	0.182	3.35	1718.4
	ARENA_2	0.251	4.60	2222.7	RELLENO_ZANJA	2.427	41.57	22066.4
	ARENA_3	0.606	11.13	5180.1				
9620.000	D TIERRA	3.628	5.95	33324.5	ARENA_1	0.183	0.30	1718.7
	ARENA_2	0.251	0.41	2223.1	RELLENO_ZANJA	2.367	3.90	22070.3
	ARENA_3	0.606	0.99	5181.0				
9640.000	D TIERRA	3.454	70.83	33395.3	ARENA_1	0.183	3.65	1722.4
	ARENA_2	0.251	5.01	2228.1	RELLENO_ZANJA	2.193	45.60	22115.9
	ARENA_3	0.606	12.12	5193.2				
9660.000	D TIERRA	3.247	67.02	33462.3	ARENA_1	0.182	3.65	1726.0
	ARENA_2	0.251	5.01	2233.1	RELLENO_ZANJA	1.986	41.79	22157.7
	ARENA_3	0.606	12.12	5205.3				
9675.387	D TIERRA	3.111	48.91	33511.2	ARENA_1	0.183	2.81	1728.9
	ARENA_2	0.251	3.85	2237.0	RELLENO_ZANJA	1.849	29.51	22187.2
	ARENA_3	0.606	9.32	5214.6				
9680.000	D TIERRA	3.133	14.40	33525.6	ARENA_1	0.183	0.84	1729.7
	ARENA_2	0.251	1.16	2238.1	RELLENO_ZANJA	1.872	8.58	22195.8
	ARENA_3	0.606	2.79	5217.4				
9699.472	D TIERRA	3.223	61.89	33587.5	ARENA_1	0.183	3.55	1733.2
	ARENA_2	0.251	4.88	2243.0	RELLENO_ZANJA	1.962	37.33	22233.1
	ARENA_3	0.606	11.80	5229.2				
9700.000	D TIERRA	3.230	1.70	33589.2	ARENA_1	0.182	0.10	1733.3
	ARENA_2	0.251	0.13	2243.2	RELLENO_ZANJA	1.969	1.04	22234.1
	ARENA_3	0.606	0.32	5229.5				
9718.812	D TIERRA	3.486	63.17	33652.4	ARENA_1	0.183	3.43	1736.8
	ARENA_2	0.250	4.71	2247.9	RELLENO_ZANJA	2.224	39.44	22273.6
	ARENA_3	0.606	11.40	5240.9				
9720.000	D TIERRA	3.446	4.12	33656.5	ARENA_1	0.183	0.22	1737.0
	ARENA_2	0.250	0.30	2248.2	RELLENO_ZANJA	2.184	2.62	22276.2
	ARENA_3	0.606	0.72	5241.6				
9735.984	D TIERRA	3.187	53.01	33709.5	ARENA_1	0.183	2.92	1739.9
	ARENA_2	0.251	4.00	2252.2	RELLENO_ZANJA	1.925	32.85	22309.1
	ARENA_3	0.606	9.69	5251.3				
9740.000	D TIERRA	3.221	12.87	33722.4	ARENA_1	0.183	0.73	1740.6
	ARENA_2	0.250	1.01	2253.2	RELLENO_ZANJA	1.960	7.80	22316.9
	ARENA_3	0.606	2.43	5253.7				
9760.000	D TIERRA	3.395	66.16	33788.5	ARENA_1	0.183	3.65	1744.3
	ARENA_2	0.250	5.01	2258.2	RELLENO_ZANJA	2.134	40.93	22357.8
	ARENA_3	0.606	12.12	5265.9				
9773.743	D TIERRA	3.383	46.57	33835.1	ARENA_1	0.183	2.51	1746.8
	ARENA_2	0.250	3.44	2261.6	RELLENO_ZANJA	2.122	29.24	22387.0
	ARENA_3	0.606	8.33	5274.2				

PERFIL	MATERIAL	AREA PERFIL	VOL. PARCIAL	VOL. ACUMUL.	MATERIAL	AREA PERFIL	VOL. PARCIAL	VOL. ACUMUL.
9780.000	D TIERRA	3.403	21.23	33856.3	ARENA_1	0.183	1.14	1747.9
	ARENA_2	0.250	1.57	2263.2	RELLENO_ZANJA	2.141	13.34	22400.4
	ARENA_3	0.606	3.79	5278.0				
9800.000	D TIERRA	3.388	67.90	33924.2	ARENA_1	0.183	3.65	1751.6
	ARENA_2	0.250	5.01	2268.2	RELLENO_ZANJA	2.126	42.68	22443.0
	ARENA_3	0.606	12.12	5290.1				
9820.000	D TIERRA	3.507	68.95	33993.2	ARENA_1	0.183	3.65	1755.2
	ARENA_2	0.250	5.01	2273.2	RELLENO_ZANJA	2.246	43.72	22486.8
	ARENA_3	0.606	12.12	5302.2				
9837.226	D TIERRA	3.657	61.70	34054.9	ARENA_1	0.183	3.14	1758.4
	ARENA_2	0.250	4.31	2277.5	RELLENO_ZANJA	2.395	39.98	22526.7
	ARENA_3	0.606	10.44	5312.7				
9840.000	D TIERRA	3.666	10.16	34065.1	ARENA_1	0.183	0.51	1758.9
	ARENA_2	0.250	0.69	2278.2	RELLENO_ZANJA	2.404	6.66	22533.4
	ARENA_3	0.606	1.68	5314.4				
9845.133	D TIERRA	3.682	18.86	34083.9	ARENA_1	0.183	0.94	1759.8
	ARENA_2	0.250	1.29	2279.5	RELLENO_ZANJA	2.421	12.38	22545.8
	ARENA_3	0.606	3.11	5317.5				
9860.000	D TIERRA	3.650	54.51	34138.4	ARENA_1	0.183	2.71	1762.6
	ARENA_2	0.250	3.72	2283.2	RELLENO_ZANJA	2.389	35.75	22581.5
	ARENA_3	0.606	9.01	5326.5				
9880.000	D TIERRA	3.641	72.91	34211.3	ARENA_1	0.183	3.65	1766.2
	ARENA_2	0.250	5.01	2288.2	RELLENO_ZANJA	2.379	47.68	22629.2
	ARENA_3	0.606	12.12	5338.6				
9900.000	D TIERRA	3.662	73.03	34284.4	ARENA_1	0.183	3.65	1769.9
	ARENA_2	0.250	5.01	2293.3	RELLENO_ZANJA	2.401	47.80	22677.0
	ARENA_3	0.606	12.12	5350.7				
9920.000	D TIERRA	3.433	70.95	34355.3	ARENA_1	0.183	3.65	1773.5
	ARENA_2	0.250	5.01	2298.3	RELLENO_ZANJA	2.172	45.73	22722.7
	ARENA_3	0.606	12.12	5362.8				
9921.198	D TIERRA	3.404	4.10	34359.4	ARENA_1	0.183	0.22	1773.7
	ARENA_2	0.250	0.30	2298.6	RELLENO_ZANJA	2.143	2.58	22725.3
	ARENA_3	0.606	0.73	5363.6				
9940.000	D TIERRA	3.266	62.71	34422.1	ARENA_1	0.183	3.43	1777.2
	ARENA_2	0.250	4.71	2303.3	RELLENO_ZANJA	2.005	38.99	22764.3
	ARENA_3	0.606	11.39	5375.0				
9948.344	D TIERRA	3.224	27.08	34449.2	ARENA_1	0.183	1.52	1778.7
	ARENA_2	0.250	2.09	2305.4	RELLENO_ZANJA	1.963	16.55	22780.9
	ARENA_3	0.606	5.06	5380.0				
9958.143	D TIERRA	3.347	32.19	34481.4	ARENA_1	0.183	1.79	1780.5
	ARENA_2	0.250	2.45	2307.8	RELLENO_ZANJA	2.085	19.83	22800.7
	ARENA_3	0.606	5.94	5386.0				
9960.000	D TIERRA	3.396	6.26	34487.6	ARENA_1	0.183	0.34	1780.8
	ARENA_2	0.250	0.47	2308.3	RELLENO_ZANJA	2.135	3.92	22804.6
	ARENA_3	0.606	1.13	5387.1				
9980.000	D TIERRA	3.487	68.83	34556.5	ARENA_1	0.183	3.65	1784.5
	ARENA_2	0.250	5.01	2313.3	RELLENO_ZANJA	2.226	43.61	22848.2
	ARENA_3	0.606	12.12	5399.2				
9984.707	D TIERRA	3.480	16.40	34572.9	ARENA_1	0.183	0.86	1785.3
	ARENA_2	0.250	1.18	2314.5	RELLENO_ZANJA	2.219	10.46	22858.7
	ARENA_3	0.606	2.85	5402.1				
10000.000	D TIERRA	3.276	51.66	34624.5	ARENA_1	0.183	2.79	1788.1
	ARENA_2	0.250	3.83	2318.3	RELLENO_ZANJA	2.015	32.38	22891.1
	ARENA_3	0.606	9.27	5411.3				
10003.005	D TIERRA	3.223	9.77	34634.3	ARENA_1	0.183	0.55	1788.7
	ARENA_2	0.250	0.75	2319.1	RELLENO_ZANJA	1.962	5.98	22897.0
	ARENA_3	0.606	1.82	5413.1				
10020.000	D TIERRA	3.430	56.53	34690.8	ARENA_1	0.183	3.10	1791.8
	ARENA_2	0.250	4.26	2323.3	RELLENO_ZANJA	2.169	35.10	22932.1
	ARENA_3	0.606	10.30	5423.4				



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PROYECTO : CIDACOS COMPLETO
EJE : 5: P190 (Arqueta principal)-P240 (Aldeanueva)

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PROYECTO : CIDACOS COMPLETO
EJE : 5: P190 (Arqueta principal)-P240 (Aldeanueva)

MEDICIONES DE LOS PERFILES TRANSVERSALES
CAPAS DE FIRME

MEDICIONES DE LOS PERFILES TRANSVERSALES
CAPAS DE FIRME

Table with 9 columns: PERFIL, MATERIAL, AREA PERFIL, VOL. PARCIAL, VOL. ACUMUL., MATERIAL, AREA PERFIL, VOL. PARCIAL, VOL. ACUMUL. It lists data for various profiles from 10040.000 to 10226.453.

Table with 9 columns: PERFIL, MATERIAL, AREA PERFIL, VOL. PARCIAL, VOL. ACUMUL., MATERIAL, AREA PERFIL, VOL. PARCIAL, VOL. ACUMUL. It lists data for various profiles from 10240.000 to 10520.000.



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PROYECTO : CIDACOS COMPLETO
EJE : 5: P190 (Arqueta principal)-P240 (Aldeanueva)

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PROYECTO : CIDACOS COMPLETO
EJE : 5: P190 (Arqueta principal)-P240 (Aldeanueva)

*** MEDICIONES DE LOS PERFILES TRANSVERSALES ***
*** CAPAS DE FIRME ***

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*** CAPAS DE FIRME ***

PERFIL	MATERIAL	AREA PERFIL	VOL. PARCIAL	VOL. ACUMUL.	MATERIAL	AREA PERFIL	VOL. PARCIAL	VOL. ACUMUL.
10540.000	D TIERRA	2.664	54.21	36244.9	ARENA_1	0.178	3.57	1884.8
	ARENA_2	0.226	4.52	2442.7	RELLENO_ZANJA	1.519	31.30	23881.2
	ARENA_3	0.519	10.39	5700.4				
10560.000	D TIERRA	2.742	54.07	36298.9	ARENA_1	0.178	3.57	1888.4
	ARENA_2	0.226	4.52	2447.3	RELLENO_ZANJA	1.597	31.16	23912.4
	ARENA_3	0.519	10.39	5710.8				
10580.000	D TIERRA	2.765	55.07	36354.0	ARENA_1	0.178	3.57	1891.9
	ARENA_2	0.226	4.52	2451.8	RELLENO_ZANJA	1.620	32.16	23944.5
	ARENA_3	0.519	10.39	5721.2				
10600.000	D TIERRA	3.076	58.42	36412.4	ARENA_1	0.178	3.57	1895.5
	ARENA_2	0.226	4.52	2456.3	RELLENO_ZANJA	1.931	35.50	23980.0
	ARENA_3	0.519	10.39	5731.6				
10620.000	D TIERRA	2.749	58.25	36470.7	ARENA_1	0.178	3.57	1899.1
	ARENA_2	0.226	4.52	2460.8	RELLENO_ZANJA	1.603	35.34	24015.4
	ARENA_3	0.519	10.39	5742.0				
10640.000	D TIERRA	2.668	54.17	36524.8	ARENA_1	0.178	3.57	1902.6
	ARENA_2	0.226	4.52	2465.3	RELLENO_ZANJA	1.523	31.26	24046.6
	ARENA_3	0.519	10.39	5752.3				
10660.000	D TIERRA	2.751	54.19	36579.0	ARENA_1	0.178	3.57	1906.2
	ARENA_2	0.226	4.52	2469.8	RELLENO_ZANJA	1.606	31.28	24077.9
	ARENA_3	0.519	10.39	5762.7				
10680.000	D TIERRA	3.147	58.98	36638.0	ARENA_1	0.178	3.57	1909.8
	ARENA_2	0.226	4.52	2474.4	RELLENO_ZANJA	2.002	36.07	24114.0
	ARENA_3	0.519	10.39	5773.1				
10689.768	D TIERRA	3.203	31.02	36669.0	ARENA_1	0.178	1.74	1911.5
	ARENA_2	0.226	2.21	2476.6	RELLENO_ZANJA	2.058	19.83	24133.8
	ARENA_3	0.519	5.07	5778.2				
10700.000	D TIERRA	3.275	33.14	36702.2	ARENA_1	0.178	1.82	1913.3
	ARENA_2	0.226	2.31	2478.9	RELLENO_ZANJA	2.130	21.42	24155.2
	ARENA_3	0.519	5.31	5783.5				
10700.733	D TIERRA	3.280	2.40	36704.6	ARENA_1	0.178	0.13	1913.4
	ARENA_2	0.226	0.17	2479.0	RELLENO_ZANJA	2.134	1.56	24156.8
	ARENA_3	0.519	0.38	5783.9				
10707.856	D TIERRA	3.328	23.53	36728.1	ARENA_1	0.178	1.27	1914.7
	ARENA_2	0.226	1.61	2480.6	RELLENO_ZANJA	2.182	15.37	24172.2
	ARENA_3	0.519	3.70	5787.6				
10714.835	D TIERRA	3.330	23.23	36751.4	ARENA_1	0.178	1.24	1916.0
	ARENA_2	0.226	1.58	2482.2	RELLENO_ZANJA	2.184	15.24	24187.4
	ARENA_3	0.519	3.62	5791.2				
10720.000	D TIERRA	3.282	17.08	36768.4	ARENA_1	0.178	0.92	1916.9
	ARENA_2	0.226	1.17	2483.4	RELLENO_ZANJA	2.136	11.16	24198.6
	ARENA_3	0.519	2.68	5793.9				
10721.605	D TIERRA	3.266	5.25	36773.7	ARENA_1	0.178	0.29	1917.2
	ARENA_2	0.226	0.36	2483.8	RELLENO_ZANJA	2.121	3.42	24202.0
	ARENA_3	0.519	0.83	5794.7				
10740.000	D TIERRA	3.111	58.65	36832.3	ARENA_1	0.178	3.28	1920.4
	ARENA_2	0.226	4.15	2487.9	RELLENO_ZANJA	1.965	37.58	24239.6
	ARENA_3	0.519	9.55	5804.3				
10749.132	D TIERRA	3.077	28.25	36860.6	ARENA_1	0.178	1.63	1922.1
	ARENA_2	0.226	2.06	2490.0	RELLENO_ZANJA	1.931	17.79	24257.4
	ARENA_3	0.519	4.74	5809.0				
10760.000	D TIERRA	2.799	31.93	36892.5	ARENA_1	0.178	1.94	1924.0
	ARENA_2	0.226	2.45	2492.4	RELLENO_ZANJA	1.653	19.48	24276.8
	ARENA_3	0.519	5.64	5814.7				
10780.000	D TIERRA	2.757	55.55	36948.1	ARENA_1	0.178	3.57	1927.6
	ARENA_2	0.226	4.52	2496.9	RELLENO_ZANJA	1.611	32.64	24309.5
	ARENA_3	0.519	10.39	5825.1				
10798.461	D TIERRA	2.865	51.89	37000.0	ARENA_1	0.178	3.29	1930.9
	ARENA_2	0.226	4.17	2501.1	RELLENO_ZANJA	1.719	30.74	24340.2
	ARENA_3	0.519	9.59	5834.7				

PERFIL	MATERIAL	AREA PERFIL	VOL. PARCIAL	VOL. ACUMUL.	MATERIAL	AREA PERFIL	VOL. PARCIAL	VOL. ACUMUL.
10800.000	D TIERRA	2.823	4.38	37004.3	ARENA_1	0.178	0.27	1931.1
	ARENA_2	0.226	0.35	2501.5	RELLENO_ZANJA	1.677	2.61	24342.8
	ARENA_3	0.519	0.80	5835.5				
10820.000	D TIERRA	2.765	55.88	37060.2	ARENA_1	0.178	3.57	1934.7
	ARENA_2	0.226	4.52	2506.0	RELLENO_ZANJA	1.619	32.97	24375.8
	ARENA_3	0.519	10.39	5845.8				
10828.359	D TIERRA	3.007	24.13	37084.3	ARENA_1	0.178	1.49	1936.2
	ARENA_2	0.226	1.89	2507.9	RELLENO_ZANJA	1.862	14.55	24390.4
	ARENA_3	0.519	4.34	5850.2				
10840.000	D TIERRA	2.721	33.34	37117.7	ARENA_1	0.178	2.08	1938.3
	ARENA_2	0.226	2.63	2510.5	RELLENO_ZANJA	1.575	20.01	24410.4
	ARENA_3	0.519	6.05	5856.2				
10843.206	D TIERRA	2.759	8.78	37126.5	ARENA_1	0.178	0.57	1938.8
	ARENA_2	0.226	0.72	2511.2	RELLENO_ZANJA	1.614	5.11	24415.5
	ARENA_3	0.519	1.66	5857.9				
10860.000	D TIERRA	2.742	46.20	37172.7	ARENA_1	0.178	2.99	1941.8
	ARENA_2	0.226	3.79	2515.0	RELLENO_ZANJA	1.597	26.96	24442.4
	ARENA_3	0.519	8.72	5866.6				
10868.987	D TIERRA	2.731	24.59	37197.3	ARENA_1	0.178	1.60	1943.4
	ARENA_2	0.226	2.03	2517.0	RELLENO_ZANJA	1.585	14.30	24456.7
	ARENA_3	0.519	4.67	5871.3				
10880.000	D TIERRA	2.737	30.11	37227.4	ARENA_1	0.178	1.96	1945.4
	ARENA_2	0.226	2.49	2519.5	RELLENO_ZANJA	1.592	17.50	24474.2
	ARENA_3	0.519	5.72	5877.0				
10883.208	D TIERRA	2.747	8.80	37236.2	ARENA_1	0.178	0.57	1946.0
	ARENA_2	0.226	0.72	2520.3	RELLENO_ZANJA	1.601	5.12	24479.3
	ARENA_3	0.519	1.67	5878.7				
10900.000	D TIERRA	2.774	46.35	37282.5	ARENA_1	0.178	2.99	1949.0
	ARENA_2	0.226	3.79	2524.0	RELLENO_ZANJA	1.629	27.12	24506.5
	ARENA_3	0.519	8.72	5887.4				
10920.000	D TIERRA	2.795	55.69	37338.2	ARENA_1	0.178	3.57	1952.5
	ARENA_2	0.226	4.52	2528.6	RELLENO_ZANJA	1.649	32.78	24539.2
	ARENA_3	0.519	10.39	5897.8				
10928.542	D TIERRA	2.722	23.56	37361.8	ARENA_1	0.178	1.52	1954.1
	ARENA_2	0.226	1.93	2530.5	RELLENO_ZANJA	1.576	13.77	24553.0
	ARENA_3	0.519	4.44	5902.2				
10940.000	D TIERRA	2.843	31.88	37393.7	ARENA_1	0.178	2.04	1956.1
	ARENA_2	0.226	2.59	2533.1	RELLENO_ZANJA	1.698	18.75	24571.8
	ARENA_3	0.519	5.95	5908.2				
10960.000	D TIERRA	2.925	57.68	37451.3	ARENA_1	0.178	3.57	1959.7
	ARENA_2	0.226	4.52	2537.6	RELLENO_ZANJA	1.779	34.76	24606.5
	ARENA_3	0.519	10.39	5918.5				
10980.000	D TIERRA	2.985	59.10	37510.4	ARENA_1	0.178	3.57	1963.2
	ARENA_2	0.226	4.52	2542.1	RELLENO_ZANJA	1.840	36.19	24642.7
	ARENA_3	0.519	10.39	5928.9				
10986.384	D TIERRA	3.005	19.12	37529.6	ARENA_1	0.178	1.14	1964.4
	ARENA_2	0.226	1.44	2543.6	RELLENO_ZANJA	1.860	11.81	24654.5
	ARENA_3	0.519	3.32	5932.2				
11000.000	D TIERRA	2.954	40.57	37570.1	ARENA_1	0.178	2.43	1966.8
	ARENA_2	0.226	3.08	2546.6	RELLENO_ZANJA	1.809	24.97	24679.5
	ARENA_3	0.519	7.07	5939.3				
11019.557	D TIERRA	2.882	57.07	37627.2	ARENA_1	0.178	3.49	1970.3
	ARENA_2	0.226	4.42	2551.0	RELLENO_ZANJA	1.736	34.66	24714.2
	ARENA_3	0.519	10.16	5949.5				
11020.000	D TIERRA	2.883	1.28	37628.5	ARENA_1	0.178	0.08	1970.4
	ARENA_2	0.226	0.10	2551.1	RELLENO_ZANJA	1.738	0.77	24714.9
	ARENA_3	0.519	0.23	5949.7				
11030.283	D TIERRA	3.025	30.37	37658.8	ARENA_1	0.178	1.83	1972.2
	ARENA_2	0.226	2.32	2553.5	RELLENO_ZANJA	1.879	18.59	24733.5
	ARENA_3	0.519	5.34	5955.0				



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PROYECTO : CIDACOS COMPLETO
EJE : 5: P190 (Arqueta principal)-P240 (Aldeanueva)

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PROYECTO : CIDACOS COMPLETO
EJE : 5: P190 (Arqueta principal)-P240 (Aldeanueva)

MEDICIONES DE LOS PERFILES TRANSVERSALES
CAPAS DE FIRME

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CAPAS DE FIRME

Table with columns: PERFIL, MATERIAL, AREA PERFIL, VOL. PARCIAL, VOL. ACUMUL., MATERIAL, AREA PERFIL, VOL. PARCIAL, VOL. ACUMUL. containing data for profiles 11037.427 to 11300.000.

Table with columns: PERFIL, MATERIAL, AREA PERFIL, VOL. PARCIAL, VOL. ACUMUL., MATERIAL, AREA PERFIL, VOL. PARCIAL, VOL. ACUMUL. containing data for profiles 11314.291 to 11560.000.

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 PROYECTO : CIDACOS COMPLETO
 EJE : 5: P190 (Arqueta principal)-P240 (Aldeanueva)

Istram 9.04 12/05/20 12:33:22
 PROYECTO : CIDACOS COMPLETO
 EJE : 5: P190 (Arqueta principal)-P240 (Aldeanueva)

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PERFIL	MATERIAL	AREA PERFIL	VOL. PARCIAL	VOL. ACUMUL.	MATERIAL	AREA PERFIL	VOL. PARCIAL	VOL. ACUMUL.
11580.000	D TIERRA	2.757	57.22	39230.1	ARENA_1	0.178	3.57	2070.2
	ARENA_2	0.226	4.52	2677.6	RELLENO_ZANJA	1.612	34.30	25675.1
	ARENA_3	0.519	10.39	6240.5				
11600.000	D TIERRA	3.233	59.90	39290.0	ARENA_1	0.178	3.57	2073.8
	ARENA_2	0.226	4.52	2682.1	RELLENO_ZANJA	2.087	36.99	25712.1
	ARENA_3	0.519	10.39	6250.9				
11620.000	D TIERRA	3.101	63.33	39353.4	ARENA_1	0.178	3.57	2077.3
	ARENA_2	0.226	4.52	2686.7	RELLENO_ZANJA	1.955	40.42	25752.5
	ARENA_3	0.519	10.39	6261.3				
11640.000	D TIERRA	2.757	58.57	39411.9	ARENA_1	0.178	3.57	2080.9
	ARENA_2	0.226	4.52	2691.2	RELLENO_ZANJA	1.611	35.66	25788.2
	ARENA_3	0.519	10.39	6271.7				
11647.554	D TIERRA	2.762	20.84	39432.8	ARENA_1	0.178	1.35	2082.2
	ARENA_2	0.226	1.71	2692.9	RELLENO_ZANJA	1.616	12.19	25800.4
	ARENA_3	0.519	3.92	6275.6				
11660.000	D TIERRA	2.808	34.66	39467.5	ARENA_1	0.178	2.22	2084.4
	ARENA_2	0.226	2.81	2695.7	RELLENO_ZANJA	1.662	20.40	25820.8
	ARENA_3	0.519	6.46	6282.1				
11680.000	D TIERRA	2.883	56.91	39524.4	ARENA_1	0.178	3.57	2088.0
	ARENA_2	0.226	4.52	2700.2	RELLENO_ZANJA	1.737	34.00	25854.8
	ARENA_3	0.519	10.39	6292.5				
11682.141	D TIERRA	2.891	6.18	39530.5	ARENA_1	0.178	0.38	2088.4
	ARENA_2	0.226	0.48	2700.7	RELLENO_ZANJA	1.745	3.73	25858.5
	ARENA_3	0.519	1.11	6293.6				
11700.000	D TIERRA	2.883	51.56	39582.1	ARENA_1	0.178	3.18	2091.6
	ARENA_2	0.226	4.03	2704.7	RELLENO_ZANJA	1.737	31.10	25889.6
	ARENA_3	0.519	9.28	6302.9				
11707.514	D TIERRA	2.879	21.65	39603.7	ARENA_1	0.178	1.34	2092.9
	ARENA_2	0.226	1.70	2706.4	RELLENO_ZANJA	1.734	13.04	25902.6
	ARENA_3	0.519	3.90	6306.8				
11720.000	D TIERRA	2.873	35.91	39639.7	ARENA_1	0.178	2.23	2095.1
	ARENA_2	0.226	2.82	2709.3	RELLENO_ZANJA	1.728	21.61	25924.2
	ARENA_3	0.519	6.48	6313.3				
11740.000	D TIERRA	2.864	57.38	39697.0	ARENA_1	0.178	3.57	2098.7
	ARENA_2	0.226	4.52	2713.8	RELLENO_ZANJA	1.719	34.46	25958.7
	ARENA_3	0.519	10.39	6323.6				
11760.000	D TIERRA	2.855	57.19	39754.2	ARENA_1	0.178	3.57	2102.3
	ARENA_2	0.226	4.52	2718.3	RELLENO_ZANJA	1.710	34.28	25993.0
	ARENA_3	0.519	10.39	6334.0				
11780.000	D TIERRA	2.846	57.01	39811.2	ARENA_1	0.178	3.57	2105.8
	ARENA_2	0.226	4.52	2722.8	RELLENO_ZANJA	1.701	34.10	26027.1
	ARENA_3	0.519	10.39	6344.4				
11800.000	D TIERRA	2.837	56.83	39868.1	ARENA_1	0.178	3.57	2109.4
	ARENA_2	0.226	4.52	2727.3	RELLENO_ZANJA	1.691	33.92	26061.0
	ARENA_3	0.519	10.39	6354.8				
11805.911	D TIERRA	2.834	16.76	39884.8	ARENA_1	0.178	1.05	2110.5
	ARENA_2	0.226	1.33	2728.7	RELLENO_ZANJA	1.689	9.99	26071.0
	ARENA_3	0.519	3.07	6357.9				
11820.000	D TIERRA	2.757	39.39	39924.2	ARENA_1	0.178	2.51	2113.0
	ARENA_2	0.226	3.18	2731.8	RELLENO_ZANJA	1.611	23.25	26094.2
	ARENA_3	0.519	7.32	6365.2				
11840.000	D TIERRA	2.825	55.82	39980.0	ARENA_1	0.178	3.57	2116.5
	ARENA_2	0.226	4.52	2736.4	RELLENO_ZANJA	1.680	32.91	26127.1
	ARENA_3	0.519	10.39	6375.6				
11860.000	D TIERRA	3.319	61.45	40041.5	ARENA_1	0.178	3.57	2120.1
	ARENA_2	0.226	4.52	2740.9	RELLENO_ZANJA	2.174	38.53	26165.7
	ARENA_3	0.519	10.39	6386.0				
11863.376	D TIERRA	3.489	11.49	40053.0	ARENA_1	0.178	0.60	2120.7
	ARENA_2	0.226	0.76	2741.6	RELLENO_ZANJA	2.343	7.62	26173.3
	ARENA_3	0.519	1.75	6387.7				

PERFIL	MATERIAL	AREA PERFIL	VOL. PARCIAL	VOL. ACUMUL.	MATERIAL	AREA PERFIL	VOL. PARCIAL	VOL. ACUMUL.
11880.000	D TIERRA	3.899	61.41	40114.4	ARENA_1	0.178	2.96	2123.7
	ARENA_2	0.226	3.75	2745.4	RELLENO_ZANJA	2.753	42.36	26215.7
	ARENA_3	0.519	8.63	6396.4				
11900.000	D TIERRA	4.252	81.51	40195.9	ARENA_1	0.178	3.57	2127.2
	ARENA_2	0.226	4.52	2749.9	RELLENO_ZANJA	3.107	58.60	26274.3
	ARENA_3	0.519	10.39	6406.7				
11902.861	D TIERRA	4.132	11.99	40207.9	ARENA_1	0.178	0.51	2127.7
	ARENA_2	0.226	0.65	2750.5	RELLENO_ZANJA	2.987	8.72	26283.0
	ARENA_3	0.519	1.49	6408.2				
11912.954	D TIERRA	3.993	41.00	40248.9	ARENA_1	0.178	1.80	2129.5
	ARENA_2	0.226	2.28	2752.8	RELLENO_ZANJA	2.847	29.44	26312.4
	ARENA_3	0.519	5.24	6413.5				
11920.000	D TIERRA	3.522	26.47	40275.4	ARENA_1	0.178	1.26	2130.8
	ARENA_2	0.226	1.59	2754.4	RELLENO_ZANJA	2.376	18.40	26330.8
	ARENA_3	0.519	3.66	6417.1				
11930.430	D TIERRA	3.098	34.52	40309.9	ARENA_1	0.178	1.86	2132.7
	ARENA_2	0.226	2.36	2756.8	RELLENO_ZANJA	1.952	22.57	26353.4
	ARENA_3	0.519	5.42	6422.5				
11940.000	D TIERRA	2.941	28.89	40338.8	ARENA_1	0.178	1.71	2134.4
	ARENA_2	0.226	2.16	2758.9	RELLENO_ZANJA	1.795	17.93	26371.3
	ARENA_3	0.519	4.97	6427.5				
11960.000	D TIERRA	2.873	58.13	40396.9	ARENA_1	0.178	3.57	2137.9
	ARENA_2	0.226	4.52	2763.5	RELLENO_ZANJA	1.727	35.22	26406.5
	ARENA_3	0.519	10.39	6437.9				
11964.900	D TIERRA	2.849	14.02	40410.9	ARENA_1	0.178	0.87	2138.8
	ARENA_2	0.226	1.11	2764.6	RELLENO_ZANJA	1.703	8.40	26414.9
	ARENA_3	0.519	2.54	6440.5				
11980.000	D TIERRA	3.271	46.20	40457.1	ARENA_1	0.178	2.69	2141.5
	ARENA_2	0.226	3.41	2768.0	RELLENO_ZANJA	2.125	28.90	26443.8
	ARENA_3	0.519	7.84	6448.3				
11992.403	D TIERRA	3.633	42.81	40499.9	ARENA_1	0.178	2.21	2143.7
	ARENA_2	0.226	2.80	2770.8	RELLENO_ZANJA	2.487	28.60	26472.4
	ARENA_3	0.519	6.44	6454.7				
12000.000	D TIERRA	2.961	25.05	40525.0	ARENA_1	0.178	1.35	2145.1
	ARENA_2	0.226	1.72	2772.5	RELLENO_ZANJA	1.816	16.34	26488.8
	ARENA_3	0.519	3.95	6458.7				
12004.385	D TIERRA	2.772	12.57	40537.6	ARENA_1	0.178	0.78	2145.8
	ARENA_2	0.226	0.99	2773.5	RELLENO_ZANJA	1.626	7.55	26496.3
	ARENA_3	0.519	2.28	6461.0				
12020.000	D TIERRA	2.605	41.98	40579.5	ARENA_1	0.178	2.78	2148.6
	ARENA_2	0.226	3.53	2777.0	RELLENO_ZANJA	1.459	24.09	26520.4
	ARENA_3	0.519	8.11	6469.1				
12030.704	D TIERRA	2.757	28.69	40608.2	ARENA_1	0.178	1.91	2150.5
	ARENA_2	0.226	2.42	2779.4	RELLENO_ZANJA	1.611	16.43	26536.9
	ARENA_3	0.519	5.56	6474.6				
12040.000	D TIERRA	3.715	30.08	40638.3	ARENA_1	0.178	1.66	2152.2
	ARENA_2	0.226	2.10	2781.5	RELLENO_ZANJA	2.569	19.43	26556.3
	ARENA_3	0.519	4.83	6479.5				
12052.054	D TIERRA	5.021	52.65	40691.0	ARENA_1	0.178	2.15	2154.3
	ARENA_2	0.226	2.72	2784.2	RELLENO_ZANJA	3.875	38.84	26595.1
	ARENA_3	0.519	6.26	6485.7				
12060.000	D TIERRA	4.776	38.92	40729.9	ARENA_1	0.178	1.42	2155.8
	ARENA_2	0.226	1.79	2786.0	RELLENO_ZANJA	3.630	29.82	26624.9
	ARENA_3	0.519	4.13	6489.8				
12065.788	D TIERRA	4.644	27.26	40757.1	ARENA_1	0.178	1.03	2156.8
	ARENA_2	0.226	1.31	2787.3	RELLENO_ZANJA	3.498	20.63	26645.6
	ARENA_3	0.519	3.01	6492.8				
12074.955	D TIERRA	4.425	41.57	40798.7	ARENA_1	0.178	1.63	2158.4
	ARENA_2	0.226	2.07	2789.4	RELLENO_ZANJA	3.279	31.06	26676.6
	ARENA_3	0.519	4.76	6497.6				



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Table with columns: PERFIL, MATERIAL, AREA PERFIL, VOL. PARCIAL, VOL. ACUMUL., MATERIAL, AREA PERFIL, VOL. PARCIAL, VOL. ACUMUL. Rows include profiles 12080.000 to 12355.754.

Table with columns: PERFIL, MATERIAL, AREA PERFIL, VOL. PARCIAL, VOL. ACUMUL., MATERIAL, AREA PERFIL, VOL. PARCIAL, VOL. ACUMUL. Rows include profiles 12360.000 to 12580.000.



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Table with columns: PERFIL, MATERIAL, AREA PERFIL, VOL. PARCIAL, VOL. ACUMUL., MATERIAL, AREA PERFIL, VOL. PARCIAL, VOL. ACUMUL. Rows include profiles 12600.000 to 12844.024.

Table with columns: PERFIL, MATERIAL, AREA PERFIL, VOL. PARCIAL, VOL. ACUMUL., MATERIAL, AREA PERFIL, VOL. PARCIAL, VOL. ACUMUL. Rows include profiles 12860.000 to 13100.000.



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*** MEDICIONES DE LOS PERFILES TRANSVERSALES ***
*** CAPAS DE FIRME ***

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PERFIL	MATERIAL	AREA PERFIL	VOL. PARCIAL	VOL. ACUMUL.	MATERIAL	AREA PERFIL	VOL. PARCIAL	VOL. ACUMUL.
13117.179	D TIERRA	4.069	70.77	43875.6	ARENA_1	0.178	3.06	2339.7
	ARENA_2	0.226	3.88	3019.1	RELLENO_ZANJA	2.923	51.09	28588.8
	ARENA_3	0.519	8.92	7025.7				
13120.000	D TIERRA	3.911	11.26	43886.9	ARENA_1	0.178	0.50	2340.2
	ARENA_2	0.226	0.64	3019.7	RELLENO_ZANJA	2.765	8.02	28596.8
	ARENA_3	0.519	1.47	7027.2				
13130.428	D TIERRA	3.625	39.29	43926.2	ARENA_1	0.178	1.86	2342.0
	ARENA_2	0.226	2.36	3022.1	RELLENO_ZANJA	2.480	27.35	28624.2
	ARENA_3	0.519	5.42	7032.6				
13140.000	D TIERRA	3.302	33.16	43959.3	ARENA_1	0.178	1.71	2343.7
	ARENA_2	0.226	2.16	3024.2	RELLENO_ZANJA	2.157	22.19	28646.4
	ARENA_3	0.519	4.97	7037.5				
13144.649	D TIERRA	2.695	13.94	43973.3	ARENA_1	0.178	0.83	2344.6
	ARENA_2	0.226	1.05	3025.3	RELLENO_ZANJA	1.550	8.61	28655.0
	ARENA_3	0.519	2.41	7040.0				
13156.404	D TIERRA	2.747	31.98	44005.3	ARENA_1	0.178	2.10	2346.7
	ARENA_2	0.226	2.65	3027.9	RELLENO_ZANJA	1.601	18.52	28673.5
	ARENA_3	0.519	6.11	7046.1				
13160.000	D TIERRA	2.898	10.15	44015.4	ARENA_1	0.178	0.64	2347.3
	ARENA_2	0.226	0.81	3028.7	RELLENO_ZANJA	1.753	6.03	28679.5
	ARENA_3	0.519	1.87	7047.9				
13180.000	D TIERRA	3.057	59.55	44075.0	ARENA_1	0.178	3.57	2350.9
	ARENA_2	0.226	4.52	3033.2	RELLENO_ZANJA	1.912	36.64	28716.2
	ARENA_3	0.519	10.39	7058.3				
13200.000	D TIERRA	3.114	61.71	44136.7	ARENA_1	0.178	3.57	2354.4
	ARENA_2	0.226	4.52	3037.8	RELLENO_ZANJA	1.969	38.80	28755.0
	ARENA_3	0.519	10.39	7068.7				
13209.332	D TIERRA	3.153	29.24	44165.9	ARENA_1	0.178	1.66	2356.1
	ARENA_2	0.226	2.11	3039.9	RELLENO_ZANJA	2.008	18.55	28773.5
	ARENA_3	0.519	4.85	7073.6				
13220.000	D TIERRA	3.094	33.32	44199.2	ARENA_1	0.178	1.90	2358.0
	ARENA_2	0.226	2.41	3042.3	RELLENO_ZANJA	1.949	21.10	28794.6
	ARENA_3	0.519	5.54	7079.1				
13230.060	D TIERRA	3.036	30.84	44230.1	ARENA_1	0.178	1.79	2359.8
	ARENA_2	0.226	2.27	3044.6	RELLENO_ZANJA	1.891	19.31	28813.9
	ARENA_3	0.519	5.23	7084.3				
13240.000	D TIERRA	3.020	30.10	44260.2	ARENA_1	0.178	1.77	2361.6
	ARENA_2	0.226	2.25	3046.8	RELLENO_ZANJA	1.874	18.71	28832.6
	ARENA_3	0.519	5.16	7089.5				
13260.000	D TIERRA	2.988	60.08	44320.3	ARENA_1	0.178	3.57	2365.1
	ARENA_2	0.226	4.52	3051.3	RELLENO_ZANJA	1.842	37.16	28869.8
	ARENA_3	0.519	10.39	7099.9				
13277.304	D TIERRA	2.983	51.66	44371.9	ARENA_1	0.178	3.08	2368.2
	ARENA_2	0.226	3.91	3055.2	RELLENO_ZANJA	1.838	31.84	28901.6
	ARENA_3	0.519	8.99	7108.9				
13280.000	D TIERRA	2.984	8.04	44380.0	ARENA_1	0.178	0.48	2368.7
	ARENA_2	0.226	0.61	3055.8	RELLENO_ZANJA	1.838	4.95	28906.6
	ARENA_3	0.519	1.40	7110.3				
13300.000	D TIERRA	2.990	59.74	44439.7	ARENA_1	0.178	3.57	2372.3
	ARENA_2	0.226	4.52	3060.4	RELLENO_ZANJA	1.845	36.83	28943.4
	ARENA_3	0.519	10.39	7120.6				
13320.000	D TIERRA	3.041	60.31	44500.0	ARENA_1	0.178	3.57	2375.8
	ARENA_2	0.226	4.52	3064.9	RELLENO_ZANJA	1.895	37.40	28980.8
	ARENA_3	0.519	10.39	7131.0				
13321.094	D TIERRA	3.045	3.33	44503.3	ARENA_1	0.178	0.20	2376.0
	ARENA_2	0.226	0.25	3065.1	RELLENO_ZANJA	1.900	2.08	28982.9
	ARENA_3	0.519	0.57	7131.6				
13340.000	D TIERRA	3.022	57.35	44560.7	ARENA_1	0.178	3.37	2379.4
	ARENA_2	0.226	4.27	3069.4	RELLENO_ZANJA	1.876	35.69	29018.6
	ARENA_3	0.519	9.82	7141.4				

PERFIL	MATERIAL	AREA PERFIL	VOL. PARCIAL	VOL. ACUMUL.	MATERIAL	AREA PERFIL	VOL. PARCIAL	VOL. ACUMUL.
13360.000	D TIERRA	2.971	59.92	44620.6	ARENA_1	0.178	3.57	2383.0
	ARENA_2	0.226	4.52	3073.9	RELLENO_ZANJA	1.825	37.01	29055.6
	ARENA_3	0.519	10.39	7151.8				
13380.000	D TIERRA	2.883	58.53	44679.2	ARENA_1	0.178	3.57	2386.5
	ARENA_2	0.226	4.52	3078.4	RELLENO_ZANJA	1.737	35.62	29091.2
	ARENA_3	0.519	10.39	7162.2				
13400.000	D TIERRA	2.792	56.75	44735.9	ARENA_1	0.178	3.57	2390.1
	ARENA_2	0.226	4.52	3082.9	RELLENO_ZANJA	1.646	33.83	29125.1
	ARENA_3	0.519	10.39	7172.6				
13420.000	D TIERRA	2.703	54.95	44790.8	ARENA_1	0.178	3.57	2393.6
	ARENA_2	0.226	4.52	3087.5	RELLENO_ZANJA	1.557	32.04	29157.1
	ARENA_3	0.519	10.39	7183.0				
13440.000	D TIERRA	2.726	54.29	44845.1	ARENA_1	0.178	3.57	2397.2
	ARENA_2	0.226	4.52	3092.0	RELLENO_ZANJA	1.581	31.38	29188.5
	ARENA_3	0.519	10.39	7193.4				
13460.000	D TIERRA	2.810	55.37	44900.5	ARENA_1	0.178	3.57	2400.8
	ARENA_2	0.226	4.52	3096.5	RELLENO_ZANJA	1.665	32.46	29220.9
	ARENA_3	0.519	10.39	7203.7				
13473.004	D TIERRA	2.773	36.30	44936.8	ARENA_1	0.178	2.32	2403.1
	ARENA_2	0.226	2.94	3099.4	RELLENO_ZANJA	1.627	21.40	29242.3
	ARENA_3	0.519	6.75	7210.5				
13480.000	D TIERRA	2.901	19.85	44985.7	ARENA_1	0.178	1.25	2404.3
	ARENA_2	0.226	1.58	3101.0	RELLENO_ZANJA	1.755	11.83	29254.2
	ARENA_3	0.519	3.63	7214.1				
13489.947	D TIERRA	2.936	29.03	44985.7	ARENA_1	0.178	1.77	2406.1
	ARENA_2	0.226	2.25	3103.3	RELLENO_ZANJA	1.791	17.63	29271.8
	ARENA_3	0.519	5.17	7219.3				
13496.963	D TIERRA	2.855	20.32	45006.0	ARENA_1	0.178	1.25	2407.4
	ARENA_2	0.226	1.58	3104.8	RELLENO_ZANJA	1.709	12.28	29284.1
	ARENA_3	0.519	3.64	7222.9				
13500.000	D TIERRA	2.774	8.55	45014.5	ARENA_1	0.178	0.54	2407.9
	ARENA_2	0.226	0.69	3105.5	RELLENO_ZANJA	1.628	5.07	29289.2
	ARENA_3	0.519	1.58	7224.5				
13520.000	D TIERRA	2.755	55.29	45069.8	ARENA_1	0.178	3.57	2411.5
	ARENA_2	0.226	4.52	3110.0	RELLENO_ZANJA	1.610	32.38	29321.5
	ARENA_3	0.519	10.39	7234.9				
13523.673	D TIERRA	2.723	10.06	45079.9	ARENA_1	0.178	0.65	2412.1
	ARENA_2	0.226	0.83	3110.9	RELLENO_ZANJA	1.577	5.85	29327.4
	ARENA_3	0.519	1.91	7236.8				
13540.000	D TIERRA	2.764	44.79	45124.7	ARENA_1	0.178	2.91	2415.0
	ARENA_2	0.226	3.69	3114.6	RELLENO_ZANJA	1.619	26.09	29353.5
	ARENA_3	0.519	8.48	7245.3				
13560.000	D TIERRA	2.769	55.33	45180.0	ARENA_1	0.178	3.57	2418.6
	ARENA_2	0.226	4.52	3119.1	RELLENO_ZANJA	1.623	32.42	29385.9
	ARENA_3	0.519	10.39	7255.7				
13575.810	D TIERRA	2.758	43.69	45223.7	ARENA_1	0.178	2.82	2421.4
	ARENA_2	0.226	3.57	3122.6	RELLENO_ZANJA	1.612	25.58	29411.5
	ARENA_3	0.519	8.21	7263.9				



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PROYECTO : CIDACOS COMPLETO
EJE : 5: P190 (Arqueta principal)-P240 (Aldeanueva)

*** RESUMEN DE VOLUMENES TOTALES ***

MATERIAL	VOLUMEN
TERRAPLEN	0.0
D_TIERRA	45223.7
ARENA_1	2421.4
ARENA_2	3122.6
RELLENO_ZANJA	29411.5
ARENA_3	7263.9

6. EJE 6: P240 (ALDEANUEVA DE EBRO) – P280 (ALFARO)

Istram 9.04 12/05/20 12:52:35
PROYECTO : CIDACOS COMPLETO
EJE : 6: P240 (Aldeanueva de Ebro) - P280 (Alfaro)

*** MEDICIONES DE LOS PERFILES TRANSVERSALES ***
*** CAPAS DE FIRME ***

PERFIL	MATERIAL	AREA PERFIL	VOL. PARCIAL	VOL. ACUMUL.	MATERIAL	AREA PERFIL	VOL. PARCIAL	VOL. ACUMUL.
0.000	D_TIERRA	2.592	0.00	0.0	ARENA_1	0.162	0.00	0.0
	ARENA_2	0.175	0.00	0.0	RELLENO_ZANJA	1.685	0.00	0.0
	ARENA_3	0.424	0.00	0.0				
20.000	D_TIERRA	2.435	50.27	50.3	ARENA_1	0.162	3.25	3.2
	ARENA_2	0.175	3.49	3.5	RELLENO_ZANJA	1.529	32.15	32.1
	ARENA_3	0.424	8.49	8.5				
40.000	D_TIERRA	2.363	47.98	98.3	ARENA_1	0.162	3.25	6.5
	ARENA_2	0.175	3.49	7.0	RELLENO_ZANJA	1.457	29.86	62.0
	ARENA_3	0.424	8.49	17.0				
51.920	D_TIERRA	2.383	28.29	126.5	ARENA_1	0.162	1.94	8.4
	ARENA_2	0.175	2.08	9.1	RELLENO_ZANJA	1.477	17.48	79.5
	ARENA_3	0.424	5.06	22.0				
60.000	D_TIERRA	2.374	19.22	145.8	ARENA_1	0.162	1.31	9.7
	ARENA_2	0.175	1.41	10.5	RELLENO_ZANJA	1.468	11.90	91.4
	ARENA_3	0.424	3.43	25.5				
80.000	D_TIERRA	2.386	47.60	193.4	ARENA_1	0.162	3.25	13.0
	ARENA_2	0.175	3.49	14.0	RELLENO_ZANJA	1.480	29.48	120.9
	ARENA_3	0.424	8.49	34.0				
95.414	D_TIERRA	2.397	36.86	230.2	ARENA_1	0.162	2.50	15.5
	ARENA_2	0.175	2.69	16.7	RELLENO_ZANJA	1.491	22.90	143.8
	ARENA_3	0.424	6.54	40.5				
100.000	D_TIERRA	2.401	11.00	241.2	ARENA_1	0.162	0.75	16.2
	ARENA_2	0.175	0.80	17.5	RELLENO_ZANJA	1.495	6.85	150.6
	ARENA_3	0.424	1.95	42.4				
120.000	D_TIERRA	2.404	48.05	289.3	ARENA_1	0.162	3.25	19.5
	ARENA_2	0.175	3.49	21.0	RELLENO_ZANJA	1.498	29.93	180.5
	ARENA_3	0.424	8.49	50.9				
121.501	D_TIERRA	2.402	3.61	292.9	ARENA_1	0.162	0.24	19.7
	ARENA_2	0.175	0.26	21.2	RELLENO_ZANJA	1.496	2.25	182.8
	ARENA_3	0.424	0.64	51.6				
136.197	D_TIERRA	2.385	35.17	328.0	ARENA_1	0.162	2.39	22.1
	ARENA_2	0.175	2.57	23.8	RELLENO_ZANJA	1.478	21.85	204.6
	ARENA_3	0.424	6.24	57.8				
140.000	D_TIERRA	2.382	9.06	337.1	ARENA_1	0.162	0.62	22.7
	ARENA_2	0.175	0.66	24.5	RELLENO_ZANJA	1.476	5.62	210.3
	ARENA_3	0.424	1.61	59.4				
160.000	D_TIERRA	2.368	47.51	384.6	ARENA_1	0.162	3.25	26.0
	ARENA_2	0.175	3.49	28.0	RELLENO_ZANJA	1.462	29.38	239.6
	ARENA_3	0.424	8.49	67.9				
180.000	D_TIERRA	2.367	47.35	432.0	ARENA_1	0.162	3.25	29.2
	ARENA_2	0.175	3.49	31.4	RELLENO_ZANJA	1.461	29.23	268.9
	ARENA_3	0.424	8.49	76.4				
194.287	D_TIERRA	2.451	34.41	466.4	ARENA_1	0.162	2.32	31.6
	ARENA_2	0.175	2.50	33.9	RELLENO_ZANJA	1.545	21.47	290.3
	ARENA_3	0.424	6.06	82.5				
200.000	D_TIERRA	2.437	13.96	480.3	ARENA_1	0.162	0.93	32.5
	ARENA_2	0.175	1.00	34.9	RELLENO_ZANJA	1.531	8.78	299.1
	ARENA_3	0.424	2.42	84.9				
209.646	D_TIERRA	2.407	23.36	503.7	ARENA_1	0.162	1.57	34.1
	ARENA_2	0.175	1.69	36.6	RELLENO_ZANJA	1.500	14.62	313.7
	ARENA_3	0.424	4.09	89.0				
220.000	D_TIERRA	2.443	25.10	528.8	ARENA_1	0.162	1.68	35.7
	ARENA_2	0.175	1.81	38.4	RELLENO_ZANJA	1.537	15.72	329.5
	ARENA_3	0.425	4.40	93.4				
221.304	D_TIERRA	2.461	3.20	532.0	ARENA_1	0.162	0.21	36.0
	ARENA_2	0.175	0.23	38.7	RELLENO_ZANJA	1.555	2.02	331.5
	ARENA_3	0.424	0.55	93.9				



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PROYECTO : CIDACOS COMPLETO
EJE : 6: P240 (Aldeanueva de Ebro) - P280 (Alfaro)

Istram 9.04 12/05/20 12:52:35

PROYECTO : CIDACOS COMPLETO
EJE : 6: P240 (Aldeanueva de Ebro) - P280 (Alfaro)

*** MEDICIONES DE LOS PERFILES TRANSVERSALES ***
*** CAPAS DE FIRME ***

*** MEDICIONES DE LOS PERFILES TRANSVERSALES ***
*** CAPAS DE FIRME ***

PERFIL	MATERIAL	AREA PERFIL	VOL. PARCIAL	VOL. ACUMUL.	MATERIAL	AREA PERFIL	VOL. PARCIAL	VOL. ACUMUL.
232.124	D TIERRA	2.384	26.21	558.2	ARENA_1	0.162	1.76	37.7
	ARENA_2	0.175	1.89	40.6	RELLENO_ZANJA	1.478	16.41	347.9
	ARENA_3	0.424	4.59	98.5				
240.000	D TIERRA	2.371	18.72	576.9	ARENA_1	0.162	1.28	39.0
	ARENA_2	0.175	1.38	41.9	RELLENO_ZANJA	1.465	11.59	359.5
	ARENA_3	0.424	3.34	101.9				
243.234	D TIERRA	2.368	7.66	584.6	ARENA_1	0.162	0.53	39.5
	ARENA_2	0.175	0.56	42.5	RELLENO_ZANJA	1.462	4.73	364.2
	ARENA_3	0.424	1.37	103.2				
256.999	D TIERRA	2.396	32.79	617.4	ARENA_1	0.162	2.24	41.8
	ARENA_2	0.175	2.40	44.9	RELLENO_ZANJA	1.490	20.32	384.5
	ARENA_3	0.424	5.84	109.1				
260.000	D TIERRA	2.403	7.20	624.6	ARENA_1	0.162	0.49	42.2
	ARENA_2	0.175	0.52	45.4	RELLENO_ZANJA	1.497	4.48	389.0
	ARENA_3	0.424	1.27	110.4				
280.000	D TIERRA	2.430	48.33	672.9	ARENA_1	0.162	3.25	45.5
	ARENA_2	0.175	3.49	48.9	RELLENO_ZANJA	1.524	30.21	419.2
	ARENA_3	0.424	8.49	118.9				
300.000	D TIERRA	2.429	48.59	721.5	ARENA_1	0.162	3.25	48.7
	ARENA_2	0.175	3.49	52.4	RELLENO_ZANJA	1.523	30.47	449.7
	ARENA_3	0.424	8.49	127.3				
320.000	D TIERRA	2.497	49.26	770.8	ARENA_1	0.162	3.25	52.0
	ARENA_2	0.175	3.49	55.9	RELLENO_ZANJA	1.591	31.14	480.8
	ARENA_3	0.424	8.49	135.8				
323.963	D TIERRA	2.510	9.92	780.7	ARENA_1	0.162	0.64	52.6
	ARENA_2	0.175	0.69	56.6	RELLENO_ZANJA	1.604	6.33	487.1
	ARENA_3	0.424	1.68	137.5				
340.000	D TIERRA	2.536	40.46	821.2	ARENA_1	0.162	2.61	55.2
	ARENA_2	0.175	2.80	59.4	RELLENO_ZANJA	1.630	25.93	513.1
	ARENA_3	0.424	6.81	144.3				
360.000	D TIERRA	2.567	51.04	872.2	ARENA_1	0.162	3.25	58.5
	ARENA_2	0.175	3.49	62.9	RELLENO_ZANJA	1.661	32.92	546.0
	ARENA_3	0.424	8.49	152.8				
380.000	D TIERRA	2.598	51.66	923.9	ARENA_1	0.162	3.25	61.7
	ARENA_2	0.175	3.49	66.4	RELLENO_ZANJA	1.692	33.53	579.5
	ARENA_3	0.424	8.49	161.3				
400.000	D TIERRA	2.638	52.37	976.2	ARENA_1	0.162	3.25	65.0
	ARENA_2	0.175	3.49	69.9	RELLENO_ZANJA	1.732	34.24	613.8
	ARENA_3	0.424	8.49	169.8				
420.000	D TIERRA	2.685	53.24	1029.5	ARENA_1	0.162	3.25	68.2
	ARENA_2	0.175	3.49	73.4	RELLENO_ZANJA	1.779	35.11	648.9
	ARENA_3	0.424	8.49	178.3				
434.384	D TIERRA	2.678	38.57	1068.0	ARENA_1	0.162	2.34	70.6
	ARENA_2	0.175	2.51	75.9	RELLENO_ZANJA	1.772	25.54	674.4
	ARENA_3	0.424	6.11	184.4				
440.000	D TIERRA	2.580	14.77	1082.8	ARENA_1	0.162	0.91	71.5
	ARENA_2	0.175	0.98	76.9	RELLENO_ZANJA	1.674	9.68	684.1
	ARENA_3	0.424	2.38	186.8				
460.000	D TIERRA	2.411	49.91	1132.7	ARENA_1	0.162	3.25	74.7
	ARENA_2	0.175	3.49	80.4	RELLENO_ZANJA	1.505	31.79	715.9
	ARENA_3	0.424	8.49	195.3				
480.000	D TIERRA	2.350	47.61	1180.3	ARENA_1	0.162	3.25	78.0
	ARENA_2	0.175	3.49	83.9	RELLENO_ZANJA	1.444	29.49	745.4
	ARENA_3	0.424	8.49	203.7				
499.641	D TIERRA	2.337	46.03	1226.4	ARENA_1	0.162	3.19	81.2
	ARENA_2	0.175	3.43	87.3	RELLENO_ZANJA	1.430	28.23	773.6
	ARENA_3	0.424	8.34	212.1				
500.000	D TIERRA	2.336	0.84	1227.2	ARENA_1	0.162	0.06	81.2
	ARENA_2	0.175	0.06	87.4	RELLENO_ZANJA	1.430	0.51	774.1
	ARENA_3	0.424	0.15	212.2				

PERFIL	MATERIAL	AREA PERFIL	VOL. PARCIAL	VOL. ACUMUL.	MATERIAL	AREA PERFIL	VOL. PARCIAL	VOL. ACUMUL.
520.000	D TIERRA	2.367	47.03	1274.2	ARENA_1	0.162	3.25	84.5
	ARENA_2	0.175	3.49	90.8	RELLENO_ZANJA	1.461	28.91	803.0
	ARENA_3	0.424	8.49	220.7				
540.000	D TIERRA	2.358	47.26	1321.5	ARENA_1	0.162	3.25	87.7
	ARENA_2	0.175	3.49	94.3	RELLENO_ZANJA	1.452	29.13	832.2
	ARENA_3	0.424	8.49	229.2				
544.170	D TIERRA	2.408	9.94	1331.4	ARENA_1	0.162	0.68	88.4
	ARENA_2	0.175	0.73	95.1	RELLENO_ZANJA	1.502	6.16	838.3
	ARENA_3	0.424	1.77	231.0				
560.000	D TIERRA	2.499	38.84	1370.3	ARENA_1	0.162	2.57	91.0
	ARENA_2	0.175	2.77	97.8	RELLENO_ZANJA	1.593	24.50	862.8
	ARENA_3	0.424	6.72	237.7				
568.442	D TIERRA	2.455	20.91	1391.2	ARENA_1	0.162	1.37	92.4
	ARENA_2	0.175	1.47	99.3	RELLENO_ZANJA	1.548	13.26	876.1
	ARENA_3	0.424	3.58	241.3				
580.000	D TIERRA	2.405	28.08	1419.3	ARENA_1	0.162	1.88	94.2
	ARENA_2	0.175	2.02	101.3	RELLENO_ZANJA	1.499	17.61	893.7
	ARENA_3	0.424	4.91	246.2				
600.000	D TIERRA	2.368	47.73	1467.0	ARENA_1	0.162	3.25	97.5
	ARENA_2	0.175	3.49	104.8	RELLENO_ZANJA	1.462	29.61	923.3
	ARENA_3	0.424	8.49	254.7				
601.306	D TIERRA	2.366	3.09	1470.1	ARENA_1	0.162	0.21	97.7
	ARENA_2	0.175	0.23	105.0	RELLENO_ZANJA	1.460	1.91	925.2
	ARENA_3	0.424	0.55	255.2				
620.000	D TIERRA	2.324	43.84	1513.9	ARENA_1	0.162	3.04	100.7
	ARENA_2	0.175	3.27	108.3	RELLENO_ZANJA	1.418	26.90	952.1
	ARENA_3	0.424	7.94	263.2				
640.000	D TIERRA	2.315	46.39	1560.3	ARENA_1	0.162	3.25	104.0
	ARENA_2	0.175	3.49	111.8	RELLENO_ZANJA	1.409	28.27	980.4
	ARENA_3	0.424	8.49	271.7				
660.000	D TIERRA	2.364	46.78	1607.1	ARENA_1	0.162	3.25	107.2
	ARENA_2	0.175	3.49	115.3	RELLENO_ZANJA	1.457	28.66	1009.0
	ARENA_3	0.424	8.49	280.2				
676.438	D TIERRA	2.443	39.51	1646.6	ARENA_1	0.162	2.67	109.9
	ARENA_2	0.175	2.87	118.2	RELLENO_ZANJA	1.537	24.61	1033.7
	ARENA_3	0.424	6.98	287.1				
680.000	D TIERRA	2.467	8.75	1655.4	ARENA_1	0.162	0.58	110.5
	ARENA_2	0.175	0.62	118.8	RELLENO_ZANJA	1.561	5.52	1039.2
	ARENA_3	0.424	1.51	288.6				
700.000	D TIERRA	2.573	50.40	1705.8	ARENA_1	0.162	3.25	113.7
	ARENA_2	0.175	3.49	122.3	RELLENO_ZANJA	1.667	32.28	1071.5
	ARENA_3	0.424	8.49	297.1				
720.000	D TIERRA	2.767	53.40	1759.2	ARENA_1	0.162	3.25	117.0
	ARENA_2	0.175	3.49	125.8	RELLENO_ZANJA	1.861	35.28	1106.7
	ARENA_3	0.424	8.49	305.6				
731.750	D TIERRA	2.713	32.19	1791.4	ARENA_1	0.162	1.91	118.9
	ARENA_2	0.175	2.05	127.8	RELLENO_ZANJA	1.807	21.55	1128.3
	ARENA_3	0.424	4.99	310.6				
740.000	D TIERRA	2.573	21.80	1813.2	ARENA_1	0.162	1.34	120.2
	ARENA_2	0.175	1.44	129.3	RELLENO_ZANJA	1.666	14.33	1142.6
	ARENA_3	0.424	3.50	314.1				
760.000	D TIERRA	2.374	49.46	1862.6	ARENA_1	0.162	3.25	123.5
	ARENA_2	0.175	3.49	132.8	RELLENO_ZANJA	1.468	31.34	1173.9
	ARENA_3	0.424	8.49	322.6				
769.664	D TIERRA	2.384	22.99	1885.6	ARENA_1	0.162	1.57	125.0
	ARENA_2	0.175	1.69	134.5	RELLENO_ZANJA	1.478	14.23	1188.2
	ARENA_3	0.424	4.10	326.7				
780.000	D TIERRA	2.456	25.01	1910.6	ARENA_1	0.162	1.68	126.7
	ARENA_2	0.175	1.81	136.3	RELLENO_ZANJA	1.549	15.65	1203.8
	ARENA_3	0.424	4.39	331.1				



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PROYECTO : CIDACOS COMPLETO
EJE : 6: P240 (Aldeanueva de Ebro) - P280 (Alfaro)

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PROYECTO : CIDACOS COMPLETO
EJE : 6: P240 (Aldeanueva de Ebro) - P280 (Alfaro)

*** MEDICIONES DE LOS PERFILES TRANSVERSALES ***
*** CAPAS DE FIRME ***

*** MEDICIONES DE LOS PERFILES TRANSVERSALES ***
*** CAPAS DE FIRME ***

PERFIL	MATERIAL	AREA PERFIL	VOL. PARCIAL	VOL. ACUMUL.	MATERIAL	AREA PERFIL	VOL. PARCIAL	VOL. ACUMUL.
800.000	D TIERRA	2.450	49.06	1959.7	ARENA_1	0.162	3.25	130.0
	ARENA_2	0.175	3.49	139.8	RELLENO_ZANJA	1.544	30.94	1234.8
	ARENA_3	0.424	8.49	339.6				
806.424	D TIERRA	2.384	15.53	1975.2	ARENA_1	0.162	1.04	131.0
	ARENA_2	0.175	1.12	140.9	RELLENO_ZANJA	1.477	9.71	1244.5
	ARENA_3	0.424	2.73	342.3				
820.000	D TIERRA	2.976	36.38	2011.6	ARENA_1	0.162	2.21	133.2
	ARENA_2	0.175	2.37	143.2	RELLENO_ZANJA	2.070	24.08	1268.5
	ARENA_3	0.424	5.76	348.1				
840.000	D TIERRA	2.385	53.61	2065.2	ARENA_1	0.162	3.25	136.5
	ARENA_2	0.175	3.49	146.7	RELLENO_ZANJA	1.479	35.48	1304.0
	ARENA_3	0.424	8.49	356.6				
860.000	D TIERRA	2.500	48.85	2114.0	ARENA_1	0.162	3.25	139.7
	ARENA_2	0.175	3.49	150.2	RELLENO_ZANJA	1.594	30.73	1334.7
	ARENA_3	0.424	8.49	365.1				
880.000	D TIERRA	2.573	50.73	2164.8	ARENA_1	0.162	3.25	143.0
	ARENA_2	0.175	3.49	153.7	RELLENO_ZANJA	1.667	32.61	1367.4
	ARENA_3	0.424	8.49	373.5				
883.429	D TIERRA	2.583	8.84	2173.6	ARENA_1	0.162	0.56	143.5
	ARENA_2	0.175	0.60	154.3	RELLENO_ZANJA	1.677	5.73	1373.1
	ARENA_3	0.424	1.46	375.0				
900.000	D TIERRA	2.516	42.25	2215.9	ARENA_1	0.162	2.69	146.2
	ARENA_2	0.175	2.89	157.2	RELLENO_ZANJA	1.610	27.24	1400.3
	ARENA_3	0.424	7.03	382.0				
903.642	D TIERRA	2.507	9.15	2225.0	ARENA_1	0.162	0.59	146.8
	ARENA_2	0.175	0.64	157.9	RELLENO_ZANJA	1.600	5.85	1406.2
	ARENA_3	0.424	1.55	383.6				
920.000	D TIERRA	2.469	40.70	2265.7	ARENA_1	0.162	2.66	149.5
	ARENA_2	0.175	2.86	160.7	RELLENO_ZANJA	1.563	25.88	1432.0
	ARENA_3	0.424	6.94	390.5				
937.404	D TIERRA	2.637	44.43	2310.1	ARENA_1	0.162	2.83	152.3
	ARENA_2	0.175	3.04	163.8	RELLENO_ZANJA	1.731	28.66	1460.7
	ARENA_3	0.424	7.39	397.9				
940.000	D TIERRA	2.416	6.56	2316.7	ARENA_1	0.162	0.42	152.7
	ARENA_2	0.175	0.45	164.2	RELLENO_ZANJA	1.510	4.21	1464.9
	ARENA_3	0.424	1.10	399.0				
960.000	D TIERRA	2.367	47.83	2364.5	ARENA_1	0.162	3.25	156.0
	ARENA_2	0.175	3.49	167.7	RELLENO_ZANJA	1.461	29.71	1494.6
	ARENA_3	0.424	8.49	407.5				
968.078	D TIERRA	2.346	19.04	2383.6	ARENA_1	0.162	1.31	157.3
	ARENA_2	0.175	1.41	169.1	RELLENO_ZANJA	1.440	11.72	1506.3
	ARENA_3	0.424	3.43	410.9				
979.611	D TIERRA	2.359	27.13	2410.7	ARENA_1	0.162	1.87	159.2
	ARENA_2	0.175	2.01	171.1	RELLENO_ZANJA	1.453	16.68	1523.0
	ARENA_3	0.424	4.90	415.8				
980.000	D TIERRA	2.358	0.92	2411.6	ARENA_1	0.162	0.06	159.2
	ARENA_2	0.175	0.07	171.2	RELLENO_ZANJA	1.451	0.56	1523.6
	ARENA_3	0.424	0.17	416.0				
1000.000	D TIERRA	2.448	48.05	2459.7	ARENA_1	0.162	3.25	162.5
	ARENA_2	0.175	3.49	174.7	RELLENO_ZANJA	1.541	29.93	1553.5
	ARENA_3	0.424	8.49	424.5				
1020.000	D TIERRA	2.478	49.26	2508.9	ARENA_1	0.162	3.25	165.7
	ARENA_2	0.175	3.49	178.2	RELLENO_ZANJA	1.572	31.13	1584.7
	ARENA_3	0.424	8.49	433.0				
1040.000	D TIERRA	2.476	49.54	2558.5	ARENA_1	0.162	3.25	169.0
	ARENA_2	0.175	3.49	181.7	RELLENO_ZANJA	1.570	31.42	1616.1
	ARENA_3	0.424	8.49	441.5				
1060.000	D TIERRA	2.477	49.54	2608.0	ARENA_1	0.162	3.25	172.2
	ARENA_2	0.175	3.49	185.2	RELLENO_ZANJA	1.571	31.41	1647.5
	ARENA_3	0.424	8.49	450.0				

PERFIL	MATERIAL	AREA PERFIL	VOL. PARCIAL	VOL. ACUMUL.	MATERIAL	AREA PERFIL	VOL. PARCIAL	VOL. ACUMUL.
1080.000	D TIERRA	2.494	49.71	2657.7	ARENA_1	0.162	3.25	175.5
	ARENA_2	0.175	3.49	188.7	RELLENO_ZANJA	1.588	31.59	1679.1
	ARENA_3	0.424	8.49	458.4				
1100.000	D TIERRA	2.440	49.34	2707.1	ARENA_1	0.162	3.25	178.7
	ARENA_2	0.175	3.49	192.2	RELLENO_ZANJA	1.534	31.22	1710.3
	ARENA_3	0.424	8.49	466.9				
1120.000	D TIERRA	2.407	48.47	2755.5	ARENA_1	0.162	3.25	182.0
	ARENA_2	0.175	3.49	195.7	RELLENO_ZANJA	1.500	30.34	1740.6
	ARENA_3	0.424	8.49	475.4				
1127.259	D TIERRA	2.408	17.47	2773.0	ARENA_1	0.162	1.18	183.1
	ARENA_2	0.175	1.27	196.9	RELLENO_ZANJA	1.502	10.90	1751.5
	ARENA_3	0.424	3.08	478.5				
1140.000	D TIERRA	2.647	32.20	2805.2	ARENA_1	0.162	2.07	185.2
	ARENA_2	0.175	2.23	199.2	RELLENO_ZANJA	1.741	20.66	1772.2
	ARENA_3	0.424	5.41	483.9				
1160.000	D TIERRA	2.438	50.85	2856.0	ARENA_1	0.162	3.25	188.5
	ARENA_2	0.175	3.49	202.6	RELLENO_ZANJA	1.532	32.73	1804.9
	ARENA_3	0.424	8.49	492.4				
1163.570	D TIERRA	2.374	8.59	2864.6	ARENA_1	0.162	0.58	189.0
	ARENA_2	0.175	0.62	203.3	RELLENO_ZANJA	1.467	5.35	1810.3
	ARENA_3	0.424	1.52	493.9				
1173.145	D TIERRA	2.663	24.11	2888.7	ARENA_1	0.162	1.56	190.6
	ARENA_2	0.175	1.67	204.9	RELLENO_ZANJA	1.757	15.44	1825.7
	ARENA_3	0.424	4.06	498.0				
1180.000	D TIERRA	2.605	18.05	2906.8	ARENA_1	0.162	1.11	191.7
	ARENA_2	0.175	1.20	206.1	RELLENO_ZANJA	1.698	11.84	1837.5
	ARENA_3	0.424	2.91	500.9				
1183.742	D TIERRA	2.381	9.33	2916.1	ARENA_1	0.162	0.61	192.3
	ARENA_2	0.175	0.65	206.8	RELLENO_ZANJA	1.475	5.94	1843.5
	ARENA_3	0.424	1.59	502.5				
1190.855	D TIERRA	2.417	17.07	2933.2	ARENA_1	0.162	1.16	193.5
	ARENA_2	0.175	1.24	208.0	RELLENO_ZANJA	1.511	10.62	1854.1
	ARENA_3	0.424	3.02	505.5				
1198.834	D TIERRA	2.448	19.41	2952.6	ARENA_1	0.162	1.30	194.8
	ARENA_2	0.175	1.39	209.4	RELLENO_ZANJA	1.542	12.18	1866.3
	ARENA_3	0.424	3.39	508.9				
1200.000	D TIERRA	2.451	2.86	2955.5	ARENA_1	0.162	0.19	195.0
	ARENA_2	0.175	0.20	209.6	RELLENO_ZANJA	1.545	1.80	1868.1
	ARENA_3	0.424	0.49	509.4				
1220.000	D TIERRA	2.378	48.29	3003.8	ARENA_1	0.162	3.25	198.2
	ARENA_2	0.175	3.49	213.1	RELLENO_ZANJA	1.472	30.17	1898.2
	ARENA_3	0.424	8.49	517.9				
1240.000	D TIERRA	2.438	48.16	3051.9	ARENA_1	0.162	3.25	201.5
	ARENA_2	0.175	3.49	216.6	RELLENO_ZANJA	1.532	30.03	1928.3
	ARENA_3	0.424	8.49	526.4				
1260.000	D TIERRA	2.387	48.25	3100.2	ARENA_1	0.162	3.25	204.7
	ARENA_2	0.175	3.49	220.1	RELLENO_ZANJA	1.481	30.12	1958.4
	ARENA_3	0.425	8.49	534.8				
1263.612	D TIERRA	2.321	8.50	3108.7	ARENA_1	0.162	0.59	205.3
	ARENA_2	0.175	0.63	220.7	RELLENO_ZANJA	1.415	5.23	1963.6
	ARENA_3	0.423	1.53	536.4				
1280.000	D TIERRA	2.394	38.63	3147.3	ARENA_1	0.162	2.66	208.0
	ARENA_2	0.175	2.87	223.6	RELLENO_ZANJA	1.488	23.78	1987.4
	ARENA_3	0.423	6.94	543.3				
1297.953	D TIERRA	2.382	42.87	3190.2	ARENA_1	0.162	2.92	210.9
	ARENA_2	0.175	3.14	226.7	RELLENO_ZANJA	1.476	26.60	2014.0
	ARENA_3	0.424	7.61	550.9				
1300.000	D TIERRA	2.456	4.95	3195.1	ARENA_1	0.162	0.33	211.2
	ARENA_2	0.175	0.36	227.1	RELLENO_ZANJA	1.550	3.10	2017.1
	ARENA_3	0.424	0.87	551.8				



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PROYECTO : CIDACOS COMPLETO
EJE : 6: P240 (Aldeanueva de Ebro) - P280 (Alfaro)

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PROYECTO : CIDACOS COMPLETO
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MEDICIONES DE LOS PERFILES TRANSVERSALES
CAPAS DE FIRME

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Table with columns: PERFIL, MATERIAL, AREA PERFIL, VOL. PARCIAL, VOL. ACUMUL., MATERIAL, AREA PERFIL, VOL. PARCIAL, VOL. ACUMUL. Rows include profiles 1318.493 to 1580.000 with materials like TIERRA, ARENA, and RELLENO_ZANJA.

Table with columns: PERFIL, MATERIAL, AREA PERFIL, VOL. PARCIAL, VOL. ACUMUL., MATERIAL, AREA PERFIL, VOL. PARCIAL, VOL. ACUMUL. Rows include profiles 1600.000 to 1920.000 with materials like TIERRA, ARENA, and RELLENO_ZANJA.



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PROYECTO : CIDACOS COMPLETO
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*** MEDICIONES DE LOS PERFILES TRANSVERSALES ***
*** CAPAS DE FIRME ***

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PERFIL	MATERIAL	AREA PERFIL	VOL. PARCIAL	VOL. ACUMUL.	MATERIAL	AREA PERFIL	VOL. PARCIAL	VOL. ACUMUL.
1934.641	D TIERRA	3.019	44.26	5229.8	ARENA_1	0.162	2.38	314.3
	ARENA_2	0.175	2.56	338.0	RELLENO_ZANJA	2.113	30.99	3476.8
	ARENA_3	0.425	6.22	821.2				
1940.000	D TIERRA	3.066	16.31	5246.1	ARENA_1	0.162	0.87	315.2
	ARENA_2	0.175	0.94	338.9	RELLENO_ZANJA	2.160	11.45	3488.2
	ARENA_3	0.425	2.27	823.5				
1960.000	D TIERRA	2.632	56.98	5303.1	ARENA_1	0.162	3.25	318.4
	ARENA_2	0.175	3.49	342.4	RELLENO_ZANJA	1.726	38.85	3527.1
	ARENA_3	0.425	8.49	832.0				
1972.801	D TIERRA	2.518	32.96	5336.1	ARENA_1	0.162	2.08	320.5
	ARENA_2	0.175	2.24	344.6	RELLENO_ZANJA	1.612	21.36	3548.4
	ARENA_3	0.425	5.43	837.4				
1980.000	D TIERRA	2.549	18.24	5354.3	ARENA_1	0.162	1.17	321.7
	ARENA_2	0.175	1.26	345.9	RELLENO_ZANJA	1.642	11.71	3560.1
	ARENA_3	0.425	3.06	840.5				
2000.000	D TIERRA	2.419	49.67	5404.0	ARENA_1	0.162	3.25	324.9
	ARENA_2	0.175	3.49	349.4	RELLENO_ZANJA	1.512	31.55	3591.7
	ARENA_3	0.425	8.49	849.0				
2007.834	D TIERRA	2.373	18.77	5422.8	ARENA_1	0.162	1.27	326.2
	ARENA_2	0.175	1.37	350.8	RELLENO_ZANJA	1.466	11.67	3603.3
	ARENA_3	0.424	3.33	852.3				
2020.000	D TIERRA	2.386	28.94	5451.7	ARENA_1	0.162	1.98	328.2
	ARENA_2	0.175	2.13	352.9	RELLENO_ZANJA	1.480	17.92	3621.3
	ARENA_3	0.424	5.16	857.4				
2040.000	D TIERRA	2.381	47.67	5499.4	ARENA_1	0.162	3.25	331.4
	ARENA_2	0.175	3.49	356.4	RELLENO_ZANJA	1.475	29.55	3650.8
	ARENA_3	0.424	8.49	865.9				
2057.446	D TIERRA	2.550	43.02	5542.4	ARENA_1	0.162	2.83	334.3
	ARENA_2	0.175	3.05	359.4	RELLENO_ZANJA	1.644	27.21	3678.0
	ARENA_3	0.424	7.40	873.3				
2060.000	D TIERRA	2.384	6.30	5548.7	ARENA_1	0.162	0.41	334.7
	ARENA_2	0.175	0.45	359.9	RELLENO_ZANJA	1.478	3.99	3682.0
	ARENA_3	0.424	1.08	874.4				
2080.000	D TIERRA	3.134	55.18	5603.9	ARENA_1	0.162	3.25	337.9
	ARENA_2	0.175	3.49	363.4	RELLENO_ZANJA	2.228	37.05	3719.1
	ARENA_3	0.425	8.49	882.9				
2092.503	D TIERRA	2.980	38.22	5642.1	ARENA_1	0.162	2.03	340.0
	ARENA_2	0.175	2.18	365.6	RELLENO_ZANJA	2.074	26.89	3746.0
	ARENA_3	0.425	5.31	888.2				
2100.000	D TIERRA	2.867	21.92	5664.0	ARENA_1	0.162	1.22	341.2
	ARENA_2	0.175	1.31	366.9	RELLENO_ZANJA	1.961	15.13	3761.1
	ARENA_3	0.425	3.18	891.4				
2120.000	D TIERRA	2.743	56.10	5720.1	ARENA_1	0.162	3.25	344.4
	ARENA_2	0.175	3.49	370.4	RELLENO_ZANJA	1.837	37.98	3799.1
	ARENA_3	0.425	8.49	899.9				
2140.000	D TIERRA	2.677	54.20	5774.3	ARENA_1	0.162	3.25	347.7
	ARENA_2	0.175	3.49	373.9	RELLENO_ZANJA	1.771	36.07	3835.1
	ARENA_3	0.425	8.49	908.4				
2160.000	D TIERRA	2.611	52.88	5827.2	ARENA_1	0.162	3.25	350.9
	ARENA_2	0.175	3.49	377.3	RELLENO_ZANJA	1.705	34.75	3869.9
	ARENA_3	0.425	8.49	916.9				
2180.000	D TIERRA	2.546	51.57	5878.7	ARENA_1	0.162	3.25	354.2
	ARENA_2	0.175	3.49	380.8	RELLENO_ZANJA	1.640	33.45	3903.3
	ARENA_3	0.425	8.49	925.4				
2200.000	D TIERRA	2.481	50.27	5929.0	ARENA_1	0.162	3.25	357.4
	ARENA_2	0.175	3.49	384.3	RELLENO_ZANJA	1.575	32.15	3935.5
	ARENA_3	0.425	8.49	933.8				
2214.979	D TIERRA	2.434	36.81	5965.8	ARENA_1	0.162	2.43	359.9
	ARENA_2	0.175	2.62	386.9	RELLENO_ZANJA	1.527	23.24	3958.7
	ARENA_3	0.425	6.36	940.2				

PERFIL	MATERIAL	AREA PERFIL	VOL. PARCIAL	VOL. ACUMUL.	MATERIAL	AREA PERFIL	VOL. PARCIAL	VOL. ACUMUL.
2220.000	D TIERRA	2.466	12.30	5978.1	ARENA_1	0.162	0.82	360.7
	ARENA_2	0.175	0.88	387.8	RELLENO_ZANJA	1.559	7.75	3966.5
	ARENA_3	0.424	2.13	942.3				
2240.000	D TIERRA	2.595	50.60	6028.7	ARENA_1	0.162	3.25	363.9
	ARENA_2	0.175	3.49	391.3	RELLENO_ZANJA	1.689	32.48	3999.0
	ARENA_3	0.424	8.49	950.8				
2249.179	D TIERRA	2.559	23.66	6052.4	ARENA_1	0.162	1.49	365.4
	ARENA_2	0.175	1.60	392.9	RELLENO_ZANJA	1.653	15.34	4014.3
	ARENA_3	0.425	3.90	954.7				
2260.000	D TIERRA	2.496	27.35	6079.7	ARENA_1	0.162	1.76	367.2
	ARENA_2	0.175	1.89	394.8	RELLENO_ZANJA	1.590	17.55	4031.8
	ARENA_3	0.425	4.59	959.3				
2280.000	D TIERRA	2.381	48.78	6128.5	ARENA_1	0.162	3.25	370.4
	ARENA_2	0.175	3.49	398.3	RELLENO_ZANJA	1.475	30.65	4062.5
	ARENA_3	0.425	8.49	967.8				
2300.000	D TIERRA	2.384	47.66	6176.2	ARENA_1	0.162	3.25	373.7
	ARENA_2	0.175	3.49	401.8	RELLENO_ZANJA	1.478	29.53	4092.0
	ARENA_3	0.425	8.49	976.3				
2320.000	D TIERRA	2.588	49.72	6225.9	ARENA_1	0.162	3.25	376.9
	ARENA_2	0.175	3.49	405.3	RELLENO_ZANJA	1.682	31.60	4123.6
	ARENA_3	0.424	8.49	984.8				
2340.000	D TIERRA	2.798	53.86	6279.8	ARENA_1	0.162	3.25	380.2
	ARENA_2	0.175	3.49	408.8	RELLENO_ZANJA	1.892	35.73	4159.4
	ARENA_3	0.424	8.49	993.3				
2360.000	D TIERRA	2.887	56.84	6336.6	ARENA_1	0.162	3.25	383.4
	ARENA_2	0.175	3.49	412.3	RELLENO_ZANJA	1.980	38.72	4198.1
	ARENA_3	0.424	8.49	1001.8				
2380.000	D TIERRA	2.381	52.68	6389.3	ARENA_1	0.162	3.25	386.7
	ARENA_2	0.175	3.49	415.8	RELLENO_ZANJA	1.475	34.56	4232.6
	ARENA_3	0.424	8.49	1010.3				
2400.000	D TIERRA	2.505	48.86	6438.1	ARENA_1	0.162	3.25	389.9
	ARENA_2	0.175	3.49	419.3	RELLENO_ZANJA	1.599	30.74	4263.4
	ARENA_3	0.425	8.49	1018.7				
2420.000	D TIERRA	2.593	50.98	6489.1	ARENA_1	0.162	3.25	393.2
	ARENA_2	0.175	3.49	422.8	RELLENO_ZANJA	1.687	32.86	4296.2
	ARENA_3	0.425	8.49	1027.2				
2429.167	D TIERRA	2.632	23.95	6513.1	ARENA_1	0.162	1.49	394.7
	ARENA_2	0.175	1.60	424.4	RELLENO_ZANJA	1.726	15.65	4311.9
	ARENA_3	0.425	3.89	1031.1				
2440.000	D TIERRA	2.680	28.77	6541.8	ARENA_1	0.162	1.76	396.4
	ARENA_2	0.175	1.89	426.3	RELLENO_ZANJA	1.773	18.96	4330.8
	ARENA_3	0.425	4.60	1035.7				
2460.000	D TIERRA	2.765	54.44	6596.3	ARENA_1	0.162	3.25	399.7
	ARENA_2	0.175	3.49	429.8	RELLENO_ZANJA	1.859	36.32	4367.2
	ARENA_3	0.425	8.49	1044.2				
2480.000	D TIERRA	2.847	56.12	6652.4	ARENA_1	0.162	3.25	402.9
	ARENA_2	0.175	3.49	433.2	RELLENO_ZANJA	1.941	38.00	4405.2
	ARENA_3	0.425	8.49	1052.7				
2500.000	D TIERRA	2.925	57.72	6710.1	ARENA_1	0.162	3.25	406.2
	ARENA_2	0.175	3.49	436.7	RELLENO_ZANJA	2.019	39.60	4444.8
	ARENA_3	0.425	8.49	1061.2				
2520.000	D TIERRA	2.996	59.20	6769.3	ARENA_1	0.162	3.25	409.4
	ARENA_2	0.175	3.49	440.2	RELLENO_ZANJA	2.090	41.08	4485.8
	ARENA_3	0.425	8.49	1069.7				
2540.000	D TIERRA	3.056	60.51	6829.8	ARENA_1	0.162	3.25	412.7
	ARENA_2	0.175	3.49	443.7	RELLENO_ZANJA	2.149	42.39	4528.2
	ARENA_3	0.425	8.49	1078.2				
2552.201	D TIERRA	3.084	37.45	6867.3	ARENA_1	0.162	1.98	414.7
	ARENA_2	0.175	2.13	445.9	RELLENO_ZANJA	2.178	26.40	4554.6
	ARENA_3	0.425	5.18	1083.4				



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PROYECTO : CIDACOS COMPLETO
EJE : 6: P240 (Aldeanueva de Ebro) - P280 (Alfaro)

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PROYECTO : CIDACOS COMPLETO
EJE : 6: P240 (Aldeanueva de Ebro) - P280 (Alfaro)

*** MEDICIONES DE LOS PERFILES TRANSVERSALES ***
*** CAPAS DE FIRME ***

*** MEDICIONES DE LOS PERFILES TRANSVERSALES ***
*** CAPAS DE FIRME ***

PERFIL	MATERIAL	AREA PERFIL	VOL. PARCIAL	VOL. ACUMUL.	MATERIAL	AREA PERFIL	VOL. PARCIAL	VOL. ACUMUL.
2560.000	D TIERRA	3.082	24.04	6891.3	ARENA_1	0.162	1.27	415.9
	ARENA_2	0.175	1.36	447.2	RELLENO_ZANJA	2.176	16.98	4571.6
	ARENA_3	0.425	3.31	1086.7				
2580.000	D TIERRA	3.043	61.25	6952.6	ARENA_1	0.162	3.25	419.2
	ARENA_2	0.175	3.49	450.7	RELLENO_ZANJA	2.137	43.12	4614.7
	ARENA_3	0.425	8.49	1095.2				
2596.674	D TIERRA	2.974	50.17	7002.8	ARENA_1	0.162	2.71	421.9
	ARENA_2	0.175	2.91	453.6	RELLENO_ZANJA	2.068	35.06	4649.8
	ARENA_3	0.425	7.08	1102.2				
2600.000	D TIERRA	2.955	9.86	7012.6	ARENA_1	0.162	0.54	422.4
	ARENA_2	0.175	0.58	454.2	RELLENO_ZANJA	2.049	6.85	4656.6
	ARENA_3	0.425	1.41	1103.7				
2605.605	D TIERRA	2.941	16.52	7029.1	ARENA_1	0.162	0.91	423.3
	ARENA_2	0.175	0.98	455.2	RELLENO_ZANJA	2.035	11.44	4668.1
	ARENA_3	0.425	2.38	1106.0				
2620.000	D TIERRA	2.817	41.44	7070.6	ARENA_1	0.162	2.34	425.7
	ARENA_2	0.175	2.51	457.7	RELLENO_ZANJA	1.910	28.39	4696.5
	ARENA_3	0.425	6.11	1112.1				
2636.366	D TIERRA	2.678	44.96	7115.5	ARENA_1	0.162	2.66	428.3
	ARENA_2	0.175	2.86	460.6	RELLENO_ZANJA	1.771	30.13	4726.6
	ARENA_3	0.425	6.95	1119.1				
2640.000	D TIERRA	2.631	9.65	7125.2	ARENA_1	0.162	0.59	428.9
	ARENA_2	0.175	0.63	461.2	RELLENO_ZANJA	1.725	6.35	4732.9
	ARENA_3	0.425	1.54	1120.6				
2660.000	D TIERRA	2.382	50.13	7175.3	ARENA_1	0.162	3.25	432.2
	ARENA_2	0.175	3.49	464.7	RELLENO_ZANJA	1.476	32.01	4765.0
	ARENA_3	0.425	8.49	1129.1				
2680.000	D TIERRA	2.294	46.76	7222.1	ARENA_1	0.162	3.25	435.4
	ARENA_2	0.175	3.49	468.2	RELLENO_ZANJA	1.388	28.64	4793.6
	ARENA_3	0.425	8.49	1137.6				
2700.000	D TIERRA	2.346	46.40	7268.5	ARENA_1	0.162	3.25	438.7
	ARENA_2	0.175	3.49	471.7	RELLENO_ZANJA	1.440	28.28	4821.9
	ARENA_3	0.425	8.49	1146.1				
2720.000	D TIERRA	2.400	47.46	7315.9	ARENA_1	0.162	3.25	441.9
	ARENA_2	0.175	3.49	475.2	RELLENO_ZANJA	1.493	29.34	4851.2
	ARENA_3	0.425	8.49	1154.6				
2740.000	D TIERRA	2.415	48.15	7364.1	ARENA_1	0.162	3.25	445.2
	ARENA_2	0.175	3.49	478.7	RELLENO_ZANJA	1.509	30.02	4881.2
	ARENA_3	0.425	8.49	1163.1				
2760.000	D TIERRA	2.380	47.95	7412.0	ARENA_1	0.162	3.25	448.4
	ARENA_2	0.175	3.49	482.2	RELLENO_ZANJA	1.473	29.82	4911.1
	ARENA_3	0.425	8.49	1171.6				
2780.000	D TIERRA	2.388	47.67	7459.7	ARENA_1	0.162	3.25	451.7
	ARENA_2	0.175	3.49	485.7	RELLENO_ZANJA	1.481	29.55	4940.6
	ARENA_3	0.425	8.49	1180.1				
2782.489	D TIERRA	2.381	5.93	7465.6	ARENA_1	0.162	0.40	452.1
	ARENA_2	0.175	0.43	486.1	RELLENO_ZANJA	1.475	3.68	4944.3
	ARENA_3	0.425	1.06	1181.1				
2800.000	D TIERRA	2.368	41.58	7507.2	ARENA_1	0.162	2.85	454.9
	ARENA_2	0.175	3.06	489.1	RELLENO_ZANJA	1.461	25.71	4970.0
	ARENA_3	0.425	7.43	1188.6				
2801.246	D TIERRA	2.366	2.95	7510.2	ARENA_1	0.162	0.20	455.1
	ARENA_2	0.175	0.22	489.4	RELLENO_ZANJA	1.460	1.82	4971.8
	ARENA_3	0.425	0.53	1189.1				
2820.000	D TIERRA	2.420	44.89	7555.1	ARENA_1	0.162	3.05	458.2
	ARENA_2	0.175	3.28	492.6	RELLENO_ZANJA	1.514	27.89	4999.7
	ARENA_3	0.425	7.96	1197.0				
2840.000	D TIERRA	2.479	48.99	7604.0	ARENA_1	0.162	3.25	461.4
	ARENA_2	0.175	3.49	496.1	RELLENO_ZANJA	1.572	30.87	5030.6
	ARENA_3	0.425	8.49	1205.5				

PERFIL	MATERIAL	AREA PERFIL	VOL. PARCIAL	VOL. ACUMUL.	MATERIAL	AREA PERFIL	VOL. PARCIAL	VOL. ACUMUL.
2859.161	D TIERRA	3.070	53.16	7657.2	ARENA_1	0.162	3.11	464.5
	ARENA_2	0.175	3.35	499.5	RELLENO_ZANJA	2.164	35.80	5066.4
	ARENA_3	0.425	8.13	1213.7				
2860.000	D TIERRA	3.456	2.74	7659.9	ARENA_1	0.162	0.14	464.7
	ARENA_2	0.175	0.15	499.6	RELLENO_ZANJA	2.550	1.98	5068.3
	ARENA_3	0.425	0.36	1214.0				
2880.000	D TIERRA	2.475	59.31	7719.3	ARENA_1	0.162	3.25	467.9
	ARENA_2	0.175	3.49	503.1	RELLENO_ZANJA	1.569	41.19	5109.5
	ARENA_3	0.425	8.49	1222.5				
2885.145	D TIERRA	2.381	12.49	7731.7	ARENA_1	0.162	0.84	468.8
	ARENA_2	0.175	0.90	504.0	RELLENO_ZANJA	1.475	7.83	5117.4
	ARENA_3	0.425	2.18	1224.7				
2900.000	D TIERRA	2.385	35.40	7767.1	ARENA_1	0.162	2.41	471.2
	ARENA_2	0.175	2.60	506.6	RELLENO_ZANJA	1.478	21.94	5139.3
	ARENA_3	0.424	6.31	1231.0				
2918.394	D TIERRA	2.654	46.34	7813.5	ARENA_1	0.162	2.99	474.2
	ARENA_2	0.175	3.21	509.8	RELLENO_ZANJA	1.748	29.67	5169.0
	ARENA_3	0.424	7.81	1238.8				
2920.000	D TIERRA	2.656	4.26	7817.7	ARENA_1	0.162	0.26	474.4
	ARENA_2	0.175	0.28	510.1	RELLENO_ZANJA	1.750	2.81	5171.8
	ARENA_3	0.424	0.68	1239.5				
2940.000	D TIERRA	2.381	50.37	7868.1	ARENA_1	0.162	3.25	477.7
	ARENA_2	0.175	3.49	513.6	RELLENO_ZANJA	1.475	32.25	5204.0
	ARENA_3	0.424	8.49	1248.0				
2960.000	D TIERRA	2.382	47.64	7915.8	ARENA_1	0.162	3.25	480.9
	ARENA_2	0.175	3.49	517.1	RELLENO_ZANJA	1.476	29.51	5233.5
	ARENA_3	0.424	8.49	1256.5				
2964.955	D TIERRA	2.474	12.03	7927.8	ARENA_1	0.162	0.81	481.7
	ARENA_2	0.175	0.87	518.0	RELLENO_ZANJA	1.568	7.54	5241.1
	ARENA_3	0.425	2.10	1258.6				
2980.000	D TIERRA	2.788	39.58	7967.4	ARENA_1	0.162	2.44	484.2
	ARENA_2	0.175	2.63	520.6	RELLENO_ZANJA	1.882	25.95	5267.0
	ARENA_3	0.425	6.39	1265.0				
3000.000	D TIERRA	2.803	55.91	8023.3	ARENA_1	0.162	3.25	487.4
	ARENA_2	0.175	3.49	524.1	RELLENO_ZANJA	1.897	37.79	5304.8
	ARENA_3	0.425	8.49	1273.4				
3020.000	D TIERRA	2.381	51.84	8075.1	ARENA_1	0.162	3.25	490.7
	ARENA_2	0.175	3.49	527.6	RELLENO_ZANJA	1.475	33.72	5338.5
	ARENA_3	0.424	8.49	1281.9				
3040.000	D TIERRA	2.381	47.62	8122.7	ARENA_1	0.162	3.25	493.9
	ARENA_2	0.175	3.49	531.1	RELLENO_ZANJA	1.475	29.50	5368.0
	ARENA_3	0.424	8.49	1290.4				
3060.000	D TIERRA	2.366	47.48	8170.2	ARENA_1	0.162	3.25	497.2
	ARENA_2	0.175	3.49	534.6	RELLENO_ZANJA	1.460	29.35	5397.4
	ARENA_3	0.424	8.49	1298.9				
3067.420	D TIERRA	2.381	17.61	8187.8	ARENA_1	0.162	1.21	498.4
	ARENA_2	0.175	1.30	535.9	RELLENO_ZANJA	1.475	10.89	5408.3
	ARENA_3	0.424	3.15	1302.1				
3080.000	D TIERRA	2.392	30.02	8217.9	ARENA_1	0.162	2.04	500.4
	ARENA_2	0.175	2.20	538.1	RELLENO_ZANJA	1.486	18.62	5426.9
	ARENA_3	0.424	5.34	1307.4				
3086.610	D TIERRA	2.455	16.02	8233.9	ARENA_1	0.162	1.07	501.5
	ARENA_2	0.175	1.15	539.2	RELLENO_ZANJA	1.549	10.03	5436.9
	ARENA_3	0.424	2.81	1310.2				
3100.000	D TIERRA	2.541	33.45	8267.3	ARENA_1	0.162	2.18	503.7
	ARENA_2	0.175	2.34	541.6	RELLENO_ZANJA	1.634	21.31	5458.2
	ARENA_3	0.425	5.68	1315.9				
3120.000	D TIERRA	2.382	49.22	8316.5	ARENA_1	0.162	3.25	506.9
	ARENA_2	0.175	3.49	545.1	RELLENO_ZANJA	1.475	31.10	5489.3
	ARENA_3	0.425	8.49	1324.4				



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PROYECTO : CIDACOS COMPLETO
EJE : 6: P240 (Aldeanueva de Ebro) - P280 (Alfaro)

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PROYECTO : CIDACOS COMPLETO
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MEDICIONES DE LOS PERFILES TRANSVERSALES
CAPAS DE FIRME

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CAPAS DE FIRME

Table with columns: PERFIL, MATERIAL, AREA PERFIL, VOL. PARCIAL, VOL. ACUMUL., MATERIAL, AREA PERFIL, VOL. PARCIAL, VOL. ACUMUL. Rows include profiles 3140.000 to 3440.000 with materials like TIERRA, ARENA, and RELLENO_ZANJA.

Table with columns: PERFIL, MATERIAL, AREA PERFIL, VOL. PARCIAL, VOL. ACUMUL., MATERIAL, AREA PERFIL, VOL. PARCIAL, VOL. ACUMUL. Rows include profiles 3460.000 to 3800.000 with materials like TIERRA, ARENA, and RELLENO_ZANJA.



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PROYECTO : CIDACOS COMPLETO
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*** MEDICIONES DE LOS PERFILES TRANSVERSALES ***
*** CAPAS DE FIRME ***

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PERFIL	MATERIAL	AREA PERFIL	VOL. PARCIAL	VOL. ACUMUL.	MATERIAL	AREA PERFIL	VOL. PARCIAL	VOL. ACUMUL.
3820.000	D TIERRA	2.411	48.61	10043.4	ARENA_1	0.162	3.25	620.6
	ARENA_2	0.175	3.49	667.3	RELLENO_ZANJA	1.505	30.49	6581.9
	ARENA_3	0.425	8.49	1621.5				
3840.000	D TIERRA	2.381	47.92	10091.4	ARENA_1	0.162	3.25	623.9
	ARENA_2	0.175	3.49	670.8	RELLENO_ZANJA	1.475	29.80	6611.7
	ARENA_3	0.425	8.49	1630.0				
3860.000	D TIERRA	2.742	51.23	10142.6	ARENA_1	0.162	3.25	627.1
	ARENA_2	0.175	3.49	674.3	RELLENO_ZANJA	1.836	33.11	6644.9
	ARENA_3	0.425	8.49	1638.5				
3880.000	D TIERRA	3.212	59.54	10202.1	ARENA_1	0.162	3.25	630.4
	ARENA_2	0.175	3.49	677.8	RELLENO_ZANJA	2.306	41.41	6686.3
	ARENA_3	0.425	8.49	1647.0				
3884.540	D TIERRA	3.303	14.79	10216.9	ARENA_1	0.162	0.74	631.1
	ARENA_2	0.175	0.79	678.6	RELLENO_ZANJA	2.396	10.67	6696.9
	ARENA_3	0.425	1.93	1648.9				
3900.000	D TIERRA	3.665	53.86	10270.8	ARENA_1	0.162	2.51	633.6
	ARENA_2	0.175	2.70	681.3	RELLENO_ZANJA	2.759	39.85	6736.8
	ARENA_3	0.424	6.56	1655.5				
3900.000	D TIERRA	0.000	0.00	10270.8	ARENA_1	0.000	0.00	633.6
	ARENA_2	0.000	0.00	681.3	RELLENO_ZANJA	0.000	0.00	6736.8
	ARENA_3	0.000	0.00	1655.5				
3920.000	D TIERRA	0.000	0.00	10270.8	ARENA_1	0.000	0.00	633.6
	ARENA_2	0.000	0.00	681.3	RELLENO_ZANJA	0.000	0.00	6736.8
	ARENA_3	0.000	0.00	1655.5				
3940.000	D TIERRA	0.000	0.00	10270.8	ARENA_1	0.000	0.00	633.6
	ARENA_2	0.000	0.00	681.3	RELLENO_ZANJA	0.000	0.00	6736.8
	ARENA_3	0.000	0.00	1655.5				
3960.000	D TIERRA	2.815	0.00	10270.8	ARENA_1	0.162	0.00	633.6
	ARENA_2	0.175	0.00	681.3	RELLENO_ZANJA	1.909	0.00	6736.8
	ARENA_3	0.424	0.00	1655.5				
3980.000	D TIERRA	2.385	52.00	10322.8	ARENA_1	0.162	3.25	636.9
	ARENA_2	0.175	3.49	684.8	RELLENO_ZANJA	1.478	33.88	6770.7
	ARENA_3	0.424	8.49	1664.0				
4000.000	D TIERRA	2.455	48.40	10371.2	ARENA_1	0.162	3.25	640.1
	ARENA_2	0.175	3.49	688.3	RELLENO_ZANJA	1.549	30.27	6800.9
	ARENA_3	0.424	8.49	1672.5				
4015.195	D TIERRA	2.509	37.71	10408.9	ARENA_1	0.162	2.47	642.6
	ARENA_2	0.175	2.65	691.0	RELLENO_ZANJA	1.603	23.94	6824.9
	ARENA_3	0.424	6.45	1678.9				
4020.000	D TIERRA	2.525	12.09	10421.0	ARENA_1	0.162	0.78	643.4
	ARENA_2	0.175	0.84	691.8	RELLENO_ZANJA	1.619	7.74	6832.6
	ARENA_3	0.424	2.04	1680.9				
4040.000	D TIERRA	2.580	51.05	10472.0	ARENA_1	0.162	3.25	646.6
	ARENA_2	0.175	3.49	695.3	RELLENO_ZANJA	1.674	32.93	6865.6
	ARENA_3	0.424	8.49	1689.4				
4060.000	D TIERRA	2.495	50.75	10522.8	ARENA_1	0.162	3.25	649.9
	ARENA_2	0.175	3.49	698.8	RELLENO_ZANJA	1.589	32.62	6898.2
	ARENA_3	0.424	8.49	1697.9				
4080.000	D TIERRA	2.382	48.77	10571.5	ARENA_1	0.162	3.25	653.1
	ARENA_2	0.175	3.49	702.3	RELLENO_ZANJA	1.476	30.64	6928.8
	ARENA_3	0.425	8.49	1706.4				
4120.000	D TIERRA	2.380	95.24	10666.8	ARENA_1	0.162	6.50	659.6
	ARENA_2	0.175	6.99	709.3	RELLENO_ZANJA	1.474	59.00	6987.8
	ARENA_3	0.425	16.98	1723.4				
4140.000	D TIERRA	2.430	48.11	10714.9	ARENA_1	0.162	3.25	662.9
	ARENA_2	0.175	3.49	712.8	RELLENO_ZANJA	1.524	29.98	7017.8
	ARENA_3	0.424	8.49	1731.9				
4160.000	D TIERRA	2.479	49.09	10764.0	ARENA_1	0.162	3.25	666.1
	ARENA_2	0.175	3.49	716.3	RELLENO_ZANJA	1.573	30.97	7048.8
	ARENA_3	0.424	8.49	1740.4				

PERFIL	MATERIAL	AREA PERFIL	VOL. PARCIAL	VOL. ACUMUL.	MATERIAL	AREA PERFIL	VOL. PARCIAL	VOL. ACUMUL.
4180.000	D TIERRA	2.423	49.02	10813.0	ARENA_1	0.162	3.25	669.4
	ARENA_2	0.175	3.49	719.8	RELLENO_ZANJA	1.517	30.90	7079.7
	ARENA_3	0.424	8.49	1748.9				
4200.000	D TIERRA	2.411	48.34	10861.4	ARENA_1	0.162	3.25	672.6
	ARENA_2	0.175	3.49	723.2	RELLENO_ZANJA	1.504	30.22	7109.9
	ARENA_3	0.424	8.49	1757.4				
4220.000	D TIERRA	2.469	48.80	10910.2	ARENA_1	0.162	3.25	675.9
	ARENA_2	0.175	3.49	726.7	RELLENO_ZANJA	1.563	30.68	7140.6
	ARENA_3	0.424	8.49	1765.8				
4229.376	D TIERRA	2.381	22.74	10932.9	ARENA_1	0.162	1.52	677.4
	ARENA_2	0.175	1.64	728.4	RELLENO_ZANJA	1.475	14.24	7154.8
	ARENA_3	0.424	3.98	1769.8				
4240.000	D TIERRA	2.381	25.30	10958.2	ARENA_1	0.162	1.73	679.1
	ARENA_2	0.175	1.86	730.2	RELLENO_ZANJA	1.475	15.67	7170.5
	ARENA_3	0.424	4.51	1774.3				
4260.000	D TIERRA	2.423	48.04	11006.2	ARENA_1	0.162	3.25	682.4
	ARENA_2	0.175	3.49	733.7	RELLENO_ZANJA	1.517	29.92	7200.4
	ARENA_3	0.425	8.49	1782.8				
4280.000	D TIERRA	2.470	48.93	11055.2	ARENA_1	0.162	3.25	685.6
	ARENA_2	0.175	3.49	737.2	RELLENO_ZANJA	1.564	30.81	7231.2
	ARENA_3	0.425	8.49	1791.3				
4300.000	D TIERRA	2.530	50.00	11105.2	ARENA_1	0.162	3.25	688.9
	ARENA_2	0.175	3.49	740.7	RELLENO_ZANJA	1.624	31.88	7263.1
	ARENA_3	0.425	8.49	1799.8				
4305.846	D TIERRA	2.515	14.75	11119.9	ARENA_1	0.162	0.95	689.8
	ARENA_2	0.175	1.02	741.7	RELLENO_ZANJA	1.609	9.45	7272.5
	ARENA_3	0.425	2.48	1802.3				
4320.000	D TIERRA	2.371	34.58	11154.5	ARENA_1	0.162	2.30	692.1
	ARENA_2	0.175	2.47	744.2	RELLENO_ZANJA	1.465	21.75	7294.3
	ARENA_3	0.425	6.01	1808.3				
4340.000	D TIERRA	2.376	47.48	11202.0	ARENA_1	0.162	3.25	695.4
	ARENA_2	0.175	3.49	747.7	RELLENO_ZANJA	1.470	29.35	7323.6
	ARENA_3	0.424	8.49	1816.8				
4353.485	D TIERRA	2.438	32.46	11234.4	ARENA_1	0.162	2.19	697.6
	ARENA_2	0.175	2.36	750.1	RELLENO_ZANJA	1.532	20.24	7343.9
	ARENA_3	0.424	5.72	1822.5				
4360.000	D TIERRA	2.383	15.70	11250.1	ARENA_1	0.162	1.06	698.6
	ARENA_2	0.175	1.14	751.2	RELLENO_ZANJA	1.476	9.80	7353.7
	ARENA_3	0.424	2.77	1825.3				
4380.000	D TIERRA	2.378	47.60	11297.7	ARENA_1	0.162	3.25	701.9
	ARENA_2	0.175	3.49	754.7	RELLENO_ZANJA	1.472	29.48	7383.2
	ARENA_3	0.424	8.49	1833.8				
4400.000	D TIERRA	2.381	47.59	11345.3	ARENA_1	0.162	3.25	705.1
	ARENA_2	0.175	3.49	758.2	RELLENO_ZANJA	1.475	29.47	7412.6
	ARENA_3	0.425	8.49	1842.3				
4420.000	D TIERRA	2.794	51.75	11397.1	ARENA_1	0.162	3.25	708.4
	ARENA_2	0.175	3.49	761.7	RELLENO_ZANJA	1.888	33.63	7446.2
	ARENA_3	0.425	8.49	1850.7				
4440.000	D TIERRA	2.416	52.10	11449.2	ARENA_1	0.162	3.25	711.6
	ARENA_2	0.175	3.49	765.2	RELLENO_ZANJA	1.510	33.98	7480.2
	ARENA_3	0.425	8.49	1859.2				
4480.000	D TIERRA	2.379	95.91	11545.1	ARENA_1	0.162	6.50	718.1
	ARENA_2	0.175	6.99	772.2	RELLENO_ZANJA	1.473	59.67	7539.9
	ARENA_3	0.424	16.98	1876.2				
4500.000	D TIERRA	2.401	47.81	11592.9	ARENA_1	0.162	3.25	721.4
	ARENA_2	0.175	3.49	775.7	RELLENO_ZANJA	1.495	29.68	7569.6
	ARENA_3	0.424	8.49	1884.7				
4513.581	D TIERRA	2.417	32.72	11625.6	ARENA_1	0.162	2.21	723.6
	ARENA_2	0.175	2.37	778.0	RELLENO_ZANJA	1.511	20.41	7590.0
	ARENA_3	0.424	5.77	1890.5				



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PROYECTO : CIDACOS COMPLETO
EJE : 6: P240 (Aldeanueva de Ebro) - P280 (Alfaro)

Istram 9.04 12/05/20 12:52:35
PROYECTO : CIDACOS COMPLETO
EJE : 6: P240 (Aldeanueva de Ebro) - P280 (Alfaro)

MEDICIONES DE LOS PERFILES TRANSVERSALES
CAPAS DE FIRME

MEDICIONES DE LOS PERFILES TRANSVERSALES
CAPAS DE FIRME

Table with columns: PERFIL, MATERIAL, AREA PERFIL, VOL. PARCIAL, VOL. ACUMUL., MATERIAL, AREA PERFIL, VOL. PARCIAL, VOL. ACUMUL. It lists data for profiles 4520.000 to 4760.000.

Table with columns: PERFIL, MATERIAL, AREA PERFIL, VOL. PARCIAL, VOL. ACUMUL., MATERIAL, AREA PERFIL, VOL. PARCIAL, VOL. ACUMUL. It lists data for profiles 4780.000 to 5030.388.



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PROYECTO : CIDACOS COMPLETO
EJE : 6: P240 (Aldeanueva de Ebro) - P280 (Alfaro)

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PROYECTO : CIDACOS COMPLETO
EJE : 6: P240 (Aldeanueva de Ebro) - P280 (Alfaro)

*** MEDICIONES DE LOS PERFILES TRANSVERSALES***
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PERFIL	MATERIAL	AREA PERFIL	VOL. PARCIAL	VOL. ACUMUL.	MATERIAL	AREA PERFIL	VOL. PARCIAL	VOL. ACUMUL.
5040.000	D TIERRA	2.352	22.26	13099.8	ARENA_1	0.162	1.56	809.1
	ARENA_2	0.175	1.68	870.0	RELLENO_ZANJA	1.446	13.55	8587.2
	ARENA_3	0.424	4.08	2113.9				
5060.000	D TIERRA	2.327	46.80	13146.6	ARENA_1	0.162	3.25	812.4
	ARENA_2	0.175	3.49	873.5	RELLENO_ZANJA	1.421	28.67	8615.9
	ARENA_3	0.424	8.49	2122.4				
5080.000	D TIERRA	2.496	48.23	13194.9	ARENA_1	0.162	3.25	815.6
	ARENA_2	0.175	3.49	877.0	RELLENO_ZANJA	1.590	30.11	8646.0
	ARENA_3	0.424	8.49	2130.9				
5100.000	D TIERRA	2.482	49.78	13244.7	ARENA_1	0.162	3.25	818.9
	ARENA_2	0.175	3.49	880.5	RELLENO_ZANJA	1.576	31.65	8677.6
	ARENA_3	0.424	8.49	2139.4				
5103.277	D TIERRA	2.491	8.15	13252.8	ARENA_1	0.162	0.53	819.4
	ARENA_2	0.175	0.57	881.0	RELLENO_ZANJA	1.585	5.18	8682.8
	ARENA_3	0.424	1.39	2140.8				
5112.631	D TIERRA	2.460	23.16	13276.0	ARENA_1	0.162	1.52	820.9
	ARENA_2	0.175	1.63	882.7	RELLENO_ZANJA	1.554	14.68	8697.5
	ARENA_3	0.424	3.97	2144.7				
5120.000	D TIERRA	2.383	17.85	13293.8	ARENA_1	0.162	1.20	822.1
	ARENA_2	0.175	1.29	884.0	RELLENO_ZANJA	1.477	11.17	8708.7
	ARENA_3	0.424	3.13	2147.9				
5125.135	D TIERRA	2.456	12.43	13306.2	ARENA_1	0.162	0.83	822.9
	ARENA_2	0.175	0.90	884.9	RELLENO_ZANJA	1.550	7.77	8716.4
	ARENA_3	0.424	2.18	2150.1				
5139.340	D TIERRA	2.559	35.62	13341.9	ARENA_1	0.162	2.31	825.2
	ARENA_2	0.175	2.48	887.3	RELLENO_ZANJA	1.653	22.75	8739.2
	ARENA_3	0.424	6.03	2156.1				
5140.000	D TIERRA	2.559	1.69	13343.5	ARENA_1	0.162	0.11	825.4
	ARENA_2	0.175	0.12	887.5	RELLENO_ZANJA	1.653	1.09	8740.3
	ARENA_3	0.424	0.28	2156.4				
5160.000	D TIERRA	2.426	49.85	13393.4	ARENA_1	0.162	3.25	828.6
	ARENA_2	0.175	3.49	891.0	RELLENO_ZANJA	1.520	31.73	8772.0
	ARENA_3	0.424	8.49	2164.9				
5180.000	D TIERRA	2.383	48.09	13441.5	ARENA_1	0.162	3.25	831.9
	ARENA_2	0.175	3.49	894.4	RELLENO_ZANJA	1.477	29.97	8802.0
	ARENA_3	0.424	8.49	2173.3				
5184.215	D TIERRA	2.368	10.01	13451.5	ARENA_1	0.162	0.68	832.5
	ARENA_2	0.175	0.74	895.2	RELLENO_ZANJA	1.462	6.19	8808.2
	ARENA_3	0.424	1.79	2175.1				
5200.000	D TIERRA	2.373	37.42	13488.9	ARENA_1	0.162	2.56	835.1
	ARENA_2	0.175	2.76	897.9	RELLENO_ZANJA	1.467	23.11	8831.3
	ARENA_3	0.424	6.70	2181.8				
5220.000	D TIERRA	2.389	47.62	13536.5	ARENA_1	0.162	3.25	838.4
	ARENA_2	0.175	3.49	901.4	RELLENO_ZANJA	1.482	29.49	8860.8
	ARENA_3	0.424	8.49	2190.3				
5240.000	D TIERRA	2.373	47.61	13584.1	ARENA_1	0.162	3.25	841.6
	ARENA_2	0.175	3.49	904.9	RELLENO_ZANJA	1.467	29.49	8890.3
	ARENA_3	0.424	8.49	2198.8				
5240.858	D TIERRA	2.365	2.03	13586.2	ARENA_1	0.162	0.14	841.7
	ARENA_2	0.175	0.15	905.1	RELLENO_ZANJA	1.458	1.25	8891.5
	ARENA_3	0.424	0.36	2199.2				
5260.000	D TIERRA	2.409	45.69	13631.9	ARENA_1	0.162	3.11	844.9
	ARENA_2	0.175	3.34	908.4	RELLENO_ZANJA	1.503	28.34	8919.9
	ARENA_3	0.424	8.12	2207.3				
5280.000	D TIERRA	2.530	49.39	13681.2	ARENA_1	0.162	3.25	848.1
	ARENA_2	0.175	3.49	911.9	RELLENO_ZANJA	1.623	31.26	8951.1
	ARENA_3	0.424	8.49	2215.8				
5300.000	D TIERRA	2.576	51.06	13732.3	ARENA_1	0.162	3.25	851.3
	ARENA_2	0.175	3.49	915.4	RELLENO_ZANJA	1.670	32.94	8984.1
	ARENA_3	0.424	8.49	2224.3				

PERFIL	MATERIAL	AREA PERFIL	VOL. PARCIAL	VOL. ACUMUL.	MATERIAL	AREA PERFIL	VOL. PARCIAL	VOL. ACUMUL.
5308.317	D TIERRA	2.532	21.24	13753.6	ARENA_1	0.162	1.35	852.7
	ARENA_2	0.175	1.45	916.9	RELLENO_ZANJA	1.626	13.71	8997.8
	ARENA_3	0.424	3.53	2227.8				
5320.000	D TIERRA	2.348	28.51	13782.1	ARENA_1	0.162	1.90	854.6
	ARENA_2	0.175	2.04	918.9	RELLENO_ZANJA	1.441	17.92	9015.7
	ARENA_3	0.424	4.96	2232.8				
5340.000	D TIERRA	2.394	47.41	13829.5	ARENA_1	0.162	3.25	857.8
	ARENA_2	0.175	3.49	922.4	RELLENO_ZANJA	1.488	29.29	9045.0
	ARENA_3	0.424	8.49	2241.3				
5352.950	D TIERRA	2.455	31.39	13860.9	ARENA_1	0.162	2.10	860.0
	ARENA_2	0.175	2.26	924.7	RELLENO_ZANJA	1.548	19.66	9064.6
	ARENA_3	0.424	5.50	2246.8				
5360.000	D TIERRA	2.467	17.35	13878.2	ARENA_1	0.162	1.15	861.1
	ARENA_2	0.175	1.23	925.9	RELLENO_ZANJA	1.560	10.96	9075.6
	ARENA_3	0.424	2.99	2249.7				
5380.000	D TIERRA	2.466	49.33	13927.5	ARENA_1	0.162	3.25	864.3
	ARENA_2	0.175	3.49	929.4	RELLENO_ZANJA	1.560	31.21	9106.8
	ARENA_3	0.424	8.49	2258.2				
5400.000	D TIERRA	2.454	49.20	13976.7	ARENA_1	0.162	3.25	867.6
	ARENA_2	0.175	3.49	932.9	RELLENO_ZANJA	1.547	31.08	9137.9
	ARENA_3	0.424	8.49	2266.7				
5406.199	D TIERRA	2.382	14.99	13991.7	ARENA_1	0.162	1.01	868.6
	ARENA_2	0.175	1.08	934.0	RELLENO_ZANJA	1.476	9.37	9147.3
	ARENA_3	0.424	2.63	2269.4				
5420.000	D TIERRA	2.516	33.80	14025.5	ARENA_1	0.162	2.24	870.8
	ARENA_2	0.175	2.41	936.4	RELLENO_ZANJA	1.610	21.29	9168.6
	ARENA_3	0.424	5.86	2275.2				
5440.000	D TIERRA	2.610	51.27	14076.8	ARENA_1	0.162	3.25	874.1
	ARENA_2	0.175	3.49	939.9	RELLENO_ZANJA	1.704	33.14	9201.7
	ARENA_3	0.424	8.49	2283.7				
5460.000	D TIERRA	2.410	50.20	14127.0	ARENA_1	0.162	3.25	877.3
	ARENA_2	0.175	3.49	943.4	RELLENO_ZANJA	1.504	32.08	9233.8
	ARENA_3	0.424	8.49	2292.2				
5464.309	D TIERRA	2.339	10.23	14137.2	ARENA_1	0.162	0.70	878.0
	ARENA_2	0.175	0.75	944.1	RELLENO_ZANJA	1.433	6.33	9240.1
	ARENA_3	0.424	1.83	2294.0				
5476.839	D TIERRA	2.377	29.54	14166.8	ARENA_1	0.162	2.04	880.1
	ARENA_2	0.175	2.19	946.3	RELLENO_ZANJA	1.470	18.19	9258.3
	ARENA_3	0.425	5.32	2299.3				
5480.000	D TIERRA	2.403	7.55	14174.3	ARENA_1	0.162	0.51	880.6
	ARENA_2	0.175	0.55	946.9	RELLENO_ZANJA	1.497	4.69	9263.0
	ARENA_3	0.425	1.34	2300.7				
5487.578	D TIERRA	2.448	18.38	14192.7	ARENA_1	0.162	1.23	881.8
	ARENA_2	0.175	1.32	948.2	RELLENO_ZANJA	1.541	11.51	9274.5
	ARENA_3	0.425	3.22	2303.9				
5500.000	D TIERRA	2.420	30.23	14222.9	ARENA_1	0.162	2.02	883.8
	ARENA_2	0.175	2.17	950.4	RELLENO_ZANJA	1.514	18.98	9293.5
	ARENA_3	0.425	5.27	2309.2				
5520.000	D TIERRA	2.464	48.84	14271.8	ARENA_1	0.162	3.25	887.1
	ARENA_2	0.175	3.49	953.8	RELLENO_ZANJA	1.558	30.72	9324.2
	ARENA_3	0.425	8.49	2317.7				
5540.000	D TIERRA	2.381	48.46	14320.2	ARENA_1	0.162	3.25	890.3
	ARENA_2	0.175	3.49	957.3	RELLENO_ZANJA	1.475	30.33	9354.5
	ARENA_3	0.425	8.49	2326.1				
5560.000	D TIERRA	2.361	47.42	14367.7	ARENA_1	0.162	3.25	893.6
	ARENA_2	0.175	3.49	960.8	RELLENO_ZANJA	1.455	29.30	9383.8
	ARENA_3	0.424	8.49	2334.6				
5578.012	D TIERRA	2.356	42.48	14410.1	ARENA_1	0.162	2.93	896.5
	ARENA_2	0.175	3.15	964.0	RELLENO_ZANJA	1.450	26.16	9410.0
	ARENA_3	0.424	7.65	2342.3				

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 PROYECTO : CIDACOS COMPLETO
 EJE : 6: P240 (Aldeanueva de Ebro) - P280 (Alfaro)

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 PROYECTO : CIDACOS COMPLETO
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***** MEDICIONES DE LOS PERFILES TRANSVERSALES*****
 ***** CAPAS DE FIRME *****

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 ***** CAPAS DE FIRME *****

PERFIL	MATERIAL	AREA PERFIL	VOL. PARCIAL	VOL. ACUMUL.	MATERIAL	AREA PERFIL	VOL. PARCIAL	VOL. ACUMUL.
5580.000	D TIERRA	2.359	4.69	14414.8	ARENA_1	0.162	0.32	896.8
	ARENA_2	0.175	0.35	964.3	RELLENO_ZANJA	1.453	2.89	9412.9
	ARENA_3	0.424	0.84	2343.1				
5600.000	D TIERRA	2.378	47.37	14462.2	ARENA_1	0.162	3.25	900.1
	ARENA_2	0.175	3.49	967.8	RELLENO_ZANJA	1.472	29.24	9442.1
	ARENA_3	0.424	8.49	2351.6				
5603.747	D TIERRA	2.376	8.91	14471.1	ARENA_1	0.162	0.61	900.7
	ARENA_2	0.175	0.65	968.5	RELLENO_ZANJA	1.470	5.51	9447.6
	ARENA_3	0.424	1.59	2353.2				
5620.000	D TIERRA	2.385	38.69	14509.8	ARENA_1	0.162	2.64	903.3
	ARENA_2	0.175	2.84	971.3	RELLENO_ZANJA	1.478	23.96	9471.6
	ARENA_3	0.425	6.90	2360.1				
5640.000	D TIERRA	2.359	47.43	14557.2	ARENA_1	0.162	3.25	906.6
	ARENA_2	0.175	3.49	974.8	RELLENO_ZANJA	1.452	29.31	9500.9
	ARENA_3	0.425	8.49	2368.6				
5643.211	D TIERRA	2.325	7.52	14564.7	ARENA_1	0.162	0.52	907.1
	ARENA_2	0.175	0.56	975.4	RELLENO_ZANJA	1.419	4.61	9505.5
	ARENA_3	0.425	1.36	2370.0				
5660.000	D TIERRA	2.330	39.08	14603.8	ARENA_1	0.162	2.73	909.8
	ARENA_2	0.175	2.93	978.3	RELLENO_ZANJA	1.424	23.87	9529.4
	ARENA_3	0.425	7.13	2377.1				
5680.000	D TIERRA	2.310	46.40	14650.2	ARENA_1	0.162	3.25	913.1
	ARENA_2	0.175	3.49	981.8	RELLENO_ZANJA	1.404	28.28	9557.7
	ARENA_3	0.425	8.49	2385.6				
5688.854	D TIERRA	2.304	20.43	14670.7	ARENA_1	0.162	1.44	914.5
	ARENA_2	0.175	1.55	983.3	RELLENO_ZANJA	1.398	12.40	9570.1
	ARENA_3	0.425	3.76	2389.3				
5700.000	D TIERRA	2.331	25.83	14696.5	ARENA_1	0.162	1.81	916.3
	ARENA_2	0.175	1.95	985.3	RELLENO_ZANJA	1.425	15.73	9585.8
	ARENA_3	0.425	4.73	2394.1				
5720.000	D TIERRA	2.389	47.20	14743.7	ARENA_1	0.162	3.25	919.6
	ARENA_2	0.175	3.49	988.8	RELLENO_ZANJA	1.483	29.07	9614.9
	ARENA_3	0.425	8.49	2402.6				
5727.335	D TIERRA	2.380	17.49	14761.2	ARENA_1	0.162	1.19	920.8
	ARENA_2	0.175	1.28	990.1	RELLENO_ZANJA	1.474	10.84	9625.7
	ARENA_3	0.424	3.11	2405.7				
5740.000	D TIERRA	2.475	30.75	14791.9	ARENA_1	0.162	2.06	922.8
	ARENA_2	0.175	2.21	992.3	RELLENO_ZANJA	1.569	19.27	9645.0
	ARENA_3	0.424	5.38	2411.0				
5760.000	D TIERRA	2.531	50.07	14842.0	ARENA_1	0.162	3.25	926.1
	ARENA_2	0.175	3.49	995.8	RELLENO_ZANJA	1.625	31.94	9676.9
	ARENA_3	0.424	8.49	2419.5				
5780.000	D TIERRA	2.558	50.90	14892.9	ARENA_1	0.162	3.25	929.3
	ARENA_2	0.175	3.49	999.3	RELLENO_ZANJA	1.652	32.77	9709.7
	ARENA_3	0.424	8.49	2428.0				
5800.000	D TIERRA	2.411	49.69	14942.6	ARENA_1	0.162	3.25	932.6
	ARENA_2	0.175	3.49	1002.8	RELLENO_ZANJA	1.504	31.57	9741.3
	ARENA_3	0.424	8.49	2436.5				
5804.944	D TIERRA	2.384	11.85	14954.4	ARENA_1	0.162	0.80	933.4
	ARENA_2	0.175	0.86	1003.6	RELLENO_ZANJA	1.477	7.37	9748.6
	ARENA_3	0.424	2.10	2438.6				
5820.000	D TIERRA	2.376	35.83	14990.3	ARENA_1	0.162	2.45	935.8
	ARENA_2	0.175	2.63	1006.3	RELLENO_ZANJA	1.469	22.18	9770.8
	ARENA_3	0.424	6.39	2445.0				
5828.781	D TIERRA	2.325	20.64	15010.9	ARENA_1	0.162	1.43	937.3
	ARENA_2	0.175	1.53	1007.8	RELLENO_ZANJA	1.419	12.68	9783.5
	ARENA_3	0.424	3.73	2448.7				
5840.000	D TIERRA	2.400	26.51	15037.4	ARENA_1	0.162	1.82	939.1
	ARENA_2	0.175	1.96	1009.7	RELLENO_ZANJA	1.494	16.34	9799.8
	ARENA_3	0.424	4.76	2453.5				

PERFIL	MATERIAL	AREA PERFIL	VOL. PARCIAL	VOL. ACUMUL.	MATERIAL	AREA PERFIL	VOL. PARCIAL	VOL. ACUMUL.
5860.000	D TIERRA	2.600	50.00	15087.4	ARENA_1	0.162	3.25	942.3
	ARENA_2	0.175	3.49	1013.2	RELLENO_ZANJA	1.694	31.88	9831.7
	ARENA_3	0.425	8.49	2462.0				
5880.000	D TIERRA	2.913	55.13	15142.5	ARENA_1	0.162	3.25	945.6
	ARENA_2	0.175	3.49	1016.7	RELLENO_ZANJA	2.007	37.01	9868.7
	ARENA_3	0.425	8.49	2470.5				
5886.168	D TIERRA	2.900	17.93	15160.5	ARENA_1	0.162	1.00	946.6
	ARENA_2	0.175	1.08	1017.8	RELLENO_ZANJA	1.994	12.34	9881.1
	ARENA_3	0.425	2.62	2473.1				
5900.000	D TIERRA	2.634	38.28	15198.7	ARENA_1	0.162	2.25	948.8
	ARENA_2	0.175	2.42	1020.2	RELLENO_ZANJA	1.728	25.74	9906.8
	ARENA_3	0.425	5.87	2479.0				
5920.000	D TIERRA	2.381	50.16	15248.9	ARENA_1	0.162	3.25	952.1
	ARENA_2	0.175	3.49	1023.7	RELLENO_ZANJA	1.475	32.03	9938.8
	ARENA_3	0.425	8.49	2487.5				
5937.105	D TIERRA	2.608	42.68	15291.6	ARENA_1	0.162	2.78	954.9
	ARENA_2	0.175	2.99	1026.7	RELLENO_ZANJA	1.702	27.18	9966.0
	ARENA_3	0.425	7.26	2494.7				
5940.000	D TIERRA	2.571	7.50	15299.1	ARENA_1	0.162	0.47	955.3
	ARENA_2	0.175	0.51	1027.2	RELLENO_ZANJA	1.665	4.87	9970.9
	ARENA_3	0.425	1.23	2495.9				
5960.000	D TIERRA	2.923	54.94	15354.0	ARENA_1	0.162	3.25	958.6
	ARENA_2	0.175	3.49	1030.7	RELLENO_ZANJA	2.017	36.82	10007.7
	ARENA_3	0.425	8.49	2504.4				
5962.604	D TIERRA	2.952	7.65	15361.7	ARENA_1	0.162	0.42	959.0
	ARENA_2	0.175	0.45	1031.2	RELLENO_ZANJA	2.046	5.29	10013.0
	ARENA_3	0.425	1.11	2505.5				
5980.000	D TIERRA	2.831	50.30	15412.0	ARENA_1	0.162	2.83	961.8
	ARENA_2	0.175	3.04	1034.2	RELLENO_ZANJA	1.925	34.54	10047.5
	ARENA_3	0.425	7.38	2512.9				
5980.678	D TIERRA	2.829	1.92	15413.9	ARENA_1	0.162	0.11	961.9
	ARENA_2	0.175	0.12	1034.3	RELLENO_ZANJA	1.923	1.30	10048.9
	ARENA_3	0.425	0.29	2513.2				
6000.000	D TIERRA	2.921	55.55	15469.4	ARENA_1	0.162	3.14	965.1
	ARENA_2	0.175	3.38	1037.7	RELLENO_ZANJA	2.015	38.04	10086.9
	ARENA_3	0.425	8.20	2521.4				
6000.473	D TIERRA	2.912	1.38	15470.8	ARENA_1	0.162	0.08	965.2
	ARENA_2	0.175	0.08	1037.8	RELLENO_ZANJA	2.006	0.95	10087.8
	ARENA_3	0.425	0.20	2521.6				
6020.000	D TIERRA	2.746	55.25	15526.1	ARENA_1	0.162	3.17	968.3
	ARENA_2	0.175	3.41	1041.2	RELLENO_ZANJA	1.840	37.55	10125.4
	ARENA_3	0.425	8.29	2529.9				
6031.515	D TIERRA	2.363	29.41	15555.5	ARENA_1	0.162	1.87	970.2
	ARENA_2	0.175	2.01	1043.2	RELLENO_ZANJA	1.456	18.98	10144.4
	ARENA_3	0.425	4.89	2534.8				
6040.000	D TIERRA	2.315	19.85	15575.3	ARENA_1	0.162	1.38	971.6
	ARENA_2	0.175	1.48	1044.7	RELLENO_ZANJA	1.409	12.16	10156.5
	ARENA_3	0.425	3.60	2538.4				
6059.982	D TIERRA	2.383	46.94	15622.3	ARENA_1	0.162	3.25	974.8
	ARENA_2	0.175	3.49	1048.2	RELLENO_ZANJA	1.477	28.83	10185.4
	ARENA_3	0.424	8.48	2546.9				
6060.000	D TIERRA	2.383	0.04	15622.3	ARENA_1	0.162	0.00	974.8
	ARENA_2	0.175	0.00	1048.2	RELLENO_ZANJA	1.477	0.03	10185.4
	ARENA_3	0.424	0.01	2546.9				
6080.000	D TIERRA	2.376	47.58	15669.9	ARENA_1	0.162	3.25	978.1
	ARENA_2	0.175	3.49	1051.7	RELLENO_ZANJA	1.470	29.46	10214.9
	ARENA_3	0.424	8.49	2555.4				
6080.968	D TIERRA	2.381	2.30	15672.2	ARENA_1	0.162	0.16	978.2
	ARENA_2	0.175	0.17	1051.8	RELLENO_ZANJA	1.475	1.43	10216.3
	ARENA_3	0.424	0.41	2555.8				

Istram 9.04 12/05/20 12:52:35
 PROYECTO : CIDACOS COMPLETO
 EJE : 6: P240 (Aldeanueva de Ebro) - P280 (Alfaro)

Istram 9.04 12/05/20 12:52:35
 PROYECTO : CIDACOS COMPLETO
 EJE : 6: P240 (Aldeanueva de Ebro) - P280 (Alfaro)

***** MEDICIONES DE LOS PERFILES TRANSVERSALES*****
 ***** CAPAS DE FIRME *****

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PERFIL	MATERIAL	AREA PERFIL	VOL. PARCIAL	VOL. ACUMUL.	MATERIAL	AREA PERFIL	VOL. PARCIAL	VOL. ACUMUL.
6090.163	D TIERRA	2.427	22.10	15694.3	ARENA_1	0.162	1.49	979.7
	ARENA_2	0.175	1.61	1053.5	RELLENO_ZANJA	1.520	13.77	10230.1
	ARENA_3	0.424	3.90	2559.7				
6100.000	D TIERRA	2.384	23.66	15718.0	ARENA_1	0.162	1.60	981.3
	ARENA_2	0.175	1.72	1055.2	RELLENO_ZANJA	1.478	14.75	10244.8
	ARENA_3	0.424	4.18	2563.9				
6120.000	D TIERRA	2.305	46.89	15764.9	ARENA_1	0.162	3.25	984.6
	ARENA_2	0.175	3.49	1058.7	RELLENO_ZANJA	1.399	28.77	10273.6
	ARENA_3	0.424	8.49	2572.4				
6140.000	D TIERRA	2.355	46.60	15811.5	ARENA_1	0.162	3.25	987.8
	ARENA_2	0.175	3.49	1062.2	RELLENO_ZANJA	1.449	28.48	10302.1
	ARENA_3	0.424	8.49	2580.8				
6160.000	D TIERRA	2.696	0.00	15811.5	ARENA_1	0.167	0.00	987.8
	ARENA_2	0.193	0.00	1062.2	RELLENO_ZANJA	1.700	0.00	10302.1
	ARENA_3	0.491	0.00	2580.8				
6163.076	D TIERRA	2.759	8.39	15819.8	ARENA_1	0.167	0.51	988.3
	ARENA_2	0.193	0.59	1062.7	RELLENO_ZANJA	1.764	5.33	10307.4
	ARENA_3	0.491	1.51	2582.4				
6172.075	D TIERRA	3.132	26.51	15846.4	ARENA_1	0.167	1.50	989.8
	ARENA_2	0.193	1.73	1064.5	RELLENO_ZANJA	2.137	17.55	10324.9
	ARENA_3	0.491	4.42	2586.8				
6180.000	D TIERRA	2.810	23.55	15869.9	ARENA_1	0.167	1.32	991.2
	ARENA_2	0.193	1.53	1066.0	RELLENO_ZANJA	1.815	15.66	10340.6
	ARENA_3	0.491	3.89	2590.7				
6188.874	D TIERRA	3.260	26.93	15896.8	ARENA_1	0.167	1.48	992.6
	ARENA_2	0.193	1.71	1067.7	RELLENO_ZANJA	2.264	18.10	10358.7
	ARENA_3	0.491	4.36	2595.0				
6200.000	D TIERRA	2.805	33.74	15930.6	ARENA_1	0.167	1.85	994.5
	ARENA_2	0.193	2.14	1069.9	RELLENO_ZANJA	1.810	22.66	10381.4
	ARENA_3	0.491	5.46	2600.5				
6209.542	D TIERRA	2.702	26.27	15956.8	ARENA_1	0.167	1.59	996.1
	ARENA_2	0.193	1.84	1071.7	RELLENO_ZANJA	1.707	16.78	10398.1
	ARENA_3	0.491	4.69	2605.2				
6220.000	D TIERRA	2.695	28.22	15985.1	ARENA_1	0.167	1.74	997.8
	ARENA_2	0.193	2.02	1073.7	RELLENO_ZANJA	1.699	17.81	10416.0
	ARENA_3	0.491	5.14	2610.3				
6226.690	D TIERRA	2.686	18.00	16003.1	ARENA_1	0.167	1.12	998.9
	ARENA_2	0.193	1.29	1075.0	RELLENO_ZANJA	1.691	11.34	10427.3
	ARENA_3	0.491	3.29	2613.6				
6234.822	D TIERRA	2.740	22.06	16025.1	ARENA_1	0.167	1.36	1000.3
	ARENA_2	0.193	1.57	1076.6	RELLENO_ZANJA	1.745	13.97	10441.3
	ARENA_3	0.491	3.99	2617.6				
6240.000	D TIERRA	2.810	14.37	16039.5	ARENA_1	0.167	0.86	1001.2
	ARENA_2	0.193	1.00	1077.6	RELLENO_ZANJA	1.815	9.22	10450.5
	ARENA_3	0.491	2.54	2620.1				
6260.000	D TIERRA	2.990	58.01	16097.5	ARENA_1	0.167	3.33	1004.5
	ARENA_2	0.193	3.86	1081.4	RELLENO_ZANJA	1.995	38.10	10488.6
	ARENA_3	0.491	9.82	2630.0				
6268.829	D TIERRA	3.027	26.56	16124.1	ARENA_1	0.167	1.47	1006.0
	ARENA_2	0.193	1.70	1083.1	RELLENO_ZANJA	2.032	17.78	10506.4
	ARENA_3	0.491	4.34	2634.3				
6280.000	D TIERRA	3.018	33.77	16157.8	ARENA_1	0.167	1.86	1007.8
	ARENA_2	0.193	2.15	1085.3	RELLENO_ZANJA	2.023	22.65	10529.0
	ARENA_3	0.491	5.49	2639.8				
6300.000	D TIERRA	2.877	58.95	16216.8	ARENA_1	0.167	3.33	1011.2
	ARENA_2	0.193	3.86	1089.1	RELLENO_ZANJA	1.882	39.05	10568.1
	ARENA_3	0.491	9.82	2649.6				
6320.000	D TIERRA	2.794	56.71	16273.5	ARENA_1	0.167	3.33	1014.5
	ARENA_2	0.193	3.86	1093.0	RELLENO_ZANJA	1.799	36.81	10604.9
	ARENA_3	0.491	9.82	2659.4				

PERFIL	MATERIAL	AREA PERFIL	VOL. PARCIAL	VOL. ACUMUL.	MATERIAL	AREA PERFIL	VOL. PARCIAL	VOL. ACUMUL.
6340.000	D TIERRA	2.812	56.06	16329.6	ARENA_1	0.167	3.33	1017.8
	ARENA_2	0.193	3.86	1096.9	RELLENO_ZANJA	1.817	36.16	10641.0
	ARENA_3	0.491	9.82	2669.2				
6344.260	D TIERRA	2.873	12.11	16341.7	ARENA_1	0.167	0.71	1018.5
	ARENA_2	0.193	0.82	1097.7	RELLENO_ZANJA	1.878	7.87	10648.9
	ARENA_3	0.491	2.09	2671.3				
6353.280	D TIERRA	3.064	26.77	16368.4	ARENA_1	0.167	1.50	1020.0
	ARENA_2	0.193	1.74	1099.4	RELLENO_ZANJA	2.068	17.80	10666.7
	ARENA_3	0.491	4.43	2675.8				
6360.000	D TIERRA	2.844	19.85	16388.3	ARENA_1	0.167	1.12	1021.2
	ARENA_2	0.193	1.30	1100.7	RELLENO_ZANJA	1.849	13.16	10679.9
	ARENA_3	0.491	3.30	2679.1				
6361.610	D TIERRA	2.774	4.52	16392.8	ARENA_1	0.167	0.27	1021.4
	ARENA_2	0.193	0.31	1101.0	RELLENO_ZANJA	1.779	2.92	10682.8
	ARENA_3	0.491	0.79	2679.9				
6380.000	D TIERRA	2.791	51.17	16444.0	ARENA_1	0.167	3.06	1024.5
	ARENA_2	0.193	3.55	1104.6	RELLENO_ZANJA	1.796	32.87	10715.7
	ARENA_3	0.491	9.03	2688.9				
6392.170	D TIERRA	2.938	34.86	16478.8	ARENA_1	0.167	2.03	1026.5
	ARENA_2	0.193	2.35	1106.9	RELLENO_ZANJA	1.943	22.75	10738.4
	ARENA_3	0.491	5.98	2694.9				
6400.000	D TIERRA	3.063	23.49	16502.3	ARENA_1	0.167	1.31	1027.8
	ARENA_2	0.193	1.51	1108.4	RELLENO_ZANJA	2.068	15.70	10754.1
	ARENA_3	0.491	3.85	2698.7				
6420.000	D TIERRA	3.237	63.00	16565.3	ARENA_1	0.167	3.33	1031.2
	ARENA_2	0.193	3.86	1112.3	RELLENO_ZANJA	2.242	43.10	10797.2
	ARENA_3	0.491	9.82	2708.5				
6428.620	D TIERRA	3.228	27.87	16593.2	ARENA_1	0.167	1.44	1032.6
	ARENA_2	0.193	1.66	1113.9	RELLENO_ZANJA	2.233	19.29	10816.5
	ARENA_3	0.491	4.23	2712.8				
6440.000	D TIERRA	3.309	37.20	16630.4	ARENA_1	0.167	1.90	1034.5
	ARENA_2	0.193	2.19	1116.1	RELLENO_ZANJA	2.314	25.88	10842.4
	ARENA_3	0.491	5.59	2718.4				
6440.544	D TIERRA	3.316	1.80	16632.2	ARENA_1	0.167	0.09	1034.6
	ARENA_2	0.193	0.10	1116.2	RELLENO_ZANJA	2.321	1.26	10843.6
	ARENA_3	0.491	0.27	2718.6				
6452.775	D TIERRA	3.473	41.52	16673.7	ARENA_1	0.167	2.04	1036.6
	ARENA_2	0.193	2.36	1118.6	RELLENO_ZANJA	2.477	29.34	10873.0
	ARENA_3	0.491	6.01	2724.6				
6460.000	D TIERRA	3.433	24.95	16698.7	ARENA_1	0.167	1.20	1037.8
	ARENA_2	0.193	1.39	1120.0	RELLENO_ZANJA	2.438	17.76	10890.7
	ARENA_3	0.491	3.55	2728.2				
6464.491	D TIERRA	3.354	15.24	16713.9	ARENA_1	0.167	0.75	1038.6
	ARENA_2	0.193	0.87	1120.9	RELLENO_ZANJA	2.359	10.77	10901.5
	ARENA_3	0.491	2.21	2730.4				
6480.000	D TIERRA	3.372	52.16	16766.1	ARENA_1	0.167	2.59	1041.2
	ARENA_2	0.193	2.99	1123.8	RELLENO_ZANJA	2.377	36.72	10938.2
	ARENA_3	0.491	7.62	2738.0				
6500.000	D TIERRA	3.583	69.55	16835.6	ARENA_1	0.167	3.33	1044.5
	ARENA_2	0.193	3.86	1127.7	RELLENO_ZANJA	2.588	49.65	10987.9
	ARENA_3	0.491	9.82	2747.8				
6520.000	D TIERRA	3.667	72.50	16908.1	ARENA_1	0.167	3.33	1047.8
	ARENA_2	0.193	3.86	1131.6	RELLENO_ZANJA	2.672	52.60	11040.5
	ARENA_3	0.491	9.82	2757.7				
6540.000	D TIERRA	3.519	71.85	16980.0	ARENA_1	0.167	3.33	1051.2
	ARENA_2	0.193	3.86	1135.4	RELLENO_ZANJA	2.523	51.95	11092.4
	ARENA_3	0.491	9.82	2767.5				
6560.000	D TIERRA	3.401	69.20	17049.2	ARENA_1	0.167	3.33	1054.5
	ARENA_2	0.193	3.86	1139.3	RELLENO_ZANJA	2.406	49.30	11141.7
	ARENA_3	0.491	9.82	2777.3				

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 PROYECTO : CIDACOS COMPLETO
 EJE : 6: P240 (Aldeanueva de Ebro) - P280 (Alfaro)

Istram 9.04 12/05/20 12:52:35
 PROYECTO : CIDACOS COMPLETO
 EJE : 6: P240 (Aldeanueva de Ebro) - P280 (Alfaro)

***** MEDICIONES DE LOS PERFILES TRANSVERSALES*****
 ***** CAPAS DE FIRME *****

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 ***** CAPAS DE FIRME *****

PERFIL	MATERIAL	AREA PERFIL	VOL. PARCIAL	VOL. ACUMUL.	MATERIAL	AREA PERFIL	VOL. PARCIAL	VOL. ACUMUL.	PERFIL	MATERIAL	AREA PERFIL	VOL. PARCIAL	VOL. ACUMUL.	MATERIAL	AREA PERFIL	VOL. PARCIAL	VOL. ACUMUL.
6561.240	D TIERRA	3.395	4.21	17053.4	ARENA_1	0.167	0.21	1054.7	6820.000	D TIERRA	3.298	60.78	17815.1	ARENA_1	0.167	3.33	1097.8
	ARENA_2	0.193	0.24	1139.5	RELLENO_ZANJA	2.400	2.98	11144.7		ARENA_2	0.193	3.86	1189.4	RELLENO_ZANJA	2.303	40.88	11648.9
	ARENA_3	0.491	0.61	2777.9						ARENA_3	0.491	9.82	2905.0				
6575.671	D TIERRA	3.293	48.25	17101.6	ARENA_1	0.167	2.41	1057.1	6838.523	D TIERRA	3.833	66.04	17881.1	ARENA_1	0.167	3.09	1100.9
	ARENA_2	0.193	2.78	1142.3	RELLENO_ZANJA	2.298	33.89	11178.6		ARENA_2	0.193	3.57	1193.0	RELLENO_ZANJA	2.838	47.61	11696.5
	ARENA_3	0.491	7.09	2785.0						ARENA_3	0.491	9.10	2914.1				
6580.000	D TIERRA	3.251	14.17	17115.8	ARENA_1	0.167	0.72	1057.8	6840.000	D TIERRA	3.824	5.66	17886.8	ARENA_1	0.167	0.25	1101.2
	ARENA_2	0.193	0.83	1143.1	RELLENO_ZANJA	2.256	9.86	11188.5		ARENA_2	0.193	0.28	1193.2	RELLENO_ZANJA	2.829	4.19	11700.7
	ARENA_3	0.491	2.13	2787.1						ARENA_3	0.491	0.73	2914.8				
6599.506	D TIERRA	3.083	61.78	17177.6	ARENA_1	0.167	3.25	1061.1	6854.303	D TIERRA	3.795	54.49	17941.3	ARENA_1	0.167	2.38	1103.5
	ARENA_2	0.193	3.76	1146.9	RELLENO_ZANJA	2.088	42.37	11230.8		ARENA_2	0.193	2.76	1196.0	RELLENO_ZANJA	2.800	40.25	11741.0
	ARENA_3	0.491	9.58	2796.7						ARENA_3	0.491	7.03	2921.8				
6600.000	D TIERRA	3.081	1.52	17179.1	ARENA_1	0.167	0.08	1061.2	6860.000	D TIERRA	3.823	21.70	17963.0	ARENA_1	0.167	0.95	1104.5
	ARENA_2	0.193	0.10	1147.0	RELLENO_ZANJA	2.086	1.03	11231.9		ARENA_2	0.193	1.10	1197.1	RELLENO_ZANJA	2.828	16.03	11757.0
	ARENA_3	0.491	0.24	2796.9						ARENA_3	0.491	2.80	2924.6				
6620.000	D TIERRA	3.033	61.13	17240.2	ARENA_1	0.167	3.33	1064.5	6877.778	D TIERRA	3.914	68.78	18031.8	ARENA_1	0.167	2.96	1107.5
	ARENA_2	0.193	3.86	1150.8	RELLENO_ZANJA	2.038	41.23	11273.1		ARENA_2	0.193	3.43	1200.5	RELLENO_ZANJA	2.919	51.09	11808.1
	ARENA_3	0.491	9.82	2806.8						ARENA_3	0.491	8.73	2933.4				
6640.000	D TIERRA	2.995	60.28	17300.5	ARENA_1	0.167	3.33	1067.8	6880.000	D TIERRA	3.909	8.69	18040.5	ARENA_1	0.167	0.37	1107.8
	ARENA_2	0.193	3.86	1154.7	RELLENO_ZANJA	2.000	40.37	11313.5		ARENA_2	0.193	0.43	1201.0	RELLENO_ZANJA	2.914	6.48	11814.6
	ARENA_3	0.491	9.82	2816.6						ARENA_3	0.491	1.09	2934.5				
6659.625	D TIERRA	2.819	57.05	17357.6	ARENA_1	0.167	3.27	1071.1	6900.000	D TIERRA	3.914	78.23	18118.7	ARENA_1	0.167	3.33	1111.2
	ARENA_2	0.193	3.78	1158.5	RELLENO_ZANJA	1.824	37.52	11351.0		ARENA_2	0.193	3.86	1204.8	RELLENO_ZANJA	2.919	58.32	11872.9
	ARENA_3	0.491	9.64	2826.2						ARENA_3	0.491	9.82	2944.3				
6660.000	D TIERRA	2.821	1.06	17358.6	ARENA_1	0.167	0.06	1071.2	6920.000	D TIERRA	4.410	83.23	18201.9	ARENA_1	0.167	3.33	1114.5
	ARENA_2	0.193	0.07	1158.5	RELLENO_ZANJA	1.825	0.68	11351.7		ARENA_2	0.193	3.86	1208.7	RELLENO_ZANJA	3.415	63.33	11936.2
	ARENA_3	0.491	0.18	2826.4						ARENA_3	0.491	9.82	2954.1				
6680.000	D TIERRA	2.876	56.97	17415.6	ARENA_1	0.167	3.33	1074.5	6940.000	D TIERRA	4.111	85.21	18287.1	ARENA_1	0.167	3.33	1117.8
	ARENA_2	0.193	3.86	1162.4	RELLENO_ZANJA	1.881	37.06	11388.7		ARENA_2	0.193	3.86	1212.5	RELLENO_ZANJA	3.116	65.31	12001.5
	ARENA_3	0.491	9.82	2836.2						ARENA_3	0.491	9.82	2963.9				
6700.000	D TIERRA	2.672	55.48	17471.1	ARENA_1	0.167	3.33	1077.8	6960.000	D TIERRA	3.739	78.50	18365.6	ARENA_1	0.167	3.33	1121.2
	ARENA_2	0.193	3.86	1166.3	RELLENO_ZANJA	1.676	35.57	11424.3		ARENA_2	0.193	3.86	1216.4	RELLENO_ZANJA	2.743	58.60	12060.1
	ARENA_3	0.491	9.82	2846.1						ARENA_3	0.491	9.82	2973.8				
6701.603	D TIERRA	2.667	4.28	17475.3	ARENA_1	0.167	0.27	1078.1	6967.985	D TIERRA	3.606	29.32	18394.9	ARENA_1	0.167	1.33	1122.5
	ARENA_2	0.193	0.31	1166.6	RELLENO_ZANJA	1.672	2.68	11427.0		ARENA_2	0.193	1.54	1217.9	RELLENO_ZANJA	2.610	21.38	12081.5
	ARENA_3	0.491	0.79	2846.8						ARENA_3	0.491	3.92	2977.7				
6720.000	D TIERRA	2.831	50.58	17525.9	ARENA_1	0.167	3.07	1081.2	6980.000	D TIERRA	3.004	39.71	18434.6	ARENA_1	0.167	2.00	1124.5
	ARENA_2	0.193	3.55	1170.1	RELLENO_ZANJA	1.836	32.27	11459.3		ARENA_2	0.193	2.32	1220.2	RELLENO_ZANJA	2.009	27.75	12109.3
	ARENA_3	0.491	9.04	2855.9						ARENA_3	0.491	5.90	2983.6				
6739.688	D TIERRA	3.009	57.49	17583.4	ARENA_1	0.167	3.28	1084.4	7000.000	D TIERRA	2.672	56.77	18491.4	ARENA_1	0.167	3.33	1127.8
	ARENA_2	0.193	3.80	1173.9	RELLENO_ZANJA	2.014	37.90	11497.2		ARENA_2	0.193	3.86	1224.1	RELLENO_ZANJA	1.677	36.87	12146.1
	ARENA_3	0.491	9.67	2865.6						ARENA_3	0.491	9.82	2993.4				
6740.000	D TIERRA	3.006	0.94	17584.4	ARENA_1	0.167	0.05	1084.5	7020.000	D TIERRA	3.355	60.28	18551.7	ARENA_1	0.167	3.33	1131.2
	ARENA_2	0.193	0.06	1174.0	RELLENO_ZANJA	2.011	0.63	11497.8		ARENA_2	0.193	3.86	1227.9	RELLENO_ZANJA	2.360	40.38	12186.5
	ARENA_3	0.491	0.15	2865.7						ARENA_3	0.491	9.82	3003.2				
6757.021	D TIERRA	2.826	49.63	17634.0	ARENA_1	0.167	2.84	1087.3	7029.259	D TIERRA	4.128	34.65	18586.3	ARENA_1	0.167	1.54	1132.7
	ARENA_2	0.193	3.28	1177.3	RELLENO_ZANJA	1.831	32.69	11530.5		ARENA_2	0.193	1.79	1229.7	RELLENO_ZANJA	3.133	25.43	12211.9
	ARENA_3	0.491	8.36	2874.1						ARENA_3	0.491	4.55	3007.8				
6760.000	D TIERRA	2.827	8.42	17642.4	ARENA_1	0.167	0.50	1087.8	7040.000	D TIERRA	3.876	42.99	18629.3	ARENA_1	0.167	1.79	1134.5
	ARENA_2	0.193	0.57	1177.8	RELLENO_ZANJA	1.832	5.46	11535.9		ARENA_2	0.193	2.07	1231.8	RELLENO_ZANJA	2.881	32.30	12244.2
	ARENA_3	0.491	1.46	2875.5						ARENA_3	0.491	5.28	3013.1				
6780.000	D TIERRA	2.813	56.40	17698.8	ARENA_1	0.167	3.33	1091.2	7060.000	D TIERRA	3.649	75.25	18704.6	ARENA_1	0.167	3.33	1137.8
	ARENA_2	0.193	3.86	1181.7	RELLENO_ZANJA	1.818	36.50	11572.4		ARENA_2	0.193	3.86	1235.7	RELLENO_ZANJA	2.654	55.35	12299.6
	ARENA_3	0.491	9.82	2885.4						ARENA_3	0.491	9.82	3022.9				
6787.684	D TIERRA	2.759	21.41	17720.2	ARENA_1	0.167	1.28	1092.4	7062.576	D TIERRA	3.430	9.12	18713.7	ARENA_1	0.167	0.43	1138.3
	ARENA_2	0.193	1.48	1183.2	RELLENO_ZANJA	1.764	13.76	11586.2		ARENA_2	0.193	0.50	1236.2	RELLENO_ZANJA	2.435	6.55	12306.1
	ARENA_3	0.491	3.77	2889.1						ARENA_3	0.491	1.27	3024.1				
6800.000	D TIERRA	2.780	34.11	17754.3	ARENA_1	0.167	2.05	1094.5	7073.850	D TIERRA	2.881	35.57	18749.3	ARENA_1	0.167	1.88	1140.1
	ARENA_2	0.193	2.37	1185.5	RELLENO_ZANJA	1.785	21.85	11608.1		ARENA_2	0.193	2.17	1238.3	RELLENO_ZANJA	1.886	24.35	12330.5
	ARENA_3	0.491	6.05	2895.2						ARENA_3	0.491	5.54	3029.7				

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 PROYECTO : CIDACOS COMPLETO
 EJE : 6: P240 (Aldeanueva de Ebro) - P280 (Alfaro)

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 PROYECTO : CIDACOS COMPLETO
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***** MEDICIONES DE LOS PERFILES TRANSVERSALES*****
 ***** CAPAS DE FIRME *****

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 ***** CAPAS DE FIRME *****

PERFIL	MATERIAL	AREA PERFIL	VOL. PARCIAL	VOL. ACUMUL.	MATERIAL	AREA PERFIL	VOL. PARCIAL	VOL. ACUMUL.
7080.000	D TIERRA	3.282	18.95	18768.2	ARENA_1	0.167	1.03	1141.2
	ARENA_2	0.193	1.19	1239.5	RELLENO_ZANJA	2.287	12.83	12343.3
	ARENA_3	0.491	3.02	3032.7				
7081.404	D TIERRA	3.300	4.62	18772.8	ARENA_1	0.167	0.23	1141.4
	ARENA_2	0.193	0.27	1239.8	RELLENO_ZANJA	2.305	3.22	12346.5
	ARENA_3	0.491	0.69	3033.4				
7097.443	D TIERRA	3.184	52.00	18824.8	ARENA_1	0.167	2.67	1144.1
	ARENA_2	0.193	3.09	1242.9	RELLENO_ZANJA	2.189	36.04	12382.6
	ARENA_3	0.491	7.88	3041.3				
7100.000	D TIERRA	3.163	8.11	18832.9	ARENA_1	0.167	0.43	1144.5
	ARENA_2	0.193	0.49	1243.4	RELLENO_ZANJA	2.168	5.57	12388.2
	ARENA_3	0.491	1.26	3042.5				
7120.000	D TIERRA	3.149	63.12	18896.1	ARENA_1	0.167	3.33	1147.8
	ARENA_2	0.193	3.86	1247.2	RELLENO_ZANJA	2.154	43.22	12431.4
	ARENA_3	0.491	9.82	3052.3				
7140.000	D TIERRA	2.857	60.06	18956.1	ARENA_1	0.167	3.33	1151.2
	ARENA_2	0.193	3.86	1251.1	RELLENO_ZANJA	1.862	40.16	12471.5
	ARENA_3	0.491	9.82	3062.2				
7140.819	D TIERRA	2.792	2.31	18958.4	ARENA_1	0.167	0.14	1151.3
	ARENA_2	0.193	0.16	1251.2	RELLENO_ZANJA	1.797	1.50	12473.0
	ARENA_3	0.491	0.40	3062.6				
7160.000	D TIERRA	2.978	55.33	19013.8	ARENA_1	0.167	3.20	1154.5
	ARENA_2	0.193	3.70	1254.9	RELLENO_ZANJA	1.983	36.25	12509.3
	ARENA_3	0.491	9.42	3072.0				
7175.167	D TIERRA	4.836	59.26	19073.0	ARENA_1	0.167	2.53	1157.0
	ARENA_2	0.193	2.92	1257.9	RELLENO_ZANJA	3.841	44.17	12553.4
	ARENA_3	0.491	7.45	3079.4				
7180.000	D TIERRA	4.177	21.78	19094.8	ARENA_1	0.167	0.81	1157.8
	ARENA_2	0.193	0.93	1258.8	RELLENO_ZANJA	3.182	16.97	12570.4
	ARENA_3	0.491	2.37	3081.8				
7195.123	D TIERRA	3.363	57.02	19151.8	ARENA_1	0.167	2.52	1160.4
	ARENA_2	0.193	2.92	1261.7	RELLENO_ZANJA	2.368	41.97	12612.4
	ARENA_3	0.491	7.43	3089.2				
7200.000	D TIERRA	2.551	14.42	19166.3	ARENA_1	0.167	0.81	1161.2
	ARENA_2	0.193	0.94	1262.7	RELLENO_ZANJA	1.556	9.57	12622.0
	ARENA_3	0.491	2.39	3091.6				
7220.000	D TIERRA	2.581	51.32	19217.6	ARENA_1	0.167	3.33	1164.5
	ARENA_2	0.193	3.86	1266.5	RELLENO_ZANJA	1.586	31.42	12653.4
	ARENA_3	0.491	9.82	3101.5				
7240.000	D TIERRA	2.789	53.70	19271.3	ARENA_1	0.167	3.33	1167.8
	ARENA_2	0.193	3.86	1270.4	RELLENO_ZANJA	1.794	33.80	12687.2
	ARENA_3	0.491	9.81	3111.3				
7260.000	D TIERRA	2.803	55.93	19327.2	ARENA_1	0.167	3.33	1171.2
	ARENA_2	0.193	3.86	1274.2	RELLENO_ZANJA	1.808	36.02	12723.2
	ARENA_3	0.491	9.81	3121.1				
7280.000	D TIERRA	2.771	55.74	19383.0	ARENA_1	0.167	3.33	1174.5
	ARENA_2	0.193	3.86	1278.1	RELLENO_ZANJA	1.775	35.84	12759.0
	ARENA_3	0.491	9.82	3130.9				
7300.000	D TIERRA	2.783	55.54	19438.5	ARENA_1	0.167	3.33	1177.8
	ARENA_2	0.193	3.86	1281.9	RELLENO_ZANJA	1.788	35.63	12794.7
	ARENA_3	0.491	9.82	3140.7				
7320.000	D TIERRA	2.806	55.90	19494.4	ARENA_1	0.167	3.33	1181.2
	ARENA_2	0.193	3.86	1285.8	RELLENO_ZANJA	1.811	35.99	12830.7
	ARENA_3	0.491	9.82	3150.5				
7320.642	D TIERRA	2.805	1.80	19496.2	ARENA_1	0.167	0.11	1181.3
	ARENA_2	0.193	0.12	1285.9	RELLENO_ZANJA	1.810	1.16	12831.8
	ARENA_3	0.491	0.32	3150.9				
7340.000	D TIERRA	5.916	84.40	19580.6	ARENA_1	0.167	3.23	1184.5
	ARENA_2	0.193	3.73	1289.6	RELLENO_ZANJA	4.921	65.14	12897.0
	ARENA_3	0.491	9.51	3160.4				

PERFIL	MATERIAL	AREA PERFIL	VOL. PARCIAL	VOL. ACUMUL.	MATERIAL	AREA PERFIL	VOL. PARCIAL	VOL. ACUMUL.
7350.936	D TIERRA	8.685	79.83	19660.4	ARENA_1	0.167	1.82	1186.3
	ARENA_2	0.193	2.11	1291.8	RELLENO_ZANJA	7.690	68.95	12965.9
	ARENA_3	0.491	5.37	3165.7				
7360.000	D TIERRA	7.526	73.47	19733.9	ARENA_1	0.167	1.51	1187.8
	ARENA_2	0.193	1.75	1293.5	RELLENO_ZANJA	6.531	64.45	13030.4
	ARENA_3	0.491	4.45	3170.2				
7380.000	D TIERRA	5.277	128.03	19861.9	ARENA_1	0.167	3.33	1191.2
	ARENA_2	0.193	3.86	1297.4	RELLENO_ZANJA	4.282	108.13	13138.5
	ARENA_3	0.491	9.82	3180.0				
7386.720	D TIERRA	4.590	33.15	19895.1	ARENA_1	0.167	1.12	1192.3
	ARENA_2	0.193	1.30	1298.7	RELLENO_ZANJA	3.595	26.47	13165.0
	ARENA_3	0.491	3.30	3183.3				
7400.000	D TIERRA	2.837	49.32	19944.4	ARENA_1	0.167	2.21	1194.5
	ARENA_2	0.193	2.56	1301.2	RELLENO_ZANJA	1.842	36.10	13201.1
	ARENA_3	0.491	6.52	3189.8				
7420.000	D TIERRA	3.327	61.64	20006.0	ARENA_1	0.167	3.33	1197.8
	ARENA_2	0.193	3.86	1305.1	RELLENO_ZANJA	2.331	41.73	13242.8
	ARENA_3	0.491	9.81	3199.6				
7420.862	D TIERRA	2.813	2.65	20008.7	ARENA_1	0.167	0.14	1198.0
	ARENA_2	0.193	0.17	1305.2	RELLENO_ZANJA	1.818	1.79	13244.6
	ARENA_3	0.491	0.42	3200.1				
7440.000	D TIERRA	2.788	53.60	20062.3	ARENA_1	0.167	3.19	1201.2
	ARENA_2	0.193	3.69	1308.9	RELLENO_ZANJA	1.793	34.55	13279.2
	ARENA_3	0.491	9.39	3209.5				
7456.448	D TIERRA	3.442	51.24	20113.5	ARENA_1	0.167	2.74	1203.9
	ARENA_2	0.193	3.17	1312.1	RELLENO_ZANJA	2.447	34.87	13314.0
	ARENA_3	0.490	8.06	3217.5				
7460.000	D TIERRA	2.794	11.08	20124.6	ARENA_1	0.167	0.59	1204.5
	ARENA_2	0.193	0.69	1312.8	RELLENO_ZANJA	1.799	7.54	13321.6
	ARENA_3	0.490	1.74	3219.3				
7480.000	D TIERRA	2.840	56.34	20180.9	ARENA_1	0.167	3.33	1207.8
	ARENA_2	0.193	3.86	1316.6	RELLENO_ZANJA	1.845	36.44	13358.0
	ARENA_3	0.491	9.80	3229.1				
7498.846	D TIERRA	3.378	58.59	20239.5	ARENA_1	0.167	3.14	1211.0
	ARENA_2	0.193	3.63	1320.3	RELLENO_ZANJA	2.383	39.84	13397.8
	ARENA_3	0.491	9.25	3238.3				
7500.000	D TIERRA	2.894	3.62	20243.1	ARENA_1	0.167	0.19	1211.2
	ARENA_2	0.193	0.22	1320.5	RELLENO_ZANJA	1.899	2.47	13400.3
	ARENA_3	0.491	0.57	3238.9				
7520.000	D TIERRA	2.792	56.86	20300.0	ARENA_1	0.167	3.33	1214.5
	ARENA_2	0.193	3.86	1324.4	RELLENO_ZANJA	1.797	36.96	13437.3
	ARENA_3	0.491	9.82	3248.7				
7540.000	D TIERRA	2.791	55.83	20355.8	ARENA_1	0.167	3.33	1217.8
	ARENA_2	0.193	3.86	1328.2	RELLENO_ZANJA	1.796	35.93	13473.2
	ARENA_3	0.491	9.82	3258.5				
7560.000	D TIERRA	2.969	57.60	20413.4	ARENA_1	0.167	3.33	1221.2
	ARENA_2	0.193	3.86	1332.1	RELLENO_ZANJA	1.974	37.70	13510.9
	ARENA_3	0.491	9.82	3268.3				
7562.404	D TIERRA	2.874	7.02	20420.5	ARENA_1	0.167	0.40	1221.6
	ARENA_2	0.193	0.46	1332.5	RELLENO_ZANJA	1.879	4.63	13515.5
	ARENA_3	0.491	1.18	3269.5				
7580.000	D TIERRA	4.148	61.78	20482.2	ARENA_1	0.167	2.93	1224.5
	ARENA_2	0.193	3.39	1335.9	RELLENO_ZANJA	3.153	44.27	13559.8
	ARENA_3	0.491	8.64	3278.2				
7600.000	D TIERRA	3.970	81.18	20563.4	ARENA_1	0.167	3.33	1227.8
	ARENA_2	0.193	3.86	1339.8	RELLENO_ZANJA	2.975	61.27	13621.1
	ARENA_3	0.491	9.82	3288.0				
7620.000	D TIERRA	3.941	79.11	20642.5	ARENA_1	0.167	3.33	1231.2
	ARENA_2	0.193	3.86	1343.6	RELLENO_ZANJA	2.946	59.20	13680.3
	ARENA_3	0.491	9.82	3297.8				



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PROYECTO : CIDACOS COMPLETO
EJE : 6: P240 (Aldeanueva de Ebro) - P280 (Alfaro)

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PROYECTO : CIDACOS COMPLETO
EJE : 6: P240 (Aldeanueva de Ebro) - P280 (Alfaro)

*** MEDICIONES DE LOS PERFILES TRANSVERSALES ***
*** CAPAS DE FIRME ***

*** MEDICIONES DE LOS PERFILES TRANSVERSALES ***
*** CAPAS DE FIRME ***

PERFIL	MATERIAL	AREA PERFIL	VOL. PARCIAL	VOL. ACUMUL.	MATERIAL	AREA PERFIL	VOL. PARCIAL	VOL. ACUMUL.
7640.000	D TIERRA	4.559	85.00	20727.5	ARENA_1	0.167	3.33	1234.5
	ARENA_2	0.193	3.86	1347.5	RELLENO_ZANJA	3.564	65.10	13745.4
	ARENA_3	0.491	9.82	3307.6				
7660.000	D TIERRA	4.580	91.39	20818.9	ARENA_1	0.167	3.33	1237.8
	ARENA_2	0.193	3.86	1351.3	RELLENO_ZANJA	3.585	71.49	13816.9
	ARENA_3	0.491	9.82	3317.5				
7675.005	D TIERRA	4.337	66.90	20885.8	ARENA_1	0.167	2.50	1240.3
	ARENA_2	0.193	2.89	1354.2	RELLENO_ZANJA	3.342	51.97	13868.8
	ARENA_3	0.491	7.37	3324.8				
7680.000	D TIERRA	4.174	21.26	20907.1	ARENA_1	0.167	0.83	1241.2
	ARENA_2	0.193	0.96	1355.2	RELLENO_ZANJA	3.179	16.29	13885.1
	ARENA_3	0.491	2.45	3327.3				
7700.000	D TIERRA	3.558	77.32	20984.4	ARENA_1	0.167	3.33	1244.5
	ARENA_2	0.193	3.86	1359.1	RELLENO_ZANJA	2.563	57.42	13942.5
	ARENA_3	0.491	9.82	3337.1				
7714.748	D TIERRA	2.791	46.82	21031.2	ARENA_1	0.167	2.46	1247.0
	ARENA_2	0.193	2.84	1361.9	RELLENO_ZANJA	1.796	32.14	13974.7
	ARENA_3	0.491	7.24	3344.4				
7720.000	D TIERRA	2.791	14.66	21045.9	ARENA_1	0.167	0.88	1247.8
	ARENA_2	0.193	1.01	1362.9	RELLENO_ZANJA	1.795	9.43	13984.1
	ARENA_3	0.491	2.58	3346.9				
7729.611	D TIERRA	2.793	26.83	21072.7	ARENA_1	0.167	1.60	1249.4
	ARENA_2	0.193	1.85	1364.8	RELLENO_ZANJA	1.798	17.27	14001.4
	ARENA_3	0.491	4.72	3351.7				
7740.000	D TIERRA	0.000	0.00	21072.7	ARENA_1	0.000	0.00	1249.4
	ARENA_2	0.000	0.00	1364.8	RELLENO_ZANJA	0.000	0.00	14001.4
	ARENA_3	0.000	0.00	3351.7				
7760.000	D TIERRA	0.000	0.00	21072.7	ARENA_1	0.000	0.00	1249.4
	ARENA_2	0.000	0.00	1364.8	RELLENO_ZANJA	0.000	0.00	14001.4
	ARENA_3	0.000	0.00	3351.7				
7760.000	D TIERRA	2.383	0.00	21072.7	ARENA_1	0.162	0.00	1249.4
	ARENA_2	0.175	0.00	1364.8	RELLENO_ZANJA	1.477	0.00	14001.4
	ARENA_3	0.424	0.00	3351.7				
7767.217	D TIERRA	2.319	16.97	21089.7	ARENA_1	0.162	1.17	1250.6
	ARENA_2	0.175	1.26	1366.0	RELLENO_ZANJA	1.413	10.43	14011.8
	ARENA_3	0.425	3.06	3354.7				
7780.000	D TIERRA	2.373	29.99	21119.7	ARENA_1	0.162	2.08	1252.7
	ARENA_2	0.175	2.23	1368.3	RELLENO_ZANJA	1.467	18.41	14030.2
	ARENA_3	0.425	5.43	3360.1				
7787.846	D TIERRA	2.460	18.96	21138.6	ARENA_1	0.162	1.27	1254.0
	ARENA_2	0.175	1.37	1369.6	RELLENO_ZANJA	1.554	11.85	14042.1
	ARENA_3	0.425	3.33	3363.5				
7797.469	D TIERRA	2.369	23.23	21161.8	ARENA_1	0.162	1.56	1255.5
	ARENA_2	0.175	1.68	1371.3	RELLENO_ZANJA	1.463	14.51	14056.6
	ARENA_3	0.425	4.09	3367.6				
7800.000	D TIERRA	2.381	6.01	21167.9	ARENA_1	0.162	0.41	1255.9
	ARENA_2	0.175	0.44	1371.8	RELLENO_ZANJA	1.475	3.72	14060.3
	ARENA_3	0.425	1.07	3368.6				
7820.000	D TIERRA	2.526	49.07	21216.9	ARENA_1	0.162	3.25	1259.2
	ARENA_2	0.175	3.49	1375.2	RELLENO_ZANJA	1.620	30.95	14091.2
	ARENA_3	0.424	8.49	3377.1				
7840.000	D TIERRA	2.383	49.09	21266.0	ARENA_1	0.162	3.25	1262.4
	ARENA_2	0.175	3.49	1378.7	RELLENO_ZANJA	1.477	30.97	14122.2
	ARENA_3	0.424	8.49	3385.6				
7860.000	D TIERRA	2.326	47.09	21313.1	ARENA_1	0.162	3.25	1265.7
	ARENA_2	0.175	3.49	1382.2	RELLENO_ZANJA	1.420	28.97	14151.2
	ARENA_3	0.424	8.49	3394.1				
7880.000	D TIERRA	2.380	47.06	21360.2	ARENA_1	0.162	3.25	1268.9
	ARENA_2	0.175	3.49	1385.7	RELLENO_ZANJA	1.474	28.94	14180.1
	ARENA_3	0.424	8.49	3402.6				

PERFIL	MATERIAL	AREA PERFIL	VOL. PARCIAL	VOL. ACUMUL.	MATERIAL	AREA PERFIL	VOL. PARCIAL	VOL. ACUMUL.
7900.000	D TIERRA	2.399	47.79	21408.0	ARENA_1	0.162	3.25	1272.2
	ARENA_2	0.175	3.49	1389.2	RELLENO_ZANJA	1.493	29.66	14209.8
	ARENA_3	0.424	8.49	3411.1				
7920.000	D TIERRA	2.441	48.40	21456.4	ARENA_1	0.162	3.25	1275.4
	ARENA_2	0.175	3.49	1392.7	RELLENO_ZANJA	1.535	30.28	14240.1
	ARENA_3	0.425	8.49	3419.6				
7940.000	D TIERRA	2.382	48.23	21504.6	ARENA_1	0.162	3.25	1278.7
	ARENA_2	0.175	3.49	1396.2	RELLENO_ZANJA	1.476	30.11	14270.2
	ARENA_3	0.425	8.49	3428.1				
7960.000	D TIERRA	2.379	47.61	21552.2	ARENA_1	0.162	3.25	1281.9
	ARENA_2	0.175	3.49	1399.7	RELLENO_ZANJA	1.473	29.49	14299.7
	ARENA_3	0.424	8.49	3436.5				
7980.000	D TIERRA	2.616	49.95	21602.2	ARENA_1	0.162	3.25	1285.2
	ARENA_2	0.175	3.49	1403.2	RELLENO_ZANJA	1.710	31.83	14331.5
	ARENA_3	0.424	8.49	3445.0				
7981.431	D TIERRA	2.265	3.49	21605.6	ARENA_1	0.162	0.23	1285.4
	ARENA_2	0.175	0.25	1403.5	RELLENO_ZANJA	1.359	2.20	14333.7
	ARENA_3	0.424	0.61	3445.6				
8000.000	D TIERRA	2.381	43.14	21648.8	ARENA_1	0.162	3.02	1288.4
	ARENA_2	0.175	3.25	1406.7	RELLENO_ZANJA	1.475	26.31	14360.0
	ARENA_3	0.424	7.87	3453.5				
8020.000	D TIERRA	2.484	48.66	21697.4	ARENA_1	0.162	3.25	1291.7
	ARENA_2	0.175	3.49	1410.2	RELLENO_ZANJA	1.578	30.53	14390.5
	ARENA_3	0.424	8.48	3462.0				
8040.000	D TIERRA	2.589	50.73	21748.2	ARENA_1	0.162	3.25	1294.9
	ARENA_2	0.175	3.49	1413.7	RELLENO_ZANJA	1.682	32.61	14423.1
	ARENA_3	0.424	8.49	3470.5				
8060.000	D TIERRA	2.695	52.83	21801.0	ARENA_1	0.162	3.25	1298.2
	ARENA_2	0.175	3.49	1417.2	RELLENO_ZANJA	1.789	34.71	14457.8
	ARENA_3	0.424	8.49	3479.0				
8080.000	D TIERRA	2.802	54.97	21856.0	ARENA_1	0.162	3.25	1301.4
	ARENA_2	0.175	3.49	1420.7	RELLENO_ZANJA	1.896	36.85	14494.7
	ARENA_3	0.424	8.49	3487.5				
8100.000	D TIERRA	2.418	52.20	21908.2	ARENA_1	0.162	3.25	1304.7
	ARENA_2	0.175	3.49	1424.2	RELLENO_ZANJA	1.512	34.08	14528.8
	ARENA_3	0.424	8.49	3495.9				
8120.000	D TIERRA	2.780	51.98	21960.2	ARENA_1	0.162	3.25	1307.9
	ARENA_2	0.175	3.49	1427.7	RELLENO_ZANJA	1.874	33.86	14562.6
	ARENA_3	0.425	8.49	3504.4				
8138.475	D TIERRA	3.007	53.45	22013.6	ARENA_1	0.162	3.00	1310.9
	ARENA_2	0.175	3.23	1430.9	RELLENO_ZANJA	2.100	36.71	14599.3
	ARENA_3	0.425	7.84	3512.3				
8140.000	D TIERRA	3.002	4.58	22018.2	ARENA_1	0.162	0.25	1311.2
	ARENA_2	0.175	0.27	1431.2	RELLENO_ZANJA	2.096	3.20	14602.5
	ARENA_3	0.425	0.65	3512.9				
8160.000	D TIERRA	2.947	59.50	22077.7	ARENA_1	0.162	3.25	1314.4
	ARENA_2	0.175	3.49	1434.6	RELLENO_ZANJA	2.041	41.37	14643.9
	ARENA_3	0.425	8.49	3521.4				
8180.000	D TIERRA	3.166	61.14	22138.8	ARENA_1	0.162	3.25	1317.7
	ARENA_2	0.175	3.49	1438.1	RELLENO_ZANJA	2.260	43.01	14686.9
	ARENA_3	0.425	8.49	3529.9				
8191.262	D TIERRA	2.762	33.38	22172.2	ARENA_1	0.162	1.83	1319.5
	ARENA_2	0.175	1.97	1440.1	RELLENO_ZANJA	1.856	23.18	14710.1
	ARENA_3	0.425	4.78	3534.7				
8200.000	D TIERRA	2.810	24.34	22196.6	ARENA_1	0.162	1.42	1320.9
	ARENA_2	0.175	1.53	1441.6	RELLENO_ZANJA	1.903	16.43	14726.5
	ARENA_3	0.425	3.71	3538.4				
8216.608	D TIERRA	3.588	53.13	22249.7	ARENA_1	0.162	2.70	1323.6
	ARENA_2	0.175	2.90	1444.5	RELLENO_ZANJA	2.682	38.08	14764.6
	ARENA_3	0.425	7.05	3545.4				



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PROYECTO : CIDACOS COMPLETO
EJE : 6: P240 (Aldeanueva de Ebro) - P280 (Alfaro)

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PROYECTO : CIDACOS COMPLETO
EJE : 6: P240 (Aldeanueva de Ebro) - P280 (Alfaro)

*** MEDICIONES DE LOS PERFILES TRANSVERSALES ***
*** CAPAS DE FIRME ***

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*** CAPAS DE FIRME ***

PERFIL	MATERIAL	AREA PERFIL	VOL. PARCIAL	VOL. ACUMUL.	MATERIAL	AREA PERFIL	VOL. PARCIAL	VOL. ACUMUL.
8220.000	D TIERRA	3.738	12.43	22262.1	ARENA_1	0.162	0.55	1324.2
	ARENA_2	0.175	0.59	1445.1	RELLENO_ZANJA	2.832	9.35	14774.0
	ARENA_3	0.425	1.44	3546.9				
8240.000	D TIERRA	3.534	72.72	22334.8	ARENA_1	0.162	3.25	1327.4
	ARENA_2	0.175	3.49	1448.6	RELLENO_ZANJA	2.628	54.60	14828.6
	ARENA_3	0.425	8.49	3555.4				
8260.000	D TIERRA	2.997	65.31	22400.1	ARENA_1	0.162	3.25	1330.7
	ARENA_2	0.175	3.49	1452.1	RELLENO_ZANJA	2.091	47.18	14875.7
	ARENA_3	0.425	8.49	3563.9				
8280.000	D TIERRA	2.268	52.65	22452.8	ARENA_1	0.162	3.25	1333.9
	ARENA_2	0.175	3.49	1455.6	RELLENO_ZANJA	1.362	34.52	14910.3
	ARENA_3	0.425	8.49	3572.4				
8300.000	D TIERRA	2.383	46.51	22499.3	ARENA_1	0.162	3.25	1337.2
	ARENA_2	0.175	3.49	1459.1	RELLENO_ZANJA	1.477	28.39	14938.7
	ARENA_3	0.425	8.49	3580.8				
8303.567	D TIERRA	2.267	8.29	22507.6	ARENA_1	0.162	0.58	1337.7
	ARENA_2	0.175	0.62	1459.7	RELLENO_ZANJA	1.360	5.06	14943.7
	ARENA_3	0.424	1.51	3582.4				
8320.000	D TIERRA	2.624	40.19	22547.8	ARENA_1	0.162	2.67	1340.4
	ARENA_2	0.175	2.87	1462.6	RELLENO_ZANJA	1.718	25.30	14969.0
	ARENA_3	0.424	6.97	3589.3				
8340.000	D TIERRA	2.409	50.34	22598.1	ARENA_1	0.162	3.25	1343.7
	ARENA_2	0.175	3.49	1466.1	RELLENO_ZANJA	1.503	32.22	15001.2
	ARENA_3	0.424	8.49	3597.8				
8341.607	D TIERRA	2.384	3.85	22602.0	ARENA_1	0.162	0.26	1343.9
	ARENA_2	0.175	0.28	1466.4	RELLENO_ZANJA	1.478	2.40	15003.6
	ARENA_3	0.424	0.68	3598.5				
8360.000	D TIERRA	2.366	43.69	22645.7	ARENA_1	0.162	2.99	1346.9
	ARENA_2	0.175	3.21	1469.6	RELLENO_ZANJA	1.460	27.02	15030.7
	ARENA_3	0.424	7.80	3606.3				
8380.000	D TIERRA	2.384	47.50	22693.2	ARENA_1	0.162	3.25	1350.2
	ARENA_2	0.175	3.49	1473.1	RELLENO_ZANJA	1.478	29.38	15060.0
	ARENA_3	0.425	8.49	3614.8				
8400.000	D TIERRA	2.382	47.66	22740.8	ARENA_1	0.162	3.25	1353.4
	ARENA_2	0.175	3.49	1476.6	RELLENO_ZANJA	1.475	29.53	15089.6
	ARENA_3	0.424	8.49	3623.3				
8420.000	D TIERRA	3.554	59.36	22800.2	ARENA_1	0.162	3.25	1356.7
	ARENA_2	0.175	3.49	1480.1	RELLENO_ZANJA	2.648	41.24	15130.8
	ARENA_3	0.425	8.49	3631.8				
8440.000	D TIERRA	4.498	80.53	22880.7	ARENA_1	0.162	3.25	1359.9
	ARENA_2	0.175	3.49	1483.6	RELLENO_ZANJA	3.592	62.41	15193.2
	ARENA_3	0.425	8.49	3640.3				
8460.000	D TIERRA	4.411	89.10	22969.8	ARENA_1	0.162	3.25	1363.2
	ARENA_2	0.175	3.49	1487.1	RELLENO_ZANJA	3.505	70.97	15264.2
	ARENA_3	0.425	8.49	3648.8				
8480.000	D TIERRA	3.831	82.43	23052.2	ARENA_1	0.162	3.25	1366.4
	ARENA_2	0.175	3.49	1490.6	RELLENO_ZANJA	2.925	64.30	15328.5
	ARENA_3	0.425	8.49	3657.2				
8540.000	D TIERRA	3.545	221.30	23273.5	ARENA_1	0.162	9.75	1376.2
	ARENA_2	0.175	10.48	1501.0	RELLENO_ZANJA	2.639	166.93	15495.4
	ARENA_3	0.425	25.47	3682.7				
8560.000	D TIERRA	3.430	69.75	23343.3	ARENA_1	0.162	3.25	1379.4
	ARENA_2	0.175	3.49	1504.5	RELLENO_ZANJA	2.524	51.63	15547.0
	ARENA_3	0.425	8.49	3691.2				
8580.000	D TIERRA	3.590	70.20	23413.5	ARENA_1	0.162	3.25	1382.7
	ARENA_2	0.175	3.49	1508.0	RELLENO_ZANJA	2.684	52.08	15599.1
	ARENA_3	0.425	8.49	3699.7				
8580.344	D TIERRA	3.593	1.24	23414.7	ARENA_1	0.162	0.06	1382.7
	ARENA_2	0.175	0.06	1508.1	RELLENO_ZANJA	2.687	0.92	15600.0
	ARENA_3	0.425	0.15	3699.8				

PERFIL	MATERIAL	AREA PERFIL	VOL. PARCIAL	VOL. ACUMUL.	MATERIAL	AREA PERFIL	VOL. PARCIAL	VOL. ACUMUL.
8600.000	D TIERRA	4.131	75.91	23490.6	ARENA_1	0.162	3.19	1385.9
	ARENA_2	0.175	3.43	1511.5	RELLENO_ZANJA	3.225	58.10	15658.1
	ARENA_3	0.425	8.34	3708.2				
8620.000	D TIERRA	4.711	88.42	23579.0	ARENA_1	0.162	3.25	1389.2
	ARENA_2	0.175	3.49	1515.0	RELLENO_ZANJA	3.805	70.29	15728.4
	ARENA_3	0.425	8.49	3716.7				
8640.000	D TIERRA	5.153	98.64	23677.7	ARENA_1	0.162	3.25	1392.4
	ARENA_2	0.175	3.49	1518.5	RELLENO_ZANJA	4.247	80.51	15809.0
	ARENA_3	0.425	8.49	3725.2				
8660.000	D TIERRA	3.795	89.48	23767.2	ARENA_1	0.162	3.25	1395.7
	ARENA_2	0.175	3.49	1522.0	RELLENO_ZANJA	2.889	71.36	15880.3
	ARENA_3	0.425	8.49	3733.7				
8680.000	D TIERRA	2.256	60.51	23827.7	ARENA_1	0.162	3.25	1398.9
	ARENA_2	0.175	3.49	1525.5	RELLENO_ZANJA	1.350	42.39	15922.7
	ARENA_3	0.425	8.49	3742.1				
8693.188	D TIERRA	2.531	31.56	23859.2	ARENA_1	0.162	2.14	1401.0
	ARENA_2	0.175	2.30	1527.8	RELLENO_ZANJA	1.625	19.61	15942.3
	ARENA_3	0.425	5.60	3747.7				
8700.000	D TIERRA	2.465	17.02	23876.2	ARENA_1	0.162	1.11	1402.2
	ARENA_2	0.175	1.19	1529.0	RELLENO_ZANJA	1.559	10.84	15953.2
	ARENA_3	0.425	2.89	3750.6				
8703.094	D TIERRA	2.431	7.57	23883.8	ARENA_1	0.162	0.50	1402.7
	ARENA_2	0.175	0.54	1529.5	RELLENO_ZANJA	1.525	4.77	15957.9
	ARENA_3	0.425	1.31	3752.0				
8720.000	D TIERRA	2.289	39.90	23923.7	ARENA_1	0.162	2.75	1405.4
	ARENA_2	0.175	2.95	1532.5	RELLENO_ZANJA	1.383	24.58	15982.5
	ARENA_3	0.425	7.18	3759.1				
8735.635	D TIERRA	2.088	34.22	23957.9	ARENA_1	0.162	2.54	1407.9
	ARENA_2	0.175	2.73	1535.2	RELLENO_ZANJA	1.182	20.05	16002.5
	ARENA_3	0.425	6.64	3765.8				
8740.000	D TIERRA	2.132	9.21	23967.1	ARENA_1	0.162	0.71	1408.7
	ARENA_2	0.175	0.76	1536.0	RELLENO_ZANJA	1.226	5.26	16007.8
	ARENA_3	0.425	1.85	3767.6				
8760.000	D TIERRA	2.313	44.46	24011.6	ARENA_1	0.162	3.25	1411.9
	ARENA_2	0.175	3.49	1539.5	RELLENO_ZANJA	1.407	26.33	16034.1
	ARENA_3	0.425	8.49	3776.1				
8779.535	D TIERRA	2.319	45.25	24056.9	ARENA_1	0.162	3.17	1415.1
	ARENA_2	0.175	3.41	1542.9	RELLENO_ZANJA	1.413	27.55	16061.7
	ARENA_3	0.425	8.29	3784.4				
8780.000	D TIERRA	2.310	1.08	24057.9	ARENA_1	0.162	0.08	1415.2
	ARENA_2	0.175	0.08	1543.0	RELLENO_ZANJA	1.404	0.65	16062.3
	ARENA_3	0.425	0.20	3784.6				
8800.000	D TIERRA	2.387	46.97	24104.9	ARENA_1	0.162	3.25	1418.4
	ARENA_2	0.175	3.49	1546.5	RELLENO_ZANJA	1.481	28.85	16091.2
	ARENA_3	0.425	8.49	3793.1				
8808.298	D TIERRA	2.337	19.60	24124.5	ARENA_1	0.162	1.35	1419.8
	ARENA_2	0.175	1.45	1547.9	RELLENO_ZANJA	1.431	12.08	16103.3
	ARENA_3	0.425	3.52	3796.6				
8818.066	D TIERRA	2.374	23.01	24147.5	ARENA_1	0.162	1.59	1421.3
	ARENA_2	0.175	1.71	1549.6	RELLENO_ZANJA	1.468	14.16	16117.4
	ARENA_3	0.425	4.15	3800.8				
8820.000	D TIERRA	2.382	4.60	24152.1	ARENA_1	0.162	0.31	1421.7
	ARENA_2	0.175	0.34	1549.9	RELLENO_ZANJA	1.476	2.85	16120.3
	ARENA_3	0.425	0.82	3801.6				
8840.000	D TIERRA	2.355	47.37	24199.5	ARENA_1	0.162	3.25	1424.9
	ARENA_2	0.175	3.49	1553.4	RELLENO_ZANJA	1.449	29.25	16149.5
	ARENA_3	0.424	8.49	3810.1				
8846.854	D TIERRA	2.381	16.23	24215.7	ARENA_1	0.162	1.11	1426.0
	ARENA_2	0.175	1.20	1554.6	RELLENO_ZANJA	1.475	10.02	16159.5
	ARENA_3	0.424	2.91	3813.0				

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 PROYECTO : CIDACOS COMPLETO
 EJE : 6: P240 (Aldeanueva de Ebro) - P280 (Alfaro)

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 PROYECTO : CIDACOS COMPLETO
 EJE : 6: P240 (Aldeanueva de Ebro) - P280 (Alfaro)

***** MEDICIONES DE LOS PERFILES TRANSVERSALES*****
 ***** CAPAS DE FIRME *****

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 ***** CAPAS DE FIRME *****

PERFIL	MATERIAL	AREA PERFIL	VOL. PARCIAL	VOL. ACUMUL.	MATERIAL	AREA PERFIL	VOL. PARCIAL	VOL. ACUMUL.	PERFIL	MATERIAL	AREA PERFIL	VOL. PARCIAL	VOL. ACUMUL.	MATERIAL	AREA PERFIL	VOL. PARCIAL	VOL. ACUMUL.
8860.000	D TIERRA	2.415	31.52	24247.2	ARENA_1	0.162	2.14	1428.2	9160.000	D TIERRA	2.388	29.74	25068.5	ARENA_1	0.162	2.02	1476.9
	ARENA_2	0.175	2.30	1556.9	RELLENO_ZANJA	1.509	19.61	16179.2		ARENA_2	0.175	2.17	1609.3	RELLENO_ZANJA	1.482	18.46	16728.6
	ARENA_3	0.424	5.58	3818.6						ARENA_3	0.424	5.28	3945.9				
8870.653	D TIERRA	2.407	25.68	24272.9	ARENA_1	0.162	1.73	1429.9	9178.383	D TIERRA	2.339	43.45	25112.0	ARENA_1	0.162	2.99	1479.9
	ARENA_2	0.175	1.86	1558.8	RELLENO_ZANJA	1.501	16.03	16195.2		ARENA_2	0.175	3.21	1612.6	RELLENO_ZANJA	1.433	26.79	16755.4
	ARENA_3	0.424	4.52	3823.1						ARENA_3	0.424	7.80	3953.7				
8880.000	D TIERRA	2.395	22.44	24295.4	ARENA_1	0.162	1.52	1431.4	9180.000	D TIERRA	2.382	3.82	25115.8	ARENA_1	0.162	0.26	1480.1
	ARENA_2	0.175	1.63	1560.4	RELLENO_ZANJA	1.489	13.97	16209.2		ARENA_2	0.175	0.28	1612.8	RELLENO_ZANJA	1.475	2.35	16757.7
	ARENA_3	0.424	3.97	3827.0						ARENA_3	0.424	0.69	3954.4				
8884.819	D TIERRA	2.341	11.41	24306.8	ARENA_1	0.162	0.78	1432.2	9200.000	D TIERRA	2.308	46.90	25162.7	ARENA_1	0.162	3.25	1483.4
	ARENA_2	0.175	0.84	1561.3	RELLENO_ZANJA	1.435	7.05	16216.2		ARENA_2	0.175	3.49	1616.3	RELLENO_ZANJA	1.402	28.77	16786.5
	ARENA_3	0.424	2.05	3829.1						ARENA_3	0.424	8.49	3962.9				
8900.000	D TIERRA	2.580	37.35	24344.1	ARENA_1	0.162	2.47	1434.6	9211.626	D TIERRA	2.353	27.09	25189.8	ARENA_1	0.162	1.89	1485.3
	ARENA_2	0.175	2.65	1563.9	RELLENO_ZANJA	1.673	23.59	16239.8		ARENA_2	0.175	2.03	1618.4	RELLENO_ZANJA	1.447	16.56	16803.1
	ARENA_3	0.425	6.44	3835.5						ARENA_3	0.424	4.93	3967.8				
8920.000	D TIERRA	2.374	49.54	24393.7	ARENA_1	0.162	3.25	1437.9	9220.000	D TIERRA	2.281	19.40	25209.2	ARENA_1	0.162	1.36	1486.6
	ARENA_2	0.175	3.49	1567.4	RELLENO_ZANJA	1.468	31.41	16271.2		ARENA_2	0.175	1.46	1619.8	RELLENO_ZANJA	1.374	11.81	16814.9
	ARENA_3	0.425	8.49	3844.0						ARENA_3	0.424	3.55	3971.4				
8940.000	D TIERRA	2.714	50.88	24444.5	ARENA_1	0.162	3.25	1441.1	9240.000	D TIERRA	2.382	46.62	25255.8	ARENA_1	0.162	3.25	1489.9
	ARENA_2	0.175	3.49	1570.9	RELLENO_ZANJA	1.807	32.76	16304.0		ARENA_2	0.175	3.50	1623.3	RELLENO_ZANJA	1.475	28.50	16843.4
	ARENA_3	0.424	8.49	3852.5						ARENA_3	0.423	8.48	3979.8				
8957.640	D TIERRA	2.391	45.02	24489.6	ARENA_1	0.162	2.87	1444.0	9260.000	D TIERRA	2.381	47.63	25303.4	ARENA_1	0.162	3.25	1493.1
	ARENA_2	0.175	3.08	1574.0	RELLENO_ZANJA	1.484	29.03	16333.0		ARENA_2	0.175	3.50	1626.8	RELLENO_ZANJA	1.475	29.51	16872.9
	ARENA_3	0.424	7.49	3860.0						ARENA_3	0.424	8.48	3988.3				
8960.000	D TIERRA	2.604	5.89	24495.4	ARENA_1	0.162	0.38	1444.4	9280.000	D TIERRA	2.553	49.34	25352.8	ARENA_1	0.162	3.25	1496.4
	ARENA_2	0.175	0.41	1574.4	RELLENO_ZANJA	1.698	3.75	16336.8		ARENA_2	0.175	3.49	1630.3	RELLENO_ZANJA	1.647	31.22	16904.1
	ARENA_3	0.424	1.00	3861.0						ARENA_3	0.424	8.49	3996.8				
8980.000	D TIERRA	2.382	49.86	24545.3	ARENA_1	0.162	3.25	1447.6	9283.566	D TIERRA	2.644	9.27	25362.0	ARENA_1	0.162	0.58	1497.0
	ARENA_2	0.175	3.49	1577.9	RELLENO_ZANJA	1.476	31.74	16368.5		ARENA_2	0.175	0.62	1630.9	RELLENO_ZANJA	1.738	6.04	16910.1
	ARENA_3	0.424	8.49	3869.5						ARENA_3	0.424	1.51	3998.3				
8980.663	D TIERRA	2.403	1.59	24546.9	ARENA_1	0.162	0.11	1447.8	9300.000	D TIERRA	2.514	42.39	25404.4	ARENA_1	0.162	2.67	1499.6
	ARENA_2	0.175	0.12	1578.0	RELLENO_ZANJA	1.497	0.99	16369.5		ARENA_2	0.175	2.87	1633.8	RELLENO_ZANJA	1.608	27.50	16937.6
	ARENA_3	0.424	0.28	3869.8						ARENA_3	0.424	6.97	4005.3				
9000.000	D TIERRA	2.451	46.93	24593.8	ARENA_1	0.162	3.14	1450.9	9311.138	D TIERRA	2.518	28.02	25432.4	ARENA_1	0.162	1.81	1501.4
	ARENA_2	0.175	3.38	1581.4	RELLENO_ZANJA	1.545	29.41	16398.9		ARENA_2	0.175	1.95	1635.8	RELLENO_ZANJA	1.612	17.93	16955.6
	ARENA_3	0.424	8.20	3878.0						ARENA_3	0.424	4.72	4010.0				
9020.000	D TIERRA	2.382	48.33	24642.2	ARENA_1	0.162	3.25	1454.1	9320.000	D TIERRA	2.674	23.01	25455.5	ARENA_1	0.162	1.44	1502.9
	ARENA_2	0.175	3.49	1584.9	RELLENO_ZANJA	1.476	30.21	16429.1		ARENA_2	0.175	1.55	1637.3	RELLENO_ZANJA	1.768	14.98	16970.5
	ARENA_3	0.424	8.49	3886.5						ARENA_3	0.424	3.76	4013.8				
9040.000	D TIERRA	2.381	47.64	24689.8	ARENA_1	0.162	3.25	1457.4	9340.000	D TIERRA	2.396	50.70	25506.2	ARENA_1	0.162	3.25	1506.1
	ARENA_2	0.175	3.49	1588.4	RELLENO_ZANJA	1.475	29.51	16458.6		ARENA_2	0.175	3.50	1640.8	RELLENO_ZANJA	1.490	32.58	17003.1
	ARENA_3	0.424	8.49	3895.0						ARENA_3	0.424	8.48	4022.2				
9060.000	D TIERRA	2.381	47.63	24737.4	ARENA_1	0.162	3.25	1460.6	9350.475	D TIERRA	2.417	25.20	25531.4	ARENA_1	0.162	1.70	1507.8
	ARENA_2	0.175	3.49	1591.9	RELLENO_ZANJA	1.475	29.50	16488.1		ARENA_2	0.175	1.83	1642.6	RELLENO_ZANJA	1.510	15.71	17018.8
	ARENA_3	0.425	8.49	3903.4						ARENA_3	0.425	4.44	4026.7				
9080.000	D TIERRA	4.011	63.92	24801.3	ARENA_1	0.162	3.25	1463.9	9360.000	D TIERRA	2.373	22.81	25554.2	ARENA_1	0.162	1.55	1509.4
	ARENA_2	0.175	3.49	1595.4	RELLENO_ZANJA	3.105	45.80	16533.9		ARENA_2	0.175	1.66	1644.3	RELLENO_ZANJA	1.467	14.18	17033.0
	ARENA_3	0.425	8.49	3911.9						ARENA_3	0.425	4.04	4030.7				
9100.000	D TIERRA	4.506	85.17	24886.5	ARENA_1	0.162	3.25	1467.1	9364.979	D TIERRA	2.381	11.84	25566.0	ARENA_1	0.162	0.81	1510.2
	ARENA_2	0.175	3.49	1598.9	RELLENO_ZANJA	3.600	67.05	16601.0		ARENA_2	0.175	0.87	1645.2	RELLENO_ZANJA	1.475	7.32	17040.3
	ARENA_3	0.425	8.49	3920.4						ARENA_3	0.425	2.11	4032.8				
9120.000	D TIERRA	3.114	76.20	24962.7	ARENA_1	0.162	3.25	1470.4	9373.687	D TIERRA	2.381	20.73	25586.7	ARENA_1	0.162	1.41	1511.6
	ARENA_2	0.175	3.49	1602.4	RELLENO_ZANJA	2.208	58.08	16659.0		ARENA_2	0.175	1.52	1646.7	RELLENO_ZANJA	1.475	12.84	17053.2
	ARENA_3	0.425	8.49	3928.9						ARENA_3	0.425	3.70	4036.5				
9140.000	D TIERRA	2.604	57.18	25019.9	ARENA_1	0.162	3.25	1473.6	9380.000	D TIERRA	2.426	15.17	25601.9	ARENA_1	0.162	1.03	1512.6
	ARENA_2	0.175	3.49	1605.9	RELLENO_ZANJA	1.698	39.06	16698.1		ARENA_2	0.175	1.10	1647.8	RELLENO_ZANJA	1.520	9.45	17062.6
	ARENA_3	0.424	8.49	3937.4						ARENA_3	0.425	2.68	4039.2				
9147.558	D TIERRA	2.392	18.88	25038.8	ARENA_1	0.162	1.23	1474.9	9397.520	D TIERRA	2.497	43.12	25645.0	ARENA_1	0.162	2.85	1515.5
	ARENA_2	0.175	1.32	1607.2	RELLENO_ZANJA	1.486	12.03	16710.1		ARENA_2	0.175	3.06	1650.9	RELLENO_ZANJA	1.591	27.25	17089.9
	ARENA_3	0.424	3.21	3940.6						ARENA_3	0.425	7.44	4046.7				



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Table with columns: PERFIL, MATERIAL, AREA PERFIL, VOL. PARCIAL, VOL. ACUMUL., MATERIAL, AREA PERFIL, VOL. PARCIAL, VOL. ACUMUL. It lists data for various profiles from 9400.000 to 9620.000.

Table with columns: PERFIL, MATERIAL, AREA PERFIL, VOL. PARCIAL, VOL. ACUMUL., MATERIAL, AREA PERFIL, VOL. PARCIAL, VOL. ACUMUL. It lists data for various profiles from 9640.000 to 9940.000.



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Table with columns: PERFIL, MATERIAL, AREA PERFIL, VOL. PARCIAL, VOL. ACUMUL., MATERIAL, AREA PERFIL, VOL. PARCIAL, VOL. ACUMUL. for profiles 9960.000 to 10200.000.

Table with columns: PERFIL, MATERIAL, AREA PERFIL, VOL. PARCIAL, VOL. ACUMUL., MATERIAL, AREA PERFIL, VOL. PARCIAL, VOL. ACUMUL. for profiles 10208.116 to 10440.000.

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PERFIL	MATERIAL	AREA PERFIL	VOL. PARCIAL	VOL. ACUMUL.	MATERIAL	AREA PERFIL	VOL. PARCIAL	VOL. ACUMUL.	PERFIL	MATERIAL	AREA PERFIL	VOL. PARCIAL	VOL. ACUMUL.	MATERIAL	AREA PERFIL	VOL. PARCIAL	VOL. ACUMUL.
10460.000	TERRAPLEN	0.000	0.00	3.7	D_TIERRA	2.169	45.93	28144.5	10773.514	TERRAPLEN	0.000	0.00	3.7	D_TIERRA	2.286	30.62	28867.1
	ARENA_1	0.160	3.21	1683.8	ARENA_2	0.166	3.31	1830.0		ARENA_1	0.160	2.17	1734.1	ARENA_2	0.166	2.24	1881.9
	RELLENO_ZANJA	1.308	28.69	18667.1	ARENA_3	0.391	7.82	4478.6		RELLENO_ZANJA	1.424	18.98	19119.6	ARENA_3	0.391	5.29	4601.2
10480.000	TERRAPLEN	0.000	0.00	3.7	D_TIERRA	2.188	43.57	28188.1	10780.000	TERRAPLEN	0.000	0.00	3.7	D_TIERRA	2.177	14.47	28881.6
	ARENA_1	0.160	3.21	1687.0	ARENA_2	0.166	3.31	1833.3		ARENA_1	0.160	1.04	1735.1	ARENA_2	0.166	1.07	1883.0
	RELLENO_ZANJA	1.326	26.34	18693.5	ARENA_3	0.391	7.82	4486.4		RELLENO_ZANJA	1.316	8.89	19128.5	ARENA_3	0.391	2.54	4603.8
10500.000	TERRAPLEN	0.000	0.00	3.7	D_TIERRA	2.182	43.70	28231.8	10800.000	TERRAPLEN	0.000	0.00	3.7	D_TIERRA	2.136	43.13	28924.7
	ARENA_1	0.160	3.21	1690.2	ARENA_2	0.166	3.31	1836.6		ARENA_1	0.160	3.21	1738.3	ARENA_2	0.166	3.31	1886.3
	RELLENO_ZANJA	1.320	26.46	18719.9	ARENA_3	0.391	7.82	4494.2		RELLENO_ZANJA	1.274	25.90	19154.4	ARENA_3	0.391	7.82	4611.6
10520.000	TERRAPLEN	0.000	0.00	3.7	D_TIERRA	2.260	44.42	28276.2	10816.557	TERRAPLEN	0.000	0.00	3.7	D_TIERRA	2.177	35.71	28960.4
	ARENA_1	0.160	3.21	1693.4	ARENA_2	0.166	3.31	1839.9		ARENA_1	0.160	2.66	1741.0	ARENA_2	0.166	2.74	1889.0
	RELLENO_ZANJA	1.398	27.18	18747.1	ARENA_3	0.391	7.82	4502.1		RELLENO_ZANJA	1.316	21.44	19175.8	ARENA_3	0.391	6.48	4618.1
10527.876	TERRAPLEN	0.000	0.00	3.7	D_TIERRA	2.178	17.48	28293.7	10820.000	TERRAPLEN	0.000	0.00	3.7	D_TIERRA	2.223	7.57	28968.0
	ARENA_1	0.160	1.26	1694.7	ARENA_2	0.166	1.30	1841.2		ARENA_1	0.160	0.55	1741.5	ARENA_2	0.166	0.57	1889.6
	RELLENO_ZANJA	1.317	10.69	18757.8	ARENA_3	0.391	3.08	4505.1		RELLENO_ZANJA	1.361	4.61	19180.4	ARENA_3	0.391	1.35	4619.4
10540.000	TERRAPLEN	0.000	0.00	3.7	D_TIERRA	2.097	25.92	28319.6	10836.940	TERRAPLEN	0.000	0.00	3.7	D_TIERRA	2.453	39.60	29007.6
	ARENA_1	0.160	1.94	1696.6	ARENA_2	0.166	2.01	1843.2		ARENA_1	0.160	2.72	1744.2	ARENA_2	0.166	2.81	1892.4
	RELLENO_ZANJA	1.235	15.47	18773.3	ARENA_3	0.391	4.74	4509.9		RELLENO_ZANJA	1.591	25.00	19205.4	ARENA_3	0.391	6.63	4626.0
10560.000	TERRAPLEN	0.000	0.00	3.7	D_TIERRA	2.098	41.95	28361.6	10840.000	TERRAPLEN	0.000	0.00	3.7	D_TIERRA	2.509	7.59	29015.2
	ARENA_1	0.160	3.21	1699.8	ARENA_2	0.166	3.31	1846.5		ARENA_1	0.160	0.49	1744.7	ARENA_2	0.166	0.51	1892.9
	RELLENO_ZANJA	1.237	24.72	18798.0	ARENA_3	0.391	7.82	4517.7		RELLENO_ZANJA	1.647	4.96	19210.4	ARENA_3	0.391	1.20	4627.2
10580.000	TERRAPLEN	0.000	0.00	3.7	D_TIERRA	2.171	42.69	28404.2	10856.373	TERRAPLEN	0.000	0.00	3.7	D_TIERRA	2.817	43.60	29058.8
	ARENA_1	0.160	3.21	1703.0	ARENA_2	0.166	3.31	1849.8		ARENA_1	0.160	2.63	1747.4	ARENA_2	0.166	2.71	1895.6
	RELLENO_ZANJA	1.309	25.46	18823.4	ARENA_3	0.391	7.82	4525.5		RELLENO_ZANJA	1.955	29.49	19239.9	ARENA_3	0.391	6.40	4633.6
10593.677	TERRAPLEN	0.000	0.00	3.7	D_TIERRA	2.178	29.74	28434.0	10860.000	TERRAPLEN	0.000	0.00	3.7	D_TIERRA	2.890	10.35	29069.2
	ARENA_1	0.160	2.19	1705.2	ARENA_2	0.166	2.27	1852.1		ARENA_1	0.160	0.58	1747.9	ARENA_2	0.166	0.60	1896.2
	RELLENO_ZANJA	1.316	17.95	18841.4	ARENA_3	0.391	5.35	4530.9		RELLENO_ZANJA	2.029	7.22	19247.1	ARENA_3	0.391	1.42	4635.1
10600.000	TERRAPLEN	0.000	0.00	3.7	D_TIERRA	2.309	14.18	28448.2	10871.020	TERRAPLEN	0.000	0.00	3.7	D_TIERRA	3.119	33.11	29102.3
	ARENA_1	0.160	1.01	1706.2	ARENA_2	0.166	1.05	1853.2		ARENA_1	0.160	1.77	1749.7	ARENA_2	0.166	1.83	1898.0
	RELLENO_ZANJA	1.447	8.74	18850.1	ARENA_3	0.391	2.47	4533.4		RELLENO_ZANJA	2.257	23.62	19270.7	ARENA_3	0.391	4.31	4639.4
10605.800	TERRAPLEN	0.000	0.00	3.7	D_TIERRA	2.431	13.75	28461.9	10880.000	TERRAPLEN	0.000	0.00	3.7	D_TIERRA	3.078	27.83	29130.1
	ARENA_1	0.160	0.93	1707.2	ARENA_2	0.166	0.96	1854.1		ARENA_1	0.160	1.44	1751.1	ARENA_2	0.166	1.49	1899.5
	RELLENO_ZANJA	1.570	8.75	18858.9	ARENA_3	0.391	2.27	4535.6		RELLENO_ZANJA	2.217	20.09	19290.8	ARENA_3	0.391	3.51	4642.9
10620.000	TERRAPLEN	0.000	0.00	3.7	D_TIERRA	3.057	38.97	28500.9	10895.946	TERRAPLEN	0.000	0.00	3.7	D_TIERRA	2.934	47.94	29178.0
	ARENA_1	0.160	2.28	1709.5	ARENA_2	0.166	2.35	1856.5		ARENA_1	0.160	2.56	1753.7	ARENA_2	0.166	2.64	1902.2
	RELLENO_ZANJA	2.196	26.73	18885.6	ARENA_3	0.391	5.55	4541.2		RELLENO_ZANJA	2.072	34.20	19325.0	ARENA_3	0.391	6.24	4649.1
10640.000	TERRAPLEN	0.000	0.00	3.7	D_TIERRA	2.787	58.44	28559.3	10900.000	TERRAPLEN	0.000	0.00	3.7	D_TIERRA	2.889	11.80	29189.8
	ARENA_1	0.160	3.21	1712.7	ARENA_2	0.166	3.31	1859.8		ARENA_1	0.160	0.65	1754.4	ARENA_2	0.166	0.67	1902.8
	RELLENO_ZANJA	1.925	41.21	18926.8	ARENA_3	0.391	7.82	4549.0		RELLENO_ZANJA	2.027	8.31	19333.3	ARENA_3	0.391	1.59	4650.7
10660.000	TERRAPLEN	0.000	0.00	3.7	D_TIERRA	2.523	53.11	28612.4	10920.000	TERRAPLEN	0.000	0.00	3.7	D_TIERRA	2.795	56.83	29246.7
	ARENA_1	0.160	3.21	1715.9	ARENA_2	0.166	3.31	1863.1		ARENA_1	0.160	3.21	1757.6	ARENA_2	0.166	3.31	1906.2
	RELLENO_ZANJA	1.662	35.87	18962.7	ARENA_3	0.391	7.82	4556.8		RELLENO_ZANJA	1.933	39.60	19372.9	ARENA_3	0.391	7.82	4658.5
10680.000	TERRAPLEN	0.000	0.00	3.7	D_TIERRA	2.325	48.48	28660.9	10940.000	TERRAPLEN	0.000	0.00	3.7	D_TIERRA	2.743	55.38	29302.1
	ARENA_1	0.160	3.21	1719.1	ARENA_2	0.166	3.31	1866.4		ARENA_1	0.160	3.21	1760.8	ARENA_2	0.166	3.31	1909.5
	RELLENO_ZANJA	1.463	31.25	18994.0	ARENA_3	0.391	7.82	4564.7		RELLENO_ZANJA	1.881	38.15	19411.0	ARENA_3	0.391	7.82	4666.4
10700.000	TERRAPLEN	0.000	0.00	3.7	D_TIERRA	2.197	45.22	28706.1	10960.000	TERRAPLEN	0.000	0.00	3.7	D_TIERRA	2.692	54.35	29356.4
	ARENA_1	0.160	3.21	1722.3	ARENA_2	0.166	3.31	1869.7		ARENA_1	0.160	3.21	1764.0	ARENA_2	0.166	3.31	1912.8
	RELLENO_ZANJA	1.335	27.98	19021.9	ARENA_3	0.391	7.82	4572.5		RELLENO_ZANJA	1.830	37.12	19448.2	ARENA_3	0.391	7.82	4674.2
10701.093	TERRAPLEN	0.000	0.00	3.7	D_TIERRA	2.192	2.40	28708.5	10980.000	TERRAPLEN	0.000	0.00	3.7	D_TIERRA	2.710	54.02	29410.4
	ARENA_1	0.160	0.18	1722.5	ARENA_2	0.166	0.18	1869.9		ARENA_1	0.160	3.21	1767.2	ARENA_2	0.166	3.31	1916.1
	RELLENO_ZANJA	1.331	1.46	19023.4	ARENA_3	0.391	0.43	4572.9		RELLENO_ZANJA	1.849	36.79	19485.0	ARENA_3	0.391	7.82	4682.0
10720.000	TERRAPLEN	0.000	0.00	3.7	D_TIERRA	2.139	40.94	28749.5	10995.689	TERRAPLEN	0.000	0.00	3.7	D_TIERRA	2.762	42.93	29453.4
	ARENA_1	0.160	3.03	1725.5	ARENA_2	0.166	3.13	1873.0		ARENA_1	0.160	2.52	1769.7	ARENA_2	0.166	2.60	1918.7
	RELLENO_ZANJA	1.277	24.65	19048.0	ARENA_3	0.391	7.40	4580.3		RELLENO_ZANJA	1.900	29.41	19514.4	ARENA_3	0.391	6.14	4688.1
10740.000	TERRAPLEN	0.000	0.00	3.7	D_TIERRA	2.159	42.98	28792.5	11000.000	TERRAPLEN	0.000	0.00	3.7	D_TIERRA	2.771	11.93	29465.3
	ARENA_1	0.160	3.21	1728.7	ARENA_2	0.166	3.31	1876.3		ARENA_1	0.160	0.69	1770.4	ARENA_2	0.166	0.71	1919.4
	RELLENO_ZANJA	1.298	25.74	19073.8	ARENA_3	0.391	7.82	4588.1		RELLENO_ZANJA	1.909	8.21	19522.6	ARENA_3	0.391	1.69	4689.8
10760.000	TERRAPLEN	0.000	0.00	3.7	D_TIERRA	2.246	44.05	28836.5	11020.000	TERRAPLEN	0.000	0.00	3.7	D_TIERRA	2.812	55.83	29521.1
	ARENA_1	0.160	3.21	1731.9	ARENA_2	0.166	3.31	1879.7		ARENA_1	0.160	3.21	1773.6	ARENA_2	0.166	3.31	1922.7
	RELLENO_ZANJA																



Istram 9.04 12/05/20 12:52:35
PROYECTO : CIDACOS COMPLETO
EJE : 6: P240 (Aldeanueva de Ebro) - P280 (Alfaro)

Istram 9.04 12/05/20 12:52:35
PROYECTO : CIDACOS COMPLETO
EJE : 6: P240 (Aldeanueva de Ebro) - P280 (Alfaro)

*** MEDICIONES DE LOS PERFILES TRANSVERSALES ***
*** CAPAS DE FIRME ***

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Table with 9 columns: PERFIL, MATERIAL, AREA PERFIL, VOL. PARCIAL, VOL. ACUMUL., MATERIAL, AREA PERFIL, VOL. PARCIAL, VOL. ACUMUL. Rows include profiles 11040.000 to 11340.000 with materials like TERRAPLEN, ARENA 1, ARENA 2, ARENA 3, RELLENO ZANJA, and D TIERRA.

Table with 9 columns: PERFIL, MATERIAL, AREA PERFIL, VOL. PARCIAL, VOL. ACUMUL., MATERIAL, AREA PERFIL, VOL. PARCIAL, VOL. ACUMUL. Rows include profiles 11340.128 to 11620.000 with materials like TERRAPLEN, ARENA 1, ARENA 2, ARENA 3, RELLENO ZANJA, and D TIERRA.

Istram 9.04 12/05/20 12:52:35
 PROYECTO : CIDACOS COMPLETO
 EJE : 6: P240 (Aldeanueva de Ebro) - P280 (Alfaro)

Istram 9.04 12/05/20 12:52:35
 PROYECTO : CIDACOS COMPLETO
 EJE : 6: P240 (Aldeanueva de Ebro) - P280 (Alfaro)

*** MEDICIONES DE LOS PERFILES TRANSVERSALES ***
 *** CAPAS DE FIRME ***

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PERFIL	MATERIAL	AREA PERFIL	VOL. PARCIAL	VOL. ACUMUL.	MATERIAL	AREA PERFIL	VOL. PARCIAL	VOL. ACUMUL.
11640.000	TERRAPLEN	0.000	0.00	3.7	D TIERRA	2.228	44.09	31145.3
	ARENA_1	0.160	3.21	1873.0	ARENA_2	0.166	3.31	2025.4
	RELLENO_ZANJA	1.367	26.86	20651.2	ARENA_3	0.391	7.82	4940.1
11660.000	TERRAPLEN	0.000	0.00	3.7	D TIERRA	2.266	44.95	31190.3
	ARENA_1	0.160	3.21	1876.2	ARENA_2	0.166	3.31	2028.8
	RELLENO_ZANJA	1.405	27.72	20678.9	ARENA_3	0.391	7.82	4948.0
11680.000	TERRAPLEN	0.000	0.00	3.7	D TIERRA	2.122	43.89	31234.2
	ARENA_1	0.160	3.21	1879.4	ARENA_2	0.166	3.31	2032.1
	RELLENO_ZANJA	1.260	26.65	20705.5	ARENA_3	0.391	7.82	4955.8
11700.000	TERRAPLEN	0.000	0.00	3.7	D TIERRA	2.045	41.67	31275.9
	ARENA_1	0.160	3.21	1882.6	ARENA_2	0.166	3.31	2035.4
	RELLENO_ZANJA	1.183	24.44	20730.0	ARENA_3	0.391	7.82	4963.6
11719.002	TERRAPLEN	0.000	0.00	3.7	D TIERRA	2.105	39.43	31315.3
	ARENA_1	0.160	3.05	1885.7	ARENA_2	0.166	3.15	2038.5
	RELLENO_ZANJA	1.243	23.06	20753.0	ARENA_3	0.391	7.43	4971.0
11720.000	TERRAPLEN	0.000	0.00	3.7	D TIERRA	2.102	2.10	31317.4
	ARENA_1	0.160	0.16	1885.8	ARENA_2	0.166	0.17	2038.7
	RELLENO_ZANJA	1.240	1.24	20754.3	ARENA_3	0.391	0.39	4971.4
11740.000	TERRAPLEN	0.000	0.00	3.7	D TIERRA	2.507	46.09	31363.5
	ARENA_1	0.160	3.21	1889.1	ARENA_2	0.166	3.31	2042.0
	RELLENO_ZANJA	1.645	28.86	20783.1	ARENA_3	0.391	7.82	4979.3
11745.839	TERRAPLEN	0.000	0.00	3.7	D TIERRA	2.626	14.99	31378.5
	ARENA_1	0.160	0.94	1890.0	ARENA_2	0.166	0.97	2043.0
	RELLENO_ZANJA	1.765	9.96	20793.1	ARENA_3	0.391	2.28	4981.5
11752.793	TERRAPLEN	0.000	0.00	3.7	D TIERRA	2.982	19.50	31398.0
	ARENA_1	0.160	1.12	1891.1	ARENA_2	0.166	1.15	2044.1
	RELLENO_ZANJA	2.120	13.51	20806.6	ARENA_3	0.391	2.72	4984.3
11759.905	TERRAPLEN	0.000	0.00	3.7	D TIERRA	2.179	18.35	31416.3
	ARENA_1	0.160	1.14	1892.2	ARENA_2	0.166	1.18	2045.3
	RELLENO_ZANJA	1.318	12.22	20818.8	ARENA_3	0.391	2.78	4987.0
11760.000	TERRAPLEN	0.000	0.00	3.7	D TIERRA	2.181	0.21	31416.5
	ARENA_1	0.160	0.02	1892.3	ARENA_2	0.166	0.02	2045.3
	RELLENO_ZANJA	1.319	0.13	20818.9	ARENA_3	0.391	0.04	4987.1
11766.829	TERRAPLEN	0.000	0.00	3.7	D TIERRA	2.310	15.33	31431.9
	ARENA_1	0.160	1.10	1893.4	ARENA_2	0.166	1.13	2046.5
	RELLENO_ZANJA	1.448	9.45	20828.4	ARENA_3	0.391	2.67	4989.8
11780.000	TERRAPLEN	0.000	0.00	3.7	D TIERRA	2.437	31.26	31463.1
	ARENA_1	0.160	2.11	1895.5	ARENA_2	0.166	2.18	2048.6
	RELLENO_ZANJA	1.575	19.91	20848.3	ARENA_3	0.391	5.15	4994.9
11800.000	TERRAPLEN	0.000	0.00	3.7	D TIERRA	2.633	50.70	31513.8
	ARENA_1	0.160	3.21	1898.7	ARENA_2	0.166	3.31	2051.9
	RELLENO_ZANJA	1.771	33.47	20881.8	ARENA_3	0.391	7.82	5002.7
11807.080	TERRAPLEN	0.000	0.00	3.7	D TIERRA	2.701	18.88	31532.7
	ARENA_1	0.160	1.14	1899.8	ARENA_2	0.166	1.17	2053.1
	RELLENO_ZANJA	1.839	12.78	20894.5	ARENA_3	0.391	2.77	5005.5
11820.000	TERRAPLEN	0.000	0.00	3.7	D TIERRA	2.798	35.52	31568.2
	ARENA_1	0.160	2.07	1901.9	ARENA_2	0.166	2.14	2055.3
	RELLENO_ZANJA	1.936	24.39	20918.9	ARENA_3	0.391	5.05	5010.6
11840.000	TERRAPLEN	0.000	0.00	3.7	D TIERRA	2.946	57.44	31625.6
	ARENA_1	0.160	3.21	1905.1	ARENA_2	0.166	3.31	2058.6
	RELLENO_ZANJA	2.084	40.20	20959.1	ARENA_3	0.391	7.82	5018.4
11860.000	TERRAPLEN	0.000	0.00	3.7	D TIERRA	3.147	60.93	31686.6
	ARENA_1	0.160	3.21	1908.3	ARENA_2	0.166	3.31	2061.9
	RELLENO_ZANJA	2.285	43.69	21002.8	ARENA_3	0.391	7.82	5026.2
11880.000	TERRAPLEN	0.000	0.00	3.7	D TIERRA	3.323	64.70	31751.3
	ARENA_1	0.160	3.21	1911.5	ARENA_2	0.166	3.31	2065.2
	RELLENO_ZANJA	2.461	47.46	21050.3	ARENA_3	0.391	7.82	5034.0
11900.000	TERRAPLEN	0.000	0.00	3.7	D TIERRA	3.495	68.18	31819.5
	ARENA_1	0.160	3.21	1914.7	ARENA_2	0.166	3.31	2068.5
	RELLENO_ZANJA	2.634	50.95	21101.2	ARENA_3	0.391	7.82	5041.9

PERFIL	MATERIAL	AREA PERFIL	VOL. PARCIAL	VOL. ACUMUL.	MATERIAL	AREA PERFIL	VOL. PARCIAL	VOL. ACUMUL.
11920.000	TERRAPLEN	0.000	0.00	3.7	D TIERRA	3.673	71.68	31891.1
	ARENA_1	0.160	3.21	1917.9	ARENA_2	0.166	3.31	2071.8
	RELLENO_ZANJA	2.811	54.45	21155.7	ARENA_3	0.391	7.82	5049.7
11940.000	TERRAPLEN	0.000	0.00	3.7	D TIERRA	3.884	75.57	31966.7
	ARENA_1	0.160	3.21	1921.1	ARENA_2	0.166	3.31	2075.1
	RELLENO_ZANJA	3.022	58.34	21214.0	ARENA_3	0.391	7.82	5057.5
11951.747	TERRAPLEN	0.000	0.00	3.7	D TIERRA	4.036	46.52	32013.2
	ARENA_1	0.160	1.88	1923.0	ARENA_2	0.166	1.95	2077.1
	RELLENO_ZANJA	3.174	36.40	21250.4	ARENA_3	0.391	4.60	5062.1
11960.000	TERRAPLEN	0.000	0.00	3.7	D TIERRA	4.145	33.76	32047.0
	ARENA_1	0.160	1.32	1924.3	ARENA_2	0.166	1.37	2078.5
	RELLENO_ZANJA	3.284	26.65	21277.1	ARENA_3	0.391	3.23	5065.3
11980.000	TERRAPLEN	0.000	0.00	3.7	D TIERRA	4.404	85.49	32132.5
	ARENA_1	0.160	3.21	1927.5	ARENA_2	0.166	3.31	2081.8
	RELLENO_ZANJA	3.542	68.26	21345.3	ARENA_3	0.391	7.82	5073.1
11987.873	TERRAPLEN	0.000	0.00	3.7	D TIERRA	4.081	33.40	32165.9
	ARENA_1	0.160	1.26	1928.8	ARENA_2	0.166	1.30	2083.1
	RELLENO_ZANJA	3.219	26.61	21371.9	ARENA_3	0.391	3.08	5076.2
12000.000	TERRAPLEN	0.000	0.00	3.7	D TIERRA	4.090	49.55	32215.4
	ARENA_1	0.160	1.94	1930.7	ARENA_2	0.166	2.01	2085.1
	RELLENO_ZANJA	3.229	39.10	21411.0	ARENA_3	0.391	4.74	5081.0
12012.224	TERRAPLEN	0.000	0.00	3.7	D TIERRA	4.944	55.21	32270.6
	ARENA_1	0.160	1.96	1932.7	ARENA_2	0.166	2.02	2087.1
	RELLENO_ZANJA	4.082	44.68	21455.7	ARENA_3	0.391	4.78	5085.8
12020.000	TERRAPLEN	0.000	0.00	3.7	D TIERRA	4.846	38.06	32308.7
	ARENA_1	0.160	1.25	1934.0	ARENA_2	0.166	1.29	2088.4
	RELLENO_ZANJA	3.984	31.36	21487.1	ARENA_3	0.391	3.04	5088.8
12040.000	TERRAPLEN	0.000	0.00	3.7	D TIERRA	4.867	97.13	32405.8
	ARENA_1	0.160	3.21	1937.2	ARENA_2	0.166	3.31	2091.7
	RELLENO_ZANJA	4.005	79.89	21567.0	ARENA_3	0.391	7.82	5096.6
12060.000	TERRAPLEN	0.000	0.00	3.7	D TIERRA	4.696	95.63	32501.5
	ARENA_1	0.160	3.21	1940.4	ARENA_2	0.166	3.31	2095.0
	RELLENO_ZANJA	3.835	78.40	21645.4	ARENA_3	0.391	7.82	5104.4
12080.000	TERRAPLEN	0.000	0.00	3.7	D TIERRA	4.630	93.26	32594.7
	ARENA_1	0.160	3.21	1943.6	ARENA_2	0.166	3.31	2098.3
	RELLENO_ZANJA	3.768	76.02	21721.4	ARENA_3	0.391	7.82	5112.3
12084.697	TERRAPLEN	0.000	0.00	3.7	D TIERRA	4.613	21.71	32616.4
	ARENA_1	0.160	0.75	1944.3	ARENA_2	0.166	0.78	2099.1
	RELLENO_ZANJA	3.751	17.66	21739.1	ARENA_3	0.391	1.84	5114.1
12100.000	TERRAPLEN	0.000	0.00	3.7	D TIERRA	4.593	70.44	32686.9
	ARENA_1	0.160	2.45	1946.8	ARENA_2	0.166	2.54	2101.6
	RELLENO_ZANJA	3.731	57.25	21796.3	ARENA_3	0.391	5.99	5120.1
12104.816	TERRAPLEN	0.000	0.00	3.7	D TIERRA	4.601	22.14	32709.0
	ARENA_1	0.160	0.77	1947.6	ARENA_2	0.166	0.80	2102.4
	RELLENO_ZANJA	3.739	17.99	21814.3	ARENA_3	0.391	1.88	5122.0
12120.000	TERRAPLEN	0.000	0.00	3.7	D TIERRA	4.655	70.27	32779.3
	ARENA_1	0.160	2.43	1950.0	ARENA_2	0.166	2.52	2105.0
	RELLENO_ZANJA	3.793	57.19	21871.5	ARENA_3	0.391	5.94	5127.9
12140.000	TERRAPLEN	0.000	0.00	3.7	D TIERRA	4.735	93.90	32873.2
	ARENA_1	0.160	3.21	1953.2	ARENA_2	0.166	3.31	2108.3
	RELLENO_ZANJA	3.873	76.67	21948.1	ARENA_3	0.391	7.82	5135.7
12160.000	TERRAPLEN	0.000	0.00	3.7	D TIERRA	4.806	95.41	32968.6
	ARENA_1	0.160	3.21	1956.4	ARENA_2	0.166	3.31	2111.6
	RELLENO_ZANJA	3.944	78.17	22026.3	ARENA_3	0.391	7.82	5143.6
12163.486	TERRAPLEN	0.000	0.00	3.7	D TIERRA	4.810	16.76	32985.3
	ARENA_1	0.160	0.56	1957.0	ARENA_2	0.166	0.58	2112.2
	RELLENO_ZANJA	3.949	13.76	22040.1	ARENA_3	0.391	1.36	5144.9
12180.000	TERRAPLEN	0.000	0.00	3.7	D TIERRA	4.821	79.53	33064.9
	ARENA_1	0.160	2.65	1959.6	ARENA_2	0.166	2.74	2114.9
	RELLENO_ZANJA	3.960	65.30	22105.4	ARENA_3	0.391	6.46	5151.4

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 PROYECTO : CIDACOS COMPLETO
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 PROYECTO : CIDACOS COMPLETO
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*** MEDICIONES DE LOS PERFILES TRANSVERSALES ***
 *** CAPAS DE FIRME ***

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PERFIL	MATERIAL	AREA PERFIL	VOL. PARCIAL	VOL. ACUMUL.	MATERIAL	AREA PERFIL	VOL. PARCIAL	VOL. ACUMUL.
12200.000	TERRAPLEN	0.000	0.00	3.7	D TIERRA	4.844	96.65	33161.5
	ARENA_1	0.160	3.21	1962.8	ARENA_2	0.166	3.31	2118.2
	RELLENO_ZANJA	3.982	79.42	22184.8	ARENA_3	0.391	7.82	5159.2
12200.000	TERRAPLEN	0.000	0.00	3.7	D TIERRA	6.924	0.00	33161.5
	ARENA_1	0.167	0.00	1962.8	ARENA_2	0.193	0.00	2118.2
	RELLENO_ZANJA	5.929	0.00	22184.8	ARENA_3	0.491	0.00	5159.2
12220.000	TERRAPLEN	0.000	0.00	3.7	D TIERRA	7.384	143.08	33304.6
	ARENA_1	0.167	3.33	1966.2	ARENA_2	0.193	3.86	2122.1
	RELLENO_ZANJA	6.389	123.18	22308.0	ARENA_3	0.491	9.82	5169.0
12229.033	TERRAPLEN	0.000	0.00	3.7	D TIERRA	7.721	68.22	33372.8
	ARENA_1	0.167	1.51	1967.7	ARENA_2	0.193	1.74	2123.8
	RELLENO_ZANJA	6.726	59.24	22367.2	ARENA_3	0.491	4.44	5173.5
12240.000	TERRAPLEN	0.000	0.00	3.7	D TIERRA	6.772	79.48	33452.3
	ARENA_1	0.167	1.83	1969.5	ARENA_2	0.193	2.11	2125.9
	RELLENO_ZANJA	5.777	68.56	22435.8	ARENA_3	0.491	5.39	5178.9
12254.745	TERRAPLEN	0.000	0.00	3.7	D TIERRA	6.700	99.33	33551.6
	ARENA_1	0.167	2.46	1971.9	ARENA_2	0.193	2.84	2128.8
	RELLENO_ZANJA	5.705	84.65	22520.4	ARENA_3	0.491	7.24	5186.1
12260.000	TERRAPLEN	0.000	0.00	3.7	D TIERRA	6.671	35.13	33586.8
	ARENA_1	0.167	0.88	1972.8	ARENA_2	0.193	1.01	2129.8
	RELLENO_ZANJA	5.676	29.90	22550.3	ARENA_3	0.491	2.58	5188.7
12280.000	TERRAPLEN	0.000	0.00	3.7	D TIERRA	6.562	132.32	33719.1
	ARENA_1	0.167	3.33	1976.2	ARENA_2	0.193	3.86	2133.6
	RELLENO_ZANJA	5.566	112.42	22662.8	ARENA_3	0.491	9.82	5198.5
12300.000	TERRAPLEN	0.000	0.00	3.7	D TIERRA	6.555	131.17	33850.3
	ARENA_1	0.167	3.33	1979.5	ARENA_2	0.193	3.86	2137.5
	RELLENO_ZANJA	5.560	111.27	22774.0	ARENA_3	0.491	9.82	5208.3
12307.215	TERRAPLEN	0.000	0.00	3.7	D TIERRA	6.605	47.48	33897.7
	ARENA_1	0.167	1.20	1980.7	ARENA_2	0.193	1.39	2138.9
	RELLENO_ZANJA	5.610	40.30	22814.3	ARENA_3	0.491	3.54	5211.9
12320.000	TERRAPLEN	0.000	0.00	3.7	D TIERRA	6.621	84.55	33982.3
	ARENA_1	0.167	2.13	1982.8	ARENA_2	0.193	2.46	2141.3
	RELLENO_ZANJA	5.626	71.82	22886.1	ARENA_3	0.491	6.28	5218.1
12340.000	TERRAPLEN	0.000	0.00	3.7	D TIERRA	6.663	132.84	34115.1
	ARENA_1	0.167	3.33	1986.2	ARENA_2	0.193	3.86	2145.2
	RELLENO_ZANJA	5.668	112.94	22999.1	ARENA_3	0.491	9.82	5228.0
12360.000	TERRAPLEN	0.000	0.00	3.7	D TIERRA	6.719	133.82	34248.9
	ARENA_1	0.167	3.33	1989.5	ARENA_2	0.193	3.86	2149.1
	RELLENO_ZANJA	5.724	113.92	23113.0	ARENA_3	0.491	9.82	5237.8
12373.297	TERRAPLEN	0.000	0.00	3.7	D TIERRA	8.084	98.42	34347.4
	ARENA_1	0.167	2.22	1991.7	ARENA_2	0.193	2.56	2151.6
	RELLENO_ZANJA	7.089	85.19	23198.2	ARENA_3	0.491	6.53	5244.3
12380.000	TERRAPLEN	0.000	0.00	3.7	D TIERRA	8.176	54.50	34401.9
	ARENA_1	0.167	1.12	1992.8	ARENA_2	0.193	1.29	2152.9
	RELLENO_ZANJA	7.181	47.83	23246.0	ARENA_3	0.491	3.29	5247.6
12389.406	TERRAPLEN	0.000	0.00	3.7	D TIERRA	7.716	74.74	34476.6
	ARENA_1	0.167	1.57	1994.4	ARENA_2	0.193	1.81	2154.7
	RELLENO_ZANJA	6.721	65.38	23311.4	ARENA_3	0.491	4.62	5252.2
12398.797	TERRAPLEN	0.000	0.00	3.7	D TIERRA	7.530	71.59	34548.2
	ARENA_1	0.167	1.57	1996.0	ARENA_2	0.193	1.81	2156.5
	RELLENO_ZANJA	6.535	62.24	23373.6	ARENA_3	0.491	4.61	5256.8
12400.000	TERRAPLEN	0.000	0.00	3.7	D TIERRA	7.515	9.05	34557.2
	ARENA_1	0.167	0.20	1996.2	ARENA_2	0.193	0.23	2156.8
	RELLENO_ZANJA	6.520	7.85	23381.5	ARENA_3	0.491	0.59	5257.4
12420.000	TERRAPLEN	0.000	0.00	3.7	D TIERRA	7.280	147.95	34705.2
	ARENA_1	0.167	3.33	1999.5	ARENA_2	0.193	3.86	2160.6
	RELLENO_ZANJA	6.285	128.05	23509.5	ARENA_3	0.491	9.82	5267.3
12426.346	TERRAPLEN	0.000	0.00	3.7	D TIERRA	7.210	45.98	34751.2
	ARENA_1	0.167	1.06	2000.5	ARENA_2	0.193	1.22	2161.8
	RELLENO_ZANJA	6.215	39.66	23549.2	ARENA_3	0.491	3.12	5270.4

PERFIL	MATERIAL	AREA PERFIL	VOL. PARCIAL	VOL. ACUMUL.	MATERIAL	AREA PERFIL	VOL. PARCIAL	VOL. ACUMUL.
12440.000	TERRAPLEN	0.000	0.00	3.7	D TIERRA	7.111	97.77	34848.9
	ARENA_1	0.167	2.28	2002.8	ARENA_2	0.193	2.63	2164.5
	RELLENO_ZANJA	6.116	84.19	23633.4	ARENA_3	0.491	6.71	5277.1
12440.155	TERRAPLEN	0.000	0.00	3.7	D TIERRA	7.110	1.10	34850.0
	ARENA_1	0.167	0.03	2002.8	ARENA_2	0.193	0.03	2164.5
	RELLENO_ZANJA	6.115	0.95	23634.3	ARENA_3	0.491	0.08	5277.2
12460.000	TERRAPLEN	0.000	0.00	3.7	D TIERRA	6.862	138.64	34988.7
	ARENA_1	0.167	3.31	2006.2	ARENA_2	0.193	3.83	2168.3
	RELLENO_ZANJA	5.867	118.89	23753.2	ARENA_3	0.491	9.75	5286.9
12500.000	TERRAPLEN	0.000	0.00	3.7	D TIERRA	6.571	268.65	35257.3
	ARENA_1	0.167	6.67	2012.8	ARENA_2	0.193	7.71	2176.0
	RELLENO_ZANJA	5.576	228.85	23982.1	ARENA_3	0.491	19.65	5306.6
12520.000	TERRAPLEN	0.000	0.00	3.7	D TIERRA	6.435	130.06	35387.4
	ARENA_1	0.167	3.33	2016.2	ARENA_2	0.193	3.86	2179.9
	RELLENO_ZANJA	5.440	110.15	24092.2	ARENA_3	0.491	9.82	5316.4
12540.000	TERRAPLEN	0.000	0.00	3.7	D TIERRA	6.309	127.44	35514.8
	ARENA_1	0.167	3.33	2019.5	ARENA_2	0.193	3.86	2183.8
	RELLENO_ZANJA	5.314	107.54	24199.8	ARENA_3	0.491	9.82	5326.2
12559.171	TERRAPLEN	0.000	0.00	3.7	D TIERRA	6.189	119.79	35634.6
	ARENA_1	0.167	3.20	2022.7	ARENA_2	0.193	3.70	2187.5
	RELLENO_ZANJA	5.193	100.72	24300.5	ARENA_3	0.491	9.42	5335.6
12560.000	TERRAPLEN	0.000	0.00	3.7	D TIERRA	6.185	5.13	35639.7
	ARENA_1	0.167	0.14	2022.8	ARENA_2	0.193	0.16	2187.6
	RELLENO_ZANJA	5.190	4.30	24304.8	ARENA_3	0.491	0.41	5336.0
12580.000	TERRAPLEN	0.000	0.00	3.7	D TIERRA	6.086	122.71	35762.5
	ARENA_1	0.167	3.33	2026.2	ARENA_2	0.193	3.86	2191.5
	RELLENO_ZANJA	5.091	102.81	24407.6	ARENA_3	0.491	9.82	5345.8
12600.000	TERRAPLEN	0.000	0.00	3.7	D TIERRA	5.981	120.67	35883.1
	ARENA_1	0.167	3.33	2029.5	ARENA_2	0.193	3.86	2195.3
	RELLENO_ZANJA	4.985	100.77	24508.4	ARENA_3	0.491	9.82	5355.7
12600.000	TERRAPLEN	0.000	0.00	3.7	D TIERRA	4.851	0.00	35883.1
	ARENA_1	0.162	0.00	2029.5	ARENA_2	0.175	0.00	2195.3
	RELLENO_ZANJA	3.945	0.00	24508.4	ARENA_3	0.425	0.00	5355.7
12604.150	TERRAPLEN	0.000	0.00	3.7	D TIERRA	4.834	20.10	35903.2
	ARENA_1	0.162	0.67	2030.2	ARENA_2	0.175	0.72	2196.0
	RELLENO_ZANJA	3.928	16.34	24524.7	ARENA_3	0.425	1.76	5357.4
12620.000	TERRAPLEN	0.000	0.00	3.7	D TIERRA	4.733	75.81	35979.0
	ARENA_1	0.162	2.58	2032.7	ARENA_2	0.175	2.77	2198.8
	RELLENO_ZANJA	3.827	61.45	24586.2	ARENA_3	0.425	6.73	5364.2
12640.000	TERRAPLEN	0.000	0.00	3.7	D TIERRA	4.606	93.39	36072.4
	ARENA_1	0.162	3.25	2036.0	ARENA_2	0.175	3.49	2202.3
	RELLENO_ZANJA	3.700	75.27	24661.4	ARENA_3	0.425	8.49	5372.6
12660.000	TERRAPLEN	0.000	0.00	3.7	D TIERRA	4.490	90.96	36163.4
	ARENA_1	0.162	3.25	2039.2	ARENA_2	0.175	3.49	2205.8
	RELLENO_ZANJA	3.584	72.84	24734.3	ARENA_3	0.425	8.49	5381.1
12668.959	TERRAPLEN	0.000	0.00	3.7	D TIERRA	4.423	39.92	36203.3
	ARENA_1	0.162	1.46	2040.7	ARENA_2	0.175	1.57	2207.4
	RELLENO_ZANJA	3.516	31.80	24766.1	ARENA_3	0.425	3.80	5384.9
12680.000	TERRAPLEN	0.000	0.00	3.7	D TIERRA	4.240	47.82	36251.1
	ARENA_1	0.162	1.79	2042.5	ARENA_2	0.175	1.93	2209.3
	RELLENO_ZANJA	3.334	37.82	24803.9	ARENA_3	0.425	4.69	5389.6
12681.435	TERRAPLEN	0.000	0.00	3.7	D TIERRA	4.217	6.07	36257.2
	ARENA_1	0.162	0.23	2042.7	ARENA_2	0.175	0.25	2209.5
	RELLENO_ZANJA	3.311	4.77	24808.6	ARENA_3	0.425	0.61	5390.2
12700.000	TERRAPLEN	0.000	0.00	3.7	D TIERRA	3.986	76.15	36333.3
	ARENA_1	0.162	3.02	2045.7	ARENA_2	0.175	3.24	2212.8
	RELLENO_ZANJA	3.080	59.32	24868.0	ARENA_3	0.425	7.88	5398.1
12705.135	TERRAPLEN	0.000	0.00	3.7	D TIERRA	3.941	20.35	36353.7
	ARENA_1	0.162	0.83	2046.6	ARENA_2	0.175	0.90	2213.7
	RELLENO_ZANJA	3.035	15.70	24883.7	ARENA_3	0.425	2.18	5400.3



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Table with 9 columns: PERFIL, MATERIAL, AREA PERFIL, VOL. PARCIAL, VOL. ACUMUL., MATERIAL, AREA PERFIL, VOL. PARCIAL, VOL. ACUMUL. Rows include profiles 12715.770 to 12960.000 with materials like TERRAPLEN, ARENA 1, ARENA 2, ARENA 3, and D TIERRA.

Table with 9 columns: PERFIL, MATERIAL, AREA PERFIL, VOL. PARCIAL, VOL. ACUMUL., MATERIAL, AREA PERFIL, VOL. PARCIAL, VOL. ACUMUL. Rows include profiles 12980.000 to 13280.000 with materials like TERRAPLEN, ARENA 1, ARENA 2, ARENA 3, and D TIERRA.



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Table with 9 columns: PERFIL, MATERIAL, AREA PERFIL, VOL. PARCIAL, VOL. ACUMUL., MATERIAL, AREA PERFIL, VOL. PARCIAL, VOL. ACUMUL. Rows include profiles 13300.000 to 13560.000 with materials like TERRAPLEN, ARENA, and RELLENO_ZANJA.

Table with 9 columns: PERFIL, MATERIAL, AREA PERFIL, VOL. PARCIAL, VOL. ACUMUL., MATERIAL, AREA PERFIL, VOL. PARCIAL, VOL. ACUMUL. Rows include profiles 13580.000 to 13860.000 with materials like TERRAPLEN, ARENA, and RELLENO_ZANJA.

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PERFIL	MATERIAL	AREA PERFIL	VOL. PARCIAL	VOL. ACUMUL.	MATERIAL	AREA PERFIL	VOL. PARCIAL	VOL. ACUMUL.	PERFIL	MATERIAL	AREA PERFIL	VOL. PARCIAL	VOL. ACUMUL.	MATERIAL	AREA PERFIL	VOL. PARCIAL	VOL. ACUMUL.
13880.000	TERRAPLEN	0.000	0.00	3.7	D_TIERRA	2.206	45.16	39586.7	14140.000	TERRAPLEN	0.000	0.00	3.7	D_TIERRA	2.646	53.90	40271.9
	ARENA_1	0.162	3.25	2237.4	ARENA_2	0.175	3.49	2418.9		ARENA_1	0.162	3.25	2279.7	ARENA_2	0.175	3.49	2464.4
	RELLENO_ZANJA	1.300	27.04	27052.1	ARENA_3	0.425	8.49	5899.0		RELLENO_ZANJA	1.740	35.78	27501.6	ARENA_3	0.425	8.49	6009.4
13900.000	TERRAPLEN	0.000	0.00	3.7	D_TIERRA	2.327	45.34	39632.1	14160.000	TERRAPLEN	0.000	0.00	3.7	D_TIERRA	2.566	52.12	40324.0
	ARENA_1	0.162	3.25	2240.7	ARENA_2	0.175	3.49	2422.4		ARENA_1	0.162	3.25	2282.9	ARENA_2	0.175	3.49	2467.9
	RELLENO_ZANJA	1.421	27.21	27079.3	ARENA_3	0.425	8.49	5907.5		RELLENO_ZANJA	1.660	34.00	27535.6	ARENA_3	0.425	8.49	6017.9
13905.898	TERRAPLEN	0.000	0.00	3.7	D_TIERRA	2.359	13.82	39645.9	14180.000	TERRAPLEN	0.000	0.00	3.7	D_TIERRA	2.506	50.72	40374.7
	ARENA_1	0.162	0.96	2241.7	ARENA_2	0.175	1.03	2423.5		ARENA_1	0.162	3.25	2286.2	ARENA_2	0.175	3.49	2471.4
	RELLENO_ZANJA	1.453	8.48	27087.8	ARENA_3	0.425	2.50	5910.0		RELLENO_ZANJA	1.600	32.60	27568.2	ARENA_3	0.425	8.49	6026.4
13918.285	TERRAPLEN	0.000	0.00	3.7	D_TIERRA	2.614	30.80	39676.7	14200.000	TERRAPLEN	0.000	0.00	3.7	D_TIERRA	2.451	49.57	40424.3
	ARENA_1	0.162	2.01	2243.7	ARENA_2	0.175	2.16	2425.6		ARENA_1	0.162	3.25	2289.4	ARENA_2	0.175	3.49	2474.8
	RELLENO_ZANJA	1.708	19.58	27107.4	ARENA_3	0.424	5.26	5915.3		RELLENO_ZANJA	1.545	31.44	27599.7	ARENA_3	0.425	8.49	6034.9
13920.000	TERRAPLEN	0.000	0.00	3.7	D_TIERRA	2.635	4.50	39681.2	14220.000	TERRAPLEN	0.000	0.00	3.7	D_TIERRA	2.353	48.03	40472.3
	ARENA_1	0.162	0.28	2243.9	ARENA_2	0.175	0.30	2425.9		ARENA_1	0.162	3.25	2292.7	ARENA_2	0.175	3.49	2478.3
	RELLENO_ZANJA	1.729	2.95	27110.3	ARENA_3	0.424	0.73	5916.0		RELLENO_ZANJA	1.446	29.91	27629.6	ARENA_3	0.425	8.49	6043.3
13940.000	TERRAPLEN	0.000	0.00	3.7	D_TIERRA	2.841	54.75	39735.9	14240.000	TERRAPLEN	0.000	0.00	3.7	D_TIERRA	2.352	47.04	40519.4
	ARENA_1	0.162	3.25	2247.2	ARENA_2	0.175	3.49	2429.4		ARENA_1	0.162	3.25	2295.9	ARENA_2	0.175	3.49	2481.8
	RELLENO_ZANJA	1.934	36.63	27146.9	ARENA_3	0.424	8.49	5924.5		RELLENO_ZANJA	1.446	28.92	27658.5	ARENA_3	0.425	8.49	6051.8
13960.000	TERRAPLEN	0.000	0.00	3.7	D_TIERRA	2.997	58.38	39794.3	14254.470	TERRAPLEN	0.000	0.00	3.7	D_TIERRA	2.342	33.96	40553.3
	ARENA_1	0.162	3.25	2250.4	ARENA_2	0.175	3.49	2432.9		ARENA_1	0.162	2.35	2298.3	ARENA_2	0.175	2.53	2484.4
	RELLENO_ZANJA	2.091	40.26	27187.2	ARENA_3	0.424	8.49	5933.0		RELLENO_ZANJA	1.436	20.85	27679.4	ARENA_3	0.425	6.14	6058.0
13980.000	TERRAPLEN	0.000	0.00	3.7	D_TIERRA	3.158	61.55	39855.9	14260.000	TERRAPLEN	0.000	0.00	3.7	D_TIERRA	2.407	13.13	40566.5
	ARENA_1	0.162	3.25	2253.7	ARENA_2	0.175	3.49	2436.4		ARENA_1	0.162	0.90	2299.2	ARENA_2	0.175	0.97	2485.3
	RELLENO_ZANJA	2.252	43.43	27230.6	ARENA_3	0.424	8.49	5941.5		RELLENO_ZANJA	1.501	8.12	27687.5	ARENA_3	0.425	2.35	6060.3
13987.010	TERRAPLEN	0.000	0.00	3.7	D_TIERRA	2.886	21.18	39877.1	14280.000	TERRAPLEN	0.000	0.00	3.7	D_TIERRA	2.547	49.54	40616.0
	ARENA_1	0.162	1.14	2254.8	ARENA_2	0.175	1.22	2437.6		ARENA_1	0.162	3.25	2302.4	ARENA_2	0.175	3.49	2488.8
	RELLENO_ZANJA	1.980	14.83	27245.5	ARENA_3	0.424	2.98	5944.4		RELLENO_ZANJA	1.641	31.42	27718.9	ARENA_3	0.425	8.49	6068.8
14000.000	TERRAPLEN	0.000	0.00	3.7	D_TIERRA	2.386	34.24	39911.3	14281.698	TERRAPLEN	0.000	0.00	3.7	D_TIERRA	2.572	4.35	40620.3
	ARENA_1	0.162	2.11	2256.9	ARENA_2	0.175	2.27	2439.9		ARENA_1	0.162	0.28	2302.7	ARENA_2	0.175	0.30	2489.1
	RELLENO_ZANJA	1.480	22.47	27267.9	ARENA_3	0.424	5.51	5950.0		RELLENO_ZANJA	1.665	2.81	27721.7	ARENA_3	0.425	0.72	6069.5
14020.000	TERRAPLEN	0.000	0.00	3.7	D_TIERRA	2.475	48.61	39959.9	14300.000	TERRAPLEN	0.000	0.00	3.7	D_TIERRA	2.516	46.56	40666.9
	ARENA_1	0.162	3.25	2260.2	ARENA_2	0.175	3.49	2443.4		ARENA_1	0.162	2.97	2305.7	ARENA_2	0.175	3.20	2492.3
	RELLENO_ZANJA	1.569	30.49	27298.4	ARENA_3	0.425	8.49	5958.4		RELLENO_ZANJA	1.610	29.97	27751.7	ARENA_3	0.425	7.77	6077.3
14026.298	TERRAPLEN	0.000	0.00	3.7	D_TIERRA	2.360	15.23	39975.1	14311.477	TERRAPLEN	0.000	0.00	3.7	D_TIERRA	2.492	28.74	40695.6
	ARENA_1	0.162	1.02	2261.2	ARENA_2	0.175	1.10	2444.5		ARENA_1	0.162	1.86	2307.5	ARENA_2	0.175	2.00	2494.3
	RELLENO_ZANJA	1.454	9.52	27307.9	ARENA_3	0.425	2.67	5961.1		RELLENO_ZANJA	1.585	18.34	27770.0	ARENA_3	0.425	4.87	6082.2
14040.000	TERRAPLEN	0.000	0.00	3.7	D_TIERRA	2.462	33.03	40008.2	14320.000	TERRAPLEN	0.000	0.00	3.7	D_TIERRA	2.470	21.14	40716.8
	ARENA_1	0.162	2.23	2263.4	ARENA_2	0.175	2.39	2446.9		ARENA_1	0.162	1.38	2308.9	ARENA_2	0.175	1.49	2495.8
	RELLENO_ZANJA	1.555	20.62	27328.5	ARENA_3	0.425	5.82	5966.9		RELLENO_ZANJA	1.563	13.42	27783.4	ARENA_3	0.425	3.62	6085.8
14060.000	TERRAPLEN	0.000	0.00	3.7	D_TIERRA	2.315	47.76	40055.9	14340.000	TERRAPLEN	0.000	0.00	3.7	D_TIERRA	2.414	48.84	40765.6
	ARENA_1	0.162	3.25	2266.7	ARENA_2	0.175	3.49	2450.4		ARENA_1	0.162	3.25	2312.2	ARENA_2	0.175	3.49	2499.3
	RELLENO_ZANJA	1.408	29.64	27358.2	ARENA_3	0.425	8.49	5975.4		RELLENO_ZANJA	1.508	30.72	27814.2	ARENA_3	0.425	8.49	6094.3
14074.905	TERRAPLEN	0.000	0.00	3.7	D_TIERRA	2.617	36.76	40092.7	14360.000	TERRAPLEN	0.000	0.00	3.7	D_TIERRA	2.351	47.65	40813.3
	ARENA_1	0.162	2.42	2269.1	ARENA_2	0.175	2.60	2453.0		ARENA_1	0.162	3.25	2315.4	ARENA_2	0.175	3.49	2502.8
	RELLENO_ZANJA	1.711	23.25	27381.4	ARENA_3	0.425	6.33	5981.8		RELLENO_ZANJA	1.445	29.53	27843.7	ARENA_3	0.425	8.49	6102.8
14080.000	TERRAPLEN	0.000	0.00	3.7	D_TIERRA	2.694	13.53	40106.2	14369.951	TERRAPLEN	0.000	0.00	3.7	D_TIERRA	3.230	27.77	40841.0
	ARENA_1	0.162	0.83	2269.9	ARENA_2	0.175	0.89	2453.9		ARENA_1	0.162	1.62	2317.0	ARENA_2	0.175	1.74	2504.5
	RELLENO_ZANJA	1.788	8.91	27390.3	ARENA_3	0.425	2.16	5983.9		RELLENO_ZANJA	2.324	18.75	27862.4	ARENA_3	0.425	4.22	6107.0
14092.210	TERRAPLEN	0.000	0.00	3.7	D_TIERRA	2.795	33.51	40139.7	14380.000	TERRAPLEN	0.000	0.00	3.7	D_TIERRA	3.110	31.86	40872.9
	ARENA_1	0.162	1.98	2271.9	ARENA_2	0.175	2.13	2456.0		ARENA_1	0.162	1.63	2318.7	ARENA_2	0.175	1.76	2506.3
	RELLENO_ZANJA	1.889	22.45	27412.8	ARENA_3	0.425	5.18	5989.1		RELLENO_ZANJA	2.204	22.75	27885.2	ARENA_3	0.425	4.27	6111.3
14100.000	TERRAPLEN	0.000	0.00	3.7	D_TIERRA	2.876	22.09	40161.8	14400.000	TERRAPLEN	0.000	0.00	3.7	D_TIERRA	2.883	59.93	40932.8
	ARENA_1	0.162	1.27	2273.2	ARENA_2	0.175	1.36	2457.4		ARENA_1	0.162	3.25	2321.9	ARENA_2	0.175	3.49	2509.8
	RELLENO_ZANJA	1.970	15.03	27427.8	ARENA_3	0.425	3.31	5992.4		RELLENO_ZANJA	1.976	41.80	27927.0	ARENA_3	0.425	8.49	6119.8
14116.723	TERRAPLEN	0.000	0.00	3.7	D_TIERRA	2.762	47.15	40209.0	14420.000	TERRAPLEN	0.000	0.00	3.7	D_TIERRA	2.694	55.77	40988.6
	ARENA_1	0.162	2.72	2275.9	ARENA_2	0.175	2.92	2460.3		ARENA_1	0.162	3.25	2325.2	ARENA_2	0.175	3.49	2513.3
	RELLENO_ZANJA	1.856	31.99	27459.8	ARENA_3	0.425	7.10	5999.5		RELLENO_ZANJA	1.788	37.65	27964.6	ARENA_3	0.425	8.49	6128.2
14120.000	TERRAPLEN	0.000	0.00	3.7	D_TIERRA	2.744	9.02	40218.0	14440.000	TERRAPLEN	0.000	0.00	3.7	D_TIERRA	2.529	52.23	41040.8
	ARENA_1	0.162	0.53	2276.4	ARENA_2	0.175	0.57	2460.9		ARENA_1	0.162	3.25	2328.4	ARENA_2	0.175	3.49	2516.8
	RELLENO_ZANJA																



Istram 9.04 12/05/20 12:52:35
PROYECTO : CIDACOS COMPLETO
EJE : 6: P240 (Aldeanueva de Ebro) - P280 (Alfaro)

Istram 9.04 12/05/20 12:52:35
PROYECTO : CIDACOS COMPLETO
EJE : 6: P240 (Aldeanueva de Ebro) - P280 (Alfaro)

MEDICIONES DE LOS PERFILES TRANSVERSALES
CAPAS DE FIRME

MEDICIONES DE LOS PERFILES TRANSVERSALES
CAPAS DE FIRME

Table with 5 columns: PERFIL, MATERIAL, AREA PERFIL, VOL. PARCIAL, VOL. ACUMUL. for profiles 14460.000 to 14760.000.

Table with 5 columns: PERFIL, MATERIAL, AREA PERFIL, VOL. PARCIAL, VOL. ACUMUL. for profiles 14780.000 to 15001.656.

Istram 9.04 12/05/20 12:52:35
 PROYECTO : CIDACOS COMPLETO
 EJE : 6: P240 (Aldeanueva de Ebro) - P280 (Alfaro)

Istram 9.04 12/05/20 12:52:35
 PROYECTO : CIDACOS COMPLETO
 EJE : 6: P240 (Aldeanueva de Ebro) - P280 (Alfaro)

***** MEDICIONES DE LOS PERFILES TRANSVERSALES*****
 ***** CAPAS DE FIRME *****

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PERFIL	MATERIAL	AREA PERFIL	VOL. PARCIAL	VOL. ACUMUL.	MATERIAL	AREA PERFIL	VOL. PARCIAL	VOL. ACUMUL.
15020.000	TERRAPLEN	0.000	0.00	3.7	D_TIERRA	2.501	51.80	42609.2
	ARENA_1	0.162	2.98	2422.7	ARENA_2	0.175	3.20	2618.1
	RELLENO_ZANJA	1.594	35.18	29041.6	ARENA_3	0.424	7.79	6382.9
15026.773	TERRAPLEN	0.000	0.00	3.7	D_TIERRA	2.297	16.25	42625.5
	ARENA_1	0.162	1.10	2423.8	ARENA_2	0.175	1.18	2619.3
	RELLENO_ZANJA	1.391	10.11	29051.7	ARENA_3	0.424	2.88	6385.7
15040.000	TERRAPLEN	0.000	0.00	3.7	D_TIERRA	2.408	31.12	42656.6
	ARENA_1	0.162	2.15	2425.9	ARENA_2	0.175	2.31	2621.6
	RELLENO_ZANJA	1.502	19.13	29070.8	ARENA_3	0.424	5.61	6391.4
15060.000	TERRAPLEN	0.000	0.00	3.7	D_TIERRA	5.334	77.42	42734.0
	ARENA_1	0.162	3.25	2429.2	ARENA_2	0.175	3.49	2625.1
	RELLENO_ZANJA	4.428	59.30	29130.1	ARENA_3	0.424	8.49	6399.9
15080.000	TERRAPLEN	0.000	0.00	3.7	D_TIERRA	6.115	114.49	42848.5
	ARENA_1	0.162	3.25	2432.4	ARENA_2	0.175	3.49	2628.6
	RELLENO_ZANJA	5.209	96.37	29226.5	ARENA_3	0.425	8.49	6408.3
15100.000	TERRAPLEN	0.000	0.00	3.7	D_TIERRA	5.096	112.11	42960.6
	ARENA_1	0.162	3.25	2435.7	ARENA_2	0.175	3.49	2632.1
	RELLENO_ZANJA	4.190	93.99	29320.5	ARENA_3	0.425	8.49	6416.8
15120.000	TERRAPLEN	0.000	0.00	3.7	D_TIERRA	3.347	84.43	43045.0
	ARENA_1	0.162	3.25	2438.9	ARENA_2	0.175	3.49	2635.6
	RELLENO_ZANJA	2.441	66.30	29386.8	ARENA_3	0.425	8.49	6425.3
15129.006	TERRAPLEN	0.000	0.00	3.7	D_TIERRA	3.644	31.48	43076.5
	ARENA_1	0.162	1.46	2440.4	ARENA_2	0.175	1.57	2637.2
	RELLENO_ZANJA	2.738	23.32	29410.1	ARENA_3	0.425	3.82	6429.1
15140.000	TERRAPLEN	0.000	0.00	3.7	D_TIERRA	3.449	38.99	43115.5
	ARENA_1	0.162	1.79	2442.2	ARENA_2	0.175	1.92	2639.1
	RELLENO_ZANJA	2.542	29.03	29439.1	ARENA_3	0.425	4.67	6433.8
15160.000	TERRAPLEN	0.000	0.00	3.7	D_TIERRA	3.192	66.41	43181.9
	ARENA_1	0.162	3.25	2445.4	ARENA_2	0.175	3.49	2642.6
	RELLENO_ZANJA	2.286	48.28	29487.4	ARENA_3	0.425	8.49	6442.3
15165.540	TERRAPLEN	0.000	0.00	3.7	D_TIERRA	3.199	17.70	43199.6
	ARENA_1	0.162	0.90	2446.3	ARENA_2	0.175	0.97	2643.5
	RELLENO_ZANJA	2.293	12.68	29500.1	ARENA_3	0.425	2.35	6444.7
15180.000	TERRAPLEN	0.000	0.00	3.7	D_TIERRA	2.382	40.35	43240.0
	ARENA_1	0.162	2.35	2448.6	ARENA_2	0.175	2.53	2646.1
	RELLENO_ZANJA	1.476	27.25	29527.3	ARENA_3	0.425	6.14	6450.8
15200.000	TERRAPLEN	0.000	0.00	3.7	D_TIERRA	3.736	61.18	43301.1
	ARENA_1	0.162	3.25	2451.9	ARENA_2	0.175	3.49	2649.6
	RELLENO_ZANJA	2.830	43.06	29570.4	ARENA_3	0.425	8.49	6459.3
15220.000	TERRAPLEN	0.000	0.00	3.7	D_TIERRA	3.544	72.80	43373.9
	ARENA_1	0.162	3.25	2455.1	ARENA_2	0.175	3.49	2653.0
	RELLENO_ZANJA	2.638	54.68	29625.1	ARENA_3	0.425	8.49	6467.8
15240.000	TERRAPLEN	0.000	0.00	3.7	D_TIERRA	3.313	68.56	43442.5
	ARENA_1	0.162	3.25	2458.4	ARENA_2	0.175	3.49	2656.5
	RELLENO_ZANJA	2.407	50.44	29675.5	ARENA_3	0.425	8.49	6476.3
15247.642	TERRAPLEN	0.000	0.00	3.7	D_TIERRA	3.349	25.45	43468.0
	ARENA_1	0.162	1.24	2459.6	ARENA_2	0.175	1.33	2657.9
	RELLENO_ZANJA	2.443	18.53	29694.0	ARENA_3	0.425	3.24	6479.5
15260.000	TERRAPLEN	0.000	0.00	3.7	D_TIERRA	3.424	41.85	43509.8
	ARENA_1	0.162	2.01	2461.6	ARENA_2	0.175	2.16	2660.0
	RELLENO_ZANJA	2.518	30.66	29724.7	ARENA_3	0.425	5.25	6484.8
15280.000	TERRAPLEN	0.000	0.00	3.7	D_TIERRA	3.529	69.54	43579.3
	ARENA_1	0.162	3.25	2464.9	ARENA_2	0.175	3.49	2663.5
	RELLENO_ZANJA	2.623	51.41	29776.1	ARENA_3	0.425	8.49	6493.2
15300.000	TERRAPLEN	0.000	0.00	3.7	D_TIERRA	3.325	68.54	43647.9
	ARENA_1	0.162	3.25	2468.1	ARENA_2	0.175	3.49	2667.0
	RELLENO_ZANJA	2.418	50.41	29826.5	ARENA_3	0.425	8.49	6501.7
15311.475	TERRAPLEN	0.000	0.00	3.7	D_TIERRA	3.568	39.55	43687.4
	ARENA_1	0.162	1.86	2470.0	ARENA_2	0.175	2.00	2669.0
	RELLENO_ZANJA	2.662	29.15	29855.7	ARENA_3	0.425	4.87	6506.6

PERFIL	MATERIAL	AREA PERFIL	VOL. PARCIAL	VOL. ACUMUL.	MATERIAL	AREA PERFIL	VOL. PARCIAL	VOL. ACUMUL.
15320.000	TERRAPLEN	0.000	0.00	3.7	D_TIERRA	2.748	26.92	43714.3
	ARENA_1	0.162	1.39	2471.4	ARENA_2	0.175	1.49	2670.5
	RELLENO_ZANJA	1.841	19.20	29874.8	ARENA_3	0.425	3.62	6510.2
15332.824	TERRAPLEN	0.000	0.00	3.7	D_TIERRA	2.382	32.89	43747.2
	ARENA_1	0.162	2.08	2473.5	ARENA_2	0.175	2.24	2672.8
	RELLENO_ZANJA	1.476	21.27	29896.1	ARENA_3	0.425	5.44	6515.7
15340.000	TERRAPLEN	0.000	0.00	3.7	D_TIERRA	2.864	18.82	43766.1
	ARENA_1	0.162	1.17	2474.6	ARENA_2	0.175	1.25	2674.0
	RELLENO_ZANJA	1.957	12.32	29908.4	ARENA_3	0.425	3.05	6518.7
15360.000	TERRAPLEN	0.000	0.00	3.7	D_TIERRA	4.476	73.40	43839.5
	ARENA_1	0.162	3.25	2477.9	ARENA_2	0.175	3.49	2677.5
	RELLENO_ZANJA	3.570	55.28	29963.7	ARENA_3	0.425	8.49	6527.2
15376.008	TERRAPLEN	0.000	0.00	3.7	D_TIERRA	5.210	77.53	43917.0
	ARENA_1	0.162	2.60	2480.5	ARENA_2	0.175	2.80	2680.3
	RELLENO_ZANJA	4.304	63.02	30026.7	ARENA_3	0.425	6.80	6534.0
15380.000	TERRAPLEN	0.000	0.00	3.7	D_TIERRA	5.296	20.97	43938.0
	ARENA_1	0.162	0.65	2481.1	ARENA_2	0.175	0.70	2681.0
	RELLENO_ZANJA	4.390	17.35	30044.1	ARENA_3	0.425	1.69	6535.7
15400.000	TERRAPLEN	0.000	0.00	3.7	D_TIERRA	5.359	106.55	44044.5
	ARENA_1	0.162	3.25	2484.4	ARENA_2	0.175	3.49	2684.5
	RELLENO_ZANJA	4.453	88.43	30132.5	ARENA_3	0.425	8.49	6544.2
15420.000	TERRAPLEN	0.000	0.00	3.7	D_TIERRA	5.364	107.23	44151.7
	ARENA_1	0.162	3.25	2487.6	ARENA_2	0.175	3.49	2688.0
	RELLENO_ZANJA	4.458	89.11	30221.6	ARENA_3	0.425	8.49	6552.7
15440.000	TERRAPLEN	0.000	0.00	3.7	D_TIERRA	5.547	109.10	44260.8
	ARENA_1	0.162	3.25	2490.9	ARENA_2	0.175	3.49	2691.5
	RELLENO_ZANJA	4.641	90.98	30312.6	ARENA_3	0.425	8.49	6561.2
15460.000	TERRAPLEN	0.000	0.00	3.7	D_TIERRA	5.695	112.42	44373.3
	ARENA_1	0.162	3.25	2494.1	ARENA_2	0.175	3.49	2695.0
	RELLENO_ZANJA	4.789	94.30	30406.9	ARENA_3	0.425	8.49	6569.7
15480.000	TERRAPLEN	0.000	0.00	3.7	D_TIERRA	5.686	113.81	44487.1
	ARENA_1	0.162	3.25	2497.4	ARENA_2	0.175	3.49	2698.5
	RELLENO_ZANJA	4.780	95.69	30502.6	ARENA_3	0.425	8.49	6578.1
15489.494	TERRAPLEN	0.000	0.00	3.7	D_TIERRA	5.712	54.10	44541.2
	ARENA_1	0.162	1.54	2498.9	ARENA_2	0.175	1.66	2700.1
	RELLENO_ZANJA	4.805	45.50	30548.1	ARENA_3	0.425	4.03	6582.2
15500.000	TERRAPLEN	0.000	0.00	3.7	D_TIERRA	6.005	61.55	44602.7
	ARENA_1	0.162	1.71	2500.6	ARENA_2	0.175	1.84	2702.0
	RELLENO_ZANJA	5.099	52.03	30600.1	ARENA_3	0.425	4.46	6586.6
15520.000	TERRAPLEN	0.000	0.00	3.7	D_TIERRA	4.087	100.93	44703.7
	ARENA_1	0.162	3.25	2503.9	ARENA_2	0.175	3.49	2705.5
	RELLENO_ZANJA	3.181	82.80	30682.9	ARENA_3	0.425	8.49	6595.1
15540.000	TERRAPLEN	0.000	0.00	3.7	D_TIERRA	3.894	79.81	44783.5
	ARENA_1	0.162	3.25	2507.1	ARENA_2	0.175	3.49	2709.0
	RELLENO_ZANJA	2.988	61.69	30744.6	ARENA_3	0.425	8.49	6603.6
15558.406	TERRAPLEN	0.000	0.00	3.7	D_TIERRA	4.003	72.68	44856.2
	ARENA_1	0.162	2.99	2510.1	ARENA_2	0.175	3.22	2712.2
	RELLENO_ZANJA	3.097	56.00	30800.6	ARENA_3	0.425	7.81	6611.4
15560.000	TERRAPLEN	0.000	0.00	3.7	D_TIERRA	3.984	6.37	44862.5
	ARENA_1	0.162	0.26	2510.4	ARENA_2	0.175	0.28	2712.4
	RELLENO_ZANJA	3.077	4.92	30805.5	ARENA_3	0.425	0.68	6612.1
15580.000	TERRAPLEN	0.000	0.00	3.7	D_TIERRA	3.876	78.60	44941.1
	ARENA_1	0.162	3.25	2513.6	ARENA_2	0.175	3.49	2715.9
	RELLENO_ZANJA	2.970	60.48	30866.0	ARENA_3	0.425	8.49	6620.6
15600.000	TERRAPLEN	0.000	0.00	3.7	D_TIERRA	3.826	77.02	45018.1
	ARENA_1	0.162	3.25	2516.9	ARENA_2	0.175	3.49	2719.4
	RELLENO_ZANJA	2.919	58.90	30924.9	ARENA_3	0.425	8.49	6629.1
15620.000	TERRAPLEN	0.000	0.00	3.7	D_TIERRA	3.626	74.52	45092.7
	ARENA_1	0.162	3.25	2520.1	ARENA_2	0.175	3.49	2722.9
	RELLENO_ZANJA	2.720	56.40	30981.3	ARENA_3	0.425	8.49	6637.6



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PROYECTO : CIDACOS COMPLETO
EJE : 6: P240 (Aldeanueva de Ebro) - P280 (Alfaro)

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MEDICIONES DE LOS PERFILES TRANSVERSALES
CAPAS DE FIRME

MEDICIONES DE LOS PERFILES TRANSVERSALES
CAPAS DE FIRME

Table with 9 columns: PERFIL, MATERIAL, AREA PERFIL, VOL. PARCIAL, VOL. ACUMUL., MATERIAL, AREA PERFIL, VOL. PARCIAL, VOL. ACUMUL. It lists data for various profiles from 15640.000 to 15816.124.

Table with 9 columns: PERFIL, MATERIAL, AREA PERFIL, VOL. PARCIAL, VOL. ACUMUL., MATERIAL, AREA PERFIL, VOL. PARCIAL, VOL. ACUMUL. It lists data for various profiles from 15820.000 to 16040.000.



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Table with columns: PERFIL, MATERIAL, AREA PERFIL, VOL. PARCIAL, VOL. ACUMUL., MATERIAL, AREA PERFIL, VOL. PARCIAL, VOL. ACUMUL. for profiles 16051.552 to 16329.914.

Table with columns: PERFIL, MATERIAL, AREA PERFIL, VOL. PARCIAL, VOL. ACUMUL., MATERIAL, AREA PERFIL, VOL. PARCIAL, VOL. ACUMUL. for profiles 16340.000 to 16640.000.

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*** MEDICIONES DE LOS PERFILES TRANSVERSALES ***
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PERFIL	MATERIAL	AREA PERFIL	VOL. PARCIAL	VOL. ACUMUL.	MATERIAL	AREA PERFIL	VOL. PARCIAL	VOL. ACUMUL.
16660.000	TERRAPLEN	0.000	0.00	3.7	D TIERRA	3.517	73.26	48305.6
	ARENA_1	0.167	3.33	2684.7	ARENA_2	0.193	3.86	2900.5
	RELLENO_ZANJA	2.522	53.36	33273.8	ARENA_3	0.491	9.82	7069.4
16680.000	TERRAPLEN	0.000	0.00	3.7	D TIERRA	3.240	67.57	48373.2
	ARENA_1	0.167	3.33	2688.0	ARENA_2	0.193	3.86	2904.3
	RELLENO_ZANJA	2.245	47.67	33321.4	ARENA_3	0.491	9.82	7079.2
16700.000	TERRAPLEN	0.000	0.00	3.7	D TIERRA	2.926	61.66	48434.8
	ARENA_1	0.167	3.33	2691.3	ARENA_2	0.193	3.86	2908.2
	RELLENO_ZANJA	1.931	41.76	33363.2	ARENA_3	0.491	9.82	7089.0
16720.000	TERRAPLEN	0.000	0.00	3.7	D TIERRA	2.791	57.16	48492.0
	ARENA_1	0.167	3.33	2694.7	ARENA_2	0.193	3.86	2912.1
	RELLENO_ZANJA	1.795	37.26	33400.5	ARENA_3	0.491	9.82	7098.8
16728.030	TERRAPLEN	0.000	0.00	3.7	D TIERRA	2.803	22.46	48514.5
	ARENA_1	0.167	1.34	2696.0	ARENA_2	0.193	1.55	2913.6
	RELLENO_ZANJA	1.808	14.47	33414.9	ARENA_3	0.491	3.94	7102.8
16740.000	TERRAPLEN	0.000	0.00	3.7	D TIERRA	3.007	34.77	48549.2
	ARENA_1	0.167	1.99	2698.0	ARENA_2	0.193	2.31	2915.9
	RELLENO_ZANJA	2.012	22.86	33437.8	ARENA_3	0.491	5.87	7108.6
16760.000	TERRAPLEN	0.000	0.00	3.7	D TIERRA	2.797	58.04	48607.3
	ARENA_1	0.167	3.33	2701.3	ARENA_2	0.193	3.86	2919.8
	RELLENO_ZANJA	1.802	38.14	33475.9	ARENA_3	0.491	9.81	7118.4
16779.941	TERRAPLEN	0.000	0.00	3.7	D TIERRA	2.703	54.84	48662.1
	ARENA_1	0.167	3.32	2704.7	ARENA_2	0.193	3.85	2923.6
	RELLENO_ZANJA	1.708	35.00	33510.9	ARENA_3	0.491	9.79	7128.2
16780.000	TERRAPLEN	0.000	0.00	3.7	D TIERRA	2.701	0.16	48662.3
	ARENA_1	0.167	0.01	2704.7	ARENA_2	0.193	0.01	2923.6
	RELLENO_ZANJA	1.706	0.10	33511.0	ARENA_3	0.491	0.03	7128.3
16800.000	TERRAPLEN	0.000	0.00	3.7	D TIERRA	3.298	60.00	48722.3
	ARENA_1	0.167	3.33	2708.0	ARENA_2	0.193	3.86	2927.5
	RELLENO_ZANJA	2.303	40.09	33551.1	ARENA_3	0.491	9.82	7138.1
16820.000	TERRAPLEN	0.000	0.00	3.7	D TIERRA	3.222	65.20	48787.5
	ARENA_1	0.167	3.33	2711.3	ARENA_2	0.193	3.86	2931.3
	RELLENO_ZANJA	2.226	45.30	33596.4	ARENA_3	0.491	9.82	7147.9
16836.427	TERRAPLEN	0.000	0.00	3.7	D TIERRA	3.223	52.93	48840.4
	ARENA_1	0.167	2.74	2714.1	ARENA_2	0.193	3.17	2934.5
	RELLENO_ZANJA	2.228	36.58	33633.0	ARENA_3	0.491	8.07	7156.0
16840.000	TERRAPLEN	0.000	0.00	3.7	D TIERRA	3.209	11.49	48851.9
	ARENA_1	0.167	0.60	2714.7	ARENA_2	0.193	0.69	2935.2
	RELLENO_ZANJA	2.214	7.93	33640.9	ARENA_3	0.491	1.75	7157.7
16860.000	TERRAPLEN	0.000	0.00	3.7	D TIERRA	3.006	62.14	48914.0
	ARENA_1	0.167	3.33	2718.0	ARENA_2	0.193	3.86	2939.0
	RELLENO_ZANJA	2.010	42.24	33683.2	ARENA_3	0.491	9.82	7167.6
16880.000	TERRAPLEN	0.000	0.00	3.7	D TIERRA	2.918	59.23	48973.3
	ARENA_1	0.167	3.33	2721.3	ARENA_2	0.193	3.86	2942.9
	RELLENO_ZANJA	1.923	39.33	33722.5	ARENA_3	0.491	9.82	7177.4
16900.000	TERRAPLEN	0.000	0.00	3.7	D TIERRA	1.589	45.06	49018.3
	ARENA_1	0.167	3.33	2724.7	ARENA_2	0.193	3.86	2946.8
	RELLENO_ZANJA	0.593	25.16	33747.7	ARENA_3	0.491	9.82	7187.2
16920.000	TERRAPLEN	0.005	0.05	3.7	D TIERRA	0.734	23.23	49041.6
	ARENA_1	0.167	3.33	2728.0	ARENA_2	0.193	3.86	2950.6
	RELLENO_ZANJA	0.000	5.93	33753.6	ARENA_3	0.491	9.82	7197.0
16940.000	TERRAPLEN	0.000	0.05	3.8	D TIERRA	2.452	31.86	49073.4
	ARENA_1	0.167	3.33	2731.3	ARENA_2	0.193	3.86	2954.5
	RELLENO_ZANJA	1.457	14.57	33768.2	ARENA_3	0.491	9.82	7206.8
16960.000	TERRAPLEN	0.171	0.00	3.8	D TIERRA	0.000	0.00	49073.4
	ARENA_1	0.000	0.00	2731.3	ARENA_2	0.000	0.00	2954.5
	RELLENO_ZANJA	0.000	0.00	33768.2	ARENA_3	0.000	0.00	7206.8
16980.000	TERRAPLEN	0.005	0.00	3.8	D TIERRA	0.796	0.00	49073.4
	ARENA_1	0.167	0.00	2731.3	ARENA_2	0.193	0.00	2954.5
	RELLENO_ZANJA	0.000	0.00	33768.2	ARENA_3	0.491	0.00	7206.8

PERFIL	MATERIAL	AREA PERFIL	VOL. PARCIAL	VOL. ACUMUL.	MATERIAL	AREA PERFIL	VOL. PARCIAL	VOL. ACUMUL.
17000.000	TERRAPLEN	0.000	0.05	3.8	D TIERRA	2.878	36.74	49110.2
	ARENA_1	0.167	3.33	2734.7	ARENA_2	0.193	3.86	2958.3
	RELLENO_ZANJA	1.883	18.83	33787.0	ARENA_3	0.491	9.82	7216.7
17020.000	TERRAPLEN	0.000	0.00	3.8	D TIERRA	2.774	56.52	49166.7
	ARENA_1	0.167	3.33	2738.0	ARENA_2	0.193	3.86	2962.2
	RELLENO_ZANJA	1.779	36.62	33823.6	ARENA_3	0.491	9.82	7226.5
17040.000	TERRAPLEN	0.000	0.00	3.8	D TIERRA	2.930	57.04	49223.7
	ARENA_1	0.167	3.33	2741.3	ARENA_2	0.193	3.86	2966.0
	RELLENO_ZANJA	1.935	37.14	33860.8	ARENA_3	0.491	9.82	7236.3
17060.000	TERRAPLEN	0.000	0.00	3.8	D TIERRA	2.852	57.82	49281.5
	ARENA_1	0.167	3.33	2744.7	ARENA_2	0.193	3.86	2969.9
	RELLENO_ZANJA	1.856	37.92	33898.7	ARENA_3	0.491	9.82	7246.1
17080.000	TERRAPLEN	0.000	0.00	3.8	D TIERRA	2.719	55.70	49337.3
	ARENA_1	0.167	3.33	2748.0	ARENA_2	0.193	3.86	2973.8
	RELLENO_ZANJA	1.724	35.80	33934.5	ARENA_3	0.491	9.82	7255.9
17100.000	TERRAPLEN	0.000	0.00	3.8	D TIERRA	2.851	55.69	49392.9
	ARENA_1	0.167	3.33	2751.3	ARENA_2	0.193	3.86	2977.6
	RELLENO_ZANJA	1.856	35.79	33970.3	ARENA_3	0.491	9.82	7265.8
17106.319	TERRAPLEN	0.000	0.00	3.8	D TIERRA	2.367	16.49	49409.4
	ARENA_1	0.167	1.05	2752.4	ARENA_2	0.193	1.22	2978.8
	RELLENO_ZANJA	1.372	10.20	33980.5	ARENA_3	0.491	3.10	7268.9
17120.000	TERRAPLEN	0.000	0.00	3.8	D TIERRA	2.618	34.10	49443.5
	ARENA_1	0.167	2.28	2754.7	ARENA_2	0.193	2.64	2981.5
	RELLENO_ZANJA	1.623	20.48	34001.0	ARENA_3	0.491	6.72	7275.6
17140.000	TERRAPLEN	0.000	0.00	3.8	D TIERRA	2.798	54.15	49497.7
	ARENA_1	0.167	3.33	2758.0	ARENA_2	0.193	3.86	2985.3
	RELLENO_ZANJA	1.803	34.25	34035.2	ARENA_3	0.491	9.82	7285.4
17160.000	TERRAPLEN	0.000	0.00	3.8	D TIERRA	2.641	54.38	49552.1
	ARENA_1	0.167	3.33	2761.3	ARENA_2	0.193	3.86	2989.2
	RELLENO_ZANJA	1.645	34.48	34069.7	ARENA_3	0.491	9.82	7295.2
17180.000	TERRAPLEN	0.000	0.00	3.8	D TIERRA	2.794	54.35	49606.4
	ARENA_1	0.167	3.33	2764.7	ARENA_2	0.193	3.86	2993.0
	RELLENO_ZANJA	1.799	34.45	34104.1	ARENA_3	0.491	9.82	7305.1
17200.000	TERRAPLEN	0.000	0.00	3.8	D TIERRA	2.761	55.55	49662.0
	ARENA_1	0.167	3.33	2768.0	ARENA_2	0.193	3.86	2996.9
	RELLENO_ZANJA	1.766	35.65	34139.8	ARENA_3	0.491	9.82	7314.9
17216.854	TERRAPLEN	0.000	0.00	3.8	D TIERRA	3.532	53.03	49715.0
	ARENA_1	0.167	2.81	2770.8	ARENA_2	0.193	3.25	3000.1
	RELLENO_ZANJA	2.537	36.26	34176.0	ARENA_3	0.491	8.28	7323.2
17220.000	TERRAPLEN	0.000	0.00	3.8	D TIERRA	3.455	10.99	49726.0
	ARENA_1	0.167	0.52	2771.3	ARENA_2	0.193	0.61	3000.7
	RELLENO_ZANJA	2.460	7.86	34183.9	ARENA_3	0.491	1.55	7324.7
17227.195	TERRAPLEN	0.000	0.00	3.8	D TIERRA	2.956	23.06	49749.0
	ARENA_1	0.167	1.20	2772.5	ARENA_2	0.193	1.39	3002.1
	RELLENO_ZANJA	1.961	15.90	34199.8	ARENA_3	0.491	3.53	7328.2
17227.195	TERRAPLEN	0.000	0.00	3.8	D TIERRA	0.000	0.00	49749.0
	ARENA_1	0.000	0.00	2772.5	ARENA_2	0.000	0.00	3002.1
	RELLENO_ZANJA	0.000	0.00	34199.8	ARENA_3	0.000	0.00	7328.2
17240.000	TERRAPLEN	0.000	0.00	3.8	D TIERRA	0.000	0.00	49749.0
	ARENA_1	0.000	0.00	2772.5	ARENA_2	0.000	0.00	3002.1
	RELLENO_ZANJA	0.000	0.00	34199.8	ARENA_3	0.000	0.00	7328.2
17260.000	TERRAPLEN	0.000	0.00	3.8	D TIERRA	0.000	0.00	49749.0
	ARENA_1	0.000	0.00	2772.5	ARENA_2	0.000	0.00	3002.1
	RELLENO_ZANJA	0.000	0.00	34199.8	ARENA_3	0.000	0.00	7328.2
17260.555	TERRAPLEN	0.000	0.00	3.8	D TIERRA	0.000	0.00	49749.0
	ARENA_1	0.000	0.00	2772.5	ARENA_2	0.000	0.00	3002.1
	RELLENO_ZANJA	0.000	0.00	34199.8	ARENA_3	0.000	0.00	7328.2
17260.555	TERRAPLEN	0.000	0.00	3.8	D TIERRA	1.861	0.00	49749.0
	ARENA_1	0.157	0.00	2772.5	ARENA_2	0.149	0.00	3002.1
	RELLENO_ZANJA	1.079	0.00	34199.8	ARENA_3	0.332	0.00	7328.2



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Table with 9 columns: PERFIL, MATERIAL, AREA PERFIL, VOL. PARCIAL, VOL. ACUMUL., MATERIAL, AREA PERFIL, VOL. PARCIAL, VOL. ACUMUL. Rows include profiles 17264.971 to 17500.000 with materials like TERRAPLEN, ARENA, RELLENO ZANJA, and D TIERRA.

Table with 9 columns: PERFIL, MATERIAL, AREA PERFIL, VOL. PARCIAL, VOL. ACUMUL., MATERIAL, AREA PERFIL, VOL. PARCIAL, VOL. ACUMUL. Rows include profiles 17520.000 to 17800.000 with materials like TERRAPLEN, ARENA, RELLENO ZANJA, and D TIERRA.

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*** MEDICIONES DE LOS PERFILES TRANSVERSALES ***
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PERFIL	MATERIAL	AREA PERFIL	VOL. PARCIAL	VOL. ACUMUL.	MATERIAL	AREA PERFIL	VOL. PARCIAL	VOL. ACUMUL.
17820.000	TERRAPLEN	0.000	0.00	3.8	D TIERRA	3.621	76.11	50954.6
	ARENA_1	0.157	3.13	2860.2	ARENA_2	0.149	2.99	3085.8
	RELLENO_ZANJA	2.838	60.47	34967.8	ARENA_3	0.332	6.63	7513.7
17835.429	TERRAPLEN	0.000	0.00	3.8	D TIERRA	3.121	52.01	51006.7
	ARENA_1	0.157	2.42	2862.6	ARENA_2	0.149	2.31	3088.1
	RELLENO_ZANJA	2.338	39.94	35007.7	ARENA_3	0.332	5.12	7518.8
17840.000	TERRAPLEN	0.000	0.00	3.8	D TIERRA	3.032	14.06	51020.7
	ARENA_1	0.157	0.72	2863.3	ARENA_2	0.149	0.68	3088.7
	RELLENO_ZANJA	2.250	10.49	35018.2	ARENA_3	0.332	1.52	7520.3
17860.000	TERRAPLEN	0.000	0.00	3.8	D TIERRA	2.792	58.24	51079.0
	ARENA_1	0.157	3.13	2866.4	ARENA_2	0.149	2.99	3091.7
	RELLENO_ZANJA	2.010	42.60	35060.8	ARENA_3	0.332	6.63	7527.0
17880.000	TERRAPLEN	0.000	0.00	3.8	D TIERRA	2.558	53.50	51132.5
	ARENA_1	0.157	3.13	2869.6	ARENA_2	0.149	2.99	3094.7
	RELLENO_ZANJA	1.775	37.85	35098.7	ARENA_3	0.332	6.63	7533.6
17900.000	TERRAPLEN	0.000	0.00	3.8	D TIERRA	2.392	49.50	51182.0
	ARENA_1	0.157	3.13	2872.7	ARENA_2	0.149	2.99	3097.7
	RELLENO_ZANJA	1.610	33.85	35132.5	ARENA_3	0.332	6.63	7540.2
17920.000	TERRAPLEN	0.000	0.00	3.8	D TIERRA	2.336	47.28	51229.2
	ARENA_1	0.157	3.13	2875.8	ARENA_2	0.149	2.99	3100.7
	RELLENO_ZANJA	1.553	31.63	35164.2	ARENA_3	0.332	6.63	7546.9
17940.000	TERRAPLEN	0.000	0.00	3.8	D TIERRA	2.280	46.16	51275.4
	ARENA_1	0.157	3.13	2879.0	ARENA_2	0.149	2.99	3103.7
	RELLENO_ZANJA	1.498	30.51	35194.7	ARENA_3	0.332	6.63	7553.5
17960.000	TERRAPLEN	0.000	0.00	3.8	D TIERRA	2.463	47.43	51322.8
	ARENA_1	0.157	3.13	2882.1	ARENA_2	0.149	2.99	3106.7
	RELLENO_ZANJA	1.681	31.79	35226.5	ARENA_3	0.332	6.63	7560.1
17980.000	TERRAPLEN	0.000	0.00	3.8	D TIERRA	2.557	50.20	51373.0
	ARENA_1	0.157	3.13	2885.2	ARENA_2	0.149	2.99	3109.7
	RELLENO_ZANJA	1.775	34.56	35261.0	ARENA_3	0.332	6.63	7566.8
17983.612	TERRAPLEN	0.000	0.00	3.8	D TIERRA	2.607	9.33	51382.3
	ARENA_1	0.157	0.57	2885.8	ARENA_2	0.149	0.54	3110.2
	RELLENO_ZANJA	1.825	6.50	35267.5	ARENA_3	0.332	1.20	7568.0
17997.541	TERRAPLEN	0.000	0.00	3.8	D TIERRA	2.743	37.26	51419.6
	ARENA_1	0.157	2.18	2888.0	ARENA_2	0.149	2.08	3112.3
	RELLENO_ZANJA	1.961	26.37	35293.9	ARENA_3	0.332	4.62	7572.6
18000.000	TERRAPLEN	0.000	0.00	3.8	D TIERRA	2.736	6.74	51426.3
	ARENA_1	0.157	0.39	2888.4	ARENA_2	0.149	0.37	3112.7
	RELLENO_ZANJA	1.953	4.81	35298.7	ARENA_3	0.332	0.82	7573.4
18020.000	TERRAPLEN	0.000	0.00	3.8	D TIERRA	2.523	52.59	51478.9
	ARENA_1	0.157	3.13	2891.5	ARENA_2	0.149	2.99	3115.7
	RELLENO_ZANJA	1.741	36.95	35335.6	ARENA_3	0.332	6.63	7580.0
18040.000	TERRAPLEN	0.000	0.00	3.8	D TIERRA	2.536	50.60	51529.5
	ARENA_1	0.157	3.13	2894.6	ARENA_2	0.149	2.99	3118.6
	RELLENO_ZANJA	1.754	34.95	35370.6	ARENA_3	0.332	6.63	7586.7
18040.319	TERRAPLEN	0.000	0.00	3.8	D TIERRA	2.517	0.81	51530.3
	ARENA_1	0.157	0.05	2894.7	ARENA_2	0.149	0.05	3118.7
	RELLENO_ZANJA	1.735	0.56	35371.2	ARENA_3	0.332	0.11	7586.8
18060.000	TERRAPLEN	0.000	0.00	3.8	D TIERRA	2.136	45.79	51576.1
	ARENA_1	0.157	3.08	2897.8	ARENA_2	0.149	2.94	3121.6
	RELLENO_ZANJA	1.354	30.40	35401.6	ARENA_3	0.332	6.53	7593.3
18080.000	TERRAPLEN	0.000	0.00	3.8	D TIERRA	2.127	42.63	51618.8
	ARENA_1	0.157	3.13	2900.9	ARENA_2	0.149	2.99	3124.6
	RELLENO_ZANJA	1.345	26.99	35428.5	ARENA_3	0.332	6.63	7599.9
18084.458	TERRAPLEN	0.000	0.00	3.8	D TIERRA	2.160	9.56	51628.3
	ARENA_1	0.157	0.70	2901.6	ARENA_2	0.149	0.67	3125.3
	RELLENO_ZANJA	1.378	6.07	35434.6	ARENA_3	0.332	1.48	7601.4
18100.000	TERRAPLEN	0.000	0.00	3.8	D TIERRA	2.082	32.96	51661.3
	ARENA_1	0.157	2.43	2904.0	ARENA_2	0.149	2.32	3127.6
	RELLENO_ZANJA	1.300	20.80	35455.4	ARENA_3	0.332	5.15	7606.6

PERFIL	MATERIAL	AREA PERFIL	VOL. PARCIAL	VOL. ACUMUL.	MATERIAL	AREA PERFIL	VOL. PARCIAL	VOL. ACUMUL.
18120.000	TERRAPLEN	0.000	0.00	3.8	D TIERRA	1.810	38.92	51700.2
	ARENA_1	0.157	3.13	2907.1	ARENA_2	0.149	2.99	3130.6
	RELLENO_ZANJA	1.028	23.28	35478.7	ARENA_3	0.332	6.63	7613.2
18122.456	TERRAPLEN	0.000	0.00	3.8	D TIERRA	1.701	4.31	51704.5
	ARENA_1	0.157	0.38	2907.5	ARENA_2	0.149	0.37	3131.0
	RELLENO_ZANJA	0.919	2.39	35481.1	ARENA_3	0.332	0.81	7614.0
18140.000	TERRAPLEN	0.000	0.00	3.8	D TIERRA	1.810	30.80	51735.3
	ARENA_1	0.157	2.75	2910.3	ARENA_2	0.149	2.62	3133.6
	RELLENO_ZANJA	1.028	17.08	35498.2	ARENA_3	0.332	5.82	7619.8
18140.085	TERRAPLEN	0.000	0.00	3.8	D TIERRA	1.808	0.15	51735.5
	ARENA_1	0.157	0.01	2910.3	ARENA_2	0.150	0.01	3133.6
	RELLENO_ZANJA	1.026	0.09	35498.2	ARENA_3	0.331	0.03	7619.9
18160.000	TERRAPLEN	0.000	0.00	3.8	D TIERRA	1.632	34.25	51769.7
	ARENA_1	0.157	3.12	2913.4	ARENA_2	0.150	2.98	3136.6
	RELLENO_ZANJA	0.850	18.67	35516.9	ARENA_3	0.331	6.60	7626.5
18180.000	TERRAPLEN	0.000	0.00	3.8	D TIERRA	1.591	32.23	51802.0
	ARENA_1	0.157	3.13	2916.5	ARENA_2	0.150	2.99	3139.6
	RELLENO_ZANJA	0.809	16.58	35533.5	ARENA_3	0.331	6.63	7633.1
18200.000	TERRAPLEN	0.000	0.00	3.8	D TIERRA	1.805	33.96	51835.9
	ARENA_1	0.157	3.13	2919.7	ARENA_2	0.150	2.99	3142.6
	RELLENO_ZANJA	1.023	18.31	35551.8	ARENA_3	0.331	6.63	7639.7
18220.000	TERRAPLEN	0.000	0.00	3.8	D TIERRA	1.718	35.23	51871.1
	ARENA_1	0.157	3.13	2922.8	ARENA_2	0.150	2.99	3145.5
	RELLENO_ZANJA	0.935	19.58	35571.4	ARENA_3	0.331	6.63	7646.3
18240.000	TERRAPLEN	0.000	0.00	3.8	D TIERRA	1.812	35.29	51906.4
	ARENA_1	0.157	3.13	2925.9	ARENA_2	0.150	2.99	3148.5
	RELLENO_ZANJA	1.029	19.65	35591.0	ARENA_3	0.331	6.63	7653.0
18260.000	TERRAPLEN	0.000	0.00	3.8	D TIERRA	1.792	36.04	51942.5
	ARENA_1	0.157	3.13	2929.1	ARENA_2	0.150	2.99	3151.5
	RELLENO_ZANJA	1.010	20.40	35611.4	ARENA_3	0.330	6.62	7659.6
18280.000	TERRAPLEN	0.000	0.00	3.8	D TIERRA	1.809	36.01	51978.5
	ARENA_1	0.157	3.13	2932.2	ARENA_2	0.150	2.99	3154.5
	RELLENO_ZANJA	1.027	20.37	35631.8	ARENA_3	0.330	6.60	7666.2
18300.000	TERRAPLEN	0.000	0.00	3.8	D TIERRA	1.810	36.19	52014.7
	ARENA_1	0.157	3.13	2935.3	ARENA_2	0.149	2.99	3157.5
	RELLENO_ZANJA	1.028	20.54	35652.4	ARENA_3	0.331	6.62	7672.8
18300.000	TERRAPLEN	0.000	0.00	3.8	D TIERRA	0.000	0.00	52014.7
	ARENA_1	0.000	0.00	2935.3	ARENA_2	0.000	0.00	3157.5
	RELLENO_ZANJA	0.000	0.00	35652.4	ARENA_3	0.000	0.00	7672.8
18318.466	TERRAPLEN	0.000	0.00	3.8	D TIERRA	0.000	0.00	52014.7
	ARENA_1	0.000	0.00	2935.3	ARENA_2	0.000	0.00	3157.5
	RELLENO_ZANJA	0.000	0.00	35652.4	ARENA_3	0.000	0.00	7672.8
18318.466	TERRAPLEN	0.000	0.00	3.8	D TIERRA	2.031	0.00	52014.7
	ARENA_1	0.157	0.00	2935.3	ARENA_2	0.149	0.00	3157.5
	RELLENO_ZANJA	1.249	0.00	35652.4	ARENA_3	0.332	0.00	7672.8
18320.000	TERRAPLEN	0.000	0.00	3.8	D TIERRA	2.044	3.13	52017.8
	ARENA_1	0.157	0.24	2935.6	ARENA_2	0.149	0.23	3157.7
	RELLENO_ZANJA	1.262	1.93	35654.3	ARENA_3	0.332	0.51	7673.3
18328.780	TERRAPLEN	0.000	0.00	3.8	D TIERRA	2.120	18.28	52036.1
	ARENA_1	0.157	1.38	2937.0	ARENA_2	0.149	1.31	3159.1
	RELLENO_ZANJA	1.338	11.41	35665.7	ARENA_3	0.332	2.91	7676.2
18340.000	TERRAPLEN	0.000	0.00	3.8	D TIERRA	2.108	23.72	52059.8
	ARENA_1	0.157	1.76	2938.7	ARENA_2	0.149	1.68	3160.7
	RELLENO_ZANJA	1.326	14.94	35680.6	ARENA_3	0.332	3.72	7680.0
18360.000	TERRAPLEN	0.000	0.00	3.8	D TIERRA	2.093	42.01	52101.8
	ARENA_1	0.157	3.13	2941.8	ARENA_2	0.149	2.99	3163.7
	RELLENO_ZANJA	1.311	26.37	35707.0	ARENA_3	0.332	6.63	7686.6
18380.000	TERRAPLEN	0.000	0.00	3.8	D TIERRA	1.992	40.85	52142.7
	ARENA_1	0.157	3.13	2945.0	ARENA_2	0.149	2.99	3166.7
	RELLENO_ZANJA	1.210	25.21	35732.2	ARENA_3	0.332	6.63	7693.2

Istram 9.04 12/05/20 12:52:35
 PROYECTO : CIDACOS COMPLETO
 EJE : 6: P240 (Aldeanueva de Ebro) - P280 (Alfaro)

Istram 9.04 12/05/20 12:52:35
 PROYECTO : CIDACOS COMPLETO
 EJE : 6: P240 (Aldeanueva de Ebro) - P280 (Alfaro)

***** MEDICIONES DE LOS PERFILES TRANSVERSALES* * *
 * * * CAPAS DE FIRME * * *

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PERFIL	MATERIAL	AREA PERFIL	VOL. PARCIAL	VOL. ACUMUL.	MATERIAL	AREA PERFIL	VOL. PARCIAL	VOL. ACUMUL.
18389.975	TERRAPLEN	0.000	0.00	3.8	D TIERRA	1.813	18.98	52161.6
	ARENA_1	0.157	1.56	2946.5	ARENA_2	0.149	1.49	3168.2
	RELLENO_ZANJA	1.031	11.18	35743.4	ARENA_3	0.332	3.31	7696.5
18400.000	TERRAPLEN	0.000	0.00	3.8	D TIERRA	1.721	17.72	52179.4
	ARENA_1	0.157	1.57	2948.1	ARENA_2	0.149	1.50	3169.7
	RELLENO_ZANJA	0.939	9.87	35753.3	ARENA_3	0.332	3.32	7699.9
18404.721	TERRAPLEN	0.000	0.00	3.8	D TIERRA	1.768	8.23	52187.6
	ARENA_1	0.157	0.74	2948.8	ARENA_2	0.149	0.71	3170.4
	RELLENO_ZANJA	0.985	4.54	35757.8	ARENA_3	0.332	1.57	7701.4
18420.000	TERRAPLEN	0.000	0.00	3.8	D TIERRA	1.810	27.33	52214.9
	ARENA_1	0.157	2.39	2951.2	ARENA_2	0.149	2.28	3172.7
	RELLENO_ZANJA	1.028	15.38	35773.2	ARENA_3	0.332	5.07	7706.5
18435.201	TERRAPLEN	0.000	0.00	3.8	D TIERRA	1.808	27.50	52242.4
	ARENA_1	0.157	2.38	2953.6	ARENA_2	0.149	2.27	3175.0
	RELLENO_ZANJA	1.026	15.61	35788.8	ARENA_3	0.332	5.04	7711.5
18440.000	TERRAPLEN	0.000	0.00	3.8	D TIERRA	1.744	8.52	52251.0
	ARENA_1	0.157	0.75	2954.4	ARENA_2	0.149	0.72	3175.7
	RELLENO_ZANJA	0.961	4.77	35793.6	ARENA_3	0.332	1.59	7713.1
18456.263	TERRAPLEN	0.000	0.00	3.8	D TIERRA	1.818	28.96	52279.9
	ARENA_1	0.157	2.55	2956.9	ARENA_2	0.149	2.43	3178.1
	RELLENO_ZANJA	1.036	16.24	35809.8	ARENA_3	0.332	5.39	7718.5
18460.000	TERRAPLEN	0.000	0.00	3.8	D TIERRA	1.812	6.78	52286.7
	ARENA_1	0.157	0.59	2957.5	ARENA_2	0.149	0.56	3178.7
	RELLENO_ZANJA	1.030	3.86	35813.7	ARENA_3	0.332	1.24	7719.8
18480.000	TERRAPLEN	0.000	0.00	3.8	D TIERRA	1.847	36.59	52323.3
	ARENA_1	0.157	3.13	2960.6	ARENA_2	0.150	2.99	3181.7
	RELLENO_ZANJA	1.065	20.95	35834.6	ARENA_3	0.331	6.62	7726.4
18493.969	TERRAPLEN	0.000	0.00	3.8	D TIERRA	1.781	25.34	52348.6
	ARENA_1	0.157	2.19	2962.8	ARENA_2	0.150	2.09	3183.8
	RELLENO_ZANJA	0.999	14.41	35849.0	ARENA_3	0.331	4.62	7731.0
18500.000	TERRAPLEN	0.000	0.00	3.8	D TIERRA	1.844	10.93	52359.6
	ARENA_1	0.157	0.94	2963.8	ARENA_2	0.150	0.90	3184.7
	RELLENO_ZANJA	1.062	6.21	35855.2	ARENA_3	0.331	1.99	7733.0
18517.576	TERRAPLEN	0.000	0.00	3.8	D TIERRA	1.919	33.07	52392.6
	ARENA_1	0.157	2.75	2966.5	ARENA_2	0.150	2.63	3187.3
	RELLENO_ZANJA	1.137	19.32	35874.6	ARENA_3	0.331	5.81	7738.8
18520.000	TERRAPLEN	0.000	0.00	3.8	D TIERRA	1.918	4.65	52397.3
	ARENA_1	0.157	0.38	2966.9	ARENA_2	0.150	0.36	3187.6
	RELLENO_ZANJA	1.136	2.75	35877.3	ARENA_3	0.331	0.80	7739.6
18535.412	TERRAPLEN	0.000	0.00	3.8	D TIERRA	1.815	28.77	52426.1
	ARENA_1	0.157	2.41	2969.3	ARENA_2	0.150	2.31	3190.0
	RELLENO_ZANJA	1.033	16.71	35894.0	ARENA_3	0.331	5.10	7744.7
18540.000	TERRAPLEN	0.000	0.00	3.8	D TIERRA	1.760	8.20	52434.3
	ARENA_1	0.157	0.72	2970.0	ARENA_2	0.150	0.69	3190.6
	RELLENO_ZANJA	0.977	4.61	35898.6	ARENA_3	0.331	1.52	7746.2
18560.000	TERRAPLEN	0.000	0.00	3.8	D TIERRA	2.069	38.29	52472.5
	ARENA_1	0.157	3.13	2973.2	ARENA_2	0.150	2.99	3193.6
	RELLENO_ZANJA	1.287	22.64	35921.3	ARENA_3	0.331	6.62	7752.8
18571.605	TERRAPLEN	0.000	0.00	3.8	D TIERRA	1.889	22.97	52495.5
	ARENA_1	0.157	1.82	2975.0	ARENA_2	0.150	1.73	3195.4
	RELLENO_ZANJA	1.107	13.89	35935.2	ARENA_3	0.331	3.85	7756.7
18580.000	TERRAPLEN	0.000	0.00	3.8	D TIERRA	1.823	15.58	52511.1
	ARENA_1	0.157	1.31	2976.3	ARENA_2	0.150	1.26	3196.6
	RELLENO_ZANJA	1.041	9.02	35944.2	ARENA_3	0.331	2.78	7759.5
18600.000	TERRAPLEN	0.000	0.00	3.8	D TIERRA	1.757	35.80	52546.9
	ARENA_1	0.157	3.13	2979.4	ARENA_2	0.150	2.99	3199.6
	RELLENO_ZANJA	0.974	20.15	35964.4	ARENA_3	0.331	6.63	7766.1
18620.000	TERRAPLEN	0.000	0.00	3.8	D TIERRA	1.785	35.41	52582.3
	ARENA_1	0.157	3.13	2982.6	ARENA_2	0.150	2.99	3202.6
	RELLENO_ZANJA	1.002	19.77	35984.1	ARENA_3	0.331	6.63	7772.7

PERFIL	MATERIAL	AREA PERFIL	VOL. PARCIAL	VOL. ACUMUL.	MATERIAL	AREA PERFIL	VOL. PARCIAL	VOL. ACUMUL.
18637.683	TERRAPLEN	0.000	0.00	3.8	D TIERRA	1.812	31.80	52614.1
	ARENA_1	0.157	2.77	2985.3	ARENA_2	0.150	2.64	3205.2
	RELLENO_ZANJA	1.030	17.97	36002.1	ARENA_3	0.331	5.86	7778.6
18640.000	TERRAPLEN	0.000	0.00	3.8	D TIERRA	1.865	4.26	52618.4
	ARENA_1	0.157	0.36	2985.7	ARENA_2	0.150	0.35	3205.6
	RELLENO_ZANJA	1.083	2.45	36004.5	ARENA_3	0.331	0.77	7779.3
18660.000	TERRAPLEN	0.000	0.00	3.8	D TIERRA	2.021	38.86	52657.2
	ARENA_1	0.157	3.13	2988.8	ARENA_2	0.150	2.99	3208.6
	RELLENO_ZANJA	1.239	23.22	36027.8	ARENA_3	0.331	6.63	7786.0
18667.339	TERRAPLEN	0.000	0.00	3.8	D TIERRA	2.031	14.87	52672.1
	ARENA_1	0.157	1.15	2990.0	ARENA_2	0.150	1.10	3209.7
	RELLENO_ZANJA	1.249	9.13	36036.9	ARENA_3	0.331	2.43	7788.4
18680.000	TERRAPLEN	0.000	0.00	3.8	D TIERRA	1.811	24.32	52696.4
	ARENA_1	0.157	1.98	2992.0	ARENA_2	0.150	1.89	3211.6
	RELLENO_ZANJA	1.029	14.42	36051.3	ARENA_3	0.331	4.20	7792.6
18687.999	TERRAPLEN	0.000	0.00	3.8	D TIERRA	1.704	14.06	52710.5
	ARENA_1	0.157	1.25	2993.2	ARENA_2	0.150	1.20	3212.8
	RELLENO_ZANJA	0.922	7.80	36059.1	ARENA_3	0.331	2.65	7795.3
18700.000	TERRAPLEN	0.000	0.00	3.8	D TIERRA	1.811	21.09	52731.6
	ARENA_1	0.157	1.88	2995.1	ARENA_2	0.150	1.79	3214.6
	RELLENO_ZANJA	1.029	11.70	36070.8	ARENA_3	0.331	3.97	7799.2
18720.000	TERRAPLEN	0.000	0.00	3.8	D TIERRA	2.056	38.66	52770.2
	ARENA_1	0.157	3.13	2998.2	ARENA_2	0.150	2.99	3217.6
	RELLENO_ZANJA	1.273	23.02	36093.8	ARENA_3	0.330	6.61	7805.8
18740.000	TERRAPLEN	0.000	0.00	3.8	D TIERRA	2.170	42.25	52812.5
	ARENA_1	0.157	3.13	3001.3	ARENA_2	0.150	2.99	3220.5
	RELLENO_ZANJA	1.387	26.61	36120.4	ARENA_3	0.330	6.60	7812.4
18760.000	TERRAPLEN	0.000	0.00	3.8	D TIERRA	2.066	42.35	52854.8
	ARENA_1	0.157	3.13	3004.5	ARENA_2	0.150	2.99	3223.5
	RELLENO_ZANJA	1.284	26.71	36147.2	ARENA_3	0.330	6.60	7819.0
18769.060	TERRAPLEN	0.000	0.00	3.8	D TIERRA	1.832	17.66	52872.5
	ARENA_1	0.157	1.42	3005.9	ARENA_2	0.150	1.36	3224.9
	RELLENO_ZANJA	1.050	10.57	36157.7	ARENA_3	0.330	2.99	7822.0
18780.000	TERRAPLEN	0.000	0.00	3.8	D TIERRA	2.005	20.99	52893.5
	ARENA_1	0.157	1.71	3007.6	ARENA_2	0.149	1.64	3226.5
	RELLENO_ZANJA	1.222	12.43	36170.2	ARENA_3	0.332	3.62	7825.7
18780.645	TERRAPLEN	0.000	0.00	3.8	D TIERRA	2.002	1.29	52894.8
	ARENA_1	0.157	0.10	3007.7	ARENA_2	0.149	0.10	3226.6
	RELLENO_ZANJA	1.220	0.79	36170.9	ARENA_3	0.332	0.21	7825.9
18793.272	TERRAPLEN	0.000	0.00	3.8	D TIERRA	1.827	24.18	52919.0
	ARENA_1	0.157	1.98	3009.7	ARENA_2	0.149	1.89	3228.5
	RELLENO_ZANJA	1.045	14.30	36185.2	ARENA_3	0.332	4.19	7830.1
18800.000	TERRAPLEN	0.000	0.00	3.8	D TIERRA	1.827	12.29	52931.3
	ARENA_1	0.157	1.05	3010.7	ARENA_2	0.149	1.01	3229.5
	RELLENO_ZANJA	1.045	7.03	36192.3	ARENA_3	0.332	2.23	7832.3
18820.000	TERRAPLEN	0.000	0.00	3.8	D TIERRA	1.813	36.40	52967.7
	ARENA_1	0.157	3.13	3013.9	ARENA_2	0.149	2.99	3232.5
	RELLENO_ZANJA	1.031	20.76	36213.0	ARENA_3	0.332	6.63	7838.9
18821.765	TERRAPLEN	0.000	0.00	3.8	D TIERRA	1.783	3.17	52970.8
	ARENA_1	0.157	0.28	3014.1	ARENA_2	0.149	0.26	3232.8
	RELLENO_ZANJA	1.001	1.79	36214.8	ARENA_3	0.332	0.59	7839.5
18840.000	TERRAPLEN	0.000	0.00	3.8	D TIERRA	1.733	32.06	53002.9
	ARENA_1	0.157	2.86	3017.0	ARENA_2	0.149	2.73	3235.5
	RELLENO_ZANJA	0.950	17.79	36232.6	ARENA_3	0.332	6.05	7845.5
18856.738	TERRAPLEN	0.000	0.00	3.8	D TIERRA	1.810	29.65	53032.5
	ARENA_1	0.157	2.62	3019.6	ARENA_2	0.149	2.50	3238.0
	RELLENO_ZANJA	1.028	16.56	36249.2	ARENA_3	0.332	5.55	7851.1
18860.000	TERRAPLEN	0.000	0.00	3.8	D TIERRA	1.887	6.03	53038.6
	ARENA_1	0.157	0.51	3020.1	ARENA_2	0.149	0.49	3238.5
	RELLENO_ZANJA	1.105	3.48	36252.7	ARENA_3	0.332	1.08	7852.2

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 PROYECTO : CIDACOS COMPLETO
 EJE : 6: P240 (Aldeanueva de Ebro) - P280 (Alfaro)

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 PROYECTO : CIDACOS COMPLETO
 EJE : 6: P240 (Aldeanueva de Ebro) - P280 (Alfaro)

*** MEDICIONES DE LOS PERFILES TRANSVERSALES ***
 *** CAPAS DE FIRME ***

*** MEDICIONES DE LOS PERFILES TRANSVERSALES ***
 *** CAPAS DE FIRME ***

PERFIL	MATERIAL	AREA PERFIL	VOL. PARCIAL	VOL. ACUMUL.	MATERIAL	AREA PERFIL	VOL. PARCIAL	VOL. ACUMUL.
18880.000	TERRAPLEN	0.000	0.00	3.8	D TIERRA	2.296	41.83	53080.4
	ARENA_1	0.157	3.13	3023.3	ARENA_2	0.149	2.99	3241.5
	RELLENO_ZANJA	1.514	26.19	36278.8	ARENA_3	0.332	6.63	7858.8
18900.000	TERRAPLEN	0.000	0.00	3.8	D TIERRA	2.547	48.44	53128.8
	ARENA_1	0.157	3.13	3026.4	ARENA_2	0.149	2.99	3244.5
	RELLENO_ZANJA	1.765	32.80	36311.6	ARENA_3	0.332	6.63	7865.4
18920.000	TERRAPLEN	0.000	0.00	3.8	D TIERRA	2.716	52.64	53181.5
	ARENA_1	0.157	3.13	3029.5	ARENA_2	0.149	2.99	3247.5
	RELLENO_ZANJA	1.934	36.99	36348.6	ARENA_3	0.332	6.63	7872.1
18940.000	TERRAPLEN	0.000	0.00	3.8	D TIERRA	2.873	55.90	53237.4
	ARENA_1	0.157	3.13	3032.7	ARENA_2	0.149	2.99	3250.5
	RELLENO_ZANJA	2.091	40.25	36388.9	ARENA_3	0.332	6.63	7878.7
18946.606	TERRAPLEN	0.000	0.00	3.8	D TIERRA	2.897	19.06	53256.4
	ARENA_1	0.157	1.03	3033.7	ARENA_2	0.149	0.99	3251.4
	RELLENO_ZANJA	2.114	13.89	36402.8	ARENA_3	0.332	2.19	7880.9
18958.315	TERRAPLEN	0.000	0.00	3.8	D TIERRA	2.832	33.54	53290.0
	ARENA_1	0.157	1.83	3035.5	ARENA_2	0.149	1.75	3253.2
	RELLENO_ZANJA	2.050	24.38	36427.2	ARENA_3	0.332	3.88	7884.8
18960.000	TERRAPLEN	0.000	0.00	3.8	D TIERRA	2.821	4.76	53294.7
	ARENA_1	0.157	0.26	3035.8	ARENA_2	0.149	0.25	3253.4
	RELLENO_ZANJA	2.039	3.44	36430.6	ARENA_3	0.332	0.56	7885.3
18980.000	TERRAPLEN	0.000	0.00	3.8	D TIERRA	2.768	55.89	53350.6
	ARENA_1	0.157	3.13	3038.9	ARENA_2	0.149	2.99	3256.4
	RELLENO_ZANJA	1.986	40.25	36470.8	ARENA_3	0.332	6.63	7892.0
18988.136	TERRAPLEN	0.000	0.00	3.8	D TIERRA	2.766	22.51	53373.1
	ARENA_1	0.157	1.27	3040.2	ARENA_2	0.149	1.22	3257.6
	RELLENO_ZANJA	1.984	16.15	36487.0	ARENA_3	0.332	2.70	7894.7
19000.000	TERRAPLEN	0.000	0.00	3.8	D TIERRA	2.776	32.87	53406.0
	ARENA_1	0.157	1.86	3042.1	ARENA_2	0.149	1.77	3259.4
	RELLENO_ZANJA	1.993	23.59	36510.6	ARENA_3	0.332	3.93	7898.6
19020.000	TERRAPLEN	0.000	0.00	3.8	D TIERRA	2.909	56.84	53462.9
	ARENA_1	0.157	3.13	3045.2	ARENA_2	0.149	2.99	3262.4
	RELLENO_ZANJA	2.126	41.20	36551.8	ARENA_3	0.332	6.63	7905.2
19040.000	TERRAPLEN	0.000	0.00	3.8	D TIERRA	2.926	58.35	53521.2
	ARENA_1	0.157	3.13	3048.3	ARENA_2	0.149	2.99	3265.4
	RELLENO_ZANJA	2.144	42.70	36594.5	ARENA_3	0.332	6.63	7911.9
19048.794	TERRAPLEN	0.000	0.00	3.8	D TIERRA	2.789	25.13	53546.3
	ARENA_1	0.157	1.38	3049.7	ARENA_2	0.149	1.31	3266.7
	RELLENO_ZANJA	2.007	18.25	36612.7	ARENA_3	0.332	2.92	7914.8
19060.000	TERRAPLEN	0.000	0.00	3.8	D TIERRA	2.993	32.39	53578.7
	ARENA_1	0.157	1.76	3051.5	ARENA_2	0.149	1.68	3268.4
	RELLENO_ZANJA	2.210	23.63	36636.4	ARENA_3	0.332	3.72	7918.5
19080.000	TERRAPLEN	0.000	0.00	3.8	D TIERRA	3.100	60.93	53639.6
	ARENA_1	0.157	3.13	3054.6	ARENA_2	0.149	2.99	3271.4
	RELLENO_ZANJA	2.318	45.28	36681.6	ARENA_3	0.332	6.63	7925.1
19085.181	TERRAPLEN	0.000	0.00	3.8	D TIERRA	3.106	16.08	53655.7
	ARENA_1	0.157	0.81	3055.4	ARENA_2	0.149	0.77	3272.2
	RELLENO_ZANJA	2.324	12.02	36693.7	ARENA_3	0.332	1.72	7926.9
19100.000	TERRAPLEN	0.000	0.00	3.8	D TIERRA	3.010	45.32	53701.0
	ARENA_1	0.157	2.32	3057.7	ARENA_2	0.149	2.22	3274.4
	RELLENO_ZANJA	2.228	33.73	36727.4	ARENA_3	0.332	4.91	7931.8
19120.000	TERRAPLEN	0.000	0.00	3.8	D TIERRA	2.696	57.06	53758.1
	ARENA_1	0.157	3.13	3060.9	ARENA_2	0.149	2.99	3277.4
	RELLENO_ZANJA	1.914	41.42	36768.8	ARENA_3	0.332	6.63	7938.4
19121.477	TERRAPLEN	0.000	0.00	3.8	D TIERRA	2.667	3.96	53762.1
	ARENA_1	0.157	0.23	3061.1	ARENA_2	0.149	0.22	3277.6
	RELLENO_ZANJA	1.885	2.81	36771.6	ARENA_3	0.332	0.49	7938.9
19140.000	TERRAPLEN	0.000	0.00	3.8	D TIERRA	2.679	49.51	53811.6
	ARENA_1	0.157	2.90	3064.0	ARENA_2	0.149	2.77	3280.3
	RELLENO_ZANJA	1.897	35.03	36806.6	ARENA_3	0.332	6.14	7945.0

PERFIL	MATERIAL	AREA PERFIL	VOL. PARCIAL	VOL. ACUMUL.	MATERIAL	AREA PERFIL	VOL. PARCIAL	VOL. ACUMUL.
19152.836	TERRAPLEN	0.000	0.00	3.8	D TIERRA	2.809	35.22	53846.8
	ARENA_1	0.157	2.01	3066.0	ARENA_2	0.149	1.92	3282.3
	RELLENO_ZANJA	2.027	25.18	36831.8	ARENA_3	0.332	4.26	7949.3
19160.000	TERRAPLEN	0.000	0.00	3.8	D TIERRA	2.733	19.85	53866.7
	ARENA_1	0.157	1.12	3067.1	ARENA_2	0.149	1.07	3283.3
	RELLENO_ZANJA	1.951	14.25	36846.1	ARENA_3	0.332	2.38	7951.7
19180.000	TERRAPLEN	0.000	0.00	3.8	D TIERRA	2.784	55.18	53921.8
	ARENA_1	0.157	3.13	3070.3	ARENA_2	0.149	2.99	3286.3
	RELLENO_ZANJA	2.002	39.53	36885.6	ARENA_3	0.332	6.63	7958.3
19200.000	TERRAPLEN	0.000	0.00	3.8	D TIERRA	3.014	57.99	53979.8
	ARENA_1	0.157	3.13	3073.4	ARENA_2	0.149	2.99	3289.3
	RELLENO_ZANJA	2.232	42.34	36928.0	ARENA_3	0.332	6.63	7964.9
19201.245	TERRAPLEN	0.000	0.00	3.8	D TIERRA	3.021	3.76	53983.6
	ARENA_1	0.157	0.19	3073.6	ARENA_2	0.149	0.19	3289.5
	RELLENO_ZANJA	2.238	2.78	36930.7	ARENA_3	0.332	0.41	7965.4
19220.000	TERRAPLEN	0.000	0.00	3.8	D TIERRA	2.745	54.07	54037.6
	ARENA_1	0.157	2.94	3076.5	ARENA_2	0.149	2.80	3292.3
	RELLENO_ZANJA	1.963	39.40	36970.1	ARENA_3	0.332	6.22	7971.6
19240.000	TERRAPLEN	0.000	0.00	3.8	D TIERRA	2.569	53.14	54090.8
	ARENA_1	0.157	3.13	3079.7	ARENA_2	0.149	2.99	3295.3
	RELLENO_ZANJA	1.787	37.49	37007.6	ARENA_3	0.332	6.63	7978.2
19240.342	TERRAPLEN	0.000	0.00	3.8	D TIERRA	2.565	0.88	54091.7
	ARENA_1	0.157	0.05	3079.7	ARENA_2	0.149	0.05	3295.3
	RELLENO_ZANJA	1.783	0.61	37008.2	ARENA_3	0.332	0.11	7978.3
19247.860	TERRAPLEN	0.000	0.00	3.8	D TIERRA	2.422	18.75	54110.4
	ARENA_1	0.157	1.18	3080.9	ARENA_2	0.149	1.12	3296.5
	RELLENO_ZANJA	1.640	12.87	37021.1	ARENA_3	0.332	2.49	7980.8
19260.000	TERRAPLEN	0.000	0.00	3.8	D TIERRA	2.186	27.97	54138.4
	ARENA_1	0.157	1.90	3082.8	ARENA_2	0.149	1.81	3298.3
	RELLENO_ZANJA	1.404	18.48	37039.6	ARENA_3	0.332	4.03	7984.8
19280.000	TERRAPLEN	0.000	0.00	3.8	D TIERRA	1.957	41.43	54179.8
	ARENA_1	0.157	3.13	3085.9	ARENA_2	0.149	2.99	3301.3
	RELLENO_ZANJA	1.175	25.79	37065.4	ARENA_3	0.332	6.63	7991.5
19286.408	TERRAPLEN	0.000	0.00	3.8	D TIERRA	1.905	12.38	54192.2
	ARENA_1	0.157	1.00	3086.9	ARENA_2	0.149	0.96	3302.2
	RELLENO_ZANJA	1.123	7.36	37072.7	ARENA_3	0.332	2.13	7993.6
19300.000	TERRAPLEN	0.000	0.00	3.8	D TIERRA	1.810	25.25	54217.4
	ARENA_1	0.157	2.13	3089.0	ARENA_2	0.149	2.03	3304.3
	RELLENO_ZANJA	1.028	14.62	37087.4	ARENA_3	0.332	4.51	7998.1
19320.000	TERRAPLEN	0.000	0.00	3.8	D TIERRA	1.818	36.29	54253.7
	ARENA_1	0.157	3.13	3092.2	ARENA_2	0.149	2.99	3307.3
	RELLENO_ZANJA	1.036	20.64	37108.0	ARENA_3	0.332	6.63	8004.7
19324.352	TERRAPLEN	0.000	0.00	3.8	D TIERRA	1.864	8.01	54261.7
	ARENA_1	0.157	0.68	3092.9	ARENA_2	0.149	0.65	3307.9
	RELLENO_ZANJA	1.082	4.61	37112.6	ARENA_3	0.332	1.44	8006.2
19330.411	TERRAPLEN	0.000	0.00	3.8	D TIERRA	1.907	11.43	54273.2
	ARENA_1	0.157	0.95	3093.8	ARENA_2	0.149	0.91	3308.8
	RELLENO_ZANJA	1.125	6.69	37119.3	ARENA_3	0.332	2.01	8008.2
19340.000	TERRAPLEN	0.000	0.00	3.8	D TIERRA	1.849	18.01	54291.2
	ARENA_1	0.157	1.50	3095.3	ARENA_2	0.149	1.43	3310.2
	RELLENO_ZANJA	1.067	10.51	37129.8	ARENA_3	0.332	3.18	8011.4
19360.000	TERRAPLEN	0.000	0.00	3.8	D TIERRA	1.779	36.28	54327.5
	ARENA_1	0.157	3.13	3098.4	ARENA_2	0.149	2.99	3313.2
	RELLENO_ZANJA	0.997	20.64	37150.4	ARENA_3	0.332	6.63	8018.0
19380.000	TERRAPLEN	0.000	0.00	3.8	D TIERRA	1.810	35.89	54363.4
	ARENA_1	0.157	3.13	3101.6	ARENA_2	0.149	2.99	3316.2
	RELLENO_ZANJA	1.028	20.25	37170.7	ARENA_3	0.332	6.63	8024.6
19400.000	TERRAPLEN	0.000	0.00	3.8	D TIERRA	1.818	36.28	54399.6
	ARENA_1	0.157	3.13	3104.7	ARENA_2	0.149	2.99	3319.2
	RELLENO_ZANJA	1.036	20.64	37191.3	ARENA_3	0.332	6.63	8031.3



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PROYECTO : CIDACOS COMPLETO
EJE : 6: P240 (Aldeanueva de Ebro) - P280 (Alfaro)

MEDICIONES DE LOS PERFILES TRANSVERSALES
CAPAS DE FIRME

Table with 9 columns: PERFIL, MATERIAL, AREA PERFIL, VOL. PARCIAL, VOL. ACUMUL., MATERIAL, AREA PERFIL, VOL. PARCIAL, VOL. ACUMUL. Rows include TERRAPLEN, ARENA_1, RELLENO_ZANJA, D_TIERRA, ARENA_2, ARENA_3.

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EJE : 6: P240 (Aldeanueva de Ebro) - P280 (Alfaro)

RESUMEN DE VOLUMENES TOTALES

Table with 2 columns: MATERIAL, VOLUMEN. Lists materials like TERRAPLEN, D_TIERRA, ARENA_1, ARENA_2, RELLENO_ZANJA, ARENA_3 and their total volumes.

7. EJE 7: P190 (ARQUETA PRINCIPAL) – P210 (CALAHORRA)

Istram 9.04 14/04/20 13:53:54
PROYECTO : CIDACOS COMPLETO
EJE : 7: EJE 7. ARQUETA PRINCIPAL (P190) - CALAHORRA (P210)

MEDICIONES DE LOS PERFILES TRANSVERSALES
CAPAS DE FIRME

Large table with 9 columns: PERFIL, MATERIAL, AREA PERFIL, VOL. PARCIAL, VOL. ACUMUL., MATERIAL, AREA PERFIL, VOL. PARCIAL, VOL. ACUMUL. Contains detailed data for EJE 7 across various profiles and materials.



Istram 9.04 14/04/20 13:53:54

PROYECTO : CIDACOS COMPLETO
EJE : 7: EJE 7. ARQUETA PRINCIPAL (P190) - CALAHORRA (P210)

Istram 9.04 14/04/20 13:53:54

PROYECTO : CIDACOS COMPLETO
EJE : 7: EJE 7. ARQUETA PRINCIPAL (P190) - CALAHORRA (P210)

*** MEDICIONES DE LOS PERFILES TRANSVERSALES ***
*** CAPAS DE FIRME ***

*** MEDICIONES DE LOS PERFILES TRANSVERSALES ***
*** CAPAS DE FIRME ***

PERFIL	MATERIAL	AREA PERFIL	VOL. PARCIAL	VOL. ACUMUL.	MATERIAL	AREA PERFIL	VOL. PARCIAL	VOL. ACUMUL.
240.000	D TIERRA	4.114	56.75	1173.8	ARENA_1	0.300	4.03	72.1
	ARENA_2	0.436	5.85	104.8	RELLENO_ZANJA	2.303	32.49	739.2
	ARENA_3	0.852	11.42	204.4				
241.193	D TIERRA	4.122	4.91	1178.7	ARENA_1	0.300	0.36	72.5
	ARENA_2	0.437	0.52	105.3	RELLENO_ZANJA	2.311	2.75	741.9
	ARENA_3	0.851	1.02	205.4				
260.000	D TIERRA	4.724	83.19	1261.9	ARENA_1	0.300	5.65	78.1
	ARENA_2	0.437	8.21	113.5	RELLENO_ZANJA	2.913	49.13	791.0
	ARENA_3	0.851	16.00	221.4				
280.000	D TIERRA	4.084	88.09	1350.0	ARENA_1	0.300	6.01	84.1
	ARENA_2	0.437	8.73	122.2	RELLENO_ZANJA	2.273	51.87	842.9
	ARENA_3	0.851	17.02	238.4				
280.978	D TIERRA	4.251	4.08	1354.1	ARENA_1	0.301	0.29	84.4
	ARENA_2	0.436	0.43	122.7	RELLENO_ZANJA	2.440	2.30	845.2
	ARENA_3	0.852	0.83	239.3				
300.000	D TIERRA	4.552	83.72	1437.8	ARENA_1	0.300	5.72	90.1
	ARENA_2	0.436	8.30	131.0	RELLENO_ZANJA	2.740	49.27	894.5
	ARENA_3	0.852	16.21	255.5				
310.379	D TIERRA	4.330	46.09	1483.9	ARENA_1	0.301	3.12	93.3
	ARENA_2	0.436	4.53	135.5	RELLENO_ZANJA	2.519	27.29	921.8
	ARENA_3	0.852	8.84	264.3				
320.000	D TIERRA	4.121	40.65	1524.6	ARENA_1	0.301	2.89	96.1
	ARENA_2	0.436	4.20	139.7	RELLENO_ZANJA	2.310	23.23	945.0
	ARENA_3	0.852	8.20	272.5				
324.007	D TIERRA	4.578	17.43	1542.0	ARENA_1	0.301	1.20	97.4
	ARENA_2	0.436	1.75	141.4	RELLENO_ZANJA	2.767	10.17	955.2
	ARENA_3	0.852	3.41	275.9				
332.615	D TIERRA	5.277	42.42	1584.4	ARENA_1	0.300	2.59	99.9
	ARENA_2	0.436	3.76	145.2	RELLENO_ZANJA	3.466	26.83	982.0
	ARENA_3	0.852	7.33	283.3				
340.000	D TIERRA	5.561	40.02	1624.4	ARENA_1	0.300	2.22	102.2
	ARENA_2	0.436	3.22	148.4	RELLENO_ZANJA	3.750	26.64	1008.6
	ARENA_3	0.852	6.29	289.6				
349.453	D TIERRA	4.604	48.04	1672.5	ARENA_1	0.300	2.84	105.0
	ARENA_2	0.436	4.13	152.5	RELLENO_ZANJA	2.793	30.92	1039.6
	ARENA_3	0.852	8.05	297.6				
360.000	D TIERRA	4.121	46.01	1718.5	ARENA_1	0.300	3.17	108.2
	ARENA_2	0.436	4.60	157.1	RELLENO_ZANJA	2.310	26.91	1066.5
	ARENA_3	0.852	8.98	306.6				
379.191	D TIERRA	4.246	80.28	1798.8	ARENA_1	0.301	5.77	113.9
	ARENA_2	0.436	8.38	165.5	RELLENO_ZANJA	2.434	45.52	1112.0
	ARENA_3	0.852	16.35	322.9				
380.000	D TIERRA	4.221	3.42	1802.2	ARENA_1	0.301	0.24	114.2
	ARENA_2	0.436	0.35	165.9	RELLENO_ZANJA	2.410	1.96	1114.0
	ARENA_3	0.852	0.69	323.6				
390.305	D TIERRA	4.120	42.98	1845.2	ARENA_1	0.301	3.10	117.3
	ARENA_2	0.436	4.50	170.4	RELLENO_ZANJA	2.309	24.31	1138.3
	ARENA_3	0.852	8.78	332.4				
400.000	D TIERRA	5.037	44.39	1889.5	ARENA_1	0.300	2.91	120.2
	ARENA_2	0.436	4.23	174.6	RELLENO_ZANJA	3.226	26.83	1165.1
	ARENA_3	0.852	8.26	340.7				
403.035	D TIERRA	5.514	16.01	1905.5	ARENA_1	0.300	0.91	121.1
	ARENA_2	0.436	1.32	175.9	RELLENO_ZANJA	3.703	10.51	1175.6
	ARENA_3	0.852	2.59	343.3				
420.000	D TIERRA	9.110	124.05	2029.6	ARENA_1	0.300	5.10	126.2
	ARENA_2	0.436	7.40	183.3	RELLENO_ZANJA	7.299	93.32	1268.9
	ARENA_3	0.852	14.46	357.7				
428.887	D TIERRA	9.638	83.31	2112.9	ARENA_1	0.300	2.67	128.9
	ARENA_2	0.436	3.88	187.2	RELLENO_ZANJA	7.826	67.21	1336.1
	ARENA_3	0.852	7.57	365.3				

PERFIL	MATERIAL	AREA PERFIL	VOL. PARCIAL	VOL. ACUMUL.	MATERIAL	AREA PERFIL	VOL. PARCIAL	VOL. ACUMUL.
440.000	D TIERRA	4.260	77.22	2190.1	ARENA_1	0.300	3.34	132.2
	ARENA_2	0.436	4.85	192.1	RELLENO_ZANJA	2.449	57.09	1393.2
	ARENA_3	0.852	9.47	374.8				
442.827	D TIERRA	7.400	16.48	2206.6	ARENA_1	0.300	0.85	133.1
	ARENA_2	0.436	1.23	193.3	RELLENO_ZANJA	5.589	11.36	1404.6
	ARENA_3	0.852	2.41	377.2				
449.961	D TIERRA	3.255	0.00	2206.6	ARENA_1	0.178	0.00	133.1
	ARENA_2	0.226	0.00	193.3	RELLENO_ZANJA	2.110	0.00	1404.6
	ARENA_3	0.519	0.00	377.2				
460.000	D TIERRA	4.223	37.54	2244.1	ARENA_1	0.178	1.79	134.8
	ARENA_2	0.226	2.27	195.6	RELLENO_ZANJA	3.077	26.04	1430.6
	ARENA_3	0.519	5.21	382.4				
467.313	D TIERRA	2.797	25.67	2269.8	ARENA_1	0.178	1.30	136.1
	ARENA_2	0.226	1.65	197.2	RELLENO_ZANJA	1.652	17.29	1447.9
	ARENA_3	0.519	3.80	386.2				
480.000	D TIERRA	2.878	36.00	2305.8	ARENA_1	0.178	2.26	138.4
	ARENA_2	0.226	2.87	200.1	RELLENO_ZANJA	1.732	21.46	1469.4
	ARENA_3	0.519	6.59	392.8				
500.000	D TIERRA	2.800	56.78	2362.6	ARENA_1	0.178	3.56	142.0
	ARENA_2	0.226	4.52	204.6	RELLENO_ZANJA	1.655	33.87	1503.3
	ARENA_3	0.519	10.39	403.2				
520.000	D TIERRA	2.929	57.29	2419.9	ARENA_1	0.178	3.57	145.5
	ARENA_2	0.226	4.52	209.1	RELLENO_ZANJA	1.783	34.38	1537.6
	ARENA_3	0.519	10.39	413.5				
530.885	D TIERRA	3.005	32.30	2452.2	ARENA_1	0.178	1.94	147.5
	ARENA_2	0.226	2.46	211.6	RELLENO_ZANJA	1.860	19.83	1557.5
	ARENA_3	0.519	5.65	419.2				
540.000	D TIERRA	3.037	27.54	2479.7	ARENA_1	0.178	1.62	149.1
	ARENA_2	0.226	2.06	213.6	RELLENO_ZANJA	1.891	17.09	1574.6
	ARENA_3	0.519	4.73	423.9				
560.000	D TIERRA	2.935	59.72	2539.4	ARENA_1	0.178	3.57	152.7
	ARENA_2	0.226	4.52	218.2	RELLENO_ZANJA	1.790	36.81	1611.4
	ARENA_3	0.519	10.39	434.3				
575.322	D TIERRA	2.782	43.80	2583.2	ARENA_1	0.178	2.73	155.4
	ARENA_2	0.226	3.46	221.6	RELLENO_ZANJA	1.636	26.24	1637.6
	ARENA_3	0.519	7.96	442.3				
600.000	D TIERRA	2.964	70.90	2654.1	ARENA_1	0.178	4.40	159.8
	ARENA_2	0.226	5.57	227.2	RELLENO_ZANJA	1.819	42.63	1680.2
	ARENA_3	0.519	12.81	455.1				
602.770	D TIERRA	2.948	8.19	2662.3	ARENA_1	0.178	0.49	160.3
	ARENA_2	0.226	0.63	227.8	RELLENO_ZANJA	1.802	5.01	1685.2
	ARENA_3	0.519	1.44	456.5				
640.000	D TIERRA	2.852	107.97	2770.3	ARENA_1	0.178	6.64	166.9
	ARENA_2	0.226	8.41	236.2	RELLENO_ZANJA	1.707	65.32	1750.6
	ARENA_3	0.519	19.32	475.9				
644.245	D TIERRA	2.811	12.02	2782.3	ARENA_1	0.178	0.76	167.7
	ARENA_2	0.226	0.96	237.2	RELLENO_ZANJA	1.665	7.16	1757.7
	ARENA_3	0.519	2.20	478.1				
651.345	D TIERRA	2.864	20.15	2802.5	ARENA_1	0.178	1.27	169.0
	ARENA_2	0.226	1.60	238.8	RELLENO_ZANJA	1.719	12.01	1769.7
	ARENA_3	0.519	3.69	481.7				
660.000	D TIERRA	2.813	24.57	2827.0	ARENA_1	0.178	1.54	170.5
	ARENA_2	0.226	1.96	240.7	RELLENO_ZANJA	1.668	14.65	1784.4
	ARENA_3	0.519	4.49	486.2				
662.458	D TIERRA	2.867	6.98	2834.0	ARENA_1	0.178	0.44	170.9
	ARENA_2	0.226	0.56	241.3	RELLENO_ZANJA	1.721	4.17	1788.6
	ARENA_3	0.519	1.28	487.5				
670.362	D TIERRA	2.781	22.32	2856.3	ARENA_1	0.178	1.41	172.3
	ARENA_2	0.226	1.79	243.1	RELLENO_ZANJA	1.635	13.27	1801.8
	ARENA_3	0.519	4.10	491.6				



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PROYECTO : CIDACOS COMPLETO
EJE : 7: EJE 7. ARQUETA PRINCIPAL (P190) - CALAHORRA (P210)

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PROYECTO : CIDACOS COMPLETO
EJE : 7: EJE 7. ARQUETA PRINCIPAL (P190) - CALAHORRA (P210)

*** MEDICIONES DE LOS PERFILES TRANSVERSALES ***
*** CAPAS DE FIRME ***

*** MEDICIONES DE LOS PERFILES TRANSVERSALES ***
*** CAPAS DE FIRME ***

PERFIL	MATERIAL	AREA PERFIL	VOL. PARCIAL	VOL. ACUMUL.	MATERIAL	AREA PERFIL	VOL. PARCIAL	VOL. ACUMUL.
680.000	D TIERRA	2.858	27.17	2883.5	ARENA_1	0.178	1.72	174.1
	ARENA_2	0.226	2.18	245.3	RELLENO_ZANJA	1.713	16.13	1818.0
	ARENA_3	0.519	5.00	496.6				
692.387	D TIERRA	4.143	43.36	2926.9	ARENA_1	0.178	2.21	176.3
	ARENA_2	0.226	2.80	248.1	RELLENO_ZANJA	2.997	29.17	1847.1
	ARENA_3	0.519	6.43	503.1				
700.000	D TIERRA	2.785	26.37	2953.2	ARENA_1	0.178	1.36	177.6
	ARENA_2	0.226	1.72	249.8	RELLENO_ZANJA	1.639	17.65	1864.8
	ARENA_3	0.519	3.95	507.0				
720.000	D TIERRA	2.781	55.66	3008.9	ARENA_1	0.178	3.57	181.2
	ARENA_2	0.226	4.52	254.3	RELLENO_ZANJA	1.635	32.74	1897.5
	ARENA_3	0.519	10.38	517.4				
740.000	D TIERRA	2.775	55.56	3064.4	ARENA_1	0.178	3.56	184.8
	ARENA_2	0.226	4.52	258.8	RELLENO_ZANJA	1.629	32.65	1930.2
	ARENA_3	0.518	10.38	527.8				
750.623	D TIERRA	3.898	35.45	3099.9	ARENA_1	0.178	1.89	186.7
	ARENA_2	0.226	2.40	261.2	RELLENO_ZANJA	2.753	23.28	1953.4
	ARENA_3	0.519	5.51	533.3				
760.000	D TIERRA	3.151	33.05	3132.9	ARENA_1	0.178	1.67	188.3
	ARENA_2	0.226	2.12	263.3	RELLENO_ZANJA	2.005	22.31	1975.7
	ARENA_3	0.519	4.87	538.1				
774.081	D TIERRA	2.881	42.47	3175.4	ARENA_1	0.178	2.51	190.8
	ARENA_2	0.226	3.18	266.5	RELLENO_ZANJA	1.735	26.33	2002.1
	ARENA_3	0.519	7.31	545.5				
780.000	D TIERRA	2.824	16.88	3192.3	ARENA_1	0.178	1.06	191.9
	ARENA_2	0.226	1.34	267.8	RELLENO_ZANJA	1.678	10.10	2012.2
	ARENA_3	0.519	3.07	548.5				
786.961	D TIERRA	2.813	19.62	3211.9	ARENA_1	0.178	1.24	193.1
	ARENA_2	0.226	1.57	269.4	RELLENO_ZANJA	1.667	11.64	2023.8
	ARENA_3	0.519	3.61	552.1				
800.000	D TIERRA	2.803	36.61	3248.5	ARENA_1	0.178	2.32	195.5
	ARENA_2	0.226	2.95	272.4	RELLENO_ZANJA	1.657	21.67	2045.5
	ARENA_3	0.519	6.77	558.9				
808.759	D TIERRA	2.864	24.82	3273.3	ARENA_1	0.178	1.56	197.0
	ARENA_2	0.226	1.98	274.3	RELLENO_ZANJA	1.718	14.78	2060.3
	ARENA_3	0.519	4.55	563.5				
820.000	D TIERRA	2.914	32.47	3305.8	ARENA_1	0.178	2.00	199.0
	ARENA_2	0.226	2.54	276.9	RELLENO_ZANJA	1.768	19.60	2079.9
	ARENA_3	0.519	5.84	569.3				
840.000	D TIERRA	2.828	57.42	3363.2	ARENA_1	0.178	3.57	202.6
	ARENA_2	0.226	4.52	281.4	RELLENO_ZANJA	1.682	34.50	2114.4
	ARENA_3	0.519	10.39	579.7				
840.817	D TIERRA	2.834	2.31	3365.5	ARENA_1	0.178	0.15	202.7
	ARENA_2	0.226	0.18	281.6	RELLENO_ZANJA	1.688	1.38	2115.8
	ARENA_3	0.519	0.42	580.1				
850.727	D TIERRA	2.886	28.34	3393.9	ARENA_1	0.178	1.77	204.5
	ARENA_2	0.226	2.24	283.8	RELLENO_ZANJA	1.740	16.99	2132.7
	ARENA_3	0.519	5.15	585.3				
859.695	D TIERRA	2.906	25.97	3419.8	ARENA_1	0.178	1.60	206.1
	ARENA_2	0.226	2.03	285.8	RELLENO_ZANJA	1.760	15.69	2148.4
	ARENA_3	0.519	4.66	589.9				
860.000	D TIERRA	2.905	0.89	3420.7	ARENA_1	0.178	0.05	206.1
	ARENA_2	0.226	0.07	285.9	RELLENO_ZANJA	1.760	0.54	2149.0
	ARENA_3	0.519	0.16	590.1				
880.000	D TIERRA	2.926	58.31	3479.0	ARENA_1	0.178	3.57	209.7
	ARENA_2	0.226	4.52	290.4	RELLENO_ZANJA	1.780	35.40	2184.4
	ARENA_3	0.519	10.39	600.5				
900.000	D TIERRA	2.903	58.29	3537.3	ARENA_1	0.178	3.56	213.3
	ARENA_2	0.226	4.52	295.0	RELLENO_ZANJA	1.758	35.38	2219.8
	ARENA_3	0.519	10.39	610.8				

PERFIL	MATERIAL	AREA PERFIL	VOL. PARCIAL	VOL. ACUMUL.	MATERIAL	AREA PERFIL	VOL. PARCIAL	VOL. ACUMUL.
920.000	D TIERRA	2.900	58.03	3595.4	ARENA_1	0.178	3.57	216.8
	ARENA_2	0.226	4.52	299.5	RELLENO_ZANJA	1.754	35.12	2254.9
	ARENA_3	0.519	10.39	621.2				
940.000	D TIERRA	2.815	57.15	3652.5	ARENA_1	0.178	3.57	220.4
	ARENA_2	0.226	4.52	304.0	RELLENO_ZANJA	1.669	34.24	2289.1
	ARENA_3	0.519	10.39	631.6				
960.000	D TIERRA	2.849	56.64	3709.2	ARENA_1	0.178	3.57	224.0
	ARENA_2	0.226	4.52	308.5	RELLENO_ZANJA	1.704	33.73	2322.8
	ARENA_3	0.519	10.39	642.0				
980.000	D TIERRA	2.855	57.05	3766.2	ARENA_1	0.178	3.57	227.5
	ARENA_2	0.226	4.52	313.0	RELLENO_ZANJA	1.710	34.13	2357.0
	ARENA_3	0.519	10.39	652.4				
982.984	D TIERRA	2.849	8.51	3774.7	ARENA_1	0.178	0.53	228.1
	ARENA_2	0.226	0.67	313.7	RELLENO_ZANJA	1.703	5.09	2362.1
	ARENA_3	0.519	1.55	653.9				
1000.000	D TIERRA	2.839	48.39	3823.1	ARENA_1	0.178	3.03	231.1
	ARENA_2	0.226	3.84	317.5	RELLENO_ZANJA	1.694	28.90	2391.0
	ARENA_3	0.519	8.84	662.8				
1018.883	D TIERRA	2.832	53.55	3876.7	ARENA_1	0.178	3.37	234.5
	ARENA_2	0.226	4.26	321.8	RELLENO_ZANJA	1.687	31.92	2422.9
	ARENA_3	0.519	9.81	672.6				
1020.000	D TIERRA	2.832	3.16	3879.8	ARENA_1	0.178	0.20	234.7
	ARENA_2	0.226	0.25	322.1	RELLENO_ZANJA	1.686	1.88	2424.8
	ARENA_3	0.519	0.58	673.2				
1040.000	D TIERRA	2.809	56.41	3936.2	ARENA_1	0.178	3.57	238.2
	ARENA_2	0.226	4.52	326.6	RELLENO_ZANJA	1.664	33.50	2458.3
	ARENA_3	0.519	10.39	683.6				
1060.000	D TIERRA	2.786	55.96	3992.2	ARENA_1	0.178	3.57	241.8
	ARENA_2	0.226	4.52	331.1	RELLENO_ZANJA	1.641	33.04	2491.3
	ARENA_3	0.519	10.39	693.9				
1080.000	D TIERRA	2.882	56.68	4048.9	ARENA_1	0.178	3.57	245.4
	ARENA_2	0.226	4.52	335.6	RELLENO_ZANJA	1.736	33.77	2525.1
	ARENA_3	0.519	10.39	704.3				
1100.000	D TIERRA	3.008	58.90	4107.8	ARENA_1	0.178	3.57	248.9
	ARENA_2	0.226	4.52	340.1	RELLENO_ZANJA	1.862	35.98	2561.1
	ARENA_3	0.519	10.39	714.7				
1101.574	D TIERRA	3.019	4.74	4112.5	ARENA_1	0.178	0.28	249.2
	ARENA_2	0.226	0.36	340.5	RELLENO_ZANJA	1.874	2.94	2564.0
	ARENA_3	0.519	0.82	715.5				
1108.307	D TIERRA	2.885	19.88	4132.4	ARENA_1	0.178	1.20	250.4
	ARENA_2	0.226	1.52	342.0	RELLENO_ZANJA	1.739	12.16	2576.2
	ARENA_3	0.519	3.50	719.0				
1120.000	D TIERRA	2.787	33.16	4165.5	ARENA_1	0.178	2.08	252.5
	ARENA_2	0.226	2.64	344.6	RELLENO_ZANJA	1.641	19.76	2595.9
	ARENA_3	0.519	6.07	725.1				
1140.000	D TIERRA	2.794	55.81	4221.3	ARENA_1	0.178	3.57	256.1
	ARENA_2	0.226	4.52	349.2	RELLENO_ZANJA	1.649	32.90	2628.8
	ARENA_3	0.519	10.39	735.5				
1160.000	D TIERRA	2.853	56.47	4277.8	ARENA_1	0.178	3.57	259.6
	ARENA_2	0.226	4.52	353.7	RELLENO_ZANJA	1.708	33.56	2662.4
	ARENA_3	0.519	10.39	745.9				
1180.000	D TIERRA	2.919	57.72	4335.5	ARENA_1	0.178	3.57	263.2
	ARENA_2	0.226	4.52	358.2	RELLENO_ZANJA	1.773	34.81	2697.2
	ARENA_3	0.519	10.39	756.3				
1200.000	D TIERRA	3.072	59.90	4395.4	ARENA_1	0.178	3.57	266.8
	ARENA_2	0.226	4.52	362.7	RELLENO_ZANJA	1.926	36.99	2734.2
	ARENA_3	0.519	10.39	766.7				
1212.271	D TIERRA	3.278	38.96	4434.4	ARENA_1	0.178	2.19	268.9
	ARENA_2	0.226	2.77	365.5	RELLENO_ZANJA	2.132	24.90	2759.1
	ARENA_3	0.519	6.37	773.0				



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PROYECTO : CIDACOS COMPLETO
EJE : 7: EJE 7. ARQUETA PRINCIPAL (P190) - CALAHORRA (P210)

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PROYECTO : CIDACOS COMPLETO
EJE : 7: EJE 7. ARQUETA PRINCIPAL (P190) - CALAHORRA (P210)

*** MEDICIONES DE LOS PERFILES TRANSVERSALES ***
*** CAPAS DE FIRME ***

*** MEDICIONES DE LOS PERFILES TRANSVERSALES ***
*** CAPAS DE FIRME ***

PERFIL	MATERIAL	AREA PERFIL	VOL. PARCIAL	VOL. ACUMUL.	MATERIAL	AREA PERFIL	VOL. PARCIAL	VOL. ACUMUL.
1220.000	D TIERRA	3.181	24.96	4459.4	ARENA_1	0.178	1.38	270.3
	ARENA_2	0.226	1.75	367.2	RELLENO_ZANJA	2.035	16.10	2775.2
	ARENA_3	0.519	4.01	777.1				
1220.000	D TIERRA	3.753	0.00	4459.4	ARENA_1	0.183	0.00	270.3
	ARENA_2	0.250	0.00	367.2	RELLENO_ZANJA	2.491	0.00	2775.2
	ARENA_3	0.606	0.00	777.1				
1225.845	D TIERRA	3.611	21.52	4480.9	ARENA_1	0.183	1.07	271.4
	ARENA_2	0.250	1.46	368.7	RELLENO_ZANJA	2.350	14.15	2789.3
	ARENA_3	0.606	3.54	780.6				
1240.000	D TIERRA	3.249	48.55	4529.4	ARENA_1	0.183	2.58	274.0
	ARENA_2	0.250	3.55	372.2	RELLENO_ZANJA	1.987	30.70	2820.0
	ARENA_3	0.606	8.58	789.2				
1251.686	D TIERRA	3.274	38.11	4567.5	ARENA_1	0.183	2.13	276.1
	ARENA_2	0.250	2.93	375.2	RELLENO_ZANJA	2.013	23.37	2843.4
	ARENA_3	0.606	7.08	796.3				
1260.000	D TIERRA	3.260	27.16	4594.7	ARENA_1	0.183	1.52	277.6
	ARENA_2	0.250	2.08	377.2	RELLENO_ZANJA	1.998	16.67	2860.1
	ARENA_3	0.606	5.04	801.3				
1262.442	D TIERRA	3.293	8.00	4602.7	ARENA_1	0.183	0.45	278.1
	ARENA_2	0.250	0.61	377.9	RELLENO_ZANJA	2.032	4.92	2865.0
	ARENA_3	0.606	1.48	802.8				
1280.000	D TIERRA	3.295	57.83	4660.5	ARENA_1	0.183	3.20	281.3
	ARENA_2	0.250	4.40	382.3	RELLENO_ZANJA	2.034	35.69	2900.7
	ARENA_3	0.606	10.64	813.4				
1290.315	D TIERRA	3.302	34.02	4694.6	ARENA_1	0.183	1.88	283.2
	ARENA_2	0.250	2.58	384.8	RELLENO_ZANJA	2.041	21.01	2921.7
	ARENA_3	0.606	6.25	819.7				
1300.000	D TIERRA	3.366	32.29	4726.8	ARENA_1	0.183	1.77	284.9
	ARENA_2	0.250	2.43	387.3	RELLENO_ZANJA	2.104	20.07	2941.8
	ARENA_3	0.606	5.87	825.5				
1315.697	D TIERRA	3.271	52.09	4778.9	ARENA_1	0.183	2.87	287.8
	ARENA_2	0.250	3.93	391.2	RELLENO_ZANJA	2.009	32.29	2974.1
	ARENA_3	0.606	9.51	835.1				
1320.000	D TIERRA	3.262	14.06	4793.0	ARENA_1	0.183	0.79	288.6
	ARENA_2	0.250	1.08	392.3	RELLENO_ZANJA	2.001	8.63	2982.7
	ARENA_3	0.606	2.61	837.7				
1340.000	D TIERRA	3.232	64.95	4857.9	ARENA_1	0.183	3.65	292.2
	ARENA_2	0.250	5.01	397.3	RELLENO_ZANJA	1.971	39.72	3022.4
	ARENA_3	0.606	12.12	849.8				
1360.000	D TIERRA	3.200	64.33	4922.3	ARENA_1	0.183	3.65	295.9
	ARENA_2	0.250	5.01	402.3	RELLENO_ZANJA	1.939	39.10	3061.5
	ARENA_3	0.606	12.12	861.9				
1373.112	D TIERRA	3.282	42.50	4964.8	ARENA_1	0.183	2.39	298.3
	ARENA_2	0.250	3.28	405.6	RELLENO_ZANJA	2.021	25.96	3087.5
	ARENA_3	0.606	7.95	869.9				
1380.000	D TIERRA	3.897	24.72	4989.5	ARENA_1	0.183	1.26	299.5
	ARENA_2	0.250	1.73	407.3	RELLENO_ZANJA	2.635	16.04	3103.5
	ARENA_3	0.606	4.17	874.0				
1400.000	D TIERRA	3.248	71.45	5060.9	ARENA_1	0.183	3.65	303.2
	ARENA_2	0.250	5.01	412.3	RELLENO_ZANJA	1.987	46.22	3149.7
	ARENA_3	0.606	12.12	886.2				
1410.105	D TIERRA	10.405	68.98	5129.9	ARENA_1	0.183	1.84	305.0
	ARENA_2	0.251	2.53	414.8	RELLENO_ZANJA	9.143	56.24	3206.0
	ARENA_3	0.606	6.12	892.3				
1420.000	D TIERRA	3.248	67.55	5197.5	ARENA_1	0.183	1.81	306.8
	ARENA_2	0.251	2.48	417.3	RELLENO_ZANJA	1.987	55.07	3261.0
	ARENA_3	0.606	6.00	898.3				
1424.867	D TIERRA	3.309	15.96	5213.4	ARENA_1	0.183	0.89	307.7
	ARENA_2	0.251	1.22	418.5	RELLENO_ZANJA	2.047	9.82	3270.9
	ARENA_3	0.606	2.95	901.2				

PERFIL	MATERIAL	AREA PERFIL	VOL. PARCIAL	VOL. ACUMUL.	MATERIAL	AREA PERFIL	VOL. PARCIAL	VOL. ACUMUL.
1431.754	D TIERRA	3.372	23.01	5236.4	ARENA_1	0.183	1.26	309.0
	ARENA_2	0.251	1.73	420.3	RELLENO_ZANJA	2.111	14.32	3285.2
	ARENA_3	0.606	4.17	905.4				
1440.000	D TIERRA	3.433	28.06	5264.5	ARENA_1	0.183	1.51	310.5
	ARENA_2	0.251	2.07	422.3	RELLENO_ZANJA	2.172	17.66	3302.8
	ARENA_3	0.606	5.00	910.4				
1460.000	D TIERRA	3.251	66.84	5331.3	ARENA_1	0.183	3.65	314.1
	ARENA_2	0.251	5.01	427.3	RELLENO_ZANJA	1.989	41.61	3344.5
	ARENA_3	0.606	12.12	922.5				
1471.861	D TIERRA	3.429	39.61	5370.9	ARENA_1	0.182	2.16	316.3
	ARENA_2	0.251	2.97	430.3	RELLENO_ZANJA	2.167	24.65	3369.1
	ARENA_3	0.605	7.18	929.7				
1480.000	D TIERRA	3.370	27.66	5398.6	ARENA_1	0.182	1.49	317.8
	ARENA_2	0.251	2.04	432.4	RELLENO_ZANJA	2.108	17.40	3386.5
	ARENA_3	0.605	4.92	934.6				
1488.116	D TIERRA	3.248	26.85	5425.5	ARENA_1	0.182	1.48	319.3
	ARENA_2	0.251	2.03	434.4	RELLENO_ZANJA	1.987	16.62	3403.1
	ARENA_3	0.604	4.91	939.5				
1498.951	D TIERRA	3.749	37.91	5463.4	ARENA_1	0.182	1.98	321.2
	ARENA_2	0.251	2.72	437.1	RELLENO_ZANJA	2.488	24.24	3427.4
	ARENA_3	0.604	6.54	946.1				
1500.000	D TIERRA	3.752	3.93	5467.3	ARENA_1	0.182	0.19	321.4
	ARENA_2	0.251	0.26	437.4	RELLENO_ZANJA	2.491	2.61	3430.0
	ARENA_3	0.604	0.63	946.7				
1507.809	D TIERRA	3.402	27.94	5495.2	ARENA_1	0.182	1.42	322.9
	ARENA_2	0.251	1.96	439.3	RELLENO_ZANJA	2.141	18.09	3448.1
	ARENA_3	0.603	4.71	951.4				
1520.000	D TIERRA	3.360	41.22	5536.5	ARENA_1	0.182	2.22	325.1
	ARENA_2	0.251	3.06	442.4	RELLENO_ZANJA	2.099	25.85	3473.9
	ARENA_3	0.603	7.35	958.8				
1526.448	D TIERRA	3.251	21.32	5557.8	ARENA_1	0.182	1.18	326.3
	ARENA_2	0.251	1.62	444.0	RELLENO_ZANJA	1.990	13.18	3487.1
	ARENA_3	0.603	3.89	962.7				
1540.000	D TIERRA	3.513	45.83	5603.6	ARENA_1	0.182	2.47	328.7
	ARENA_2	0.251	3.40	447.4	RELLENO_ZANJA	2.252	28.74	3515.8
	ARENA_3	0.603	8.17	970.8				
1560.000	D TIERRA	3.248	67.61	5671.2	ARENA_1	0.182	3.65	332.4
	ARENA_2	0.251	5.02	452.4	RELLENO_ZANJA	1.987	42.39	3558.2
	ARENA_3	0.604	12.07	982.9				
1580.000	D TIERRA	3.287	65.35	5736.6	ARENA_1	0.182	3.65	336.0
	ARENA_2	0.251	5.02	457.4	RELLENO_ZANJA	2.026	40.12	3598.3
	ARENA_3	0.604	12.08	995.0				
1582.008	D TIERRA	3.324	6.64	5743.2	ARENA_1	0.182	0.37	336.4
	ARENA_2	0.251	0.50	457.9	RELLENO_ZANJA	2.063	4.10	3602.4
	ARENA_3	0.605	1.21	996.2				
1600.000	D TIERRA	3.269	59.31	5802.5	ARENA_1	0.182	3.28	339.7
	ARENA_2	0.251	4.51	462.5	RELLENO_ZANJA	2.007	36.62	3639.1
	ARENA_3	0.605	10.88	1007.1				
1620.000	D TIERRA	3.305	65.74	5868.3	ARENA_1	0.182	3.65	343.3
	ARENA_2	0.251	5.01	467.5	RELLENO_ZANJA	2.044	40.51	3679.6
	ARENA_3	0.605	12.10	1019.2				
1640.000	D TIERRA	3.288	65.93	5934.2	ARENA_1	0.182	3.65	347.0
	ARENA_2	0.251	5.01	472.5	RELLENO_ZANJA	2.026	40.70	3720.3
	ARENA_3	0.605	12.10	1031.3				
1648.692	D TIERRA	3.341	28.81	5963.0	ARENA_1	0.182	1.59	348.6
	ARENA_2	0.251	2.18	474.7	RELLENO_ZANJA	2.079	17.84	3738.1
	ARENA_3	0.605	5.26	1036.5				
1660.000	D TIERRA	3.250	37.26	6000.3	ARENA_1	0.182	2.06	350.6
	ARENA_2	0.251	2.83	477.5	RELLENO_ZANJA	1.989	23.00	3761.1
	ARENA_3	0.605	6.84	1043.4				



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PROYECTO : CIDACOS COMPLETO
EJE : 7: EJE 7. ARQUETA PRINCIPAL (P190) - CALAHORRA (P210)

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PROYECTO : CIDACOS COMPLETO
EJE : 7: EJE 7. ARQUETA PRINCIPAL (P190) - CALAHORRA (P210)

*** MEDICIONES DE LOS PERFILES TRANSVERSALES ***
*** CAPAS DE FIRME ***

*** MEDICIONES DE LOS PERFILES TRANSVERSALES ***
*** CAPAS DE FIRME ***

PERFIL	MATERIAL	AREA PERFIL	VOL. PARCIAL	VOL. ACUMUL.	MATERIAL	AREA PERFIL	VOL. PARCIAL	VOL. ACUMUL.
1664.616	D TIERRA	3.420	15.39	6015.6	ARENA_1	0.182	0.84	351.5
	ARENA_2	0.251	1.16	478.6	RELLENO_ZANJA	2.159	9.57	3770.7
	ARENA_3	0.605	2.79	1046.2				
1680.000	D TIERRA	4.026	57.27	6072.9	ARENA_1	0.183	2.81	354.3
	ARENA_2	0.251	3.85	482.5	RELLENO_ZANJA	2.764	37.87	3808.6
	ARENA_3	0.605	9.31	1055.5				
1700.000	D TIERRA	3.248	72.74	6145.7	ARENA_1	0.183	3.65	357.9
	ARENA_2	0.251	5.01	487.5	RELLENO_ZANJA	1.987	47.51	3856.1
	ARENA_3	0.605	12.11	1067.6				
1720.000	D TIERRA	3.587	68.35	6214.0	ARENA_1	0.182	3.65	361.6
	ARENA_2	0.251	5.01	492.5	RELLENO_ZANJA	2.326	43.13	3899.2
	ARENA_3	0.605	12.10	1079.7				
1723.892	D TIERRA	3.707	14.20	6228.2	ARENA_1	0.182	0.71	362.3
	ARENA_2	0.251	0.98	493.5	RELLENO_ZANJA	2.446	9.29	3908.5
	ARENA_3	0.605	2.35	1082.0				
1740.000	D TIERRA	4.081	62.73	6290.9	ARENA_1	0.182	2.94	365.2
	ARENA_2	0.251	4.04	497.5	RELLENO_ZANJA	2.819	42.41	3950.9
	ARENA_3	0.605	9.74	1091.8				
1756.124	D TIERRA	3.265	59.22	6350.2	ARENA_1	0.182	2.94	368.2
	ARENA_2	0.251	4.04	501.6	RELLENO_ZANJA	2.004	38.88	3989.8
	ARENA_3	0.605	9.75	1101.5				
1760.000	D TIERRA	3.246	12.62	6362.8	ARENA_1	0.182	0.71	368.9
	ARENA_2	0.251	0.97	502.6	RELLENO_ZANJA	1.985	7.73	3997.5
	ARENA_3	0.605	2.34	1103.9				
1780.000	D TIERRA	3.295	65.41	6428.2	ARENA_1	0.182	3.65	372.5
	ARENA_2	0.251	5.01	507.6	RELLENO_ZANJA	2.034	40.19	4037.7
	ARENA_3	0.605	12.09	1116.0				
1800.000	D TIERRA	3.334	66.29	6494.5	ARENA_1	0.182	3.65	376.2
	ARENA_2	0.251	5.01	512.6	RELLENO_ZANJA	2.073	41.06	4078.8
	ARENA_3	0.605	12.10	1128.1				
1820.000	D TIERRA	3.384	67.18	6561.7	ARENA_1	0.182	3.65	379.8
	ARENA_2	0.251	5.01	517.6	RELLENO_ZANJA	2.123	41.96	4120.7
	ARENA_3	0.605	12.10	1140.2				
1824.841	D TIERRA	3.396	16.41	6578.1	ARENA_1	0.182	0.88	380.7
	ARENA_2	0.251	1.21	518.8	RELLENO_ZANJA	2.135	10.31	4131.0
	ARENA_3	0.605	2.93	1143.1				
1840.000	D TIERRA	3.344	51.09	6629.2	ARENA_1	0.182	2.77	383.5
	ARENA_2	0.251	3.80	522.6	RELLENO_ZANJA	2.083	31.97	4163.0
	ARENA_3	0.605	9.17	1152.3				
1860.000	D TIERRA	3.275	66.19	6695.4	ARENA_1	0.182	3.65	387.1
	ARENA_2	0.251	5.01	527.6	RELLENO_ZANJA	2.014	40.97	4204.0
	ARENA_3	0.605	12.10	1164.4				
1880.000	D TIERRA	3.291	65.66	6761.0	ARENA_1	0.183	3.65	390.8
	ARENA_2	0.250	5.01	532.6	RELLENO_ZANJA	2.029	40.43	4244.4
	ARENA_3	0.606	12.11	1176.5				
1900.000	D TIERRA	4.207	74.98	6836.0	ARENA_1	0.183	3.65	394.4
	ARENA_2	0.250	5.01	537.6	RELLENO_ZANJA	2.946	49.75	4294.1
	ARENA_3	0.606	12.12	1188.6				
1915.102	D TIERRA	4.050	62.35	6898.3	ARENA_1	0.182	2.76	397.2
	ARENA_2	0.251	3.78	541.4	RELLENO_ZANJA	2.788	43.30	4337.4
	ARENA_3	0.605	9.15	1197.8				
1920.000	D TIERRA	3.972	19.65	6918.0	ARENA_1	0.182	0.89	398.1
	ARENA_2	0.251	1.23	542.7	RELLENO_ZANJA	2.711	13.47	4350.9
	ARENA_3	0.605	2.97	1200.7				
1940.000	D TIERRA	3.923	78.95	6996.9	ARENA_1	0.183	3.65	401.7
	ARENA_2	0.251	5.01	547.7	RELLENO_ZANJA	2.662	53.73	4404.6
	ARENA_3	0.605	12.11	1212.8				
1942.054	D TIERRA	3.745	7.88	7004.8	ARENA_1	0.182	0.37	402.1
	ARENA_2	0.251	0.51	548.2	RELLENO_ZANJA	2.484	5.28	4409.9
	ARENA_3	0.606	1.24	1214.1				

PERFIL	MATERIAL	AREA PERFIL	VOL. PARCIAL	VOL. ACUMUL.	MATERIAL	AREA PERFIL	VOL. PARCIAL	VOL. ACUMUL.
1960.000	D TIERRA	3.286	63.09	7067.9	ARENA_1	0.183	3.28	405.4
	ARENA_2	0.251	4.50	552.7	RELLENO_ZANJA	2.025	40.46	4450.4
	ARENA_3	0.605	10.87	1224.9				
1962.933	D TIERRA	3.368	9.76	7077.7	ARENA_1	0.183	0.54	405.9
	ARENA_2	0.251	0.73	553.4	RELLENO_ZANJA	2.107	6.06	4456.4
	ARENA_3	0.606	1.78	1226.7				
1980.000	D TIERRA	3.828	61.41	7139.1	ARENA_1	0.183	3.12	409.0
	ARENA_2	0.251	4.28	557.7	RELLENO_ZANJA	2.567	39.88	4496.3
	ARENA_3	0.606	10.34	1237.1				
2000.000	D TIERRA	4.465	82.93	7222.0	ARENA_1	0.183	3.65	412.7
	ARENA_2	0.251	5.01	562.7	RELLENO_ZANJA	3.204	57.70	4554.0
	ARENA_3	0.606	12.11	1249.2				
2001.697	D TIERRA	4.521	7.62	7229.6	ARENA_1	0.183	0.31	413.0
	ARENA_2	0.251	0.43	563.1	RELLENO_ZANJA	3.260	5.48	4559.5
	ARENA_3	0.606	1.03	1250.2				
2013.395	D TIERRA	4.549	53.05	7282.7	ARENA_1	0.183	2.14	415.1
	ARENA_2	0.251	2.93	566.1	RELLENO_ZANJA	3.287	38.30	4597.8
	ARENA_3	0.606	7.09	1257.3				
2020.000	D TIERRA	4.277	29.15	7311.8	ARENA_1	0.183	1.21	416.3
	ARENA_2	0.251	1.65	567.7	RELLENO_ZANJA	3.016	20.82	4618.6
	ARENA_3	0.606	4.00	1261.3				
2040.000	D TIERRA	3.458	77.35	7389.2	ARENA_1	0.183	3.65	420.0
	ARENA_2	0.251	5.01	572.7	RELLENO_ZANJA	2.197	52.13	4670.7
	ARENA_3	0.606	12.11	1273.4				
2045.124	D TIERRA	3.263	17.22	7406.4	ARENA_1	0.183	0.94	420.9
	ARENA_2	0.251	1.28	574.0	RELLENO_ZANJA	2.002	10.76	4681.5
	ARENA_3	0.606	3.10	1276.5				
2060.000	D TIERRA	3.257	48.49	7454.9	ARENA_1	0.183	2.72	423.6
	ARENA_2	0.251	3.73	577.7	RELLENO_ZANJA	1.995	29.73	4711.2
	ARENA_3	0.606	9.01	1285.5				
2060.000	D TIERRA	2.780	0.00	7454.9	ARENA_1	0.178	0.00	423.6
	ARENA_2	0.226	0.00	577.7	RELLENO_ZANJA	1.634	0.00	4711.2
	ARENA_3	0.519	0.00	1285.5				
2080.000	D TIERRA	2.769	55.49	7510.4	ARENA_1	0.178	3.57	427.2
	ARENA_2	0.226	4.52	582.2	RELLENO_ZANJA	1.624	32.58	4743.8
	ARENA_3	0.519	10.38	1295.9				
2089.540	D TIERRA	2.883	26.96	7537.3	ARENA_1	0.178	1.70	428.9
	ARENA_2	0.226	2.16	584.4	RELLENO_ZANJA	1.737	16.03	4759.9
	ARENA_3	0.519	4.95	1300.8				
2100.000	D TIERRA	2.858	30.02	7567.4	ARENA_1	0.178	1.86	430.7
	ARENA_2	0.226	2.36	586.8	RELLENO_ZANJA	1.712	18.04	4777.9
	ARENA_3	0.519	5.43	1306.3				
2120.000	D TIERRA	2.960	58.17	7625.5	ARENA_1	0.178	3.57	434.3
	ARENA_2	0.226	4.52	591.3	RELLENO_ZANJA	1.814	35.26	4813.2
	ARENA_3	0.519	10.39	1316.7				
2140.000	D TIERRA	3.112	60.72	7686.3	ARENA_1	0.178	3.57	437.9
	ARENA_2	0.226	4.52	595.8	RELLENO_ZANJA	1.966	37.80	4851.0
	ARENA_3	0.519	10.39	1327.0				
2160.000	D TIERRA	3.552	66.64	7752.9	ARENA_1	0.178	3.57	441.4
	ARENA_2	0.226	4.52	600.3	RELLENO_ZANJA	2.407	43.73	4894.7
	ARENA_3	0.519	10.39	1337.4				
2171.995	D TIERRA	3.457	42.04	7794.9	ARENA_1	0.178	2.14	443.6
	ARENA_2	0.226	2.71	603.0	RELLENO_ZANJA	2.311	28.30	4923.0
	ARENA_3	0.519	6.23	1343.7				
2180.000	D TIERRA	3.571	28.13	7823.1	ARENA_1	0.178	1.43	445.0
	ARENA_2	0.226	1.81	604.8	RELLENO_ZANJA	2.426	18.96	4941.9
	ARENA_3	0.519	4.16	1347.8				
2180.000	D TIERRA	4.253	0.00	7823.1	ARENA_1	0.183	0.00	445.0
	ARENA_2	0.250	0.00	604.8	RELLENO_ZANJA	2.992	0.00	4941.9
	ARENA_3	0.606	0.00	1347.8				



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PROYECTO : CIDACOS COMPLETO
EJE : 7: EJE 7. ARQUETA PRINCIPAL (P190) - CALAHORRA (P210)

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PROYECTO : CIDACOS COMPLETO
EJE : 7: EJE 7. ARQUETA PRINCIPAL (P190) - CALAHORRA (P210)

*** MEDICIONES DE LOS PERFILES TRANSVERSALES ***
*** CAPAS DE FIRME ***

*** MEDICIONES DE LOS PERFILES TRANSVERSALES ***
*** CAPAS DE FIRME ***

PERFIL	MATERIAL	AREA PERFIL	VOL. PARCIAL	VOL. ACUMUL.	MATERIAL	AREA PERFIL	VOL. PARCIAL	VOL. ACUMUL.
2181.202	D TIERRA	4.307	5.14	7828.2	ARENA_1	0.183	0.22	445.2
	ARENA_2	0.250	0.30	605.1	RELLENO_ZANJA	3.046	3.63	4945.6
	ARENA_3	0.606	0.73	1348.5				
2200.000	D TIERRA	4.513	82.90	7911.1	ARENA_1	0.183	3.43	448.7
	ARENA_2	0.250	4.71	609.8	RELLENO_ZANJA	3.252	59.19	5004.8
	ARENA_3	0.606	11.39	1359.9				
2220.000	D TIERRA	4.250	87.63	7998.7	ARENA_1	0.183	3.65	452.3
	ARENA_2	0.250	5.01	614.9	RELLENO_ZANJA	2.989	62.40	5067.2
	ARENA_3	0.606	12.12	1372.1				
2240.000	D TIERRA	3.686	79.36	8078.1	ARENA_1	0.183	3.65	456.0
	ARENA_2	0.250	5.01	619.9	RELLENO_ZANJA	2.425	54.14	5121.3
	ARENA_3	0.606	12.12	1384.2				
2257.900	D TIERRA	3.379	63.24	8141.3	ARENA_1	0.183	3.27	459.2
	ARENA_2	0.250	4.48	624.3	RELLENO_ZANJA	2.118	40.66	5162.0
	ARENA_3	0.606	10.85	1395.0				
2260.000	D TIERRA	3.387	7.10	8148.4	ARENA_1	0.183	0.38	459.6
	ARENA_2	0.250	0.53	624.9	RELLENO_ZANJA	2.126	4.46	5166.4
	ARENA_3	0.606	1.27	1396.3				
2280.000	D TIERRA	3.317	67.04	8215.5	ARENA_1	0.183	3.65	463.3
	ARENA_2	0.250	5.01	629.9	RELLENO_ZANJA	2.055	41.81	5208.2
	ARENA_3	0.606	12.12	1408.4				
2300.000	D TIERRA	3.358	66.74	8282.2	ARENA_1	0.183	3.65	466.9
	ARENA_2	0.250	5.01	634.9	RELLENO_ZANJA	2.096	41.52	5249.7
	ARENA_3	0.606	12.12	1420.5				
2315.850	D TIERRA	4.267	60.43	8342.7	ARENA_1	0.183	2.89	469.8
	ARENA_2	0.250	3.97	638.9	RELLENO_ZANJA	3.006	40.43	5290.2
	ARENA_3	0.606	9.60	1430.1				
2320.000	D TIERRA	4.241	17.65	8360.3	ARENA_1	0.183	0.76	470.6
	ARENA_2	0.250	1.04	639.9	RELLENO_ZANJA	2.980	12.42	5302.6
	ARENA_3	0.606	2.51	1432.7				
2326.949	D TIERRA	4.146	29.14	8389.4	ARENA_1	0.183	1.27	471.8
	ARENA_2	0.250	1.74	641.6	RELLENO_ZANJA	2.885	20.38	5323.0
	ARENA_3	0.606	4.21	1436.9				
2340.000	D TIERRA	3.815	51.95	8441.4	ARENA_1	0.183	2.38	474.2
	ARENA_2	0.250	3.27	644.9	RELLENO_ZANJA	2.554	35.49	5358.5
	ARENA_3	0.606	7.91	1444.8				
2360.000	D TIERRA	3.430	72.45	8513.8	ARENA_1	0.183	3.65	477.9
	ARENA_2	0.250	5.01	649.9	RELLENO_ZANJA	2.168	47.22	5405.7
	ARENA_3	0.606	12.12	1456.9				
2380.000	D TIERRA	4.415	78.45	8592.3	ARENA_1	0.183	3.65	481.5
	ARENA_2	0.251	5.01	654.9	RELLENO_ZANJA	3.154	53.22	5458.9
	ARENA_3	0.606	12.12	1469.0				
2400.000	D TIERRA	6.260	106.75	8699.0	ARENA_1	0.183	3.65	485.2
	ARENA_2	0.251	5.01	659.9	RELLENO_ZANJA	4.999	81.52	5540.4
	ARENA_3	0.606	12.12	1481.1				
2404.317	D TIERRA	6.758	28.10	8727.1	ARENA_1	0.183	0.79	486.0
	ARENA_2	0.251	1.08	661.0	RELLENO_ZANJA	5.496	22.65	5563.1
	ARENA_3	0.606	2.62	1483.7				
2420.000	D TIERRA	5.504	96.15	8823.3	ARENA_1	0.183	2.86	488.8
	ARENA_2	0.251	3.93	665.0	RELLENO_ZANJA	4.243	76.37	5639.5
	ARENA_3	0.606	9.50	1493.3				
2431.306	D TIERRA	4.658	57.45	8880.7	ARENA_1	0.183	2.06	490.9
	ARENA_2	0.251	2.83	667.8	RELLENO_ZANJA	3.397	43.19	5682.6
	ARENA_3	0.606	6.85	1500.1				
2440.000	D TIERRA	4.284	38.87	8919.6	ARENA_1	0.183	1.59	492.5
	ARENA_2	0.251	2.18	670.0	RELLENO_ZANJA	3.022	27.91	5710.5
	ARENA_3	0.606	5.27	1505.4				
2460.000	D TIERRA	3.770	80.53	9000.1	ARENA_1	0.183	3.65	496.1
	ARENA_2	0.251	5.01	675.0	RELLENO_ZANJA	2.509	55.31	5765.9
	ARENA_3	0.606	12.12	1517.5				

PERFIL	MATERIAL	AREA PERFIL	VOL. PARCIAL	VOL. ACUMUL.	MATERIAL	AREA PERFIL	VOL. PARCIAL	VOL. ACUMUL.
2461.967	D TIERRA	3.769	7.41	9007.6	ARENA_1	0.183	0.36	496.5
	ARENA_2	0.251	0.49	675.5	RELLENO_ZANJA	2.507	4.93	5770.8
	ARENA_3	0.606	1.19	1518.7				
2480.000	D TIERRA	3.385	64.50	9072.1	ARENA_1	0.183	3.29	499.8
	ARENA_2	0.250	4.52	680.0	RELLENO_ZANJA	2.123	41.75	5812.5
	ARENA_3	0.606	10.93	1529.6				
2500.000	D TIERRA	3.241	66.26	9138.3	ARENA_1	0.183	3.65	503.4
	ARENA_2	0.250	5.01	685.0	RELLENO_ZANJA	1.980	41.03	5853.6
	ARENA_3	0.606	12.12	1541.7				
2520.000	D TIERRA	3.232	64.73	9203.0	ARENA_1	0.183	3.65	507.1
	ARENA_2	0.250	5.01	690.0	RELLENO_ZANJA	1.971	39.50	5893.1
	ARENA_3	0.606	12.12	1553.8				
2540.000	D TIERRA	3.248	64.80	9267.8	ARENA_1	0.183	3.65	510.7
	ARENA_2	0.250	5.01	695.0	RELLENO_ZANJA	1.987	39.57	5932.7
	ARENA_3	0.606	12.12	1566.0				
2560.000	D TIERRA	3.283	65.31	9333.2	ARENA_1	0.183	3.65	514.4
	ARENA_2	0.250	5.01	700.0	RELLENO_ZANJA	2.022	40.08	5972.7
	ARENA_3	0.606	12.12	1578.1				
2580.000	D TIERRA	3.421	67.04	9400.2	ARENA_1	0.183	3.65	518.0
	ARENA_2	0.250	5.01	705.0	RELLENO_ZANJA	2.159	41.81	6014.5
	ARENA_3	0.606	12.12	1590.2				
2600.000	D TIERRA	3.707	71.27	9471.5	ARENA_1	0.183	3.65	521.7
	ARENA_2	0.250	5.01	710.0	RELLENO_ZANJA	2.445	46.05	6060.6
	ARENA_3	0.606	12.12	1602.3				
2620.000	D TIERRA	3.412	71.18	9542.6	ARENA_1	0.183	3.65	525.3
	ARENA_2	0.250	5.01	715.1	RELLENO_ZANJA	2.150	45.96	6106.5
	ARENA_3	0.606	12.12	1614.5				
2627.000	D TIERRA	3.369	23.73	9566.4	ARENA_1	0.183	1.28	526.6
	ARENA_2	0.250	1.75	716.8	RELLENO_ZANJA	2.108	14.90	6121.4
	ARENA_3	0.606	4.24	1618.7				
2640.000	D TIERRA	3.406	44.04	9610.4	ARENA_1	0.183	2.37	529.0
	ARENA_2	0.250	3.26	720.1	RELLENO_ZANJA	2.145	27.64	6149.1
	ARENA_3	0.606	7.88	1626.6				
2660.000	D TIERRA	3.375	67.81	9678.2	ARENA_1	0.183	3.65	532.6
	ARENA_2	0.250	5.01	725.1	RELLENO_ZANJA	2.114	42.58	6191.7
	ARENA_3	0.606	12.12	1638.7				
2680.000	D TIERRA	3.410	67.86	9746.1	ARENA_1	0.183	3.65	536.3
	ARENA_2	0.250	5.01	730.1	RELLENO_ZANJA	2.149	42.63	6234.3
	ARENA_3	0.606	12.12	1650.8				
2700.000	D TIERRA	4.084	74.94	9821.0	ARENA_1	0.183	3.65	539.9
	ARENA_2	0.250	5.01	735.1	RELLENO_ZANJA	2.822	49.71	6284.0
	ARENA_3	0.606	12.12	1662.9				
2700.538	D TIERRA	4.112	2.20	9823.2	ARENA_1	0.183	0.10	540.0
	ARENA_2	0.250	0.13	735.2	RELLENO_ZANJA	2.850	1.53	6285.5
	ARENA_3	0.606	0.33	1663.3				
2720.000	D TIERRA	3.619	75.22	9898.5	ARENA_1	0.183	3.55	543.6
	ARENA_2	0.250	4.87	740.1	RELLENO_ZANJA	2.357	50.68	6336.2
	ARENA_3	0.606	11.80	1675.1				
2734.890	D TIERRA	3.835	55.49	9953.9	ARENA_1	0.183	2.72	546.3
	ARENA_2	0.250	3.73	743.8	RELLENO_ZANJA	2.573	36.71	6372.9
	ARENA_3	0.606	9.02	1684.1				
2740.000	D TIERRA	3.924	19.82	9973.8	ARENA_1	0.183	0.93	547.2
	ARENA_2	0.250	1.28	745.1	RELLENO_ZANJA	2.663	13.38	6386.3
	ARENA_3	0.606	3.10	1687.2				
2760.000	D TIERRA	4.167	80.91	10054.7	ARENA_1	0.183	3.65	550.9
	ARENA_2	0.250	5.01	750.1	RELLENO_ZANJA	2.905	55.68	6442.0
	ARENA_3	0.606	12.12	1699.3				
2780.000	D TIERRA	4.315	84.81	10139.5	ARENA_1	0.183	3.65	554.5
	ARENA_2	0.250	5.01	755.1	RELLENO_ZANJA	3.053	59.59	6501.6
	ARENA_3	0.606	12.12	1711.4				

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 PROYECTO : CIDACOS COMPLETO
 EJE : 7: EJE 7. ARQUETA PRINCIPAL (P190) - CALAHORRA (P210)

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 PROYECTO : CIDACOS COMPLETO
 EJE : 7: EJE 7. ARQUETA PRINCIPAL (P190) - CALAHORRA (P210)

 * * * MEDICIONES DE LOS PERFILES TRANSVERSALES* * *
 * * * CAPAS DE FIRME * * *

 * * * MEDICIONES DE LOS PERFILES TRANSVERSALES* * *
 * * * CAPAS DE FIRME * * *

PERFIL	MATERIAL	AREA PERFIL	VOL. PARCIAL	VOL. ACUMUL.	MATERIAL	AREA PERFIL	VOL. PARCIAL	VOL. ACUMUL.	PERFIL	MATERIAL	AREA PERFIL	VOL. PARCIAL	VOL. ACUMUL.	MATERIAL	AREA PERFIL	VOL. PARCIAL	VOL. ACUMUL.
2796.221	D TIERRA	4.600	72.30	10211.8	ARENA_1	0.183	2.96	557.5	3032.716	D TIERRA	5.093	64.43	11306.1	ARENA_1	0.183	2.32	600.7
	ARENA_2	0.250	4.06	759.2	RELLENO_ZANJA	3.338	51.84	6553.4		ARENA_2	0.250	3.19	818.4	RELLENO_ZANJA	3.831	48.39	7349.4
	ARENA_3	0.606	9.83	1721.3						ARENA_3	0.606	7.71	1864.6				
2800.000	D TIERRA	4.571	17.33	10229.1	ARENA_1	0.183	0.69	558.2	3040.000	D TIERRA	5.140	37.27	11343.4	ARENA_1	0.183	1.33	602.0
	ARENA_2	0.250	0.95	760.1	RELLENO_ZANJA	3.309	12.56	6566.0		ARENA_2	0.250	1.82	820.3	RELLENO_ZANJA	3.879	28.08	7377.5
	ARENA_3	0.606	2.29	1723.6						ARENA_3	0.606	4.41	1869.0				
2820.000	D TIERRA	4.545	91.16	10320.3	ARENA_1	0.183	3.65	561.8	3040.000	D TIERRA	4.267	0.00	11343.4	ARENA_1	0.178	0.00	602.0
	ARENA_2	0.250	5.01	765.1	RELLENO_ZANJA	3.284	65.94	6631.9		ARENA_2	0.226	0.00	820.3	RELLENO_ZANJA	3.122	0.00	7377.5
	ARENA_3	0.606	12.12	1735.7						ARENA_3	0.519	0.00	1869.0				
2840.000	D TIERRA	3.246	77.92	10398.2	ARENA_1	0.183	3.65	565.5	3060.000	D TIERRA	4.425	86.92	11430.3	ARENA_1	0.178	3.57	605.5
	ARENA_2	0.250	5.01	770.2	RELLENO_ZANJA	1.985	52.69	6684.6		ARENA_2	0.226	4.52	824.8	RELLENO_ZANJA	3.280	64.01	7441.5
	ARENA_3	0.606	12.12	1747.8						ARENA_3	0.519	10.39	1879.4				
2860.000	D TIERRA	4.015	72.61	10470.8	ARENA_1	0.183	3.65	569.1	3070.905	D TIERRA	4.496	48.64	11478.9	ARENA_1	0.178	1.94	607.5
	ARENA_2	0.250	5.01	775.2	RELLENO_ZANJA	2.754	47.38	6732.0		ARENA_2	0.226	2.46	827.2	RELLENO_ZANJA	3.350	36.15	7477.7
	ARENA_3	0.606	12.12	1759.9						ARENA_3	0.519	5.66	1885.1				
2880.000	D TIERRA	4.456	84.71	10555.5	ARENA_1	0.183	3.65	572.8	3080.000	D TIERRA	4.391	40.41	11519.3	ARENA_1	0.178	1.62	609.1
	ARENA_2	0.250	5.01	780.2	RELLENO_ZANJA	3.195	59.48	6791.5		ARENA_2	0.226	2.05	829.3	RELLENO_ZANJA	3.245	29.99	7507.7
	ARENA_3	0.606	12.12	1772.0						ARENA_3	0.519	4.72	1889.8				
2899.275	D TIERRA	4.418	85.52	10641.0	ARENA_1	0.183	3.52	576.3	3100.000	D TIERRA	3.885	82.76	11602.1	ARENA_1	0.178	3.57	612.7
	ARENA_2	0.250	4.83	785.0	RELLENO_ZANJA	3.156	61.21	6852.7		ARENA_2	0.226	4.52	833.8	RELLENO_ZANJA	2.740	59.85	7567.5
	ARENA_3	0.606	11.68	1783.7						ARENA_3	0.519	10.39	1900.2				
2900.000	D TIERRA	4.430	3.21	10644.2	ARENA_1	0.183	0.13	576.4	3116.507	D TIERRA	3.592	61.71	11663.8	ARENA_1	0.178	2.94	615.6
	ARENA_2	0.250	0.18	785.2	RELLENO_ZANJA	3.169	2.29	6855.0		ARENA_2	0.226	3.73	837.5	RELLENO_ZANJA	2.446	42.80	7610.3
	ARENA_3	0.606	0.44	1784.2						ARENA_3	0.519	8.57	1908.8				
2906.187	D TIERRA	4.534	27.73	10672.0	ARENA_1	0.183	1.13	577.6	3120.000	D TIERRA	4.032	13.31	11677.1	ARENA_1	0.178	0.62	616.2
	ARENA_2	0.250	1.55	786.7	RELLENO_ZANJA	3.272	19.93	6874.9		ARENA_2	0.226	0.79	838.3	RELLENO_ZANJA	2.886	9.31	7619.6
	ARENA_3	0.606	3.75	1787.9						ARENA_3	0.519	1.81	1910.6				
2920.000	D TIERRA	4.755	64.15	10736.1	ARENA_1	0.183	2.52	580.1	3130.550	D TIERRA	3.553	40.01	11717.1	ARENA_1	0.178	1.88	618.1
	ARENA_2	0.250	3.46	790.2	RELLENO_ZANJA	3.494	46.73	6921.6		ARENA_2	0.226	2.38	840.7	RELLENO_ZANJA	2.408	27.92	7647.5
	ARENA_3	0.606	8.37	1796.3						ARENA_3	0.519	5.48	1916.0				
2925.882	D TIERRA	4.819	28.16	10764.3	ARENA_1	0.183	1.07	581.2	3140.000	D TIERRA	3.559	33.60	11750.8	ARENA_1	0.178	1.68	619.8
	ARENA_2	0.250	1.47	791.7	RELLENO_ZANJA	3.557	20.74	6942.4		ARENA_2	0.226	2.13	842.8	RELLENO_ZANJA	2.413	22.78	7670.3
	ARENA_3	0.606	3.57	1799.8						ARENA_3	0.519	4.91	1921.0				
2931.944	D TIERRA	4.895	29.44	10793.7	ARENA_1	0.183	1.11	582.3	3155.960	D TIERRA	3.329	54.96	11805.7	ARENA_1	0.178	2.85	622.7
	ARENA_2	0.250	1.52	793.2	RELLENO_ZANJA	3.633	21.79	6964.2		ARENA_2	0.226	3.60	846.4	RELLENO_ZANJA	2.183	36.68	7707.0
	ARENA_3	0.606	3.67	1803.5						ARENA_3	0.519	8.29	1929.2				
2940.000	D TIERRA	4.958	39.69	10833.4	ARENA_1	0.183	1.47	583.7	3160.000	D TIERRA	3.332	13.45	11819.2	ARENA_1	0.178	0.72	623.4
	ARENA_2	0.250	2.02	795.2	RELLENO_ZANJA	3.696	29.52	6993.7		ARENA_2	0.226	0.91	847.4	RELLENO_ZANJA	2.186	8.83	7715.8
	ARENA_3	0.606	4.88	1808.4						ARENA_3	0.519	2.10	1931.3				
2948.744	D TIERRA	5.045	43.73	10877.1	ARENA_1	0.183	1.60	585.3	3176.960	D TIERRA	3.292	56.17	11875.3	ARENA_1	0.178	3.02	626.4
	ARENA_2	0.250	2.19	797.4	RELLENO_ZANJA	3.783	32.70	7026.4		ARENA_2	0.226	3.83	851.2	RELLENO_ZANJA	2.147	36.74	7752.6
	ARENA_3	0.606	5.30	1813.7						ARENA_3	0.519	8.81	1940.2				
2960.000	D TIERRA	5.098	57.08	10934.2	ARENA_1	0.183	2.05	587.4	3180.000	D TIERRA	3.303	10.03	11885.4	ARENA_1	0.178	0.54	626.9
	ARENA_2	0.250	2.82	800.2	RELLENO_ZANJA	3.837	42.89	7069.3		ARENA_2	0.226	0.69	851.9	RELLENO_ZANJA	2.158	6.54	7759.1
	ARENA_3	0.606	6.82	1820.5						ARENA_3	0.519	1.58	1941.7				
2967.117	D TIERRA	5.114	36.34	10970.6	ARENA_1	0.183	1.30	588.7	3200.000	D TIERRA	3.275	65.78	11951.1	ARENA_1	0.178	3.57	630.5
	ARENA_2	0.250	1.78	802.0	RELLENO_ZANJA	3.853	27.36	7096.6		ARENA_2	0.226	4.52	856.4	RELLENO_ZANJA	2.129	42.87	7802.0
	ARENA_3	0.606	4.31	1824.8						ARENA_3	0.519	10.39	1952.1				
2980.000	D TIERRA	5.146	66.09	11036.7	ARENA_1	0.183	2.35	591.0	3220.000	D TIERRA	3.311	65.86	12017.0	ARENA_1	0.178	3.57	634.1
	ARENA_2	0.250	3.23	805.2	RELLENO_ZANJA	3.885	49.84	7146.5		ARENA_2	0.226	4.52	860.9	RELLENO_ZANJA	2.166	42.95	7844.9
	ARENA_3	0.606	7.81	1832.7						ARENA_3	0.519	10.39	1962.5				
3000.000	D TIERRA	5.176	103.22	11139.9	ARENA_1	0.183	3.65	594.7	3240.000	D TIERRA	3.335	66.46	12083.5	ARENA_1	0.178	3.57	637.6
	ARENA_2	0.250	5.01	810.2	RELLENO_ZANJA	3.915	77.99	7224.5		ARENA_2	0.226	4.52	865.4	RELLENO_ZANJA	2.189	43.55	7888.5
	ARENA_3	0.606	12.12	1844.8						ARENA_3	0.519	10.39	1972.9				
3012.008	D TIERRA	5.058	61.44	11201.3	ARENA_1	0.183	2.19	596.9	3260.000	D TIERRA	3.342	66.77	12150.2	ARENA_1	0.178	3.57	641.2
	ARENA_2	0.250	3.01	813.2	RELLENO_ZANJA	3.797	46.30	7270.8		ARENA_2	0.226	4.52	869.9	RELLENO_ZANJA	2.197	43.86	7932.3
	ARENA_3	0.606	7.28	1852.1						ARENA_3	0.519	10.39	1983.3				
3020.000	D TIERRA	5.041	40.36	11241.7	ARENA_1	0.183	1.46	598.3	3261.049	D TIERRA	3.343	3.51	12153.7	ARENA_1	0.178	0.19	641.4
	ARENA_2	0.250	2.00	815.2	RELLENO_ZANJA	3.780	30.28	7301.0		ARENA_2	0.226	0.24	870.2	RELLENO_ZANJA	2.197	2.30	7934.7
	ARENA_3	0.606	4.84	1856.9						ARENA_3	0.519	0.54	1983.8				



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PROYECTO : CIDACOS COMPLETO
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PROYECTO : CIDACOS COMPLETO
EJE : 7: EJE 7. ARQUETA PRINCIPAL (P190) - CALAHORRA (P210)

*** MEDICIONES DE LOS PERFILES TRANSVERSALES ***
*** CAPAS DE FIRME ***

*** MEDICIONES DE LOS PERFILES TRANSVERSALES ***
*** CAPAS DE FIRME ***

PERFIL	MATERIAL	AREA PERFIL	VOL. PARCIAL	VOL. ACUMUL.	MATERIAL	AREA PERFIL	VOL. PARCIAL	VOL. ACUMUL.
3280.000	D TIERRA	2.919	59.33	12213.1	ARENA_1	0.178	3.38	644.8
	ARENA_2	0.226	4.28	874.5	RELLENO_ZANJA	1.773	37.62	7972.3
	ARENA_3	0.519	9.84	1993.7				
3281.713	D TIERRA	2.850	4.94	12218.0	ARENA_1	0.178	0.31	645.1
	ARENA_2	0.226	0.39	874.8	RELLENO_ZANJA	1.705	2.98	7975.3
	ARENA_3	0.519	0.89	1994.6				
3295.219	D TIERRA	2.946	39.14	12257.2	ARENA_1	0.178	2.41	647.5
	ARENA_2	0.226	3.05	877.9	RELLENO_ZANJA	1.801	23.67	7998.9
	ARENA_3	0.519	7.02	2001.6				
3300.000	D TIERRA	2.953	14.10	12271.3	ARENA_1	0.178	0.85	648.3
	ARENA_2	0.226	1.08	879.0	RELLENO_ZANJA	1.807	8.62	8007.5
	ARENA_3	0.519	2.48	2004.1				
3320.000	D TIERRA	3.063	60.16	12331.4	ARENA_1	0.178	3.57	651.9
	ARENA_2	0.226	4.52	883.5	RELLENO_ZANJA	1.918	37.25	8044.8
	ARENA_3	0.519	10.39	2014.5				
3340.000	D TIERRA	3.173	62.36	12393.8	ARENA_1	0.178	3.57	655.5
	ARENA_2	0.226	4.52	888.0	RELLENO_ZANJA	2.028	39.45	8084.2
	ARENA_3	0.519	10.39	2024.8				
3344.308	D TIERRA	3.191	13.71	12407.5	ARENA_1	0.178	0.77	656.2
	ARENA_2	0.226	0.97	889.0	RELLENO_ZANJA	2.045	8.77	8093.0
	ARENA_3	0.519	2.24	2027.1				
3360.000	D TIERRA	3.187	50.04	12457.5	ARENA_1	0.178	2.80	659.0
	ARENA_2	0.226	3.54	892.5	RELLENO_ZANJA	2.042	32.06	8125.1
	ARENA_3	0.519	8.15	2035.2				
3380.000	D TIERRA	3.202	63.90	12521.4	ARENA_1	0.178	3.57	662.6
	ARENA_2	0.226	4.52	897.0	RELLENO_ZANJA	2.057	40.98	8166.1
	ARENA_3	0.519	10.39	2045.6				
3400.000	D TIERRA	3.003	62.06	12583.5	ARENA_1	0.178	3.57	666.2
	ARENA_2	0.226	4.52	901.6	RELLENO_ZANJA	1.858	39.15	8205.2
	ARENA_3	0.519	10.39	2056.0				
3420.000	D TIERRA	2.823	58.26	12641.7	ARENA_1	0.178	3.57	669.7
	ARENA_2	0.226	4.52	906.1	RELLENO_ZANJA	1.677	35.35	8240.6
	ARENA_3	0.519	10.39	2066.4				
3423.158	D TIERRA	2.897	9.03	12650.8	ARENA_1	0.178	0.56	670.3
	ARENA_2	0.226	0.71	906.8	RELLENO_ZANJA	1.751	5.41	8246.0
	ARENA_3	0.519	1.64	2068.0				
3439.251	D TIERRA	2.838	46.14	12696.9	ARENA_1	0.178	2.87	673.2
	ARENA_2	0.226	3.63	910.4	RELLENO_ZANJA	1.692	27.71	8273.7
	ARENA_3	0.519	8.36	2076.4				
3440.000	D TIERRA	2.831	2.12	12699.0	ARENA_1	0.178	0.13	673.3
	ARENA_2	0.226	0.17	910.6	RELLENO_ZANJA	1.686	1.27	8274.9
	ARENA_3	0.519	0.39	2076.8				
3460.000	D TIERRA	2.808	56.39	12755.4	ARENA_1	0.178	3.57	676.9
	ARENA_2	0.226	4.52	915.1	RELLENO_ZANJA	1.662	33.48	8308.4
	ARENA_3	0.519	10.39	2087.2				
3476.875	D TIERRA	2.886	48.04	12803.5	ARENA_1	0.178	3.01	679.9
	ARENA_2	0.226	3.81	918.9	RELLENO_ZANJA	1.740	28.71	8337.1
	ARENA_3	0.519	8.76	2095.9				
3480.000	D TIERRA	2.936	9.10	12812.6	ARENA_1	0.178	0.56	680.4
	ARENA_2	0.226	0.71	919.6	RELLENO_ZANJA	1.790	5.52	8342.7
	ARENA_3	0.519	1.62	2097.6				
3500.000	D TIERRA	2.865	58.01	12870.6	ARENA_1	0.178	3.57	684.0
	ARENA_2	0.226	4.52	924.1	RELLENO_ZANJA	1.719	35.10	8377.8
	ARENA_3	0.519	10.39	2107.9				
3502.891	D TIERRA	2.859	8.27	12878.9	ARENA_1	0.178	0.52	684.5
	ARENA_2	0.226	0.65	924.8	RELLENO_ZANJA	1.714	4.96	8382.7
	ARENA_3	0.519	1.50	2109.4				
3520.000	D TIERRA	2.818	48.57	12927.4	ARENA_1	0.178	3.05	687.6
	ARENA_2	0.226	3.86	928.7	RELLENO_ZANJA	1.673	28.97	8411.7
	ARENA_3	0.519	8.89	2118.3				

PERFIL	MATERIAL	AREA PERFIL	VOL. PARCIAL	VOL. ACUMUL.	MATERIAL	AREA PERFIL	VOL. PARCIAL	VOL. ACUMUL.
3540.000	D TIERRA	2.815	56.33	12983.8	ARENA_1	0.178	3.57	691.1
	ARENA_2	0.226	4.52	933.2	RELLENO_ZANJA	1.670	33.42	8445.1
	ARENA_3	0.519	10.39	2128.7				
3560.000	D TIERRA	2.837	56.53	13040.3	ARENA_1	0.178	3.57	694.7
	ARENA_2	0.226	4.52	937.7	RELLENO_ZANJA	1.692	33.61	8478.7
	ARENA_3	0.519	10.39	2139.1				
3580.000	D TIERRA	2.926	57.63	13097.9	ARENA_1	0.178	3.57	698.2
	ARENA_2	0.226	4.52	942.2	RELLENO_ZANJA	1.780	34.72	8513.4
	ARENA_3	0.519	10.39	2149.5				
3600.000	D TIERRA	3.089	60.15	13158.1	ARENA_1	0.178	3.57	701.8
	ARENA_2	0.226	4.52	946.7	RELLENO_ZANJA	1.944	37.24	8550.7
	ARENA_3	0.519	10.39	2159.9				
3620.000	D TIERRA	2.982	60.71	13218.8	ARENA_1	0.178	3.57	705.4
	ARENA_2	0.226	4.52	951.2	RELLENO_ZANJA	1.837	37.80	8588.5
	ARENA_3	0.519	10.39	2170.3				
3640.000	D TIERRA	2.957	59.39	13278.2	ARENA_1	0.178	3.57	708.9
	ARENA_2	0.226	4.52	955.8	RELLENO_ZANJA	1.812	36.48	8625.0
	ARENA_3	0.519	10.39	2180.7				
3660.000	D TIERRA	2.962	59.19	13337.4	ARENA_1	0.178	3.57	712.5
	ARENA_2	0.226	4.52	960.3	RELLENO_ZANJA	1.816	36.28	8661.2
	ARENA_3	0.519	10.39	2191.0				
3676.234	D TIERRA	2.922	47.76	13385.1	ARENA_1	0.178	2.89	715.4
	ARENA_2	0.226	3.67	963.9	RELLENO_ZANJA	1.777	29.16	8690.4
	ARENA_3	0.519	8.43	2199.5				
3680.000	D TIERRA	2.895	10.95	13396.1	ARENA_1	0.178	0.67	716.1
	ARENA_2	0.226	0.85	964.8	RELLENO_ZANJA	1.749	6.64	8697.0
	ARENA_3	0.519	1.96	2201.4				
3700.000	D TIERRA	2.661	55.56	13451.6	ARENA_1	0.178	3.57	719.6
	ARENA_2	0.226	4.52	969.3	RELLENO_ZANJA	1.516	32.65	8729.7
	ARENA_3	0.519	10.39	2211.8				
3707.970	D TIERRA	2.781	21.69	13473.3	ARENA_1	0.178	1.42	721.1
	ARENA_2	0.226	1.80	971.1	RELLENO_ZANJA	1.636	12.56	8742.3
	ARENA_3	0.519	4.14	2216.0				
3720.000	D TIERRA	2.735	33.18	13506.5	ARENA_1	0.178	2.14	723.2
	ARENA_2	0.226	2.72	973.8	RELLENO_ZANJA	1.589	19.40	8761.7
	ARENA_3	0.519	6.25	2222.2				
3740.000	D TIERRA	2.743	54.78	13561.3	ARENA_1	0.178	3.57	726.8
	ARENA_2	0.226	4.52	978.3	RELLENO_ZANJA	1.597	31.86	8793.5
	ARENA_3	0.519	10.39	2232.6				
3760.000	D TIERRA	3.678	64.21	13625.5	ARENA_1	0.178	3.57	730.3
	ARENA_2	0.226	4.52	982.9	RELLENO_ZANJA	2.532	41.30	8834.8
	ARENA_3	0.519	10.39	2243.0				
3764.731	D TIERRA	3.943	18.03	13643.5	ARENA_1	0.178	0.84	731.2
	ARENA_2	0.226	1.07	983.9	RELLENO_ZANJA	2.798	12.61	8847.4
	ARENA_3	0.519	2.46	2245.4				
3780.000	D TIERRA	3.080	53.62	13697.1	ARENA_1	0.178	2.72	733.9
	ARENA_2	0.226	3.45	987.4	RELLENO_ZANJA	1.935	36.13	8883.6
	ARENA_3	0.519	7.93	2253.4				
3800.000	D TIERRA	2.967	60.48	13757.6	ARENA_1	0.178	3.57	737.5
	ARENA_2	0.226	4.52	991.9	RELLENO_ZANJA	1.822	37.56	8921.1
	ARENA_3	0.519	10.39	2263.8				
3820.000	D TIERRA	2.882	58.49	13816.1	ARENA_1	0.178	3.57	741.0
	ARENA_2	0.226	4.52	996.4	RELLENO_ZANJA	1.736	35.58	8956.7
	ARENA_3	0.519	10.39	2274.1				
3840.000	D TIERRA	2.756	56.37	13872.5	ARENA_1	0.178	3.57	744.6
	ARENA_2	0.226	4.52	1000.9	RELLENO_ZANJA	1.610	33.46	8990.1
	ARENA_3	0.519	10.39	2284.5				
3860.000	D TIERRA	2.588	53.44	13925.9	ARENA_1	0.178	3.57	748.2
	ARENA_2	0.226	4.52	1005.5	RELLENO_ZANJA	1.443	30.53	9020.7
	ARENA_3	0.519	10.39	2294.9				



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PROYECTO : CIDACOS COMPLETO
EJE : 7: EJE 7. ARQUETA PRINCIPAL (P190) - CALAHORRA (P210)

Istram 9.04 14/04/20 13:53:54

PROYECTO : CIDACOS COMPLETO
EJE : 7: EJE 7. ARQUETA PRINCIPAL (P190) - CALAHORRA (P210)

*** MEDICIONES DE LOS PERFILES TRANSVERSALES***
*** CAPAS DE FIRME ***

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*** CAPAS DE FIRME ***

PERFIL	MATERIAL	AREA PERFIL	VOL. PARCIAL	VOL. ACUMUL.	MATERIAL	AREA PERFIL	VOL. PARCIAL	VOL. ACUMUL.
3870.675	D TIERRA	2.477	27.03	13953.0	ARENA_1	0.178	1.90	750.1
	ARENA_2	0.226	2.41	1007.9	RELLENO_ZANJA	1.331	14.80	9035.5
	ARENA_3	0.519	5.54	2300.5				
3880.000	D TIERRA	2.913	25.13	13978.1	ARENA_1	0.178	1.66	751.7
	ARENA_2	0.226	2.11	1010.0	RELLENO_ZANJA	1.767	14.45	9049.9
	ARENA_3	0.519	4.84	2305.3				
3900.000	D TIERRA	2.869	57.82	14035.9	ARENA_1	0.178	3.56	755.3
	ARENA_2	0.226	4.52	1014.5	RELLENO_ZANJA	1.724	34.91	9084.8
	ARENA_3	0.519	10.38	2315.7				
3920.000	D TIERRA	3.210	60.79	14096.7	ARENA_1	0.178	3.57	758.9
	ARENA_2	0.226	4.52	1019.0	RELLENO_ZANJA	2.064	37.88	9122.7
	ARENA_3	0.519	10.39	2326.1				
3924.712	D TIERRA	3.258	15.24	14111.9	ARENA_1	0.178	0.84	759.7
	ARENA_2	0.226	1.06	1020.1	RELLENO_ZANJA	2.113	9.84	9132.6
	ARENA_3	0.519	2.45	2328.5				
3933.360	D TIERRA	3.238	28.09	14140.0	ARENA_1	0.178	1.54	761.2
	ARENA_2	0.226	1.95	1022.0	RELLENO_ZANJA	2.092	18.18	9150.7
	ARENA_3	0.519	4.49	2333.0				
3940.000	D TIERRA	3.108	21.07	14161.1	ARENA_1	0.178	1.18	762.4
	ARENA_2	0.226	1.50	1023.5	RELLENO_ZANJA	1.962	13.46	9164.2
	ARENA_3	0.519	3.45	2336.5				
3960.000	D TIERRA	2.821	59.29	14220.4	ARENA_1	0.178	3.57	766.0
	ARENA_2	0.226	4.52	1028.0	RELLENO_ZANJA	1.676	36.38	9200.6
	ARENA_3	0.519	10.39	2346.8				
3978.539	D TIERRA	2.849	52.56	14272.9	ARENA_1	0.178	3.30	769.3
	ARENA_2	0.226	4.19	1032.2	RELLENO_ZANJA	1.704	31.33	9231.9
	ARENA_3	0.519	9.63	2356.5				
3980.000	D TIERRA	2.875	4.18	14277.1	ARENA_1	0.178	0.26	769.6
	ARENA_2	0.226	0.33	1032.6	RELLENO_ZANJA	1.729	2.51	9234.4
	ARENA_3	0.519	0.76	2357.2				
3991.211	D TIERRA	2.825	31.95	14309.1	ARENA_1	0.178	2.00	771.6
	ARENA_2	0.226	2.53	1035.1	RELLENO_ZANJA	1.680	19.11	9253.5
	ARENA_3	0.519	5.82	2363.0				
3998.813	D TIERRA	2.824	21.47	14330.5	ARENA_1	0.178	1.36	772.9
	ARENA_2	0.226	1.72	1036.8	RELLENO_ZANJA	1.678	12.76	9266.3
	ARENA_3	0.519	3.95	2367.0				
4000.000	D TIERRA	2.825	3.35	14333.9	ARENA_1	0.178	0.21	773.1
	ARENA_2	0.226	0.27	1037.1	RELLENO_ZANJA	1.679	1.99	9268.3
	ARENA_3	0.519	0.62	2367.6				
4020.000	D TIERRA	2.837	56.62	14390.5	ARENA_1	0.178	3.57	776.7
	ARENA_2	0.226	4.52	1041.6	RELLENO_ZANJA	1.692	33.71	9302.0
	ARENA_3	0.519	10.39	2378.0				
4033.172	D TIERRA	2.845	37.42	14427.9	ARENA_1	0.178	2.35	779.0
	ARENA_2	0.226	2.98	1044.6	RELLENO_ZANJA	1.699	22.33	9324.3
	ARENA_3	0.519	6.84	2384.8				
4040.000	D TIERRA	2.871	19.52	14447.5	ARENA_1	0.178	1.22	780.2
	ARENA_2	0.226	1.54	1046.1	RELLENO_ZANJA	1.726	11.69	9336.0
	ARENA_3	0.519	3.55	2388.4				
4046.986	D TIERRA	2.908	20.19	14467.6	ARENA_1	0.178	1.25	781.5
	ARENA_2	0.226	1.58	1047.7	RELLENO_ZANJA	1.763	12.19	9348.2
	ARENA_3	0.519	3.63	2392.0				
4060.000	D TIERRA	2.876	37.64	14505.3	ARENA_1	0.178	2.32	783.8
	ARENA_2	0.226	2.94	1050.6	RELLENO_ZANJA	1.730	22.73	9370.9
	ARENA_3	0.519	6.76	2398.8				
4080.000	D TIERRA	2.785	56.61	14561.9	ARENA_1	0.178	3.57	787.4
	ARENA_2	0.226	4.52	1055.1	RELLENO_ZANJA	1.639	33.70	9404.6
	ARENA_3	0.519	10.39	2409.2				
4082.806	D TIERRA	2.779	7.81	14569.7	ARENA_1	0.178	0.50	787.9
	ARENA_2	0.226	0.63	1055.8	RELLENO_ZANJA	1.633	4.59	9409.2
	ARENA_3	0.519	1.46	2410.6				

PERFIL	MATERIAL	AREA PERFIL	VOL. PARCIAL	VOL. ACUMUL.	MATERIAL	AREA PERFIL	VOL. PARCIAL	VOL. ACUMUL.
4100.000	D TIERRA	2.800	47.97	14617.7	ARENA_1	0.178	3.06	790.9
	ARENA_2	0.226	3.88	1059.7	RELLENO_ZANJA	1.655	28.27	9437.5
	ARENA_3	0.519	8.93	2419.6				
4120.000	D TIERRA	2.835	56.35	14674.0	ARENA_1	0.178	3.57	794.5
	ARENA_2	0.226	4.52	1064.2	RELLENO_ZANJA	1.689	33.44	9470.9
	ARENA_3	0.519	10.39	2429.9				
4140.000	D TIERRA	2.870	57.05	14731.1	ARENA_1	0.178	3.57	798.1
	ARENA_2	0.226	4.52	1068.7	RELLENO_ZANJA	1.725	34.14	9505.1
	ARENA_3	0.519	10.39	2440.3				
4153.873	D TIERRA	2.986	40.62	14771.7	ARENA_1	0.178	2.47	800.5
	ARENA_2	0.226	3.13	1071.8	RELLENO_ZANJA	1.841	24.73	9529.8
	ARENA_3	0.519	7.21	2447.5				
4159.431	D TIERRA	3.050	16.78	14788.5	ARENA_1	0.178	0.99	801.5
	ARENA_2	0.226	1.26	1073.1	RELLENO_ZANJA	1.905	10.41	9540.2
	ARENA_3	0.519	2.89	2450.4				
4160.000	D TIERRA	3.055	1.74	14790.2	ARENA_1	0.178	0.10	801.6
	ARENA_2	0.226	0.13	1073.2	RELLENO_ZANJA	1.909	1.09	9541.3
	ARENA_3	0.519	0.30	2450.7				
4180.000	D TIERRA	3.233	62.87	14853.1	ARENA_1	0.178	3.57	805.2
	ARENA_2	0.226	4.52	1077.7	RELLENO_ZANJA	2.087	39.96	9581.2
	ARENA_3	0.519	10.39	2461.1				
4185.206	D TIERRA	3.281	16.95	14870.0	ARENA_1	0.178	0.93	806.1
	ARENA_2	0.226	1.18	1078.9	RELLENO_ZANJA	2.135	10.99	9592.2
	ARENA_3	0.519	2.70	2463.8				
4195.947	D TIERRA	3.344	35.58	14905.6	ARENA_1	0.178	1.91	808.0
	ARENA_2	0.226	2.43	1081.3	RELLENO_ZANJA	2.198	23.27	9615.5
	ARENA_3	0.519	5.58	2469.4				
4200.000	D TIERRA	3.387	13.64	14919.2	ARENA_1	0.178	0.72	808.8
	ARENA_2	0.226	0.92	1082.2	RELLENO_ZANJA	2.241	9.00	9624.5
	ARENA_3	0.519	2.11	2471.5				
4204.264	D TIERRA	3.435	14.54	14933.8	ARENA_1	0.178	0.76	809.5
	ARENA_2	0.226	0.96	1083.2	RELLENO_ZANJA	2.290	9.66	9634.2
	ARENA_3	0.519	2.21	2473.7				
4220.000	D TIERRA	3.166	51.94	14985.7	ARENA_1	0.178	2.81	812.3
	ARENA_2	0.226	3.55	1086.8	RELLENO_ZANJA	2.020	33.91	9668.1
	ARENA_3	0.519	8.17	2481.9				
4230.870	D TIERRA	2.992	33.47	15019.2	ARENA_1	0.178	1.94	814.3
	ARENA_2	0.226	2.46	1089.2	RELLENO_ZANJA	1.846	21.02	9689.1
	ARENA_3	0.519	5.65	2487.5				
4240.000	D TIERRA	2.980	27.26	15046.4	ARENA_1	0.178	1.63	815.9
	ARENA_2	0.226	2.06	1091.3	RELLENO_ZANJA	1.834	16.80	9705.9
	ARENA_3	0.519	4.74	2492.3				
4260.000	D TIERRA	2.780	57.60	15104.0	ARENA_1	0.178	3.57	819.5
	ARENA_2	0.226	4.52	1095.8	RELLENO_ZANJA	1.634	34.69	9740.6
	ARENA_3	0.519	10.39	2502.7				
4271.783	D TIERRA	2.780	32.76	15136.8	ARENA_1	0.178	2.10	821.6
	ARENA_2	0.226	2.66	1098.5	RELLENO_ZANJA	1.635	19.26	9759.8
	ARENA_3	0.519	6.12	2508.8				
4280.000	D TIERRA	2.796	22.91	15159.7	ARENA_1	0.178	1.46	823.0
	ARENA_2	0.226	1.86	1100.3	RELLENO_ZANJA	1.650	13.50	9773.3
	ARENA_3	0.519	4.27	2513.0				
4300.000	D TIERRA	2.834	56.30	15216.0	ARENA_1	0.178	3.57	826.6
	ARENA_2	0.226	4.52	1104.8	RELLENO_ZANJA	1.688	33.38	9806.7
	ARENA_3	0.519	10.39	2523.4				
4320.000	D TIERRA	2.885	57.19	15273.2	ARENA_1	0.178	3.57	830.2
	ARENA_2	0.226	4.52	1109.4	RELLENO_ZANJA	1.740	34.28	9841.0
	ARENA_3	0.519	10.39	2533.8				
4340.000	D TIERRA	2.816	57.02	15330.2	ARENA_1	0.178	3.57	833.7
	ARENA_2	0.226	4.52	1113.9	RELLENO_ZANJA	1.671	34.10	9875.1
	ARENA_3	0.519	10.39	2544.2				



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PROYECTO : CIDACOS COMPLETO
EJE : 7: EJE 7. ARQUETA PRINCIPAL (P190) - CALAHORRA (P210)

Istram 9.04 14/04/20 13:53:54

PROYECTO : CIDACOS COMPLETO
EJE : 7: EJE 7. ARQUETA PRINCIPAL (P190) - CALAHORRA (P210)

*** MEDICIONES DE LOS PERFILES TRANSVERSALES ***
*** CAPAS DE FIRME ***

*** MEDICIONES DE LOS PERFILES TRANSVERSALES ***
*** CAPAS DE FIRME ***

PERFIL	MATERIAL	AREA PERFIL	VOL. PARCIAL	VOL. ACUMUL.	MATERIAL	AREA PERFIL	VOL. PARCIAL	VOL. ACUMUL.
4360.000	D TIERRA	2.856	56.73	15386.9	ARENA_1	0.178	3.57	837.3
	ARENA_2	0.226	4.52	1118.4	RELLENO_ZANJA	1.711	33.82	9908.9
	ARENA_3	0.519	10.39	2554.6				
4380.000	D TIERRA	2.873	57.29	15444.2	ARENA_1	0.178	3.57	840.9
	ARENA_2	0.226	4.52	1122.9	RELLENO_ZANJA	1.727	34.38	9943.3
	ARENA_3	0.519	10.39	2565.0				
4399.196	D TIERRA	2.932	55.71	15499.9	ARENA_1	0.178	3.42	844.3
	ARENA_2	0.226	4.34	1127.2	RELLENO_ZANJA	1.786	33.72	9977.0
	ARENA_3	0.519	9.97	2575.0				
4400.000	D TIERRA	2.910	2.35	15502.3	ARENA_1	0.178	0.14	844.4
	ARENA_2	0.226	0.18	1127.4	RELLENO_ZANJA	1.765	1.43	9978.4
	ARENA_3	0.519	0.42	2575.4				
4410.858	D TIERRA	2.899	31.54	15533.8	ARENA_1	0.178	1.94	846.4
	ARENA_2	0.226	2.45	1129.9	RELLENO_ZANJA	1.754	19.10	9997.5
	ARENA_3	0.519	5.64	2581.0				
4420.000	D TIERRA	2.983	26.89	15560.7	ARENA_1	0.178	1.63	848.0
	ARENA_2	0.226	2.06	1131.9	RELLENO_ZANJA	1.837	16.41	10014.0
	ARENA_3	0.519	4.75	2585.8				
4438.481	D TIERRA	3.222	57.33	15618.1	ARENA_1	0.178	3.29	851.3
	ARENA_2	0.226	4.17	1136.1	RELLENO_ZANJA	2.076	36.16	10050.1
	ARENA_3	0.519	9.60	2595.4				
4440.000	D TIERRA	3.233	4.90	15623.0	ARENA_1	0.178	0.27	851.6
	ARENA_2	0.226	0.34	1136.5	RELLENO_ZANJA	2.087	3.16	10053.3
	ARENA_3	0.519	0.79	2596.1				
4453.773	D TIERRA	3.334	45.22	15668.2	ARENA_1	0.178	2.46	854.0
	ARENA_2	0.226	3.11	1139.6	RELLENO_ZANJA	2.189	29.45	10082.7
	ARENA_3	0.519	7.15	2603.3				
4460.000	D TIERRA	3.359	20.84	15689.0	ARENA_1	0.178	1.11	855.1
	ARENA_2	0.226	1.41	1141.0	RELLENO_ZANJA	2.214	13.71	10096.4
	ARENA_3	0.519	3.23	2606.5				
4480.000	D TIERRA	3.440	67.99	15757.0	ARENA_1	0.178	3.57	858.7
	ARENA_2	0.226	4.52	1145.5	RELLENO_ZANJA	2.294	45.08	10141.5
	ARENA_3	0.519	10.39	2616.9				
4500.000	D TIERRA	3.521	69.61	15826.6	ARENA_1	0.178	3.57	862.2
	ARENA_2	0.226	4.52	1150.0	RELLENO_ZANJA	2.375	46.69	10188.2
	ARENA_3	0.519	10.39	2627.3				
4501.701	D TIERRA	3.528	5.99	15832.6	ARENA_1	0.178	0.30	862.6
	ARENA_2	0.226	0.38	1150.4	RELLENO_ZANJA	2.382	4.05	10192.3
	ARENA_3	0.519	0.88	2628.2				
4520.000	D TIERRA	3.654	65.71	15898.3	ARENA_1	0.178	3.26	865.8
	ARENA_2	0.226	4.13	1154.5	RELLENO_ZANJA	2.509	44.75	10237.0
	ARENA_3	0.519	9.50	2637.7				
4540.000	D TIERRA	3.556	72.10	15970.4	ARENA_1	0.178	3.56	869.4
	ARENA_2	0.226	4.52	1159.0	RELLENO_ZANJA	2.411	49.19	10286.2
	ARENA_3	0.519	10.39	2648.1				
4560.000	D TIERRA	3.208	67.64	16038.1	ARENA_1	0.178	3.57	872.9
	ARENA_2	0.226	4.52	1163.6	RELLENO_ZANJA	2.063	44.73	10330.9
	ARENA_3	0.519	10.39	2658.5				
4575.836	D TIERRA	2.787	47.47	16085.5	ARENA_1	0.178	2.82	875.8
	ARENA_2	0.226	3.58	1167.1	RELLENO_ZANJA	1.641	29.32	10360.3
	ARENA_3	0.519	8.23	2666.7				
4580.000	D TIERRA	2.847	11.73	16097.3	ARENA_1	0.178	0.74	876.5
	ARENA_2	0.226	0.94	1168.1	RELLENO_ZANJA	1.702	6.96	10367.2
	ARENA_3	0.519	2.16	2668.9				
4600.000	D TIERRA	2.957	58.05	16155.3	ARENA_1	0.178	3.57	880.1
	ARENA_2	0.226	4.52	1172.6	RELLENO_ZANJA	1.812	35.13	10402.3
	ARENA_3	0.519	10.39	2679.3				
4606.814	D TIERRA	2.921	20.03	16175.3	ARENA_1	0.178	1.21	881.3
	ARENA_2	0.226	1.54	1174.1	RELLENO_ZANJA	1.776	12.22	10414.6
	ARENA_3	0.519	3.54	2682.8				

PERFIL	MATERIAL	AREA PERFIL	VOL. PARCIAL	VOL. ACUMUL.	MATERIAL	AREA PERFIL	VOL. PARCIAL	VOL. ACUMUL.
4620.000	D TIERRA	2.776	37.56	16212.9	ARENA_1	0.178	2.35	883.6
	ARENA_2	0.226	2.98	1177.1	RELLENO_ZANJA	1.631	22.46	10437.0
	ARENA_3	0.519	6.85	2689.6				
4640.000	D TIERRA	2.886	56.62	16269.5	ARENA_1	0.178	3.57	887.2
	ARENA_2	0.226	4.52	1181.6	RELLENO_ZANJA	1.741	33.71	10470.7
	ARENA_3	0.519	10.39	2700.0				
4644.003	D TIERRA	2.907	11.59	16281.1	ARENA_1	0.178	0.71	887.9
	ARENA_2	0.226	0.90	1182.5	RELLENO_ZANJA	1.761	7.01	10477.8
	ARENA_3	0.519	2.08	2702.1				
4660.000	D TIERRA	2.879	46.27	16327.4	ARENA_1	0.178	2.85	890.8
	ARENA_2	0.226	3.61	1186.1	RELLENO_ZANJA	1.733	27.95	10505.7
	ARENA_3	0.519	8.31	2710.4				
4661.532	D TIERRA	2.875	4.41	16331.8	ARENA_1	0.178	0.27	891.0
	ARENA_2	0.226	0.35	1186.5	RELLENO_ZANJA	1.730	2.65	10508.4
	ARENA_3	0.519	0.80	2711.2				
4680.000	D TIERRA	2.694	51.43	16383.2	ARENA_1	0.178	3.29	894.3
	ARENA_2	0.226	4.17	1190.7	RELLENO_ZANJA	1.549	30.27	10538.6
	ARENA_3	0.519	9.59	2720.8				
4700.000	D TIERRA	2.694	53.88	16437.1	ARENA_1	0.178	3.57	897.9
	ARENA_2	0.226	4.52	1195.2	RELLENO_ZANJA	1.548	30.97	10569.6
	ARENA_3	0.519	10.39	2731.2				
4720.000	D TIERRA	2.669	53.62	16490.7	ARENA_1	0.178	3.57	901.5
	ARENA_2	0.226	4.52	1199.7	RELLENO_ZANJA	1.523	30.71	10600.3
	ARENA_3	0.519	10.39	2741.6				
4734.680	D TIERRA	2.685	39.30	16530.0	ARENA_1	0.178	2.62	904.1
	ARENA_2	0.226	3.32	1203.0	RELLENO_ZANJA	1.540	22.48	10622.8
	ARENA_3	0.519	7.62	2749.2				
4740.000	D TIERRA	2.691	14.30	16544.3	ARENA_1	0.178	0.95	905.0
	ARENA_2	0.226	1.20	1204.2	RELLENO_ZANJA	1.545	8.21	10631.0
	ARENA_3	0.519	2.76	2752.0				
4760.000	D TIERRA	2.689	53.80	16598.1	ARENA_1	0.178	3.57	908.6
	ARENA_2	0.226	4.52	1208.7	RELLENO_ZANJA	1.543	30.89	10661.9
	ARENA_3	0.519	10.39	2762.4				
4780.000	D TIERRA	2.766	54.55	16652.7	ARENA_1	0.178	3.57	912.2
	ARENA_2	0.226	4.52	1213.2	RELLENO_ZANJA	1.620	31.64	10693.5
	ARENA_3	0.519	10.39	2772.7				
4800.000	D TIERRA	2.640	54.05	16706.7	ARENA_1	0.178	3.57	915.7
	ARENA_2	0.226	4.52	1217.8	RELLENO_ZANJA	1.494	31.14	10724.7
	ARENA_3	0.519	10.39	2783.1				
4820.000	D TIERRA	2.720	53.60	16760.3	ARENA_1	0.178	3.57	919.3
	ARENA_2	0.226	4.52	1222.3	RELLENO_ZANJA	1.575	30.69	10755.3
	ARENA_3	0.519	10.39	2793.5				
4840.000	D TIERRA	3.238	59.58	16819.9	ARENA_1	0.178	3.57	922.9
	ARENA_2	0.226	4.52	1226.8	RELLENO_ZANJA	2.092	36.67	10792.0
	ARENA_3	0.519	10.39	2803.9				
4860.000	D TIERRA	2.739	59.77	16879.7	ARENA_1	0.178	3.57	926.4
	ARENA_2	0.226	4.52	1231.3	RELLENO_ZANJA	1.594	36.86	10828.9
	ARENA_3	0.519	10.39	2814.3				
4880.000	D TIERRA	3.996	67.35	16947.0	ARENA_1	0.178	3.57	930.0
	ARENA_2	0.226	4.52	1235.8	RELLENO_ZANJA	2.850	44.44	10873.3
	ARENA_3	0.519	10.39	2824.7				
4892.489	D TIERRA	2.672	41.64	16988.7	ARENA_1	0.178	2.23	932.2
	ARENA_2	0.226	2.82	1238.7	RELLENO_ZANJA	1.527	27.33	10900.6
	ARENA_3	0.519	6.48	2831.2				
4900.000	D TIERRA	3.150	21.87	17010.6	ARENA_1	0.178	1.34	933.6
	ARENA_2	0.226	1.70	1240.3	RELLENO_ZANJA	2.005	13.26	10913.9
	ARENA_3	0.519	3.90	2835.1				
4920.000	D TIERRA	3.902	70.52	17081.1	ARENA_1	0.178	3.56	937.1
	ARENA_2	0.226	4.52	1244.9	RELLENO_ZANJA	2.756	47.61	10961.5
	ARENA_3	0.519	10.38	2845.4				



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PROYECTO : CIDACOS COMPLETO
EJE : 7: EJE 7. ARQUETA PRINCIPAL (P190) - CALAHORRA (P210)

Istram 9.04 14/04/20 13:53:54

PROYECTO : CIDACOS COMPLETO
EJE : 7: EJE 7. ARQUETA PRINCIPAL (P190) - CALAHORRA (P210)

*** MEDICIONES DE LOS PERFILES TRANSVERSALES ***
*** CAPAS DE FIRME ***

*** MEDICIONES DE LOS PERFILES TRANSVERSALES ***
*** CAPAS DE FIRME ***

PERFIL	MATERIAL	AREA PERFIL	VOL. PARCIAL	VOL. ACUMUL.	MATERIAL	AREA PERFIL	VOL. PARCIAL	VOL. ACUMUL.
4928.391	D TIERRA	4.043	33.34	17114.4	ARENA_1	0.178	1.50	938.6
	ARENA_2	0.226	1.90	1246.8	RELLENO_ZANJA	2.898	23.72	10985.2
	ARENA_3	0.519	4.36	2849.8				
4940.000	D TIERRA	2.759	39.48	17153.9	ARENA_1	0.178	2.07	940.7
	ARENA_2	0.226	2.62	1249.4	RELLENO_ZANJA	1.613	26.18	11011.4
	ARENA_3	0.519	6.03	2855.8				
4960.000	D TIERRA	2.751	55.10	17209.0	ARENA_1	0.178	3.57	944.2
	ARENA_2	0.226	4.52	1253.9	RELLENO_ZANJA	1.606	32.19	11043.6
	ARENA_3	0.519	10.39	2866.2				
4980.000	D TIERRA	2.809	55.60	17264.6	ARENA_1	0.178	3.57	947.8
	ARENA_2	0.226	4.52	1258.4	RELLENO_ZANJA	1.663	32.69	11076.3
	ARENA_3	0.519	10.39	2876.6				
5000.000	D TIERRA	2.690	54.99	17319.6	ARENA_1	0.178	3.57	951.4
	ARENA_2	0.226	4.52	1262.9	RELLENO_ZANJA	1.544	32.08	11108.4
	ARENA_3	0.519	10.39	2887.0				
5020.000	D TIERRA	2.757	54.47	17374.1	ARENA_1	0.178	3.57	954.9
	ARENA_2	0.226	4.52	1267.5	RELLENO_ZANJA	1.612	31.56	11139.9
	ARENA_3	0.519	10.39	2897.4				
5040.000	D TIERRA	2.899	56.56	17430.6	ARENA_1	0.178	3.57	958.5
	ARENA_2	0.226	4.52	1272.0	RELLENO_ZANJA	1.754	33.65	11173.6
	ARENA_3	0.519	10.39	2907.8				
5060.000	D TIERRA	2.861	57.60	17488.2	ARENA_1	0.178	3.57	962.1
	ARENA_2	0.226	4.52	1276.5	RELLENO_ZANJA	1.715	34.69	11208.3
	ARENA_3	0.519	10.39	2918.2				
5080.000	D TIERRA	2.807	56.68	17544.9	ARENA_1	0.178	3.57	965.6
	ARENA_2	0.226	4.52	1281.0	RELLENO_ZANJA	1.662	33.77	11242.0
	ARENA_3	0.519	10.39	2928.5				
5092.631	D TIERRA	2.889	35.98	17580.9	ARENA_1	0.178	2.25	967.9
	ARENA_2	0.226	2.85	1283.9	RELLENO_ZANJA	1.744	21.51	11263.6
	ARENA_3	0.519	6.56	2935.1				
5100.000	D TIERRA	2.944	21.49	17602.4	ARENA_1	0.178	1.31	969.2
	ARENA_2	0.226	1.66	1285.5	RELLENO_ZANJA	1.798	13.05	11276.6
	ARENA_3	0.519	3.83	2938.9				
5120.000	D TIERRA	3.093	60.37	17662.7	ARENA_1	0.178	3.57	972.8
	ARENA_2	0.226	4.52	1290.0	RELLENO_ZANJA	1.947	37.45	11314.1
	ARENA_3	0.519	10.39	2949.3				
5140.000	D TIERRA	3.269	63.61	17726.3	ARENA_1	0.178	3.57	976.3
	ARENA_2	0.226	4.52	1294.6	RELLENO_ZANJA	2.123	40.70	11354.8
	ARENA_3	0.519	10.39	2959.7				
5160.000	D TIERRA	3.455	67.24	17793.6	ARENA_1	0.178	3.57	979.9
	ARENA_2	0.226	4.52	1299.1	RELLENO_ZANJA	2.310	44.33	11399.1
	ARENA_3	0.519	10.39	2970.1				
5168.568	D TIERRA	3.535	29.95	17823.5	ARENA_1	0.178	1.53	981.4
	ARENA_2	0.226	1.93	1301.0	RELLENO_ZANJA	2.390	20.13	11419.2
	ARENA_3	0.519	4.45	2974.6				
5180.000	D TIERRA	3.216	38.59	17862.1	ARENA_1	0.178	2.04	983.5
	ARENA_2	0.226	2.58	1303.6	RELLENO_ZANJA	2.070	25.49	11444.7
	ARENA_3	0.519	5.94	2980.5				
5200.000	D TIERRA	3.166	63.82	17925.9	ARENA_1	0.178	3.57	987.0
	ARENA_2	0.226	4.52	1308.1	RELLENO_ZANJA	2.020	40.91	11485.6
	ARENA_3	0.519	10.39	2990.9				
5204.853	D TIERRA	3.076	15.15	17941.1	ARENA_1	0.178	0.87	987.9
	ARENA_2	0.226	1.10	1309.2	RELLENO_ZANJA	1.930	9.59	11495.2
	ARENA_3	0.519	2.52	2993.4				
5220.000	D TIERRA	3.011	46.10	17987.2	ARENA_1	0.178	2.70	990.6
	ARENA_2	0.226	3.42	1312.6	RELLENO_ZANJA	1.866	28.75	11524.0
	ARENA_3	0.519	7.87	3001.3				
5233.062	D TIERRA	2.944	38.90	18026.1	ARENA_1	0.178	2.33	992.9
	ARENA_2	0.226	2.95	1315.6	RELLENO_ZANJA	1.799	23.93	11547.9
	ARENA_3	0.519	6.78	3008.0				

PERFIL	MATERIAL	AREA PERFIL	VOL. PARCIAL	VOL. ACUMUL.	MATERIAL	AREA PERFIL	VOL. PARCIAL	VOL. ACUMUL.
5240.000	D TIERRA	2.909	20.30	18046.4	ARENA_1	0.178	1.24	994.2
	ARENA_2	0.226	1.57	1317.1	RELLENO_ZANJA	1.763	12.36	11560.3
	ARENA_3	0.519	3.60	3011.7				
5260.000	D TIERRA	2.806	57.15	18103.5	ARENA_1	0.178	3.57	997.7
	ARENA_2	0.226	4.52	1321.7	RELLENO_ZANJA	1.661	34.24	11594.5
	ARENA_3	0.519	10.39	3022.0				
5280.000	D TIERRA	2.757	55.63	18159.2	ARENA_1	0.178	3.57	1001.3
	ARENA_2	0.226	4.52	1326.2	RELLENO_ZANJA	1.611	32.72	11627.2
	ARENA_3	0.519	10.39	3032.4				
5300.000	D TIERRA	3.181	59.38	18218.6	ARENA_1	0.178	3.57	1004.9
	ARENA_2	0.226	4.52	1330.7	RELLENO_ZANJA	2.036	36.47	11663.7
	ARENA_3	0.519	10.39	3042.8				
5320.000	D TIERRA	3.685	68.67	18287.2	ARENA_1	0.178	3.57	1008.4
	ARENA_2	0.226	4.52	1335.2	RELLENO_ZANJA	2.540	45.75	11709.4
	ARENA_3	0.519	10.39	3053.2				
5340.000	D TIERRA	4.175	78.60	18365.8	ARENA_1	0.178	3.56	1012.0
	ARENA_2	0.226	4.52	1339.7	RELLENO_ZANJA	3.029	55.69	11765.1
	ARENA_3	0.519	10.39	3063.6				
5351.149	D TIERRA	3.794	44.42	18410.2	ARENA_1	0.178	1.99	1014.0
	ARENA_2	0.226	2.52	1342.2	RELLENO_ZANJA	2.649	31.65	11796.8
	ARENA_3	0.519	5.79	3069.4				
5360.000	D TIERRA	2.725	28.85	18439.1	ARENA_1	0.178	1.58	1015.6
	ARENA_2	0.226	2.00	1344.2	RELLENO_ZANJA	1.580	18.71	11815.5
	ARENA_3	0.519	4.60	3074.0				
5365.984	D TIERRA	3.856	19.69	18458.8	ARENA_1	0.178	1.07	1016.6
	ARENA_2	0.226	1.35	1345.6	RELLENO_ZANJA	2.710	12.84	11828.3
	ARENA_3	0.519	3.11	3077.1				
5380.000	D TIERRA	3.423	51.01	18509.8	ARENA_1	0.178	2.50	1019.1
	ARENA_2	0.226	3.17	1348.8	RELLENO_ZANJA	2.277	34.95	11863.3
	ARENA_3	0.519	7.28	3084.4				
5388.840	D TIERRA	2.834	27.66	18537.5	ARENA_1	0.178	1.58	1020.7
	ARENA_2	0.226	2.00	1350.8	RELLENO_ZANJA	1.689	17.53	11880.8
	ARENA_3	0.519	4.59	3089.0				
5400.000	D TIERRA	4.145	38.95	18576.4	ARENA_1	0.178	1.99	1022.7
	ARENA_2	0.226	2.52	1353.3	RELLENO_ZANJA	2.999	26.16	11907.0
	ARENA_3	0.519	5.80	3094.8				
5420.000	D TIERRA	3.742	78.87	18655.3	ARENA_1	0.178	3.56	1026.2
	ARENA_2	0.226	4.52	1357.8	RELLENO_ZANJA	2.597	55.96	11962.9
	ARENA_3	0.519	10.39	3105.1				
5440.000	D TIERRA	2.759	65.01	18720.3	ARENA_1	0.178	3.56	1029.8
	ARENA_2	0.226	4.52	1362.3	RELLENO_ZANJA	1.613	42.10	12005.0
	ARENA_3	0.519	10.39	3115.5				
5459.855	D TIERRA	3.427	61.41	18781.7	ARENA_1	0.178	3.54	1033.4
	ARENA_2	0.226	4.48	1366.8	RELLENO_ZANJA	2.281	38.67	12043.7
	ARENA_3	0.519	10.31	3125.8				
5460.000	D TIERRA	3.428	0.50	18782.2	ARENA_1	0.178	0.03	1033.4
	ARENA_2	0.226	0.03	1366.8	RELLENO_ZANJA	2.282	0.33	12044.0
	ARENA_3	0.519	0.08	3125.9				
5480.000	D TIERRA	3.522	69.50	18851.7	ARENA_1	0.178	3.57	1036.9
	ARENA_2	0.226	4.52	1371.3	RELLENO_ZANJA	2.376	46.59	12090.6
	ARENA_3	0.519	10.39	3136.3				
5500.000	D TIERRA	3.362	68.84	18920.5	ARENA_1	0.178	3.57	1040.5
	ARENA_2	0.226	4.52	1375.9	RELLENO_ZANJA	2.216	45.93	12136.5
	ARENA_3	0.519	10.39	3146.7				
5520.000	D TIERRA	3.158	65.20	18985.7	ARENA_1	0.178	3.57	1044.1
	ARENA_2	0.226	4.52	1380.4	RELLENO_ZANJA	2.013	42.29	12178.8
	ARENA_3	0.519	10.39	3157.1				
5540.000	D TIERRA	2.600	57.58	19043.3	ARENA_1	0.178	3.57	1047.6
	ARENA_2	0.226	4.52	1384.9	RELLENO_ZANJA	1.454	34.67	12213.5
	ARENA_3	0.519	10.39	3167.5				

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 PROYECTO : CIDACOS COMPLETO
 EJE : 7: EJE 7. ARQUETA PRINCIPAL (P190) - CALAHORRA (P210)

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 PROYECTO : CIDACOS COMPLETO
 EJE : 7: EJE 7. ARQUETA PRINCIPAL (P190) - CALAHORRA (P210)

 * * * MEDICIONES DE LOS PERFILES TRANSVERSALES * * *
 * * * CAPAS DE FIRME * * *

 * * * MEDICIONES DE LOS PERFILES TRANSVERSALES * * *
 * * * CAPAS DE FIRME * * *

PERFIL	MATERIAL	AREA PERFIL	VOL. PARCIAL	VOL. ACUMUL.	MATERIAL	AREA PERFIL	VOL. PARCIAL	VOL. ACUMUL.	PERFIL	MATERIAL	AREA PERFIL	VOL. PARCIAL	VOL. ACUMUL.	MATERIAL	AREA PERFIL	VOL. PARCIAL	VOL. ACUMUL.
5560.000	D TIERRA	2.770	53.70	19097.0	ARENA_1	0.178	3.57	1051.2	5840.000	D TIERRA	2.565	37.04	19816.1	ARENA_1	0.176	2.46	1097.9
	ARENA_2	0.226	4.52	1389.4	RELLENO_ZANJA	1.625	30.79	12244.3		ARENA_2	0.214	2.99	1448.4	RELLENO_ZANJA	1.477	21.84	12664.0
	ARENA_3	0.519	10.39	3177.9						ARENA_3	0.476	6.65	3313.3				
5580.000	D TIERRA	2.782	55.52	19152.5	ARENA_1	0.178	3.57	1054.8	5860.000	D TIERRA	2.527	50.92	19867.1	ARENA_1	0.176	3.52	1101.4
	ARENA_2	0.226	4.52	1393.9	RELLENO_ZANJA	1.637	32.61	12276.9		ARENA_2	0.214	4.27	1452.7	RELLENO_ZANJA	1.439	29.15	12693.1
	ARENA_3	0.519	10.39	3188.3						ARENA_3	0.476	9.52	3322.8				
5600.000	D TIERRA	2.794	55.76	19208.3	ARENA_1	0.178	3.57	1058.3	5869.814	D TIERRA	2.663	25.47	19892.5	ARENA_1	0.176	1.73	1103.2
	ARENA_2	0.226	4.52	1398.4	RELLENO_ZANJA	1.649	32.85	12309.7		ARENA_2	0.214	2.10	1454.8	RELLENO_ZANJA	1.575	14.79	12707.9
	ARENA_3	0.519	10.39	3198.6						ARENA_3	0.476	4.67	3327.5				
5620.000	D TIERRA	2.779	55.73	19264.0	ARENA_1	0.178	3.57	1061.9	5880.000	D TIERRA	2.526	26.43	19919.0	ARENA_1	0.176	1.79	1105.0
	ARENA_2	0.226	4.52	1403.0	RELLENO_ZANJA	1.633	32.82	12342.6		ARENA_2	0.214	2.18	1457.0	RELLENO_ZANJA	1.438	15.35	12723.3
	ARENA_3	0.519	10.39	3209.0						ARENA_3	0.476	4.85	3332.3				
5640.000	D TIERRA	2.751	55.30	19319.3	ARENA_1	0.178	3.57	1065.5	5900.000	D TIERRA	2.532	50.59	19969.5	ARENA_1	0.176	3.52	1108.5
	ARENA_2	0.226	4.52	1407.5	RELLENO_ZANJA	1.605	32.39	12374.9		ARENA_2	0.214	4.27	1461.2	RELLENO_ZANJA	1.444	28.82	12752.1
	ARENA_3	0.519	10.39	3219.4						ARENA_3	0.476	9.52	3341.9				
5660.000	D TIERRA	2.722	54.73	19374.1	ARENA_1	0.178	3.57	1069.0	5920.000	D TIERRA	2.635	51.67	20021.2	ARENA_1	0.176	3.52	1112.0
	ARENA_2	0.226	4.52	1412.0	RELLENO_ZANJA	1.577	31.82	12406.8		ARENA_2	0.214	4.27	1465.5	RELLENO_ZANJA	1.547	29.91	12782.0
	ARENA_3	0.519	10.39	3229.8						ARENA_3	0.476	9.53	3351.4				
5680.000	D TIERRA	2.708	54.30	19428.4	ARENA_1	0.178	3.57	1072.6	5930.512	D TIERRA	2.743	28.27	20049.5	ARENA_1	0.176	1.85	1113.9
	ARENA_2	0.226	4.52	1416.5	RELLENO_ZANJA	1.562	31.39	12438.2		ARENA_2	0.214	2.25	1467.8	RELLENO_ZANJA	1.654	16.83	12798.8
	ARENA_3	0.519	10.39	3240.2						ARENA_3	0.476	5.01	3356.4				
5700.000	D TIERRA	2.704	54.12	19482.5	ARENA_1	0.178	3.57	1076.2	5940.000	D TIERRA	2.707	25.86	20075.3	ARENA_1	0.176	1.67	1115.5
	ARENA_2	0.226	4.52	1421.0	RELLENO_ZANJA	1.558	31.21	12469.4		ARENA_2	0.214	2.03	1469.8	RELLENO_ZANJA	1.619	15.53	12814.4
	ARENA_3	0.519	10.39	3250.6						ARENA_3	0.476	4.52	3360.9				
5720.000	D TIERRA	2.699	54.03	19536.5	ARENA_1	0.178	3.57	1079.7	5945.032	D TIERRA	2.701	13.61	20088.9	ARENA_1	0.176	0.89	1116.4
	ARENA_2	0.226	4.52	1425.5	RELLENO_ZANJA	1.554	31.12	12500.5		ARENA_2	0.214	1.07	1470.9	RELLENO_ZANJA	1.613	8.13	12822.5
	ARENA_3	0.519	10.39	3261.0						ARENA_3	0.476	2.40	3363.3				
5740.000	D TIERRA	2.700	53.99	19590.5	ARENA_1	0.178	3.57	1083.3	5960.000	D TIERRA	2.710	40.49	20129.4	ARENA_1	0.176	2.64	1119.1
	ARENA_2	0.226	4.52	1430.1	RELLENO_ZANJA	1.554	31.08	12531.6		ARENA_2	0.214	3.20	1474.1	RELLENO_ZANJA	1.622	24.21	12846.7
	ARENA_3	0.519	10.39	3271.4						ARENA_3	0.476	7.13	3370.4				
5760.000	D TIERRA	2.730	54.30	19644.8	ARENA_1	0.178	3.57	1086.9	5980.000	D TIERRA	2.736	54.46	20183.9	ARENA_1	0.176	3.52	1122.6
	ARENA_2	0.226	4.52	1434.6	RELLENO_ZANJA	1.584	31.39	12562.9		ARENA_2	0.214	4.27	1478.3	RELLENO_ZANJA	1.648	32.69	12879.4
	ARENA_3	0.519	10.39	3281.7						ARENA_3	0.476	9.53	3380.0				
5780.000	D TIERRA	2.769	54.99	19699.8	ARENA_1	0.178	3.57	1090.4	5993.729	D TIERRA	2.763	37.75	20221.7	ARENA_1	0.176	2.42	1125.0
	ARENA_2	0.226	4.52	1439.1	RELLENO_ZANJA	1.624	32.08	12595.0		ARENA_2	0.214	2.93	1481.3	RELLENO_ZANJA	1.675	22.81	12902.2
	ARENA_3	0.519	10.39	3292.1						ARENA_3	0.476	6.54	3386.5				
5800.000	D TIERRA	2.809	55.79	19755.6	ARENA_1	0.178	3.57	1094.0	6000.000	D TIERRA	2.759	17.32	20239.0	ARENA_1	0.176	1.10	1126.1
	ARENA_2	0.226	4.52	1443.6	RELLENO_ZANJA	1.664	32.88	12627.9		ARENA_2	0.214	1.34	1482.6	RELLENO_ZANJA	1.671	10.49	12912.7
	ARENA_3	0.519	10.39	3302.5						ARENA_3	0.476	2.99	3389.5				
5801.772	D TIERRA	2.812	4.98	19760.6	ARENA_1	0.178	0.32	1094.3	6020.000	D TIERRA	2.755	55.14	20294.1	ARENA_1	0.176	3.52	1129.6
	ARENA_2	0.226	0.40	1444.0	RELLENO_ZANJA	1.667	2.95	12630.9		ARENA_2	0.214	4.27	1486.9	RELLENO_ZANJA	1.667	33.38	12946.1
	ARENA_3	0.519	0.92	3303.4						ARENA_3	0.476	9.53	3399.0				
5803.886	D TIERRA	2.654	5.78	19766.3	ARENA_1	0.178	0.38	1094.7	6040.000	D TIERRA	2.743	54.98	20349.1	ARENA_1	0.176	3.52	1133.2
	ARENA_2	0.226	0.48	1444.5	RELLENO_ZANJA	1.508	3.36	12634.2		ARENA_2	0.214	4.27	1491.1	RELLENO_ZANJA	1.655	33.22	12979.3
	ARENA_3	0.519	1.10	3304.5						ARENA_3	0.476	9.53	3408.5				
5803.886	D TIERRA	0.000	0.00	19766.3	ARENA_1	0.000	0.00	1094.7	6046.104	D TIERRA	2.733	16.71	20365.8	ARENA_1	0.176	1.08	1134.2
	ARENA_2	0.000	0.00	1444.5	RELLENO_ZANJA	0.000	0.00	12634.2		ARENA_2	0.214	1.30	1492.5	RELLENO_ZANJA	1.645	10.07	12989.4
	ARENA_3	0.000	0.00	3304.5						ARENA_3	0.476	2.91	3411.5				
5820.000	D TIERRA	0.000	0.00	19766.3	ARENA_1	0.000	0.00	1094.7	6052.127	D TIERRA	2.720	16.42	20382.2	ARENA_1	0.176	1.06	1135.3
	ARENA_2	0.000	0.00	1444.5	RELLENO_ZANJA	0.000	0.00	12634.2		ARENA_2	0.214	1.29	1493.7	RELLENO_ZANJA	1.632	9.87	12999.2
	ARENA_3	0.000	0.00	3304.5						ARENA_3	0.476	2.87	3414.3				
5821.594	D TIERRA	0.000	0.00	19766.3	ARENA_1	0.000	0.00	1094.7	6060.000	D TIERRA	2.710	21.38	20403.6	ARENA_1	0.176	1.39	1136.7
	ARENA_2	0.000	0.00	1444.5	RELLENO_ZANJA	0.000	0.00	12634.2		ARENA_2	0.214	1.68	1495.4	RELLENO_ZANJA	1.622	12.81	13012.0
	ARENA_3	0.000	0.00	3304.5						ARENA_3	0.476	3.75	3418.1				
5821.594	D TIERRA	3.027	0.00	19766.3	ARENA_1	0.176	0.00	1094.7	6068.212	D TIERRA	2.704	22.23	20425.8	ARENA_1	0.176	1.45	1138.1
	ARENA_2	0.214	0.00	1444.5	RELLENO_ZANJA	1.938	0.00	12634.2		ARENA_2	0.214	1.75	1497.2	RELLENO_ZANJA	1.616	13.30	13025.3
	ARENA_3	0.476	0.00	3304.5						ARENA_3	0.476	3.91	3422.0				
5826.025	D TIERRA	2.737	12.77	19779.1	ARENA_1	0.176	0.78	1095.5	6080.000	D TIERRA	2.700	31.85	20457.7	ARENA_1	0.176	2.08	1140.2
	ARENA_2	0.214	0.95	1445.4	RELLENO_ZANJA	1.648	7.95	12642.2		ARENA_2	0.214	2.52	1499.7	RELLENO_ZANJA	1.612	19.03	13044.4
	ARENA_3	0.476	2.11	3306.6						ARENA_3	0.476	5.61	3427.6				



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PROYECTO : CIDACOS COMPLETO
EJE : 7: EJE 7. ARQUETA PRINCIPAL (P190) - CALAHORRA (P210)

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PROYECTO : CIDACOS COMPLETO
EJE : 7: EJE 7. ARQUETA PRINCIPAL (P190) - CALAHORRA (P210)

*** MEDICIONES DE LOS PERFILES TRANSVERSALES ***
*** CAPAS DE FIRME ***

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*** CAPAS DE FIRME ***

PERFIL	MATERIAL	AREA PERFIL	VOL. PARCIAL	VOL. ACUMUL.	MATERIAL	AREA PERFIL	VOL. PARCIAL	VOL. ACUMUL.
6100.000	D TIERRA	2.709	54.09	20511.8	ARENA_1	0.176	3.52	1143.7
	ARENA_2	0.214	4.27	1504.0	RELLENO_ZANJA	1.621	32.33	13076.7
	ARENA_3	0.476	9.53	3437.1				
6107.239	D TIERRA	2.714	19.63	20531.4	ARENA_1	0.176	1.28	1145.0
	ARENA_2	0.214	1.55	1505.5	RELLENO_ZANJA	1.626	11.75	13088.4
	ARENA_3	0.476	3.45	3440.6				
6120.000	D TIERRA	2.730	34.74	20566.2	ARENA_1	0.176	2.25	1147.2
	ARENA_2	0.214	2.73	1508.2	RELLENO_ZANJA	1.641	20.85	13109.3
	ARENA_3	0.476	6.08	3446.7				
6140.000	D TIERRA	2.756	54.86	20621.0	ARENA_1	0.176	3.52	1150.8
	ARENA_2	0.214	4.27	1512.5	RELLENO_ZANJA	1.668	33.09	13142.4
	ARENA_3	0.476	9.53	3456.2				
6160.000	D TIERRA	2.864	56.20	20677.2	ARENA_1	0.176	3.52	1154.3
	ARENA_2	0.214	4.27	1516.8	RELLENO_ZANJA	1.776	34.44	13176.8
	ARENA_3	0.476	9.53	3465.7				
6180.000	D TIERRA	2.883	57.47	20734.7	ARENA_1	0.176	3.52	1157.8
	ARENA_2	0.214	4.27	1521.1	RELLENO_ZANJA	1.795	35.71	13212.5
	ARENA_3	0.476	9.53	3475.2				
6194.799	D TIERRA	2.887	42.70	20777.4	ARENA_1	0.176	2.61	1160.4
	ARENA_2	0.214	3.16	1524.2	RELLENO_ZANJA	1.799	26.59	13239.1
	ARENA_3	0.476	7.05	3482.3				
6200.000	D TIERRA	2.926	15.12	20792.5	ARENA_1	0.176	0.92	1161.3
	ARENA_2	0.214	1.11	1525.3	RELLENO_ZANJA	1.838	9.46	13248.6
	ARENA_3	0.476	2.48	3484.8				
6220.000	D TIERRA	3.231	61.57	20854.1	ARENA_1	0.176	3.52	1164.9
	ARENA_2	0.214	4.27	1529.6	RELLENO_ZANJA	2.143	39.81	13288.4
	ARENA_3	0.476	9.53	3494.3				
6224.188	D TIERRA	3.280	13.63	20867.7	ARENA_1	0.176	0.74	1165.6
	ARENA_2	0.214	0.89	1530.5	RELLENO_ZANJA	2.192	9.08	13297.5
	ARENA_3	0.476	1.99	3496.3				
6240.000	D TIERRA	3.158	50.90	20918.6	ARENA_1	0.176	2.79	1168.4
	ARENA_2	0.214	3.38	1533.9	RELLENO_ZANJA	2.070	33.69	13331.2
	ARENA_3	0.476	7.53	3503.8				
6260.000	D TIERRA	2.738	58.96	20977.6	ARENA_1	0.176	3.52	1171.9
	ARENA_2	0.214	4.27	1538.1	RELLENO_ZANJA	1.650	37.20	13368.4
	ARENA_3	0.476	9.53	3513.3				
6280.000	D TIERRA	2.526	52.64	21030.2	ARENA_1	0.176	3.52	1175.4
	ARENA_2	0.214	4.27	1542.4	RELLENO_ZANJA	1.438	30.88	13399.2
	ARENA_3	0.476	9.53	3522.9				
6283.734	D TIERRA	2.521	9.42	21039.6	ARENA_1	0.176	0.66	1176.1
	ARENA_2	0.214	0.80	1543.2	RELLENO_ZANJA	1.432	5.36	13404.6
	ARENA_3	0.476	1.78	3524.6				
6300.000	D TIERRA	2.509	40.90	21080.5	ARENA_1	0.176	2.87	1179.0
	ARENA_2	0.214	3.47	1546.7	RELLENO_ZANJA	1.420	23.20	13427.8
	ARENA_3	0.476	7.75	3532.4				
6307.568	D TIERRA	2.503	18.96	21099.5	ARENA_1	0.176	1.33	1180.3
	ARENA_2	0.214	1.62	1548.3	RELLENO_ZANJA	1.415	10.73	13438.5
	ARENA_3	0.476	3.60	3536.0				
6320.000	D TIERRA	2.501	31.11	21130.6	ARENA_1	0.176	2.19	1182.5
	ARENA_2	0.214	2.66	1551.0	RELLENO_ZANJA	1.413	17.58	13456.1
	ARENA_3	0.476	5.92	3541.9				
6340.000	D TIERRA	2.495	49.96	21180.6	ARENA_1	0.176	3.52	1186.0
	ARENA_2	0.214	4.27	1555.2	RELLENO_ZANJA	1.406	28.19	13484.3
	ARENA_3	0.476	9.53	3551.4				
6360.000	D TIERRA	2.487	49.81	21230.4	ARENA_1	0.176	3.52	1189.5
	ARENA_2	0.214	4.27	1559.5	RELLENO_ZANJA	1.398	28.05	13512.3
	ARENA_3	0.476	9.53	3561.0				
6380.000	D TIERRA	2.528	50.14	21280.5	ARENA_1	0.176	3.52	1193.0
	ARENA_2	0.214	4.27	1563.8	RELLENO_ZANJA	1.439	28.38	13540.7
	ARENA_3	0.476	9.53	3570.5				

PERFIL	MATERIAL	AREA PERFIL	VOL. PARCIAL	VOL. ACUMUL.	MATERIAL	AREA PERFIL	VOL. PARCIAL	VOL. ACUMUL.
6400.000	D TIERRA	2.541	50.69	21331.2	ARENA_1	0.176	3.52	1196.6
	ARENA_2	0.214	4.27	1568.0	RELLENO_ZANJA	1.453	28.93	13569.6
	ARENA_3	0.476	9.53	3580.0				
6409.957	D TIERRA	2.548	25.34	21356.6	ARENA_1	0.176	1.75	1198.3
	ARENA_2	0.214	2.13	1570.2	RELLENO_ZANJA	1.460	14.50	13584.1
	ARENA_3	0.476	4.74	3584.8				
6420.000	D TIERRA	2.558	25.64	21382.2	ARENA_1	0.176	1.77	1200.1
	ARENA_2	0.214	2.15	1572.3	RELLENO_ZANJA	1.469	14.71	13598.9
	ARENA_3	0.476	4.78	3589.5				
6440.000	D TIERRA	2.560	51.18	21433.4	ARENA_1	0.176	3.52	1203.6
	ARENA_2	0.214	4.27	1576.6	RELLENO_ZANJA	1.472	29.41	13628.3
	ARENA_3	0.476	9.53	3599.1				
6460.000	D TIERRA	2.558	51.19	21484.6	ARENA_1	0.176	3.52	1207.1
	ARENA_2	0.214	4.27	1580.9	RELLENO_ZANJA	1.470	29.42	13657.7
	ARENA_3	0.476	9.53	3608.6				
6480.000	D TIERRA	2.556	51.14	21535.7	ARENA_1	0.176	3.52	1210.7
	ARENA_2	0.214	4.27	1585.1	RELLENO_ZANJA	1.468	29.38	13687.1
	ARENA_3	0.476	9.53	3618.1				
6500.000	D TIERRA	2.554	51.10	21586.8	ARENA_1	0.176	3.52	1214.2
	ARENA_2	0.214	4.27	1589.4	RELLENO_ZANJA	1.466	29.34	13716.4
	ARENA_3	0.476	9.53	3627.7				
6520.000	D TIERRA	2.522	50.76	21637.6	ARENA_1	0.176	3.52	1217.7
	ARENA_2	0.214	4.27	1593.7	RELLENO_ZANJA	1.434	29.00	13745.4
	ARENA_3	0.476	9.53	3637.2				
6523.792	D TIERRA	2.540	9.60	21647.2	ARENA_1	0.176	0.67	1218.4
	ARENA_2	0.214	0.81	1594.5	RELLENO_ZANJA	1.452	5.47	13750.9
	ARENA_3	0.476	1.81	3639.0				
6540.000	D TIERRA	2.460	40.52	21687.7	ARENA_1	0.176	2.86	1221.2
	ARENA_2	0.214	3.46	1597.9	RELLENO_ZANJA	1.372	22.89	13773.8
	ARENA_3	0.476	7.72	3646.7				
6544.436	D TIERRA	2.420	10.83	21698.5	ARENA_1	0.176	0.78	1222.0
	ARENA_2	0.214	0.95	1598.9	RELLENO_ZANJA	1.332	6.00	13779.8
	ARENA_3	0.476	2.11	3648.8				
6560.000	D TIERRA	2.463	38.00	21736.5	ARENA_1	0.176	2.74	1224.8
	ARENA_2	0.214	3.32	1602.2	RELLENO_ZANJA	1.375	21.06	13800.8
	ARENA_3	0.476	7.41	3656.2				
6580.000	D TIERRA	2.474	49.37	21785.9	ARENA_1	0.176	3.52	1228.3
	ARENA_2	0.214	4.27	1606.5	RELLENO_ZANJA	1.386	27.60	13828.4
	ARENA_3	0.476	9.53	3665.8				
6600.000	D TIERRA	2.497	49.72	21835.6	ARENA_1	0.176	3.52	1231.8
	ARENA_2	0.214	4.27	1610.8	RELLENO_ZANJA	1.409	27.95	13856.4
	ARENA_3	0.476	9.53	3675.3				
6613.338	D TIERRA	2.522	33.48	21869.1	ARENA_1	0.176	2.35	1234.1
	ARENA_2	0.214	2.85	1613.6	RELLENO_ZANJA	1.434	18.96	13875.3
	ARENA_3	0.476	6.35	3681.6				
6620.000	D TIERRA	2.529	16.83	21885.9	ARENA_1	0.176	1.17	1235.3
	ARENA_2	0.214	1.42	1615.0	RELLENO_ZANJA	1.440	9.58	13884.9
	ARENA_3	0.476	3.17	3684.8				
6633.830	D TIERRA	2.559	35.18	21921.1	ARENA_1	0.176	2.44	1237.8
	ARENA_2	0.214	2.95	1618.0	RELLENO_ZANJA	1.471	20.13	13905.0
	ARENA_3	0.476	6.59	3691.4				
6640.000	D TIERRA	2.581	15.86	21936.9	ARENA_1	0.176	1.09	1238.8
	ARENA_2	0.214	1.32	1619.3	RELLENO_ZANJA	1.493	9.14	13914.2
	ARENA_3	0.476	2.94	3694.3				
6654.672	D TIERRA	2.634	38.26	21975.2	ARENA_1	0.176	2.58	1241.4
	ARENA_2	0.214	3.13	1622.4	RELLENO_ZANJA	1.545	22.29	13936.5
	ARENA_3	0.476	6.99	3701.3				
6660.000	D TIERRA	2.645	14.06	21989.3	ARENA_1	0.176	0.94	1242.4
	ARENA_2	0.214	1.14	1623.6	RELLENO_ZANJA	1.556	8.26	13944.7
	ARENA_3	0.476	2.54	3703.9				



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PROYECTO : CIDACOS COMPLETO
EJE : 7: EJE 7. ARQUETA PRINCIPAL (P190) - CALAHORRA (P210)

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PROYECTO : CIDACOS COMPLETO
EJE : 7: EJE 7. ARQUETA PRINCIPAL (P190) - CALAHORRA (P210)

*** MEDICIONES DE LOS PERFILES TRANSVERSALES ***
*** CAPAS DE FIRME ***

*** MEDICIONES DE LOS PERFILES TRANSVERSALES ***
*** CAPAS DE FIRME ***

PERFIL	MATERIAL	AREA PERFIL	VOL. PARCIAL	VOL. ACUMUL.	MATERIAL	AREA PERFIL	VOL. PARCIAL	VOL. ACUMUL.
6680.000	D TIERRA	2.685	53.30	22042.6	ARENA_1	0.176	3.52	1245.9
	ARENA_2	0.214	4.27	1627.9	RELLENO_ZANJA	1.597	31.53	13976.3
	ARENA_3	0.476	9.53	3713.4				
6700.000	D TIERRA	2.722	54.08	22096.6	ARENA_1	0.176	3.52	1249.4
	ARENA_2	0.214	4.27	1632.1	RELLENO_ZANJA	1.634	32.31	14008.6
	ARENA_3	0.476	9.53	3722.9				
6710.121	D TIERRA	2.729	27.58	22124.2	ARENA_1	0.176	1.78	1251.2
	ARENA_2	0.214	2.16	1634.3	RELLENO_ZANJA	1.640	16.57	14025.2
	ARENA_3	0.476	4.82	3727.7				
6720.000	D TIERRA	2.732	26.97	22151.2	ARENA_1	0.176	1.74	1252.9
	ARENA_2	0.214	2.11	1636.4	RELLENO_ZANJA	1.644	16.22	14041.4
	ARENA_3	0.476	4.71	3732.4				
6740.000	D TIERRA	2.756	54.89	22206.1	ARENA_1	0.176	3.52	1256.5
	ARENA_2	0.214	4.27	1640.7	RELLENO_ZANJA	1.668	33.12	14074.5
	ARENA_3	0.476	9.53	3742.0				
6760.000	D TIERRA	2.799	55.55	22261.6	ARENA_1	0.176	3.52	1260.0
	ARENA_2	0.214	4.27	1644.9	RELLENO_ZANJA	1.710	33.78	14108.3
	ARENA_3	0.476	9.53	3751.5				
6776.089	D TIERRA	2.817	45.18	22306.8	ARENA_1	0.176	2.83	1262.8
	ARENA_2	0.214	3.44	1648.4	RELLENO_ZANJA	1.729	27.67	14135.9
	ARENA_3	0.476	7.66	3759.2				
6780.000	D TIERRA	2.828	11.04	22317.8	ARENA_1	0.176	0.69	1263.5
	ARENA_2	0.214	0.84	1649.2	RELLENO_ZANJA	1.739	6.78	14142.7
	ARENA_3	0.476	1.86	3761.0				
6796.464	D TIERRA	2.841	46.66	22364.5	ARENA_1	0.176	2.90	1266.4
	ARENA_2	0.214	3.52	1652.7	RELLENO_ZANJA	1.752	28.74	14171.5
	ARENA_3	0.476	7.84	3768.9				
6800.000	D TIERRA	2.837	10.04	22374.5	ARENA_1	0.176	0.62	1267.0
	ARENA_2	0.214	0.76	1653.5	RELLENO_ZANJA	1.749	6.19	14177.7
	ARENA_3	0.476	1.68	3770.5				
6820.000	D TIERRA	2.799	56.36	22430.9	ARENA_1	0.176	3.52	1270.5
	ARENA_2	0.214	4.27	1657.8	RELLENO_ZANJA	1.711	34.60	14212.3
	ARENA_3	0.476	9.53	3780.1				
6840.000	D TIERRA	2.761	55.60	22486.5	ARENA_1	0.176	3.52	1274.1
	ARENA_2	0.214	4.27	1662.0	RELLENO_ZANJA	1.673	33.84	14246.1
	ARENA_3	0.476	9.53	3789.6				
6860.000	D TIERRA	3.213	59.75	22546.3	ARENA_1	0.176	3.52	1277.6
	ARENA_2	0.214	4.27	1666.3	RELLENO_ZANJA	2.125	37.98	14284.1
	ARENA_3	0.476	9.53	3799.1				
6880.000	D TIERRA	3.156	63.70	22609.9	ARENA_1	0.176	3.52	1281.1
	ARENA_2	0.214	4.27	1670.6	RELLENO_ZANJA	2.068	41.93	14326.0
	ARENA_3	0.476	9.53	3808.6				
6900.000	D TIERRA	2.884	60.41	22670.4	ARENA_1	0.176	3.52	1284.6
	ARENA_2	0.214	4.27	1674.8	RELLENO_ZANJA	1.796	38.64	14364.7
	ARENA_3	0.476	9.53	3818.2				
6920.000	D TIERRA	3.631	65.15	22735.5	ARENA_1	0.176	3.52	1288.2
	ARENA_2	0.214	4.27	1679.1	RELLENO_ZANJA	2.543	43.39	14408.0
	ARENA_3	0.476	9.53	3827.7				
6940.000	D TIERRA	3.692	73.23	22808.7	ARENA_1	0.176	3.52	1291.7
	ARENA_2	0.214	4.27	1683.4	RELLENO_ZANJA	2.603	51.46	14459.5
	ARENA_3	0.476	9.53	3837.2				
6960.000	D TIERRA	3.666	73.58	22882.3	ARENA_1	0.176	3.52	1295.2
	ARENA_2	0.214	4.27	1687.7	RELLENO_ZANJA	2.578	51.81	14511.3
	ARENA_3	0.476	9.53	3846.8				
6980.000	D TIERRA	2.526	61.93	22944.2	ARENA_1	0.176	3.52	1298.7
	ARENA_2	0.214	4.27	1691.9	RELLENO_ZANJA	1.438	40.16	14551.5
	ARENA_3	0.476	9.53	3856.3				
7000.000	D TIERRA	2.657	51.84	22996.1	ARENA_1	0.176	3.52	1302.3
	ARENA_2	0.214	4.27	1696.2	RELLENO_ZANJA	1.569	30.07	14581.5
	ARENA_3	0.476	9.53	3865.8				

PERFIL	MATERIAL	AREA PERFIL	VOL. PARCIAL	VOL. ACUMUL.	MATERIAL	AREA PERFIL	VOL. PARCIAL	VOL. ACUMUL.
7015.413	D TIERRA	2.752	41.69	23037.8	ARENA_1	0.176	2.72	1305.0
	ARENA_2	0.214	3.29	1699.5	RELLENO_ZANJA	1.664	24.91	14606.5
	ARENA_3	0.476	7.34	3873.1				
7020.000	D TIERRA	2.641	12.37	23050.1	ARENA_1	0.176	0.81	1305.8
	ARENA_2	0.214	0.98	1700.5	RELLENO_ZANJA	1.552	7.38	14613.8
	ARENA_3	0.476	2.18	3875.3				
7040.000	D TIERRA	2.459	50.99	23101.1	ARENA_1	0.176	3.52	1309.3
	ARENA_2	0.214	4.27	1704.7	RELLENO_ZANJA	1.371	29.23	14643.1
	ARENA_3	0.476	9.53	3884.9				
7048.823	D TIERRA	2.598	22.31	23123.4	ARENA_1	0.176	1.55	1310.9
	ARENA_2	0.214	1.88	1706.6	RELLENO_ZANJA	1.510	12.71	14655.8
	ARENA_3	0.476	4.20	3889.1				
7057.843	D TIERRA	2.602	23.45	23146.9	ARENA_1	0.176	1.59	1312.4
	ARENA_2	0.214	1.93	1708.6	RELLENO_ZANJA	1.514	13.64	14669.4
	ARENA_3	0.476	4.30	3893.4				
7060.000	D TIERRA	2.600	5.61	23152.5	ARENA_1	0.176	0.38	1312.8
	ARENA_2	0.214	0.46	1709.0	RELLENO_ZANJA	1.512	3.26	14672.7
	ARENA_3	0.476	1.03	3894.4				
7074.762	D TIERRA	2.578	38.22	23190.7	ARENA_1	0.176	2.60	1315.4
	ARENA_2	0.214	3.15	1712.2	RELLENO_ZANJA	1.489	22.15	14694.8
	ARENA_3	0.476	7.03	3901.4				
7080.000	D TIERRA	2.575	13.49	23204.2	ARENA_1	0.176	0.92	1316.3
	ARENA_2	0.214	1.12	1713.3	RELLENO_ZANJA	1.486	7.79	14702.6
	ARENA_3	0.476	2.49	3903.9				
7100.000	D TIERRA	2.592	51.66	23255.9	ARENA_1	0.176	3.52	1319.9
	ARENA_2	0.214	4.27	1717.6	RELLENO_ZANJA	1.503	29.90	14732.5
	ARENA_3	0.476	9.53	3913.4				
7120.000	D TIERRA	2.642	52.33	23308.2	ARENA_1	0.176	3.52	1323.4
	ARENA_2	0.214	4.27	1721.8	RELLENO_ZANJA	1.553	30.57	14763.1
	ARENA_3	0.476	9.53	3923.0				
7140.000	D TIERRA	2.547	51.88	23360.1	ARENA_1	0.176	3.52	1326.9
	ARENA_2	0.214	4.27	1726.1	RELLENO_ZANJA	1.458	30.12	14793.2
	ARENA_3	0.476	9.53	3932.5				
7160.000	D TIERRA	2.556	51.03	23411.1	ARENA_1	0.176	3.52	1330.4
	ARENA_2	0.214	4.27	1730.4	RELLENO_ZANJA	1.468	29.27	14822.5
	ARENA_3	0.476	9.53	3942.0				
7180.000	D TIERRA	2.547	51.04	23462.2	ARENA_1	0.176	3.52	1334.0
	ARENA_2	0.214	4.27	1734.7	RELLENO_ZANJA	1.459	29.27	14851.7
	ARENA_3	0.476	9.53	3951.5				
7196.562	D TIERRA	4.603	59.21	23521.4	ARENA_1	0.176	2.92	1336.9
	ARENA_2	0.214	3.54	1738.2	RELLENO_ZANJA	3.514	41.19	14892.9
	ARENA_3	0.475	7.88	3959.4				
7200.000	D TIERRA	3.525	13.97	23535.3	ARENA_1	0.176	0.61	1337.5
	ARENA_2	0.214	0.74	1738.9	RELLENO_ZANJA	2.437	10.23	14903.2
	ARENA_3	0.473	1.63	3961.1				
7220.000	D TIERRA	2.491	60.16	23595.5	ARENA_1	0.176	3.52	1341.0
	ARENA_2	0.214	4.28	1743.2	RELLENO_ZANJA	1.403	38.39	14941.6
	ARENA_3	0.473	9.47	3970.5				
7237.988	D TIERRA	3.759	56.21	23651.7	ARENA_1	0.176	3.17	1344.2
	ARENA_2	0.214	3.85	1747.1	RELLENO_ZANJA	2.670	36.64	14978.2
	ARENA_3	0.476	8.54	3979.1				
7240.000	D TIERRA	4.538	8.35	23660.1	ARENA_1	0.176	0.35	1344.5
	ARENA_2	0.214	0.43	1747.5	RELLENO_ZANJA	3.450	6.16	14984.3
	ARENA_3	0.476	0.96	3980.0				
7260.000	D TIERRA	2.524	70.62	23730.7	ARENA_1	0.176	3.52	1348.1
	ARENA_2	0.214	4.27	1751.8	RELLENO_ZANJA	1.435	48.85	15033.2
	ARENA_3	0.476	9.53	3989.6				
7280.000	D TIERRA	3.027	55.51	23786.2	ARENA_1	0.176	3.52	1351.6
	ARENA_2	0.214	4.27	1756.0	RELLENO_ZANJA	1.939	33.74	15066.9
	ARENA_3	0.475	9.51	3999.1				



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PROYECTO : CIDACOS COMPLETO
EJE : 7: EJE 7. ARQUETA PRINCIPAL (P190) - CALAHORRA (P210)

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PROYECTO : CIDACOS COMPLETO
EJE : 7: EJE 7. ARQUETA PRINCIPAL (P190) - CALAHORRA (P210)

*** MEDICIONES DE LOS PERFILES TRANSVERSALES ***
*** CAPAS DE FIRME ***

*** MEDICIONES DE LOS PERFILES TRANSVERSALES ***
*** CAPAS DE FIRME ***

PERFIL	MATERIAL	AREA PERFIL	VOL. PARCIAL	VOL. ACUMUL.	MATERIAL	AREA PERFIL	VOL. PARCIAL	VOL. ACUMUL.
7284.656	D TIERRA	2.266	12.32	23798.5	ARENA_1	0.176	0.82	1352.4
	ARENA_2	0.214	1.00	1757.0	RELLENO_ZANJA	1.178	7.26	15074.2
	ARENA_3	0.475	2.21	4001.3				
7299.481	D TIERRA	3.118	39.91	23838.4	ARENA_1	0.176	2.61	1355.0
	ARENA_2	0.214	3.17	1760.2	RELLENO_ZANJA	2.030	23.78	15098.0
	ARENA_3	0.475	7.04	4008.3				
7300.000	D TIERRA	3.144	1.63	23840.0	ARENA_1	0.176	0.09	1355.1
	ARENA_2	0.214	0.11	1760.3	RELLENO_ZANJA	2.056	1.06	15099.0
	ARENA_3	0.475	0.25	4008.6				
7318.366	D TIERRA	3.009	56.51	23896.5	ARENA_1	0.176	3.23	1358.3
	ARENA_2	0.214	3.93	1764.2	RELLENO_ZANJA	1.921	36.52	15135.6
	ARENA_3	0.476	8.73	4017.3				
7320.000	D TIERRA	3.015	4.92	23901.5	ARENA_1	0.176	0.29	1358.6
	ARENA_2	0.214	0.35	1764.6	RELLENO_ZANJA	1.927	3.14	15138.7
	ARENA_3	0.476	0.78	4018.1				
7333.619	D TIERRA	2.698	38.91	23940.4	ARENA_1	0.176	2.40	1361.0
	ARENA_2	0.214	2.91	1767.5	RELLENO_ZANJA	1.610	24.09	15162.8
	ARENA_3	0.476	6.48	4024.6				
7340.000	D TIERRA	2.549	16.74	23957.1	ARENA_1	0.176	1.12	1362.1
	ARENA_2	0.214	1.36	1768.9	RELLENO_ZANJA	1.460	9.80	15172.6
	ARENA_3	0.476	3.04	4027.6				
7345.114	D TIERRA	2.511	12.94	23970.1	ARENA_1	0.176	0.90	1363.0
	ARENA_2	0.214	1.09	1769.9	RELLENO_ZANJA	1.423	7.37	15180.0
	ARENA_3	0.475	2.43	4030.0				
7360.000	D TIERRA	2.350	36.18	24006.2	ARENA_1	0.176	2.62	1365.7
	ARENA_2	0.214	3.18	1773.1	RELLENO_ZANJA	1.262	19.98	15199.9
	ARENA_3	0.475	7.07	4037.1				
7376.838	D TIERRA	2.114	37.58	24043.8	ARENA_1	0.176	2.96	1368.6
	ARENA_2	0.214	3.60	1776.7	RELLENO_ZANJA	1.026	19.26	15219.2
	ARENA_3	0.474	7.99	4045.1				
7380.000	D TIERRA	2.336	7.04	24050.9	ARENA_1	0.176	0.56	1369.2
	ARENA_2	0.214	0.68	1777.4	RELLENO_ZANJA	1.248	3.59	15222.8
	ARENA_3	0.474	1.50	4046.6				
7399.091	D TIERRA	3.257	53.39	24104.2	ARENA_1	0.176	3.36	1372.5
	ARENA_2	0.214	4.08	1781.5	RELLENO_ZANJA	2.168	32.61	15255.4
	ARENA_3	0.476	9.06	4055.6				
7400.000	D TIERRA	3.140	2.91	24107.1	ARENA_1	0.176	0.16	1372.7
	ARENA_2	0.214	0.19	1781.7	RELLENO_ZANJA	2.052	1.92	15257.3
	ARENA_3	0.476	0.43	4056.1				
7420.000	D TIERRA	2.501	56.41	24163.6	ARENA_1	0.176	3.52	1376.2
	ARENA_2	0.214	4.27	1786.0	RELLENO_ZANJA	1.413	34.64	15292.0
	ARENA_3	0.476	9.51	4065.6				
7425.642	D TIERRA	3.135	15.90	24179.5	ARENA_1	0.176	0.99	1377.2
	ARENA_2	0.214	1.21	1787.2	RELLENO_ZANJA	2.047	9.76	15301.7
	ARENA_3	0.476	2.68	4068.3				
7440.000	D TIERRA	2.559	40.88	24220.3	ARENA_1	0.176	2.53	1379.7
	ARENA_2	0.214	3.07	1790.2	RELLENO_ZANJA	1.471	25.25	15327.0
	ARENA_3	0.476	6.83	4075.1				
7460.000	D TIERRA	2.537	50.96	24271.3	ARENA_1	0.176	3.52	1383.3
	ARENA_2	0.214	4.27	1794.5	RELLENO_ZANJA	1.449	29.20	15356.2
	ARENA_3	0.476	9.53	4084.6				
7463.363	D TIERRA	2.691	8.79	24280.1	ARENA_1	0.176	0.59	1383.9
	ARENA_2	0.214	0.72	1795.2	RELLENO_ZANJA	1.603	5.13	15361.3
	ARENA_3	0.476	1.60	4086.2				
7480.000	D TIERRA	2.537	43.49	24323.6	ARENA_1	0.176	2.93	1386.8
	ARENA_2	0.214	3.55	1798.8	RELLENO_ZANJA	1.448	25.38	15386.7
	ARENA_3	0.476	7.92	4094.2				
7500.000	D TIERRA	2.509	50.46	24374.0	ARENA_1	0.176	3.52	1390.3
	ARENA_2	0.214	4.27	1803.0	RELLENO_ZANJA	1.421	28.69	15415.4
	ARENA_3	0.476	9.52	4103.7				

PERFIL	MATERIAL	AREA PERFIL	VOL. PARCIAL	VOL. ACUMUL.	MATERIAL	AREA PERFIL	VOL. PARCIAL	VOL. ACUMUL.
7505.675	D TIERRA	2.051	12.94	24387.0	ARENA_1	0.176	1.00	1391.3
	ARENA_2	0.214	1.21	1804.3	RELLENO_ZANJA	0.963	6.76	15422.1
	ARENA_3	0.476	2.70	4106.4				
7520.000	D TIERRA	2.507	32.65	24419.6	ARENA_1	0.176	2.52	1393.8
	ARENA_2	0.214	3.06	1807.3	RELLENO_ZANJA	1.418	17.06	15439.2
	ARENA_3	0.476	6.82	4113.2				
7540.000	D TIERRA	2.496	50.03	24469.7	ARENA_1	0.176	3.52	1397.4
	ARENA_2	0.214	4.27	1811.6	RELLENO_ZANJA	1.408	28.27	15467.5
	ARENA_3	0.476	9.52	4122.7				
7560.000	D TIERRA	2.566	50.63	24520.3	ARENA_1	0.176	3.52	1400.9
	ARENA_2	0.214	4.27	1815.9	RELLENO_ZANJA	1.478	28.86	15496.3
	ARENA_3	0.476	9.52	4132.2				
7566.155	D TIERRA	2.611	15.93	24536.2	ARENA_1	0.176	1.08	1402.0
	ARENA_2	0.214	1.31	1817.2	RELLENO_ZANJA	1.522	9.23	15505.6
	ARENA_3	0.476	2.93	4135.2				
7572.632	D TIERRA	2.661	17.07	24553.3	ARENA_1	0.176	1.14	1403.1
	ARENA_2	0.214	1.38	1818.6	RELLENO_ZANJA	1.572	10.02	15515.6
	ARENA_3	0.476	3.08	4138.3				
7580.000	D TIERRA	2.629	19.49	24572.8	ARENA_1	0.176	1.30	1404.4
	ARENA_2	0.214	1.57	1820.1	RELLENO_ZANJA	1.541	11.47	15527.1
	ARENA_3	0.476	3.51	4141.8				
7591.965	D TIERRA	2.597	31.27	24604.0	ARENA_1	0.176	2.11	1406.5
	ARENA_2	0.214	2.56	1822.7	RELLENO_ZANJA	1.509	18.24	15545.3
	ARENA_3	0.476	5.70	4147.5				
7600.000	D TIERRA	2.576	20.79	24624.8	ARENA_1	0.176	1.42	1407.9
	ARENA_2	0.214	1.72	1824.4	RELLENO_ZANJA	1.488	12.04	15557.3
	ARENA_3	0.476	3.83	4151.3				
7620.000	D TIERRA	2.496	50.72	24675.5	ARENA_1	0.176	3.52	1411.5
	ARENA_2	0.214	4.27	1828.7	RELLENO_ZANJA	1.408	28.96	15586.3
	ARENA_3	0.476	9.52	4160.8				
7640.000	D TIERRA	2.447	49.43	24725.0	ARENA_1	0.176	3.52	1415.0
	ARENA_2	0.214	4.27	1832.9	RELLENO_ZANJA	1.359	27.67	15614.0
	ARENA_3	0.476	9.52	4170.3				
7660.000	D TIERRA	2.602	50.49	24775.5	ARENA_1	0.176	3.52	1418.5
	ARENA_2	0.214	4.27	1837.2	RELLENO_ZANJA	1.514	28.73	15642.7
	ARENA_3	0.476	9.53	4179.9				
7670.115	D TIERRA	2.572	26.16	24801.6	ARENA_1	0.176	1.78	1420.3
	ARENA_2	0.214	2.16	1839.4	RELLENO_ZANJA	1.483	15.16	15657.8
	ARENA_3	0.476	4.82	4184.7				
7680.000	D TIERRA	2.538	25.26	24826.9	ARENA_1	0.176	1.74	1422.0
	ARENA_2	0.214	2.11	1841.5	RELLENO_ZANJA	1.450	14.50	15672.3
	ARENA_3	0.476	4.71	4189.4				
7700.000	D TIERRA	2.282	48.20	24875.1	ARENA_1	0.176	3.52	1425.5
	ARENA_2	0.214	4.27	1845.8	RELLENO_ZANJA	1.194	26.44	15698.8
	ARENA_3	0.476	9.53	4198.9				
7719.095	D TIERRA	2.186	42.65	24917.7	ARENA_1	0.176	3.36	1428.9
	ARENA_2	0.214	4.08	1849.8	RELLENO_ZANJA	1.097	21.87	15720.7
	ARENA_3	0.476	9.09	4208.0				
7720.000	D TIERRA	2.180	1.98	24919.7	ARENA_1	0.176	0.16	1429.1
	ARENA_2	0.214	0.19	1850.0	RELLENO_ZANJA	1.092	0.99	15721.6
	ARENA_3	0.476	0.43	4208.4				
7740.000	D TIERRA	2.369	45.49	24965.2	ARENA_1	0.176	3.52	1432.6
	ARENA_2	0.214	4.27	1854.3	RELLENO_ZANJA	1.280	23.72	15745.4
	ARENA_3	0.476	9.53	4218.0				
7760.000	D TIERRA	2.526	48.95	25014.2	ARENA_1	0.176	3.52	1436.1
	ARENA_2	0.214	4.27	1858.6	RELLENO_ZANJA	1.438	27.18	15772.6
	ARENA_3	0.476	9.53	4227.5				
7761.464	D TIERRA	2.538	3.71	25017.9	ARENA_1	0.176	0.26	1436.4
	ARENA_2	0.214	0.31	1858.9	RELLENO_ZANJA	1.450	2.11	15774.7
	ARENA_3	0.476	0.70	4228.2				



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PROYECTO : CIDACOS COMPLETO
EJE : 7: EJE 7. ARQUETA PRINCIPAL (P190) - CALAHORRA (P210)

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PROYECTO : CIDACOS COMPLETO
EJE : 7: EJE 7. ARQUETA PRINCIPAL (P190) - CALAHORRA (P210)

*** MEDICIONES DE LOS PERFILES TRANSVERSALES ***
*** CAPAS DE FIRME ***

*** MEDICIONES DE LOS PERFILES TRANSVERSALES ***
*** CAPAS DE FIRME ***

PERFIL	MATERIAL	AREA PERFIL	VOL. PARCIAL	VOL. ACUMUL.	MATERIAL	AREA PERFIL	VOL. PARCIAL	VOL. ACUMUL.
7780.000	D TIERRA	2.582	47.45	25065.3	ARENA_1	0.176	3.27	1439.6
	ARENA_2	0.214	3.96	1862.9	RELLENO_ZANJA	1.494	27.28	15802.0
	ARENA_3	0.476	8.83	4237.0				
7800.000	D TIERRA	2.631	52.13	25117.4	ARENA_1	0.176	3.52	1443.2
	ARENA_2	0.214	4.27	1867.1	RELLENO_ZANJA	1.543	30.36	15832.3
	ARENA_3	0.476	9.53	4246.6				
7820.000	D TIERRA	2.702	53.33	25170.8	ARENA_1	0.176	3.52	1446.7
	ARENA_2	0.214	4.27	1871.4	RELLENO_ZANJA	1.614	31.56	15863.9
	ARENA_3	0.476	9.53	4256.1				
7820.246	D TIERRA	2.704	0.66	25171.4	ARENA_1	0.176	0.04	1446.7
	ARENA_2	0.214	0.05	1871.5	RELLENO_ZANJA	1.615	0.40	15864.3
	ARENA_3	0.476	0.12	4256.2				
7840.000	D TIERRA	2.597	52.35	25223.8	ARENA_1	0.176	3.48	1450.2
	ARENA_2	0.214	4.22	1875.7	RELLENO_ZANJA	1.509	30.86	15895.1
	ARENA_3	0.476	9.41	4265.6				
7849.741	D TIERRA	2.519	24.92	25248.7	ARENA_1	0.176	1.72	1451.9
	ARENA_2	0.214	2.08	1877.8	RELLENO_ZANJA	1.431	14.32	15909.4
	ARENA_3	0.476	4.64	4270.2				
7860.000	D TIERRA	2.560	26.05	25274.8	ARENA_1	0.176	1.81	1453.7
	ARENA_2	0.214	2.19	1879.9	RELLENO_ZANJA	1.471	14.89	15924.3
	ARENA_3	0.476	4.89	4275.1				
7880.000	D TIERRA	2.523	50.83	25325.6	ARENA_1	0.176	3.52	1457.3
	ARENA_2	0.214	4.27	1884.2	RELLENO_ZANJA	1.435	29.06	15953.4
	ARENA_3	0.476	9.53	4284.7				
7900.000	D TIERRA	2.527	50.50	25376.1	ARENA_1	0.176	3.52	1460.8
	ARENA_2	0.214	4.27	1888.5	RELLENO_ZANJA	1.439	28.74	15982.1
	ARENA_3	0.476	9.53	4294.2				
7920.000	D TIERRA	2.697	52.24	25428.3	ARENA_1	0.176	3.52	1464.3
	ARENA_2	0.214	4.27	1892.8	RELLENO_ZANJA	1.609	30.48	16012.6
	ARENA_3	0.476	9.53	4303.7				
7936.614	D TIERRA	2.607	44.07	25472.4	ARENA_1	0.176	2.93	1467.2
	ARENA_2	0.214	3.55	1896.3	RELLENO_ZANJA	1.519	25.99	16038.6
	ARENA_3	0.476	7.91	4311.6				
7940.000	D TIERRA	2.549	8.73	25481.1	ARENA_1	0.176	0.60	1467.8
	ARENA_2	0.214	0.72	1897.0	RELLENO_ZANJA	1.461	5.04	16043.6
	ARENA_3	0.476	1.61	4313.2				
7943.672	D TIERRA	2.569	9.40	25490.5	ARENA_1	0.176	0.65	1468.5
	ARENA_2	0.214	0.78	1897.8	RELLENO_ZANJA	1.481	5.40	16049.0
	ARENA_3	0.476	1.75	4315.0				
7960.000	D TIERRA	2.526	41.60	25532.1	ARENA_1	0.176	2.88	1471.3
	ARENA_2	0.214	3.49	1901.3	RELLENO_ZANJA	1.437	23.83	16072.9
	ARENA_3	0.476	7.77	4322.7				
7980.000	D TIERRA	2.567	50.93	25583.1	ARENA_1	0.176	3.52	1474.9
	ARENA_2	0.214	4.27	1905.6	RELLENO_ZANJA	1.479	29.17	16102.0
	ARENA_3	0.476	9.52	4332.3				
7986.377	D TIERRA	2.528	16.25	25599.3	ARENA_1	0.176	1.12	1476.0
	ARENA_2	0.214	1.36	1906.9	RELLENO_ZANJA	1.439	9.31	16111.3
	ARENA_3	0.475	3.03	4335.3				
8000.000	D TIERRA	2.666	35.38	25634.7	ARENA_1	0.176	2.40	1478.4
	ARENA_2	0.214	2.91	1909.9	RELLENO_ZANJA	1.578	20.55	16131.9
	ARENA_3	0.475	6.47	4341.8				
8007.793	D TIERRA	2.524	20.22	25654.9	ARENA_1	0.176	1.37	1479.8
	ARENA_2	0.214	1.67	1911.5	RELLENO_ZANJA	1.436	11.74	16143.6
	ARENA_3	0.474	3.70	4345.5				
8020.000	D TIERRA	2.653	31.60	25686.5	ARENA_1	0.176	2.15	1481.9
	ARENA_2	0.214	2.61	1914.1	RELLENO_ZANJA	1.564	18.31	16161.9
	ARENA_3	0.474	5.79	4351.3				
8034.687	D TIERRA	2.650	38.94	25725.4	ARENA_1	0.176	2.59	1484.5
	ARENA_2	0.214	3.14	1917.3	RELLENO_ZANJA	1.562	22.96	16184.9
	ARENA_3	0.474	6.96	4358.2				

PERFIL	MATERIAL	AREA PERFIL	VOL. PARCIAL	VOL. ACUMUL.	MATERIAL	AREA PERFIL	VOL. PARCIAL	VOL. ACUMUL.
8040.000	D TIERRA	2.513	13.72	25739.2	ARENA_1	0.176	0.94	1485.4
	ARENA_2	0.214	1.14	1918.4	RELLENO_ZANJA	1.425	7.93	16192.8
	ARENA_3	0.474	2.52	4360.7				
8060.000	D TIERRA	2.527	50.40	25789.6	ARENA_1	0.176	3.52	1489.0
	ARENA_2	0.214	4.28	1922.7	RELLENO_ZANJA	1.439	28.64	16221.5
	ARENA_3	0.475	9.49	4370.2				
8080.000	D TIERRA	2.526	50.53	25840.1	ARENA_1	0.176	3.52	1492.5
	ARENA_2	0.214	4.27	1927.0	RELLENO_ZANJA	1.438	28.77	16250.2
	ARENA_3	0.476	9.51	4379.7				
8100.000	D TIERRA	2.501	50.27	25890.4	ARENA_1	0.176	3.52	1496.0
	ARENA_2	0.214	4.27	1931.2	RELLENO_ZANJA	1.413	28.51	16278.8
	ARENA_3	0.476	9.52	4389.3				
8109.874	D TIERRA	2.527	24.82	25915.2	ARENA_1	0.176	1.74	1497.7
	ARENA_2	0.214	2.11	1933.3	RELLENO_ZANJA	1.439	14.08	16292.8
	ARENA_3	0.476	4.70	4394.0				
8120.000	D TIERRA	2.928	27.62	25942.8	ARENA_1	0.176	1.78	1499.5
	ARENA_2	0.214	2.16	1935.5	RELLENO_ZANJA	1.839	16.60	16309.4
	ARENA_3	0.476	4.82	4398.8				
8140.000	D TIERRA	2.603	55.30	25998.1	ARENA_1	0.176	3.52	1503.0
	ARENA_2	0.214	4.27	1939.8	RELLENO_ZANJA	1.515	33.54	16343.0
	ARENA_3	0.476	9.52	4408.3				
8160.000	D TIERRA	2.548	51.50	26049.6	ARENA_1	0.176	3.52	1506.6
	ARENA_2	0.214	4.27	1944.0	RELLENO_ZANJA	1.459	29.74	16372.7
	ARENA_3	0.476	9.52	4417.8				
8180.000	D TIERRA	2.543	50.91	26100.5	ARENA_1	0.176	3.52	1510.1
	ARENA_2	0.214	4.27	1948.3	RELLENO_ZANJA	1.455	29.14	16401.8
	ARENA_3	0.476	9.52	4427.4				
8200.000	D TIERRA	2.559	51.02	26151.5	ARENA_1	0.176	3.52	1513.6
	ARENA_2	0.214	4.27	1952.6	RELLENO_ZANJA	1.471	29.26	16431.1
	ARENA_3	0.476	9.52	4436.9				
8208.439	D TIERRA	2.518	21.42	26173.0	ARENA_1	0.176	1.49	1515.1
	ARENA_2	0.214	1.80	1954.4	RELLENO_ZANJA	1.430	12.24	16443.3
	ARENA_3	0.476	4.02	4440.9				
8215.514	D TIERRA	2.526	17.84	26190.8	ARENA_1	0.176	1.25	1516.3
	ARENA_2	0.214	1.51	1955.9	RELLENO_ZANJA	1.438	10.14	16453.5
	ARENA_3	0.475	3.37	4444.3				
8220.000	D TIERRA	4.063	14.78	26205.6	ARENA_1	0.176	0.79	1517.1
	ARENA_2	0.214	0.96	1956.9	RELLENO_ZANJA	2.975	9.90	16463.4
	ARENA_3	0.475	2.13	4446.4				
8232.067	D TIERRA	3.055	42.95	26248.5	ARENA_1	0.176	2.12	1519.3
	ARENA_2	0.214	2.58	1959.4	RELLENO_ZANJA	1.967	29.82	16493.2
	ARENA_3	0.475	5.74	4452.1				
8238.251	D TIERRA	3.255	19.51	26268.0	ARENA_1	0.176	1.09	1520.4
	ARENA_2	0.214	1.32	1960.8	RELLENO_ZANJA	2.167	12.78	16506.0
	ARENA_3	0.476	2.94	4455.1				
8240.000	D TIERRA	3.231	5.67	26273.7	ARENA_1	0.176	0.31	1520.7
	ARENA_2	0.214	0.37	1961.1	RELLENO_ZANJA	2.143	3.77	16509.7
	ARENA_3	0.476	0.83	4455.9				
8248.554	D TIERRA	2.944	26.41	26300.1	ARENA_1	0.176	1.51	1522.2
	ARENA_2	0.214	1.83	1963.0	RELLENO_ZANJA	1.856	17.10	16526.8
	ARENA_3	0.476	4.07	4460.0				
8257.588	D TIERRA	2.602	25.05	26325.2	ARENA_1	0.176	1.59	1523.8
	ARENA_2	0.214	1.93	1964.9	RELLENO_ZANJA	1.514	15.22	16542.1
	ARENA_3	0.476	4.30	4464.3				
8260.000	D TIERRA	2.502	6.16	26331.3	ARENA_1	0.176	0.42	1524.2
	ARENA_2	0.214	0.52	1965.4	RELLENO_ZANJA	1.414	3.53	16545.6
	ARENA_3	0.476	1.15	4465.4				
8280.000	D TIERRA	2.366	48.68	26380.0	ARENA_1	0.176	3.52	1527.7
	ARENA_2	0.214	4.27	1969.7	RELLENO_ZANJA	1.278	26.92	16572.5
	ARENA_3	0.476	9.53	4475.0				

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 PROYECTO : CIDACOS COMPLETO
 EJE : 7: EJE 7. ARQUETA PRINCIPAL (P190) - CALAHORRA (P210)

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 PROYECTO : CIDACOS COMPLETO
 EJE : 7: EJE 7. ARQUETA PRINCIPAL (P190) - CALAHORRA (P210)

 * * * MEDICIONES DE LOS PERFILES TRANSVERSALES* * *
 * * * CAPAS DE FIRME * * *

 * * * MEDICIONES DE LOS PERFILES TRANSVERSALES* * *
 * * * CAPAS DE FIRME * * *

PERFIL	MATERIAL	AREA PERFIL	VOL. PARCIAL	VOL. ACUMUL.	MATERIAL	AREA PERFIL	VOL. PARCIAL	VOL. ACUMUL.	PERFIL	MATERIAL	AREA PERFIL	VOL. PARCIAL	VOL. ACUMUL.	MATERIAL	AREA PERFIL	VOL. PARCIAL	VOL. ACUMUL.
8300.000	D TIERRA	2.462	48.28	26428.3	ARENA_1	0.176	3.52	1531.2	8580.000	D TIERRA	4.244	83.52	27281.2	ARENA_1	0.176	3.52	1580.6
	ARENA_2	0.214	4.27	1974.0	RELLENO_ZANJA	1.374	26.51	16599.0		ARENA_2	0.214	4.27	2033.8	RELLENO_ZANJA	3.156	61.76	17147.3
	ARENA_3	0.476	9.53	4484.5						ARENA_3	0.476	9.53	4617.9				
8313.377	D TIERRA	2.527	33.37	26461.7	ARENA_1	0.176	2.36	1533.6	8600.000	D TIERRA	4.382	86.26	27367.5	ARENA_1	0.176	3.52	1584.1
	ARENA_2	0.214	2.86	1976.8	RELLENO_ZANJA	1.439	18.81	16617.8		ARENA_2	0.214	4.27	2038.0	RELLENO_ZANJA	3.293	64.49	17211.8
	ARENA_3	0.476	6.37	4490.9						ARENA_3	0.476	9.53	4627.4				
8320.000	D TIERRA	2.458	16.51	26478.2	ARENA_1	0.176	1.17	1534.8	8620.000	D TIERRA	4.140	85.22	27452.7	ARENA_1	0.176	3.52	1587.6
	ARENA_2	0.214	1.41	1978.2	RELLENO_ZANJA	1.370	9.30	16627.1		ARENA_2	0.214	4.27	2042.3	RELLENO_ZANJA	3.052	63.45	17275.2
	ARENA_3	0.476	3.15	4494.0						ARENA_3	0.476	9.53	4636.9				
8340.000	D TIERRA	2.526	49.84	26528.0	ARENA_1	0.176	3.52	1538.3	8640.000	D TIERRA	3.991	81.31	27534.0	ARENA_1	0.176	3.52	1591.1
	ARENA_2	0.214	4.27	1982.5	RELLENO_ZANJA	1.438	28.08	16655.2		ARENA_2	0.214	4.27	2046.6	RELLENO_ZANJA	2.902	59.54	17334.8
	ARENA_3	0.476	9.53	4503.5						ARENA_3	0.476	9.53	4646.4				
8360.000	D TIERRA	2.520	50.46	26578.5	ARENA_1	0.176	3.52	1541.8	8660.000	D TIERRA	4.012	80.03	27614.1	ARENA_1	0.176	3.52	1594.6
	ARENA_2	0.214	4.27	1986.8	RELLENO_ZANJA	1.431	28.70	16683.9		ARENA_2	0.214	4.27	2050.9	RELLENO_ZANJA	2.924	58.26	17393.0
	ARENA_3	0.476	9.53	4513.1						ARENA_3	0.476	9.53	4656.0				
8380.000	D TIERRA	2.534	50.54	26629.0	ARENA_1	0.176	3.52	1545.3	8663.482	D TIERRA	4.010	13.97	27628.0	ARENA_1	0.176	0.61	1595.3
	ARENA_2	0.214	4.27	1991.0	RELLENO_ZANJA	1.446	28.77	16712.7		ARENA_2	0.214	0.74	2051.6	RELLENO_ZANJA	2.921	10.18	17403.2
	ARENA_3	0.476	9.53	4522.6						ARENA_3	0.476	1.66	4657.6				
8382.109	D TIERRA	2.547	5.36	26634.4	ARENA_1	0.176	0.37	1545.7	8680.000	D TIERRA	3.876	65.12	27693.1	ARENA_1	0.176	2.91	1598.2
	ARENA_2	0.214	0.45	1991.5	RELLENO_ZANJA	1.459	3.06	16715.8		ARENA_2	0.214	3.53	2055.1	RELLENO_ZANJA	2.787	47.15	17450.3
	ARENA_3	0.476	1.00	4523.6						ARENA_3	0.476	7.87	4665.5				
8400.000	D TIERRA	2.607	46.10	26680.5	ARENA_1	0.176	3.15	1548.8	8693.285	D TIERRA	3.587	49.57	27742.7	ARENA_1	0.176	2.34	1600.5
	ARENA_2	0.214	3.82	1995.3	RELLENO_ZANJA	1.519	26.63	16742.4		ARENA_2	0.214	2.84	2058.0	RELLENO_ZANJA	2.499	35.11	17485.5
	ARENA_3	0.476	8.52	4532.1						ARENA_3	0.476	6.33	4671.8				
8420.000	D TIERRA	2.674	52.80	26733.3	ARENA_1	0.176	3.52	1552.4	8700.000	D TIERRA	3.484	23.74	27766.5	ARENA_1	0.176	1.18	1601.7
	ARENA_2	0.214	4.27	1999.6	RELLENO_ZANJA	1.585	31.04	16773.4		ARENA_2	0.214	1.43	2059.4	RELLENO_ZANJA	2.396	16.43	17501.9
	ARENA_3	0.476	9.53	4541.7						ARENA_3	0.476	3.20	4675.0				
8440.000	D TIERRA	2.740	54.14	26787.4	ARENA_1	0.176	3.52	1555.9	8710.808	D TIERRA	3.301	36.66	27803.1	ARENA_1	0.176	1.90	1603.6
	ARENA_2	0.214	4.27	2003.9	RELLENO_ZANJA	1.652	32.37	16805.8		ARENA_2	0.214	2.31	2061.7	RELLENO_ZANJA	2.213	24.90	17526.8
	ARENA_3	0.476	9.53	4551.2						ARENA_3	0.476	5.15	4680.2				
8444.787	D TIERRA	2.790	13.24	26800.7	ARENA_1	0.176	0.84	1556.7	8720.000	D TIERRA	3.190	29.83	27833.0	ARENA_1	0.176	1.62	1605.2
	ARENA_2	0.214	1.02	2004.9	RELLENO_ZANJA	1.702	8.03	16813.8		ARENA_2	0.214	1.96	2063.7	RELLENO_ZANJA	2.101	19.83	17546.6
	ARENA_3	0.476	2.28	4553.5						ARENA_3	0.476	4.38	4684.6				
8459.116	D TIERRA	2.940	41.05	26841.7	ARENA_1	0.176	2.52	1559.3	8733.351	D TIERRA	3.087	41.90	27874.9	ARENA_1	0.176	2.35	1607.6
	ARENA_2	0.214	3.06	2007.9	RELLENO_ZANJA	1.852	25.46	16839.3		ARENA_2	0.214	2.85	2066.5	RELLENO_ZANJA	1.999	27.37	17574.0
	ARENA_3	0.476	6.83	4560.3						ARENA_3	0.476	6.36	4690.9				
8460.000	D TIERRA	2.947	2.60	26844.3	ARENA_1	0.176	0.16	1559.4	8740.000	D TIERRA	3.037	20.36	27895.2	ARENA_1	0.176	1.17	1608.7
	ARENA_2	0.214	0.19	2008.1	RELLENO_ZANJA	1.859	1.64	16840.9		ARENA_2	0.214	1.42	2067.9	RELLENO_ZANJA	1.948	13.12	17587.1
	ARENA_3	0.476	0.42	4560.7						ARENA_3	0.476	3.17	4694.1				
8476.566	D TIERRA	3.159	50.58	26894.9	ARENA_1	0.176	2.92	1562.3	8760.000	D TIERRA	2.860	58.97	27954.2	ARENA_1	0.176	3.52	1612.3
	ARENA_2	0.214	3.54	2011.7	RELLENO_ZANJA	2.071	32.55	16873.5		ARENA_2	0.214	4.27	2072.2	RELLENO_ZANJA	1.772	37.20	17624.3
	ARENA_3	0.476	7.89	4568.6						ARENA_3	0.476	9.53	4703.6				
8480.000	D TIERRA	3.203	10.92	26905.8	ARENA_1	0.176	0.60	1562.9	8780.000	D TIERRA	2.658	55.18	28009.4	ARENA_1	0.176	3.52	1615.8
	ARENA_2	0.214	0.73	2012.4	RELLENO_ZANJA	2.115	7.19	16880.7		ARENA_2	0.214	4.27	2076.5	RELLENO_ZANJA	1.570	33.42	17657.7
	ARENA_3	0.476	1.64	4570.2						ARENA_3	0.476	9.53	4713.1				
8500.000	D TIERRA	3.399	66.02	26971.8	ARENA_1	0.176	3.52	1566.5	8784.003	D TIERRA	2.618	10.56	28019.9	ARENA_1	0.176	0.71	1616.5
	ARENA_2	0.214	4.27	2016.7	RELLENO_ZANJA	2.311	44.26	16924.9		ARENA_2	0.214	0.86	2077.3	RELLENO_ZANJA	1.530	6.20	17663.9
	ARENA_3	0.476	9.53	4579.8						ARENA_3	0.476	1.91	4715.0				
8518.969	D TIERRA	3.636	66.73	27038.6	ARENA_1	0.176	3.34	1569.8	8800.000	D TIERRA	2.583	41.60	28061.5	ARENA_1	0.176	2.82	1619.3
	ARENA_2	0.214	4.05	2020.7	RELLENO_ZANJA	2.548	46.08	16971.0		ARENA_2	0.214	3.42	2080.8	RELLENO_ZANJA	1.494	24.19	17688.1
	ARENA_3	0.476	9.04	4588.8						ARENA_3	0.476	7.62	4722.7				
8520.000	D TIERRA	3.650	3.76	27042.3	ARENA_1	0.176	0.18	1570.0	8811.901	D TIERRA	2.392	29.60	28091.1	ARENA_1	0.176	2.10	1621.4
	ARENA_2	0.214	0.22	2020.9	RELLENO_ZANJA	2.562	2.63	16973.6		ARENA_2	0.214	2.54	2083.3	RELLENO_ZANJA	1.304	16.65	17704.8
	ARENA_3	0.476	0.49	4589.3						ARENA_3	0.476	5.67	4728.3				
8540.000	D TIERRA	3.891	75.42	27117.7	ARENA_1	0.176	3.52	1573.5	8820.000	D TIERRA	2.586	20.16	28111.3	ARENA_1	0.176	1.43	1622.8
	ARENA_2	0.214	4.27	2025.2	RELLENO_ZANJA	2.803	53.65	17027.3		ARENA_2	0.214	1.73	2085.0	RELLENO_ZANJA	1.498	11.35	17716.1
	ARENA_3	0.476	9.53	4598.8						ARENA_3	0.476	3.86	4732.2				
8560.000	D TIERRA	4.108	79.99	27197.7	ARENA_1	0.176	3.52	1577.0	8829.581	D TIERRA	2.548	24.60	28135.9	ARENA_1	0.176	1.69	1624.5
	ARENA_2	0.214	4.27	2029.5	RELLENO_ZANJA	3.020	58.23	17085.5		ARENA_2	0.214	2.05	2087.1	RELLENO_ZANJA	1.460	14.17	17730.3
	ARENA_3	0.476	9.53	4608.3						ARENA_3	0.476	4.56	4736.7				



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PROYECTO : CIDACOS COMPLETO
EJE : 7: EJE 7. ARQUETA PRINCIPAL (P190) - CALAHORRA (P210)

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PROYECTO : CIDACOS COMPLETO
EJE : 7: EJE 7. ARQUETA PRINCIPAL (P190) - CALAHORRA (P210)

*** MEDICIONES DE LOS PERFILES TRANSVERSALES ***
*** CAPAS DE FIRME ***

*** MEDICIONES DE LOS PERFILES TRANSVERSALES ***
*** CAPAS DE FIRME ***

PERFIL	MATERIAL	AREA PERFIL	VOL. PARCIAL	VOL. ACUMUL.	MATERIAL	AREA PERFIL	VOL. PARCIAL	VOL. ACUMUL.
8840.000	D TIERRA	4.373	36.06	28171.9	ARENA_1	0.176	1.84	1626.4
	ARENA_2	0.214	2.23	2089.3	RELLENO_ZANJA	3.285	24.72	17755.0
	ARENA_3	0.476	4.96	4741.7				
8843.155	D TIERRA	4.139	13.43	28185.4	ARENA_1	0.176	0.56	1626.9
	ARENA_2	0.214	0.67	2090.0	RELLENO_ZANJA	3.050	9.99	17765.0
	ARENA_3	0.476	1.50	4743.2				
8851.566	D TIERRA	3.829	33.51	28218.9	ARENA_1	0.176	1.48	1628.4
	ARENA_2	0.214	1.80	2091.8	RELLENO_ZANJA	2.741	24.36	17789.4
	ARENA_3	0.476	4.01	4747.2				
8860.000	D TIERRA	3.299	30.06	28248.9	ARENA_1	0.176	1.49	1629.9
	ARENA_2	0.214	1.80	2093.6	RELLENO_ZANJA	2.211	20.88	17810.2
	ARENA_3	0.476	4.02	4751.2				
8867.954	D TIERRA	2.679	23.78	28272.7	ARENA_1	0.176	1.40	1631.3
	ARENA_2	0.214	1.70	2095.3	RELLENO_ZANJA	1.591	15.12	17825.4
	ARENA_3	0.476	3.79	4755.0				
8880.000	D TIERRA	2.975	34.05	28306.8	ARENA_1	0.176	2.12	1633.4
	ARENA_2	0.214	2.57	2097.8	RELLENO_ZANJA	1.886	20.94	17846.3
	ARENA_3	0.476	5.74	4760.8				
8889.529	D TIERRA	3.193	29.39	28336.1	ARENA_1	0.176	1.68	1635.1
	ARENA_2	0.214	2.04	2099.9	RELLENO_ZANJA	2.105	19.02	17865.3
	ARENA_3	0.476	4.54	4765.3				
8900.000	D TIERRA	2.680	30.75	28366.9	ARENA_1	0.176	1.84	1636.9
	ARENA_2	0.214	2.24	2102.1	RELLENO_ZANJA	1.592	19.35	17884.7
	ARENA_3	0.476	4.99	4770.3				
8920.000	D TIERRA	2.672	53.52	28420.4	ARENA_1	0.176	3.52	1640.4
	ARENA_2	0.214	4.27	2106.4	RELLENO_ZANJA	1.584	31.75	17916.4
	ARENA_3	0.476	9.53	4779.8				
8931.682	D TIERRA	2.578	30.67	28451.1	ARENA_1	0.176	2.06	1642.5
	ARENA_2	0.214	2.50	2108.9	RELLENO_ZANJA	1.490	17.96	17934.4
	ARENA_3	0.476	5.56	4785.4				
8940.000	D TIERRA	2.549	21.33	28472.4	ARENA_1	0.176	1.47	1644.0
	ARENA_2	0.214	1.78	2110.7	RELLENO_ZANJA	1.461	12.27	17946.7
	ARENA_3	0.476	3.96	4789.3				
8960.000	D TIERRA	2.476	50.26	28522.7	ARENA_1	0.176	3.52	1647.5
	ARENA_2	0.214	4.27	2114.9	RELLENO_ZANJA	1.388	28.49	17975.2
	ARENA_3	0.476	9.53	4798.9				
8973.402	D TIERRA	2.428	32.86	28555.5	ARENA_1	0.176	2.36	1649.9
	ARENA_2	0.214	2.86	2117.8	RELLENO_ZANJA	1.339	18.28	17993.4
	ARENA_3	0.476	6.38	4805.2				
8980.000	D TIERRA	2.429	16.02	28571.5	ARENA_1	0.176	1.16	1651.0
	ARENA_2	0.214	1.41	2119.2	RELLENO_ZANJA	1.341	8.84	18002.3
	ARENA_3	0.476	3.14	4808.4				
8996.020	D TIERRA	2.432	38.93	28610.5	ARENA_1	0.176	2.82	1653.8
	ARENA_2	0.214	3.42	2122.6	RELLENO_ZANJA	1.344	21.50	18023.8
	ARENA_3	0.476	7.63	4816.0				
9000.000	D TIERRA	2.444	9.70	28620.2	ARENA_1	0.176	0.70	1654.5
	ARENA_2	0.214	0.85	2123.5	RELLENO_ZANJA	1.356	5.37	18029.1
	ARENA_3	0.476	1.90	4817.9				
9020.000	D TIERRA	2.492	49.36	28669.5	ARENA_1	0.176	3.52	1658.1
	ARENA_2	0.214	4.27	2127.7	RELLENO_ZANJA	1.404	27.60	18056.7
	ARENA_3	0.476	9.53	4827.4				
9040.000	D TIERRA	2.527	50.19	28719.7	ARENA_1	0.176	3.52	1661.6
	ARENA_2	0.214	4.27	2132.0	RELLENO_ZANJA	1.439	28.43	18085.2
	ARENA_3	0.476	9.53	4837.0				
9060.000	D TIERRA	2.860	53.88	28773.6	ARENA_1	0.176	3.52	1665.1
	ARENA_2	0.214	4.27	2136.3	RELLENO_ZANJA	1.772	32.11	18117.3
	ARENA_3	0.476	9.53	4846.5				
9080.000	D TIERRA	2.733	55.93	28829.5	ARENA_1	0.176	3.52	1668.6
	ARENA_2	0.214	4.27	2140.6	RELLENO_ZANJA	1.644	34.17	18151.4
	ARENA_3	0.476	9.53	4856.0				

PERFIL	MATERIAL	AREA PERFIL	VOL. PARCIAL	VOL. ACUMUL.	MATERIAL	AREA PERFIL	VOL. PARCIAL	VOL. ACUMUL.
9100.000	D TIERRA	2.605	53.38	28882.9	ARENA_1	0.176	3.52	1672.2
	ARENA_2	0.214	4.27	2144.8	RELLENO_ZANJA	1.517	31.62	18183.1
	ARENA_3	0.476	9.53	4865.5				
9113.827	D TIERRA	2.517	35.42	28918.3	ARENA_1	0.176	2.44	1674.6
	ARENA_2	0.214	2.95	2147.8	RELLENO_ZANJA	1.429	20.37	18203.4
	ARENA_3	0.476	6.59	4872.1				
9120.000	D TIERRA	2.526	15.56	28933.9	ARENA_1	0.176	1.09	1675.7
	ARENA_2	0.214	1.32	2149.1	RELLENO_ZANJA	1.437	8.85	18212.3
	ARENA_3	0.476	2.94	4875.1				
9140.000	D TIERRA	2.521	50.47	28984.4	ARENA_1	0.176	3.52	1679.2
	ARENA_2	0.214	4.27	2153.4	RELLENO_ZANJA	1.433	28.70	18241.0
	ARENA_3	0.476	9.53	4884.6				
9160.000	D TIERRA	2.519	50.40	29034.8	ARENA_1	0.176	3.52	1682.7
	ARENA_2	0.214	4.27	2157.7	RELLENO_ZANJA	1.430	28.63	18269.6
	ARENA_3	0.476	9.53	4894.1				
9180.000	D TIERRA	2.558	50.77	29085.5	ARENA_1	0.176	3.52	1686.2
	ARENA_2	0.214	4.27	2161.9	RELLENO_ZANJA	1.470	29.00	18298.6
	ARENA_3	0.476	9.53	4903.6				
9200.000	D TIERRA	2.603	51.61	29137.2	ARENA_1	0.176	3.52	1689.8
	ARENA_2	0.214	4.27	2166.2	RELLENO_ZANJA	1.515	29.85	18328.5
	ARENA_3	0.476	9.53	4913.2				
9220.000	D TIERRA	2.681	52.84	29190.0	ARENA_1	0.176	3.52	1693.3
	ARENA_2	0.214	4.27	2170.5	RELLENO_ZANJA	1.593	31.08	18359.5
	ARENA_3	0.476	9.53	4922.7				
9229.602	D TIERRA	2.693	25.80	29215.8	ARENA_1	0.176	1.69	1695.0
	ARENA_2	0.214	2.05	2172.5	RELLENO_ZANJA	1.605	15.35	18374.9
	ARENA_3	0.476	4.57	4927.3				
9236.363	D TIERRA	2.692	18.21	29234.0	ARENA_1	0.176	1.19	1696.2
	ARENA_2	0.214	1.44	2174.0	RELLENO_ZANJA	1.604	10.85	18385.7
	ARENA_3	0.476	3.22	4930.5				
9240.000	D TIERRA	2.696	9.80	29243.8	ARENA_1	0.176	0.64	1696.8
	ARENA_2	0.214	0.78	2174.7	RELLENO_ZANJA	1.608	5.84	18391.6
	ARENA_3	0.476	1.73	4932.2				
9260.000	D TIERRA	2.714	54.10	29297.9	ARENA_1	0.176	3.52	1700.3
	ARENA_2	0.214	4.27	2179.0	RELLENO_ZANJA	1.626	32.34	18423.9
	ARENA_3	0.476	9.53	4941.7				
9280.000	D TIERRA	2.737	54.51	29352.4	ARENA_1	0.176	3.52	1703.9
	ARENA_2	0.214	4.27	2183.3	RELLENO_ZANJA	1.649	32.75	18456.7
	ARENA_3	0.476	9.53	4951.3				
9287.331	D TIERRA	2.747	20.10	29372.5	ARENA_1	0.176	1.29	1705.1
	ARENA_2	0.214	1.57	2184.9	RELLENO_ZANJA	1.659	12.12	18468.8
	ARENA_3	0.476	3.49	4954.8				
9295.027	D TIERRA	2.796	21.33	29393.9	ARENA_1	0.176	1.36	1706.5
	ARENA_2	0.214	1.64	2186.5	RELLENO_ZANJA	1.708	12.96	18481.7
	ARENA_3	0.476	3.67	4958.4				
9300.000	D TIERRA	2.750	13.79	29407.6	ARENA_1	0.176	0.88	1707.4
	ARENA_2	0.214	1.06	2187.6	RELLENO_ZANJA	1.662	8.38	18490.1
	ARENA_3	0.476	2.37	4960.8				
9320.000	D TIERRA	2.503	52.53	29460.2	ARENA_1	0.176	3.52	1710.9
	ARENA_2	0.214	4.27	2191.8	RELLENO_ZANJA	1.415	30.77	18520.9
	ARENA_3	0.476	9.53	4970.3				
9323.348	D TIERRA	2.472	8.33	29468.5	ARENA_1	0.176	0.59	1711.5
	ARENA_2	0.214	0.72	2192.5	RELLENO_ZANJA	1.384	4.69	18525.6
	ARENA_3	0.476	1.59	4971.9				
9340.000	D TIERRA	2.477	41.21	29509.7	ARENA_1	0.176	2.93	1714.4
	ARENA_2	0.214	3.56	2196.1	RELLENO_ZANJA	1.389	23.09	18548.7
	ARENA_3	0.476	7.93	4979.8				
9341.240	D TIERRA	2.474	3.07	29512.8	ARENA_1	0.176	0.22	1714.6
	ARENA_2	0.214	0.26	2196.4	RELLENO_ZANJA	1.386	1.72	18550.4
	ARENA_3	0.476	0.59	4980.4				



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PROYECTO : CIDACOS COMPLETO
EJE : 7: EJE 7. ARQUETA PRINCIPAL (P190) - CALAHORRA (P210)

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PROYECTO : CIDACOS COMPLETO
EJE : 7: EJE 7. ARQUETA PRINCIPAL (P190) - CALAHORRA (P210)

*** MEDICIONES DE LOS PERFILES TRANSVERSALES ***
*** CAPAS DE FIRME ***

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*** CAPAS DE FIRME ***

PERFIL	MATERIAL	AREA PERFIL	VOL. PARCIAL	VOL. ACUMUL.	MATERIAL	AREA PERFIL	VOL. PARCIAL	VOL. ACUMUL.
9356.502	D TIERRA	2.510	38.03	29550.8	ARENA_1	0.176	2.69	1717.3
	ARENA_2	0.214	3.26	2199.6	RELLENO_ZANJA	1.422	21.42	18571.8
	ARENA_3	0.476	7.27	4987.7				
9360.000	D TIERRA	2.536	8.83	29559.6	ARENA_1	0.176	0.62	1717.9
	ARENA_2	0.214	0.75	2200.4	RELLENO_ZANJA	1.448	5.02	18576.8
	ARENA_3	0.476	1.67	4989.4				
9380.000	D TIERRA	2.545	50.81	29610.5	ARENA_1	0.176	3.52	1721.5
	ARENA_2	0.214	4.27	2204.6	RELLENO_ZANJA	1.456	29.04	18605.9
	ARENA_3	0.476	9.53	4998.9				
9400.000	D TIERRA	2.567	51.11	29661.6	ARENA_1	0.176	3.52	1725.0
	ARENA_2	0.214	4.27	2208.9	RELLENO_ZANJA	1.479	29.35	18635.2
	ARENA_3	0.476	9.53	5008.4				
9420.000	D TIERRA	2.604	51.71	29713.3	ARENA_1	0.176	3.52	1728.5
	ARENA_2	0.214	4.27	2213.2	RELLENO_ZANJA	1.516	29.94	18665.2
	ARENA_3	0.476	9.53	5017.9				
9422.738	D TIERRA	2.611	7.14	29720.4	ARENA_1	0.176	0.48	1729.0
	ARENA_2	0.214	0.58	2213.8	RELLENO_ZANJA	1.523	4.16	18669.3
	ARENA_3	0.476	1.30	5019.3				
9440.000	D TIERRA	2.542	44.48	29764.9	ARENA_1	0.176	3.04	1732.0
	ARENA_2	0.214	3.69	2217.5	RELLENO_ZANJA	1.454	25.69	18695.0
	ARENA_3	0.476	8.22	5027.5				
9460.000	D TIERRA	2.647	51.89	29816.8	ARENA_1	0.176	3.52	1735.6
	ARENA_2	0.214	4.27	2221.7	RELLENO_ZANJA	1.559	30.13	18725.1
	ARENA_3	0.476	9.53	5037.0				
9480.000	D TIERRA	2.755	54.02	29870.8	ARENA_1	0.176	3.52	1739.1
	ARENA_2	0.214	4.27	2226.0	RELLENO_ZANJA	1.666	32.25	18757.4
	ARENA_3	0.476	9.53	5046.5				
9498.386	D TIERRA	2.853	51.55	29922.4	ARENA_1	0.176	3.24	1742.3
	ARENA_2	0.214	3.93	2229.9	RELLENO_ZANJA	1.765	31.54	18788.9
	ARENA_3	0.476	8.76	5055.3				
9500.000	D TIERRA	2.772	4.54	29926.9	ARENA_1	0.176	0.28	1742.6
	ARENA_2	0.214	0.34	2230.3	RELLENO_ZANJA	1.684	2.78	18791.7
	ARENA_3	0.476	0.77	5056.1				
9519.999	D TIERRA	2.828	56.00	29982.9	ARENA_1	0.176	3.52	1746.1
	ARENA_2	0.214	4.27	2234.5	RELLENO_ZANJA	1.740	34.24	18826.0
	ARENA_3	0.476	9.53	5065.6				
9520.000	D TIERRA	2.828	0.00	29982.9	ARENA_1	0.176	0.00	1746.1
	ARENA_2	0.214	0.00	2234.5	RELLENO_ZANJA	1.740	0.00	18826.0
	ARENA_3	0.476	0.00	5065.6				
9537.277	D TIERRA	2.950	49.92	30032.8	ARENA_1	0.176	3.04	1749.2
	ARENA_2	0.214	3.69	2238.2	RELLENO_ZANJA	1.862	31.12	18857.1
	ARENA_3	0.476	8.23	5073.8				
9540.000	D TIERRA	2.934	8.01	30040.8	ARENA_1	0.176	0.48	1749.7
	ARENA_2	0.214	0.58	2238.8	RELLENO_ZANJA	1.845	5.05	18862.1
	ARENA_3	0.476	1.30	5075.1				
9560.000	D TIERRA	2.839	57.73	30098.6	ARENA_1	0.176	3.52	1753.2
	ARENA_2	0.214	4.27	2243.1	RELLENO_ZANJA	1.751	35.96	18898.1
	ARENA_3	0.476	9.53	5084.6				
9580.000	D TIERRA	2.816	56.55	30155.1	ARENA_1	0.176	3.52	1756.7
	ARENA_2	0.214	4.27	2247.4	RELLENO_ZANJA	1.727	34.78	18932.9
	ARENA_3	0.476	9.53	5094.2				
9587.624	D TIERRA	2.880	21.71	30176.8	ARENA_1	0.176	1.34	1758.0
	ARENA_2	0.214	1.63	2249.0	RELLENO_ZANJA	1.792	13.41	18946.3
	ARENA_3	0.476	3.63	5097.8				
9600.000	D TIERRA	2.927	35.93	30212.7	ARENA_1	0.176	2.18	1760.2
	ARENA_2	0.214	2.64	2251.6	RELLENO_ZANJA	1.839	22.46	18968.7
	ARENA_3	0.476	5.89	5103.7				
9620.000	D TIERRA	2.792	57.19	30269.9	ARENA_1	0.176	3.52	1763.7
	ARENA_2	0.214	4.27	2255.9	RELLENO_ZANJA	1.703	35.42	19004.2
	ARENA_3	0.476	9.53	5113.2				

PERFIL	MATERIAL	AREA PERFIL	VOL. PARCIAL	VOL. ACUMUL.	MATERIAL	AREA PERFIL	VOL. PARCIAL	VOL. ACUMUL.
9624.637	D TIERRA	2.793	12.95	30282.9	ARENA_1	0.176	0.82	1764.6
	ARENA_2	0.214	0.99	2256.9	RELLENO_ZANJA	1.705	7.90	19012.1
	ARENA_3	0.476	2.21	5115.4				
9640.000	D TIERRA	2.889	43.65	30326.5	ARENA_1	0.176	2.71	1767.3
	ARENA_2	0.214	3.28	2260.2	RELLENO_ZANJA	1.801	26.93	19039.0
	ARENA_3	0.476	7.32	5122.7				
9655.155	D TIERRA	2.997	44.61	30371.1	ARENA_1	0.176	2.67	1769.9
	ARENA_2	0.214	3.24	2263.4	RELLENO_ZANJA	1.909	28.11	19067.1
	ARENA_3	0.476	7.22	5130.0				
9660.000	D TIERRA	2.992	14.51	30385.6	ARENA_1	0.176	0.85	1770.8
	ARENA_2	0.214	1.03	2264.5	RELLENO_ZANJA	1.903	9.24	19076.3
	ARENA_3	0.476	2.31	5132.3				
9680.000	D TIERRA	2.970	59.62	30445.3	ARENA_1	0.176	3.52	1774.3
	ARENA_2	0.214	4.27	2268.7	RELLENO_ZANJA	1.882	37.85	19114.2
	ARENA_3	0.476	9.53	5141.8				
9700.000	D TIERRA	2.868	58.38	30503.6	ARENA_1	0.176	3.52	1777.8
	ARENA_2	0.214	4.27	2273.0	RELLENO_ZANJA	1.779	36.61	19150.8
	ARENA_3	0.476	9.53	5151.3				
9709.381	D TIERRA	2.800	26.59	30530.2	ARENA_1	0.176	1.65	1779.5
	ARENA_2	0.214	2.00	2275.0	RELLENO_ZANJA	1.712	16.38	19167.2
	ARENA_3	0.476	4.47	5155.8				
9720.000	D TIERRA	2.708	29.25	30559.5	ARENA_1	0.176	1.87	1781.4
	ARENA_2	0.214	2.27	2277.3	RELLENO_ZANJA	1.620	17.69	19184.9
	ARENA_3	0.476	5.06	5160.8				
9728.618	D TIERRA	2.624	22.98	30582.5	ARENA_1	0.176	1.52	1782.9
	ARENA_2	0.214	1.84	2279.1	RELLENO_ZANJA	1.536	13.60	19198.5
	ARENA_3	0.476	4.10	5164.9				
9740.000	D TIERRA	2.548	29.43	30611.9	ARENA_1	0.176	2.01	1784.9
	ARENA_2	0.214	2.43	2281.5	RELLENO_ZANJA	1.459	17.05	19215.5
	ARENA_3	0.476	5.42	5170.4				
9760.000	D TIERRA	2.555	51.03	30662.9	ARENA_1	0.176	3.52	1788.4
	ARENA_2	0.214	4.27	2285.8	RELLENO_ZANJA	1.467	29.26	19244.8
	ARENA_3	0.476	9.53	5179.9				
9780.000	D TIERRA	2.614	51.69	30714.6	ARENA_1	0.176	3.52	1791.9
	ARENA_2	0.214	4.27	2290.1	RELLENO_ZANJA	1.526	29.92	19274.7
	ARENA_3	0.476	9.53	5189.4				
9800.000	D TIERRA	2.596	52.10	30766.7	ARENA_1	0.176	3.52	1795.5
	ARENA_2	0.214	4.27	2294.4	RELLENO_ZANJA	1.508	30.34	19305.0
	ARENA_3	0.476	9.53	5198.9				
9816.677	D TIERRA	2.440	42.00	30808.7	ARENA_1	0.176	2.94	1798.4
	ARENA_2	0.214	3.56	2297.9	RELLENO_ZANJA	1.352	23.85	19328.9
	ARENA_3	0.476	7.94	5206.9				
9820.000	D TIERRA	2.485	8.18	30816.9	ARENA_1	0.176	0.59	1799.0
	ARENA_2	0.214	0.71	2298.6	RELLENO_ZANJA	1.397	4.57	19333.5
	ARENA_3	0.476	1.58	5208.5				
9840.000	D TIERRA	2.570	50.55	30867.4	ARENA_1	0.176	3.52	1802.5
	ARENA_2	0.214	4.27	2302.9	RELLENO_ZANJA	1.482	28.79	19362.3
	ARENA_3	0.476	9.53	5218.0				
9860.000	D TIERRA	2.664	52.34	30919.8	ARENA_1	0.176	3.52	1806.0
	ARENA_2	0.214	4.27	2307.2	RELLENO_ZANJA	1.575	30.57	19392.8
	ARENA_3	0.476	9.53	5227.5				
9873.905	D TIERRA	2.696	37.26	30957.0	ARENA_1	0.176	2.45	1808.5
	ARENA_2	0.214	2.97	2310.1	RELLENO_ZANJA	1.608	22.13	19415.0
	ARENA_3	0.476	6.62	5234.1				
9880.000	D TIERRA	2.788	16.71	30973.7	ARENA_1	0.176	1.07	1809.5
	ARENA_2	0.214	1.30	2311.4	RELLENO_ZANJA	1.700	10.08	19425.0
	ARENA_3	0.476	2.90	5237.1				
9900.000	D TIERRA	3.153	59.41	31033.2	ARENA_1	0.176	3.52	1813.1
	ARENA_2	0.214	4.27	2315.7	RELLENO_ZANJA	2.064	37.65	19462.7
	ARENA_3	0.476	9.53	5246.6				

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 PROYECTO : CIDACOS COMPLETO
 EJE : 7: EJE 7. ARQUETA PRINCIPAL (P190) - CALAHORRA (P210)

Istram 9.04 14/04/20 13:53:54

 PROYECTO : CIDACOS COMPLETO
 EJE : 7: EJE 7. ARQUETA PRINCIPAL (P190) - CALAHORRA (P210)

 * * * MEDICIONES DE LOS PERFILES TRANSVERSALES * * *
 * * * CAPAS DE FIRME * * *

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PERFIL	MATERIAL	AREA PERFIL	VOL. PARCIAL	VOL. ACUMUL.	MATERIAL	AREA PERFIL	VOL. PARCIAL	VOL. ACUMUL.
9920.000	D TIERRA	3.553	67.05	31100.2	ARENA_1	0.176	3.52	1816.6
	ARENA_2	0.214	4.27	2320.0	RELLENO_ZANJA	2.464	45.29	19508.0
	ARENA_3	0.476	9.53	5256.1				
9940.000	D TIERRA	3.941	74.93	31175.1	ARENA_1	0.176	3.52	1820.1
	ARENA_2	0.214	4.27	2324.3	RELLENO_ZANJA	2.852	53.17	19561.1
	ARENA_3	0.476	9.53	5265.6				
9960.000	D TIERRA	4.019	79.60	31254.7	ARENA_1	0.176	3.52	1823.6
	ARENA_2	0.214	4.27	2328.5	RELLENO_ZANJA	2.931	57.84	19619.0
	ARENA_3	0.476	9.53	5275.2				
9980.000	D TIERRA	4.012	80.32	31335.1	ARENA_1	0.176	3.52	1827.2
	ARENA_2	0.214	4.27	2332.8	RELLENO_ZANJA	2.924	58.55	19677.5
	ARENA_3	0.476	9.53	5284.7				
10000.000	D TIERRA	3.679	76.91	31412.0	ARENA_1	0.176	3.52	1830.7
	ARENA_2	0.214	4.27	2337.1	RELLENO_ZANJA	2.591	55.15	19732.7
	ARENA_3	0.476	9.53	5294.2				
10004.110	D TIERRA	3.614	14.99	31427.0	ARENA_1	0.176	0.72	1831.4
	ARENA_2	0.214	0.88	2338.0	RELLENO_ZANJA	2.526	10.51	19743.2
	ARENA_3	0.476	1.96	5296.2				
10020.000	D TIERRA	3.495	56.48	31483.4	ARENA_1	0.176	2.80	1834.2
	ARENA_2	0.214	3.39	2341.3	RELLENO_ZANJA	2.407	39.19	19782.4
	ARENA_3	0.476	7.57	5303.7				
10040.000	D TIERRA	3.460	69.55	31553.0	ARENA_1	0.176	3.52	1837.7
	ARENA_2	0.214	4.27	2345.6	RELLENO_ZANJA	2.372	47.79	19830.2
	ARENA_3	0.476	9.53	5313.3				
10060.000	D TIERRA	3.202	66.62	31619.6	ARENA_1	0.176	3.52	1841.3
	ARENA_2	0.214	4.27	2349.9	RELLENO_ZANJA	2.114	44.86	19875.0
	ARENA_3	0.476	9.53	5322.8				
10080.000	D TIERRA	2.527	57.29	31676.9	ARENA_1	0.176	3.52	1844.8
	ARENA_2	0.214	4.27	2354.2	RELLENO_ZANJA	1.438	35.52	19910.5
	ARENA_3	0.476	9.53	5332.3				
10100.000	D TIERRA	2.527	50.53	31727.4	ARENA_1	0.176	3.52	1848.3
	ARENA_2	0.214	4.27	2358.4	RELLENO_ZANJA	1.438	28.77	19939.3
	ARENA_3	0.476	9.53	5341.8				
10119.114	D TIERRA	2.533	48.35	31775.8	ARENA_1	0.176	3.37	1851.7
	ARENA_2	0.214	4.08	2362.5	RELLENO_ZANJA	1.444	27.55	19966.9
	ARENA_3	0.476	9.10	5350.9				
10120.000	D TIERRA	2.538	2.25	31778.0	ARENA_1	0.176	0.16	1851.8
	ARENA_2	0.214	0.19	2362.7	RELLENO_ZANJA	1.449	1.28	19968.1
	ARENA_3	0.476	0.42	5351.4				
10137.680	D TIERRA	2.657	45.92	31824.0	ARENA_1	0.176	3.11	1854.9
	ARENA_2	0.214	3.78	2366.5	RELLENO_ZANJA	1.568	26.68	19994.8
	ARENA_3	0.476	8.42	5359.8				
10140.000	D TIERRA	2.503	5.99	31829.9	ARENA_1	0.176	0.41	1855.3
	ARENA_2	0.214	0.50	2367.0	RELLENO_ZANJA	1.415	3.46	19998.3
	ARENA_3	0.476	1.11	5360.9				
10160.000	D TIERRA	2.890	53.93	31883.9	ARENA_1	0.176	3.52	1858.9
	ARENA_2	0.214	4.27	2371.3	RELLENO_ZANJA	1.802	32.17	20030.5
	ARENA_3	0.476	9.53	5370.4				
10168.841	D TIERRA	2.863	25.43	31909.3	ARENA_1	0.176	1.56	1860.4
	ARENA_2	0.214	1.89	2373.1	RELLENO_ZANJA	1.775	15.81	20046.3
	ARENA_3	0.476	4.21	5374.6				
10180.000	D TIERRA	2.459	29.69	31939.0	ARENA_1	0.176	1.97	1862.4
	ARENA_2	0.214	2.38	2375.5	RELLENO_ZANJA	1.370	17.55	20063.8
	ARENA_3	0.476	5.31	5379.9				
10199.599	D TIERRA	2.498	48.57	31987.6	ARENA_1	0.176	3.45	1865.8
	ARENA_2	0.214	4.19	2379.7	RELLENO_ZANJA	1.410	27.24	20091.1
	ARENA_3	0.476	9.33	5389.3				
10200.000	D TIERRA	2.532	1.01	31988.6	ARENA_1	0.176	0.07	1865.9
	ARENA_2	0.214	0.09	2379.8	RELLENO_ZANJA	1.444	0.57	20091.6
	ARENA_3	0.476	0.19	5389.5				

PERFIL	MATERIAL	AREA PERFIL	VOL. PARCIAL	VOL. ACUMUL.	MATERIAL	AREA PERFIL	VOL. PARCIAL	VOL. ACUMUL.
10220.000	D TIERRA	2.540	50.72	32039.3	ARENA_1	0.176	3.52	1869.4
	ARENA_2	0.214	4.27	2384.1	RELLENO_ZANJA	1.452	28.96	20120.6
	ARENA_3	0.476	9.53	5399.0				
10225.639	D TIERRA	2.687	14.74	32054.0	ARENA_1	0.176	0.99	1870.4
	ARENA_2	0.214	1.20	2385.3	RELLENO_ZANJA	1.598	8.60	20129.2
	ARENA_3	0.476	2.69	5401.7				
10240.000	D TIERRA	2.656	38.36	32092.4	ARENA_1	0.176	2.53	1873.0
	ARENA_2	0.214	3.07	2388.3	RELLENO_ZANJA	1.568	22.74	20151.9
	ARENA_3	0.476	6.84	5408.5				
10260.000	D TIERRA	2.527	51.83	32144.2	ARENA_1	0.176	3.52	1876.5
	ARENA_2	0.214	4.27	2392.6	RELLENO_ZANJA	1.438	30.06	20182.0
	ARENA_3	0.476	9.52	5418.0				
10280.000	D TIERRA	2.454	49.81	32194.0	ARENA_1	0.176	3.52	1880.0
	ARENA_2	0.214	4.27	2396.9	RELLENO_ZANJA	1.366	28.04	20210.0
	ARENA_3	0.476	9.53	5427.6				
10298.105	D TIERRA	2.515	44.99	32239.0	ARENA_1	0.176	3.19	1883.2
	ARENA_2	0.214	3.87	2400.8	RELLENO_ZANJA	1.427	25.28	20235.3
	ARENA_3	0.476	8.62	5436.2				
10300.000	D TIERRA	2.605	4.85	32243.9	ARENA_1	0.176	0.33	1883.5
	ARENA_2	0.214	0.40	2401.2	RELLENO_ZANJA	1.517	2.79	20238.1
	ARENA_3	0.476	0.90	5437.1				
10319.432	D TIERRA	2.595	50.52	32294.4	ARENA_1	0.176	3.42	1887.0
	ARENA_2	0.214	4.15	2405.3	RELLENO_ZANJA	1.507	29.37	20267.5
	ARENA_3	0.476	9.26	5446.3				
10320.000	D TIERRA	2.635	1.49	32295.9	ARENA_1	0.176	0.10	1887.1
	ARENA_2	0.214	0.12	2405.4	RELLENO_ZANJA	1.546	0.87	20268.3
	ARENA_3	0.476	0.27	5446.6				
10326.986	D TIERRA	2.705	18.65	32314.5	ARENA_1	0.176	1.23	1888.3
	ARENA_2	0.214	1.49	2406.9	RELLENO_ZANJA	1.617	11.05	20279.4
	ARENA_3	0.476	3.33	5449.9				
10340.000	D TIERRA	2.831	36.02	32350.6	ARENA_1	0.176	2.29	1890.6
	ARENA_2	0.214	2.78	2409.7	RELLENO_ZANJA	1.743	21.86	20301.2
	ARENA_3	0.476	6.20	5456.1				
10353.645	D TIERRA	3.456	42.90	32393.4	ARENA_1	0.176	2.40	1893.0
	ARENA_2	0.214	2.91	2412.6	RELLENO_ZANJA	2.368	28.05	20329.3
	ARENA_3	0.476	6.50	5462.6				
10360.000	D TIERRA	2.973	20.43	32413.9	ARENA_1	0.176	1.12	1894.1
	ARENA_2	0.214	1.36	2414.0	RELLENO_ZANJA	1.885	13.51	20342.8
	ARENA_3	0.476	3.03	5465.7				
10380.000	D TIERRA	2.561	55.34	32469.2	ARENA_1	0.176	3.52	1897.6
	ARENA_2	0.214	4.27	2418.2	RELLENO_ZANJA	1.473	33.58	20376.4
	ARENA_3	0.476	9.53	5475.2				
10389.913	D TIERRA	2.614	25.65	32494.9	ARENA_1	0.176	1.75	1899.4
	ARENA_2	0.214	2.12	2420.4	RELLENO_ZANJA	1.526	14.86	20391.2
	ARENA_3	0.476	4.72	5479.9				
10400.000	D TIERRA	2.421	25.40	32520.3	ARENA_1	0.176	1.78	1901.1
	ARENA_2	0.214	2.15	2422.5	RELLENO_ZANJA	1.333	14.42	20405.7
	ARENA_3	0.476	4.80	5484.7				
10407.179	D TIERRA	2.544	17.82	32538.1	ARENA_1	0.176	1.26	1902.4
	ARENA_2	0.214	1.53	2424.1	RELLENO_ZANJA	1.456	10.01	20415.7
	ARENA_3	0.476	3.42	5488.1				
10418.184	D TIERRA	2.712	28.92	32567.0	ARENA_1	0.176	1.94	1904.4
	ARENA_2	0.214	2.35	2426.4	RELLENO_ZANJA	1.624	16.95	20432.6
	ARENA_3	0.476	5.24	5493.4				
10420.000	D TIERRA	2.789	4.99	32572.0	ARENA_1	0.176	0.32	1904.7
	ARENA_2	0.214	0.39	2426.8	RELLENO_ZANJA	1.700	3.02	20435.6
	ARENA_3	0.476	0.86	5494.2				
10440.000	D TIERRA	2.607	53.95	32626.0	ARENA_1	0.176	3.52	1908.2
	ARENA_2	0.214	4.27	2431.1	RELLENO_ZANJA	1.519	32.19	20467.8
	ARENA_3	0.476	9.53	5503.8				



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PROYECTO : CIDACOS COMPLETO
EJE : 7: EJE 7. ARQUETA PRINCIPAL (P190) - CALAHORRA (P210)

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PROYECTO : CIDACOS COMPLETO
EJE : 7: EJE 7. ARQUETA PRINCIPAL (P190) - CALAHORRA (P210)

*** MEDICIONES DE LOS PERFILES TRANSVERSALES ***
*** CAPAS DE FIRME ***

*** MEDICIONES DE LOS PERFILES TRANSVERSALES ***
*** CAPAS DE FIRME ***

PERFIL	MATERIAL	AREA PERFIL	VOL. PARCIAL	VOL. ACUMUL.	MATERIAL	AREA PERFIL	VOL. PARCIAL	VOL. ACUMUL.
10460.000	D TIERRA	2.686	52.93	32678.9	ARENA_1	0.176	3.52	1911.7
	ARENA_2	0.214	4.27	2435.3	RELLENO_ZANJA	1.598	31.16	20499.0
	ARENA_3	0.476	9.53	5513.3				
10470.941	D TIERRA	2.637	29.12	32708.0	ARENA_1	0.176	1.93	1913.6
	ARENA_2	0.214	2.34	2437.7	RELLENO_ZANJA	1.548	17.21	20516.2
	ARENA_3	0.476	5.21	5518.5				
10480.000	D TIERRA	2.515	23.33	32731.3	ARENA_1	0.176	1.60	1915.2
	ARENA_2	0.214	1.94	2439.6	RELLENO_ZANJA	1.427	13.48	20529.7
	ARENA_3	0.476	4.31	5522.8				
10488.937	D TIERRA	2.774	23.64	32755.0	ARENA_1	0.176	1.57	1916.8
	ARENA_2	0.214	1.91	2441.5	RELLENO_ZANJA	1.686	13.91	20543.6
	ARENA_3	0.476	4.26	5527.1				
10500.000	D TIERRA	2.736	30.48	32785.4	ARENA_1	0.176	1.95	1918.8
	ARENA_2	0.214	2.36	2443.9	RELLENO_ZANJA	1.648	18.44	20562.0
	ARENA_3	0.476	5.27	5532.3				
10500.000	D TIERRA	2.997	0.00	32785.4	ARENA_1	0.178	0.00	1918.8
	ARENA_2	0.226	0.00	2443.9	RELLENO_ZANJA	1.851	0.00	20562.0
	ARENA_3	0.519	0.00	5532.3				
10508.909	D TIERRA	2.961	26.54	32812.0	ARENA_1	0.178	1.59	1920.4
	ARENA_2	0.226	2.01	2445.9	RELLENO_ZANJA	1.816	16.33	20578.4
	ARENA_3	0.519	4.62	5537.0				
10520.000	D TIERRA	2.735	31.59	32843.6	ARENA_1	0.178	1.98	1922.3
	ARENA_2	0.226	2.51	2448.4	RELLENO_ZANJA	1.589	18.88	20597.2
	ARENA_3	0.519	5.76	5542.7				
10521.482	D TIERRA	2.706	4.03	32847.6	ARENA_1	0.178	0.26	1922.6
	ARENA_2	0.226	0.33	2448.7	RELLENO_ZANJA	1.560	2.33	20599.6
	ARENA_3	0.519	0.77	5543.5				
10540.000	D TIERRA	3.289	55.50	32903.1	ARENA_1	0.178	3.30	1925.9
	ARENA_2	0.226	4.18	2452.9	RELLENO_ZANJA	2.143	34.29	20633.9
	ARENA_3	0.519	9.61	5553.1				
10557.921	D TIERRA	2.828	54.81	32957.9	ARENA_1	0.178	3.19	1929.1
	ARENA_2	0.226	4.05	2457.0	RELLENO_ZANJA	1.683	34.28	20668.1
	ARENA_3	0.519	9.30	5562.4				
10560.000	D TIERRA	2.788	5.84	32963.8	ARENA_1	0.178	0.37	1929.5
	ARENA_2	0.226	0.47	2457.4	RELLENO_ZANJA	1.642	3.46	20671.6
	ARENA_3	0.519	1.08	5563.5				
10580.000	D TIERRA	2.842	56.30	33020.1	ARENA_1	0.178	3.57	1933.0
	ARENA_2	0.226	4.52	2462.0	RELLENO_ZANJA	1.697	33.39	20705.0
	ARENA_3	0.519	10.38	5573.9				
10600.000	D TIERRA	2.757	55.99	33076.1	ARENA_1	0.178	3.57	1936.6
	ARENA_2	0.226	4.52	2466.5	RELLENO_ZANJA	1.611	33.08	20738.1
	ARENA_3	0.519	10.39	5584.3				
10620.000	D TIERRA	2.593	53.50	33129.6	ARENA_1	0.178	3.57	1940.2
	ARENA_2	0.226	4.52	2471.0	RELLENO_ZANJA	1.447	30.59	20768.7
	ARENA_3	0.519	10.38	5594.6				
10640.000	D TIERRA	2.756	53.49	33183.0	ARENA_1	0.178	3.57	1943.7
	ARENA_2	0.226	4.52	2475.5	RELLENO_ZANJA	1.610	30.57	20799.2
	ARENA_3	0.519	10.38	5605.0				
10680.000	D TIERRA	2.678	108.68	33291.7	ARENA_1	0.178	7.13	1950.8
	ARENA_2	0.226	9.04	2484.5	RELLENO_ZANJA	1.533	62.86	20862.1
	ARENA_3	0.519	20.77	5625.8				
10720.000	D TIERRA	3.204	117.64	33409.4	ARENA_1	0.178	7.13	1958.0
	ARENA_2	0.226	9.04	2493.6	RELLENO_ZANJA	2.058	71.82	20933.9
	ARENA_3	0.519	20.78	5646.6				
10740.000	D TIERRA	3.204	64.08	33473.4	ARENA_1	0.178	3.57	1961.5
	ARENA_2	0.226	4.52	2498.1	RELLENO_ZANJA	2.058	41.16	20975.1
	ARENA_3	0.519	10.39	5657.0				
10760.000	D TIERRA	3.204	64.08	33537.5	ARENA_1	0.178	3.57	1965.1
	ARENA_2	0.226	4.52	2502.6	RELLENO_ZANJA	2.059	41.17	21016.2
	ARENA_3	0.519	10.39	5667.3				

PERFIL	MATERIAL	AREA PERFIL	VOL. PARCIAL	VOL. ACUMUL.	MATERIAL	AREA PERFIL	VOL. PARCIAL	VOL. ACUMUL.
10880.000	D TIERRA	2.844	362.90	33900.4	ARENA_1	0.178	21.39	1986.5
	ARENA_2	0.226	27.11	2529.7	RELLENO_ZANJA	1.699	225.44	21241.7
	ARENA_3	0.519	62.33	5729.7				
10900.000	D TIERRA	2.757	56.01	33956.4	ARENA_1	0.178	3.57	1990.1
	ARENA_2	0.226	4.52	2534.2	RELLENO_ZANJA	1.611	33.10	21274.8
	ARENA_3	0.519	10.39	5740.1				
10920.000	D TIERRA	0.000	0.00	33956.4	ARENA_1	0.000	0.00	1990.1
	ARENA_2	0.000	0.00	2534.2	RELLENO_ZANJA	0.000	0.00	21274.8
	ARENA_3	0.000	0.00	5740.1				
10940.000	D TIERRA	0.000	0.00	33956.4	ARENA_1	0.000	0.00	1990.1
	ARENA_2	0.000	0.00	2534.2	RELLENO_ZANJA	0.000	0.00	21274.8
	ARENA_3	0.000	0.00	5740.1				
10960.000	D TIERRA	3.775	0.00	33956.4	ARENA_1	0.178	0.00	1990.1
	ARENA_2	0.226	0.00	2534.2	RELLENO_ZANJA	2.630	0.00	21274.8
	ARENA_3	0.519	0.00	5740.1				
10980.000	D TIERRA	0.000	0.00	33956.4	ARENA_1	0.000	0.00	1990.1
	ARENA_2	0.000	0.00	2534.2	RELLENO_ZANJA	0.000	0.00	21274.8
	ARENA_3	0.000	0.00	5740.1				
11000.000	D TIERRA	3.706	0.00	33956.4	ARENA_1	0.178	0.00	1990.1
	ARENA_2	0.226	0.00	2534.2	RELLENO_ZANJA	2.561	0.00	21274.8
	ARENA_3	0.519	0.00	5740.1				
11000.115	D TIERRA	3.679	0.42	33956.9	ARENA_1	0.178	0.02	1990.1
	ARENA_2	0.226	0.03	2534.3	RELLENO_ZANJA	2.534	0.29	21275.1
	ARENA_3	0.519	0.06	5740.1				
11019.915	D TIERRA	2.829	64.43	34021.3	ARENA_1	0.178	3.53	1993.6
	ARENA_2	0.226	4.47	2538.7	RELLENO_ZANJA	1.683	41.75	21316.8
	ARENA_3	0.519	10.28	5750.4				
11020.000	D TIERRA	2.830	0.24	34021.5	ARENA_1	0.178	0.02	1993.6
	ARENA_2	0.226	0.02	2538.8	RELLENO_ZANJA	1.685	0.14	21317.0
	ARENA_3	0.519	0.04	5750.4				
11040.000	D TIERRA	2.753	55.83	34077.4	ARENA_1	0.178	3.57	1997.2
	ARENA_2	0.226	4.52	2543.3	RELLENO_ZANJA	1.607	32.92	21349.9
	ARENA_3	0.519	10.39	5760.8				
11055.586	D TIERRA	2.763	42.98	34120.3	ARENA_1	0.178	2.78	2000.0
	ARENA_2	0.226	3.52	2546.8	RELLENO_ZANJA	1.617	25.13	21375.0
	ARENA_3	0.519	8.09	5768.9				
11060.000	D TIERRA	2.913	12.53	34132.9	ARENA_1	0.178	0.79	2000.8
	ARENA_2	0.226	1.00	2547.8	RELLENO_ZANJA	1.768	7.47	21382.5
	ARENA_3	0.519	2.29	5771.2				
11080.000	D TIERRA	3.642	65.55	34198.4	ARENA_1	0.178	3.56	2004.3
	ARENA_2	0.226	4.52	2552.3	RELLENO_ZANJA	2.496	42.64	21425.1
	ARENA_3	0.519	10.38	5781.6				
11100.000	D TIERRA	3.771	74.13	34272.6	ARENA_1	0.178	3.56	2007.9
	ARENA_2	0.226	4.52	2556.8	RELLENO_ZANJA	2.625	51.21	21476.3
	ARENA_3	0.519	10.38	5792.0				
11120.000	D TIERRA	4.004	77.75	34350.3	ARENA_1	0.178	3.57	2011.5
	ARENA_2	0.226	4.52	2561.3	RELLENO_ZANJA	2.859	54.84	21531.2
	ARENA_3	0.519	10.39	5802.4				
11125.720	D TIERRA	3.973	22.81	34373.1	ARENA_1	0.178	1.02	2012.5
	ARENA_2	0.226	1.29	2562.6	RELLENO_ZANJA	2.827	16.26	21547.4
	ARENA_3	0.519	2.97	5805.3				
11140.000	D TIERRA	3.494	53.32	34426.4	ARENA_1	0.178	2.55	2015.0
	ARENA_2	0.226	3.23	2565.9	RELLENO_ZANJA	2.349	36.96	21584.4
	ARENA_3	0.519	7.42	5812.8				
11146.877	D TIERRA	3.348	23.53	34450.0	ARENA_1	0.178	1.23	2016.2
	ARENA_2	0.226	1.55	2567.4	RELLENO_ZANJA	2.202	15.65	21600.0
	ARENA_3	0.519	3.57	5816.3				
11160.000	D TIERRA	3.180	42.83	34492.8	ARENA_1	0.178	2.34	2018.6
	ARENA_2	0.226	2.96	2570.4	RELLENO_ZANJA	2.034	27.80	21627.8
	ARENA_3	0.519	6.82	5823.1				



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PROYECTO : CIDACOS COMPLETO
 EJE : 7: EJE 7. ARQUETA PRINCIPAL (P190) - CALAHORRA (P210)

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PROYECTO : CIDACOS COMPLETO
 EJE : 7: EJE 7. ARQUETA PRINCIPAL (P190) - CALAHORRA (P210)

*** MEDICIONES DE LOS PERFILES TRANSVERSALES ***
 *** CAPAS DE FIRME ***

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 *** CAPAS DE FIRME ***

PERFIL	MATERIAL	AREA PERFIL	VOL. PARCIAL	VOL. ACUMUL.	MATERIAL	AREA PERFIL	VOL. PARCIAL	VOL. ACUMUL.
11180.000	D TIERRA	2.757	59.36	34552.2	ARENA_1	0.178	3.57	2022.2
	ARENA_2	0.226	4.52	2574.9	RELLENO_ZANJA	1.611	36.45	21664.3
	ARENA_3	0.519	10.39	5833.5				
11195.631	D TIERRA	3.486	48.79	34600.9	ARENA_1	0.178	2.79	2024.9
	ARENA_2	0.226	3.53	2578.4	RELLENO_ZANJA	2.340	30.88	21695.2
	ARENA_3	0.519	8.12	5841.6				
11200.000	D TIERRA	3.421	15.09	34616.0	ARENA_1	0.178	0.78	2025.7
	ARENA_2	0.226	0.99	2579.4	RELLENO_ZANJA	2.276	10.08	21705.3
	ARENA_3	0.519	2.27	5843.9				
11220.000	D TIERRA	2.869	62.91	34678.9	ARENA_1	0.178	3.56	2029.3
	ARENA_2	0.226	4.52	2583.9	RELLENO_ZANJA	1.724	39.99	21745.2
	ARENA_3	0.519	10.38	5854.3				
11230.995	D TIERRA	3.261	33.70	34712.6	ARENA_1	0.178	1.96	2031.2
	ARENA_2	0.226	2.48	2586.4	RELLENO_ZANJA	2.116	21.11	21766.4
	ARENA_3	0.519	5.71	5860.0				
11240.000	D TIERRA	3.172	28.96	34741.6	ARENA_1	0.178	1.61	2032.8
	ARENA_2	0.226	2.03	2588.4	RELLENO_ZANJA	2.026	18.65	21785.0
	ARENA_3	0.519	4.67	5864.7				
11248.739	D TIERRA	3.160	27.67	34769.3	ARENA_1	0.178	1.56	2034.4
	ARENA_2	0.226	1.97	2590.4	RELLENO_ZANJA	2.014	17.66	21802.7
	ARENA_3	0.519	4.54	5869.2				
11260.000	D TIERRA	2.757	33.31	34802.6	ARENA_1	0.178	2.01	2036.4
	ARENA_2	0.226	2.54	2593.0	RELLENO_ZANJA	1.611	20.41	21823.1
	ARENA_3	0.519	5.84	5875.1				
11280.000	D TIERRA	2.804	55.61	34858.2	ARENA_1	0.178	3.57	2040.0
	ARENA_2	0.226	4.52	2597.5	RELLENO_ZANJA	1.658	32.70	21855.8
	ARENA_3	0.519	10.38	5885.4				
11296.492	D TIERRA	2.843	46.56	34904.8	ARENA_1	0.178	2.94	2042.9
	ARENA_2	0.226	3.73	2601.2	RELLENO_ZANJA	1.697	27.67	21883.4
	ARENA_3	0.519	8.56	5894.0				
11300.000	D TIERRA	2.843	9.97	34914.7	ARENA_1	0.178	0.63	2043.5
	ARENA_2	0.226	0.79	2602.0	RELLENO_ZANJA	1.698	5.96	21889.4
	ARENA_3	0.519	1.82	5895.8				
11320.000	D TIERRA	3.116	59.59	34974.3	ARENA_1	0.178	3.56	2047.1
	ARENA_2	0.226	4.52	2606.5	RELLENO_ZANJA	1.970	36.68	21926.1
	ARENA_3	0.519	10.38	5906.2				
11323.001	D TIERRA	3.070	9.28	34983.6	ARENA_1	0.178	0.53	2047.6
	ARENA_2	0.226	0.68	2607.2	RELLENO_ZANJA	1.924	5.84	21931.9
	ARENA_3	0.519	1.56	5907.7				
11340.000	D TIERRA	2.939	51.07	35034.7	ARENA_1	0.178	3.03	2050.7
	ARENA_2	0.226	3.84	2611.0	RELLENO_ZANJA	1.793	31.59	21963.5
	ARENA_3	0.519	8.82	5916.6				
11380.000	D TIERRA	2.633	111.42	35146.1	ARENA_1	0.178	7.13	2057.8
	ARENA_2	0.226	9.04	2620.1	RELLENO_ZANJA	1.487	65.60	22029.1
	ARENA_3	0.519	20.76	5937.3				
11400.000	D TIERRA	2.743	53.75	35199.9	ARENA_1	0.178	3.57	2061.4
	ARENA_2	0.226	4.52	2624.6	RELLENO_ZANJA	1.597	30.84	22060.0
	ARENA_3	0.519	10.38	5947.7				
11404.578	D TIERRA	2.757	12.59	35212.4	ARENA_1	0.178	0.82	2062.2
	ARENA_2	0.226	1.03	2625.6	RELLENO_ZANJA	1.611	7.34	22067.3
	ARENA_3	0.519	2.38	5950.1				
11411.177	D TIERRA	4.699	24.60	35237.0	ARENA_1	0.178	1.18	2063.4
	ARENA_2	0.226	1.49	2627.1	RELLENO_ZANJA	3.553	17.04	22084.3
	ARENA_3	0.519	3.42	5953.5				
11420.000	D TIERRA	2.757	32.89	35269.9	ARENA_1	0.178	1.57	2064.9
	ARENA_2	0.226	1.99	2629.1	RELLENO_ZANJA	1.611	22.78	22107.1
	ARENA_3	0.519	4.58	5958.1				
11440.000	D TIERRA	0.000	0.00	35269.9	ARENA_1	0.000	0.00	2064.9
	ARENA_2	0.000	0.00	2629.1	RELLENO_ZANJA	0.000	0.00	22107.1
	ARENA_3	0.000	0.00	5958.1				

PERFIL	MATERIAL	AREA PERFIL	VOL. PARCIAL	VOL. ACUMUL.	MATERIAL	AREA PERFIL	VOL. PARCIAL	VOL. ACUMUL.
11443.133	D TIERRA	0.000	0.00	35269.9	ARENA_1	0.000	0.00	2064.9
	ARENA_2	0.000	0.00	2629.1	RELLENO_ZANJA	0.000	0.00	22107.1
	ARENA_3	0.000	0.00	5958.1				
11443.133	D TIERRA	2.107	0.00	35269.9	ARENA_1	0.172	0.00	2064.9
	ARENA_2	0.191	0.00	2629.1	RELLENO_ZANJA	1.123	0.00	22107.1
	ARENA_3	0.398	0.00	5958.1				
11460.000	D TIERRA	2.140	35.82	35305.8	ARENA_1	0.172	2.91	2067.8
	ARENA_2	0.191	3.23	2632.3	RELLENO_ZANJA	1.156	19.22	22126.3
	ARENA_3	0.398	6.72	5964.8				
11480.000	D TIERRA	2.228	43.68	35349.4	ARENA_1	0.172	3.45	2071.3
	ARENA_2	0.191	3.83	2636.2	RELLENO_ZANJA	1.244	24.00	22150.3
	ARENA_3	0.398	7.97	5972.8				
11500.000	D TIERRA	2.288	45.16	35394.6	ARENA_1	0.172	3.45	2074.7
	ARENA_2	0.191	3.83	2640.0	RELLENO_ZANJA	1.304	25.48	22175.8
	ARENA_3	0.398	7.97	5980.7				
11515.557	D TIERRA	2.414	36.58	35431.2	ARENA_1	0.172	2.68	2077.4
	ARENA_2	0.191	2.98	2643.0	RELLENO_ZANJA	1.430	21.27	22197.1
	ARENA_3	0.398	6.20	5986.9				
11520.000	D TIERRA	2.444	10.79	35442.0	ARENA_1	0.172	0.77	2078.2
	ARENA_2	0.191	0.85	2643.8	RELLENO_ZANJA	1.460	6.42	22203.5
	ARENA_3	0.398	1.77	5988.7				
11540.000	D TIERRA	2.578	50.22	35492.2	ARENA_1	0.172	3.45	2081.6
	ARENA_2	0.191	3.83	2647.6	RELLENO_ZANJA	1.593	30.53	22234.0
	ARENA_3	0.398	7.97	5996.7				
11560.000	D TIERRA	2.806	53.84	35546.0	ARENA_1	0.172	3.45	2085.1
	ARENA_2	0.191	3.83	2651.5	RELLENO_ZANJA	1.822	34.15	22268.2
	ARENA_3	0.398	7.97	6004.6				
11580.000	D TIERRA	3.072	58.78	35604.8	ARENA_1	0.172	3.45	2088.5
	ARENA_2	0.191	3.83	2655.3	RELLENO_ZANJA	2.088	39.09	22307.3
	ARENA_3	0.398	7.97	6012.6				
11600.000	D TIERRA	3.344	64.16	35669.0	ARENA_1	0.172	3.45	2092.0
	ARENA_2	0.191	3.83	2659.1	RELLENO_ZANJA	2.360	44.47	22351.8
	ARENA_3	0.398	7.97	6020.6				
11620.000	D TIERRA	3.456	68.00	35737.0	ARENA_1	0.172	3.45	2095.4
	ARENA_2	0.191	3.83	2663.0	RELLENO_ZANJA	2.472	48.31	22400.1
	ARENA_3	0.398	7.97	6028.5				
11640.000	D TIERRA	3.468	69.24	35806.2	ARENA_1	0.172	3.45	2098.9
	ARENA_2	0.191	3.83	2666.8	RELLENO_ZANJA	2.484	49.56	22449.6
	ARENA_3	0.398	7.97	6036.5				
11660.000	D TIERRA	3.481	69.49	35875.7	ARENA_1	0.172	3.45	2102.3
	ARENA_2	0.191	3.83	2670.6	RELLENO_ZANJA	2.497	49.81	22499.4
	ARENA_3	0.398	7.97	6044.5				
11680.000	D TIERRA	3.334	68.15	35943.8	ARENA_1	0.172	3.45	2105.8
	ARENA_2	0.191	3.83	2674.4	RELLENO_ZANJA	2.350	48.47	22547.9
	ARENA_3	0.398	7.97	6052.4				
11700.000	D TIERRA	2.961	62.95	36006.8	ARENA_1	0.172	3.45	2109.2
	ARENA_2	0.191	3.83	2678.3	RELLENO_ZANJA	1.977	43.27	22591.2
	ARENA_3	0.398	7.97	6060.4				
11720.000	D TIERRA	2.526	54.87	36061.7	ARENA_1	0.172	3.45	2112.7
	ARENA_2	0.191	3.83	2682.1	RELLENO_ZANJA	1.542	35.19	22626.4
	ARENA_3	0.398	7.97	6068.4				
11740.000	D TIERRA	2.233	47.59	36109.3	ARENA_1	0.172	3.45	2116.1
	ARENA_2	0.191	3.83	2685.9	RELLENO_ZANJA	1.249	27.90	22654.3
	ARENA_3	0.398	7.97	6076.3				
11760.000	D TIERRA	2.234	44.66	36153.9	ARENA_1	0.172	3.45	2119.5
	ARENA_2	0.191	3.83	2689.8	RELLENO_ZANJA	1.249	24.98	22679.2
	ARENA_3	0.398	7.97	6084.3				
11780.000	D TIERRA	2.283	45.16	36199.1	ARENA_1	0.172	3.45	2123.0
	ARENA_2	0.191	3.83	2693.6	RELLENO_ZANJA	1.298	25.48	22704.7
	ARENA_3	0.398	7.97	6092.3				



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PROYECTO : CIDACOS COMPLETO
EJE : 7: EJE 7. ARQUETA PRINCIPAL (P190) - CALAHORRA (P210)

Istram 9.04 14/04/20 13:53:54

PROYECTO : CIDACOS COMPLETO
EJE : 7: EJE 7. ARQUETA PRINCIPAL (P190) - CALAHORRA (P210)

*** MEDICIONES DE LOS PERFILES TRANSVERSALES ***
*** CAPAS DE FIRME ***

*** MEDICIONES DE LOS PERFILES TRANSVERSALES ***
*** CAPAS DE FIRME ***

PERFIL	MATERIAL	AREA PERFIL	VOL. PARCIAL	VOL. ACUMUL.	MATERIAL	AREA PERFIL	VOL. PARCIAL	VOL. ACUMUL.
11800.000	D TIERRA	2.288	45.70	36244.8	ARENA_1	0.172	3.45	2126.4
	ARENA_2	0.191	3.83	2697.4	RELLENO_ZANJA	1.304	26.02	22730.7
	ARENA_3	0.398	7.97	6100.2				
11820.000	D TIERRA	2.274	45.62	36290.4	ARENA_1	0.172	3.45	2129.9
	ARENA_2	0.191	3.83	2701.2	RELLENO_ZANJA	1.290	25.93	22756.7
	ARENA_3	0.398	7.97	6108.2				
11840.000	D TIERRA	2.259	45.33	36335.7	ARENA_1	0.172	3.45	2133.3
	ARENA_2	0.191	3.83	2705.1	RELLENO_ZANJA	1.275	25.65	22782.3
	ARENA_3	0.398	7.97	6116.2				
11860.000	D TIERRA	2.244	45.03	36380.8	ARENA_1	0.172	3.45	2136.8
	ARENA_2	0.191	3.83	2708.9	RELLENO_ZANJA	1.260	25.35	22807.7
	ARENA_3	0.398	7.97	6124.1				
11880.000	D TIERRA	2.222	44.66	36425.4	ARENA_1	0.172	3.45	2140.2
	ARENA_2	0.191	3.83	2712.7	RELLENO_ZANJA	1.238	24.97	22832.6
	ARENA_3	0.398	7.97	6132.1				
11900.000	D TIERRA	2.199	44.21	36469.6	ARENA_1	0.172	3.45	2143.7
	ARENA_2	0.191	3.83	2716.5	RELLENO_ZANJA	1.215	24.53	22857.2
	ARENA_3	0.398	7.97	6140.1				
11920.000	D TIERRA	2.158	43.57	36513.2	ARENA_1	0.172	3.45	2147.1
	ARENA_2	0.191	3.83	2720.4	RELLENO_ZANJA	1.173	23.89	22881.0
	ARENA_3	0.398	7.97	6148.0				
11940.000	D TIERRA	2.110	42.68	36555.9	ARENA_1	0.172	3.45	2150.6
	ARENA_2	0.191	3.83	2724.2	RELLENO_ZANJA	1.126	22.99	22904.0
	ARENA_3	0.398	7.97	6156.0				
11960.000	D TIERRA	2.257	43.68	36599.6	ARENA_1	0.172	3.45	2154.0
	ARENA_2	0.191	3.83	2728.0	RELLENO_ZANJA	1.273	23.99	22928.0
	ARENA_3	0.398	7.97	6164.0				
11980.000	D TIERRA	2.330	45.87	36645.4	ARENA_1	0.172	3.45	2157.5
	ARENA_2	0.191	3.83	2731.9	RELLENO_ZANJA	1.346	26.19	22954.2
	ARENA_3	0.398	7.97	6171.9				
12000.000	D TIERRA	2.362	46.92	36692.4	ARENA_1	0.172	3.45	2160.9
	ARENA_2	0.191	3.83	2735.7	RELLENO_ZANJA	1.377	27.23	22981.5
	ARENA_3	0.398	7.97	6179.9				
12020.000	D TIERRA	2.422	47.84	36740.2	ARENA_1	0.172	3.45	2164.4
	ARENA_2	0.191	3.83	2739.5	RELLENO_ZANJA	1.438	28.16	23009.6
	ARENA_3	0.398	7.97	6187.9				
12040.000	D TIERRA	2.514	49.37	36789.6	ARENA_1	0.172	3.45	2167.8
	ARENA_2	0.191	3.83	2743.3	RELLENO_ZANJA	1.530	29.68	23039.3
	ARENA_3	0.398	7.97	6195.8				
12060.000	D TIERRA	2.472	49.87	36839.4	ARENA_1	0.172	3.45	2171.3
	ARENA_2	0.191	3.83	2747.2	RELLENO_ZANJA	1.488	30.18	23069.5
	ARENA_3	0.398	7.97	6203.8				
12080.000	D TIERRA	2.626	50.98	36890.4	ARENA_1	0.172	3.45	2174.7
	ARENA_2	0.191	3.83	2751.0	RELLENO_ZANJA	1.642	31.30	23100.8
	ARENA_3	0.398	7.97	6211.8				
12100.000	D TIERRA	2.617	52.43	36942.8	ARENA_1	0.172	3.45	2178.1
	ARENA_2	0.191	3.83	2754.8	RELLENO_ZANJA	1.633	32.74	23133.5
	ARENA_3	0.398	7.97	6219.7				
12120.000	D TIERRA	2.612	52.29	36995.1	ARENA_1	0.172	3.45	2181.6
	ARENA_2	0.191	3.83	2758.7	RELLENO_ZANJA	1.628	32.61	23166.1
	ARENA_3	0.398	7.97	6227.7				
12140.000	D TIERRA	2.565	51.77	37046.9	ARENA_1	0.172	3.45	2185.0
	ARENA_2	0.191	3.83	2762.5	RELLENO_ZANJA	1.581	32.09	23198.2
	ARENA_3	0.398	7.97	6235.7				
12160.000	D TIERRA	2.522	50.87	37097.8	ARENA_1	0.172	3.45	2188.5
	ARENA_2	0.191	3.83	2766.3	RELLENO_ZANJA	1.538	31.19	23229.4
	ARENA_3	0.398	7.97	6243.6				
12180.000	D TIERRA	2.482	50.05	37147.8	ARENA_1	0.172	3.45	2191.9
	ARENA_2	0.191	3.83	2770.1	RELLENO_ZANJA	1.498	30.36	23259.8
	ARENA_3	0.398	7.97	6251.6				

PERFIL	MATERIAL	AREA PERFIL	VOL. PARCIAL	VOL. ACUMUL.	MATERIAL	AREA PERFIL	VOL. PARCIAL	VOL. ACUMUL.
12200.000	D TIERRA	2.445	49.28	37197.1	ARENA_1	0.172	3.45	2195.4
	ARENA_2	0.191	3.83	2774.0	RELLENO_ZANJA	1.461	29.59	23289.3
	ARENA_3	0.398	7.97	6259.6				
12220.000	D TIERRA	2.424	48.69	37245.8	ARENA_1	0.172	3.45	2198.8
	ARENA_2	0.191	3.83	2777.8	RELLENO_ZANJA	1.440	29.01	23318.3
	ARENA_3	0.398	7.97	6267.5				
12240.000	D TIERRA	2.404	48.28	37294.1	ARENA_1	0.172	3.45	2202.3
	ARENA_2	0.191	3.83	2781.6	RELLENO_ZANJA	1.420	28.59	23346.9
	ARENA_3	0.398	7.97	6275.5				
12260.000	D TIERRA	2.356	47.60	37341.7	ARENA_1	0.172	3.45	2205.7
	ARENA_2	0.191	3.83	2785.5	RELLENO_ZANJA	1.372	27.92	23374.9
	ARENA_3	0.398	7.97	6283.5				
12280.000	D TIERRA	2.309	46.65	37388.3	ARENA_1	0.172	3.45	2209.2
	ARENA_2	0.191	3.83	2789.3	RELLENO_ZANJA	1.325	26.97	23401.8
	ARENA_3	0.398	7.97	6291.4				
12300.000	D TIERRA	2.261	45.70	37434.0	ARENA_1	0.172	3.45	2212.6
	ARENA_2	0.191	3.83	2793.1	RELLENO_ZANJA	1.276	26.01	23427.8
	ARENA_3	0.398	7.97	6299.4				
12320.000	D TIERRA	2.194	44.54	37478.6	ARENA_1	0.172	3.45	2216.1
	ARENA_2	0.191	3.83	2796.9	RELLENO_ZANJA	1.209	24.86	23452.7
	ARENA_3	0.398	7.97	6307.4				
12337.821	D TIERRA	2.110	38.35	37516.9	ARENA_1	0.172	3.07	2219.1
	ARENA_2	0.191	3.41	2800.3	RELLENO_ZANJA	1.126	20.81	23473.5
	ARENA_3	0.398	7.10	6314.5				
12340.000	D TIERRA	2.105	4.59	37521.5	ARENA_1	0.172	0.38	2219.5
	ARENA_2	0.191	0.42	2800.8	RELLENO_ZANJA	1.121	2.45	23475.9
	ARENA_3	0.398	0.87	6315.3				
12360.000	D TIERRA	2.117	42.22	37563.7	ARENA_1	0.172	3.45	2223.0
	ARENA_2	0.191	3.83	2804.6	RELLENO_ZANJA	1.133	22.54	23498.5
	ARENA_3	0.398	7.96	6323.3				
12380.000	D TIERRA	2.110	42.27	37606.0	ARENA_1	0.172	3.45	2226.4
	ARENA_2	0.191	3.83	2808.4	RELLENO_ZANJA	1.125	22.58	23521.1
	ARENA_3	0.398	7.96	6331.2				
12400.000	D TIERRA	2.110	42.20	37648.2	ARENA_1	0.172	3.45	2229.9
	ARENA_2	0.191	3.83	2812.3	RELLENO_ZANJA	1.126	22.51	23543.6
	ARENA_3	0.398	7.96	6339.2				
12420.000	D TIERRA	2.569	46.79	37695.0	ARENA_1	0.172	3.45	2233.3
	ARENA_2	0.191	3.83	2816.1	RELLENO_ZANJA	1.584	27.10	23570.7
	ARENA_3	0.398	7.96	6347.2				
12440.000	D TIERRA	2.120	46.88	37741.9	ARENA_1	0.172	3.45	2236.7
	ARENA_2	0.191	3.83	2819.9	RELLENO_ZANJA	1.136	27.20	23597.9
	ARENA_3	0.398	7.97	6355.1				
12460.000	D TIERRA	2.111	42.31	37784.2	ARENA_1	0.172	3.45	2240.2
	ARENA_2	0.191	3.83	2823.7	RELLENO_ZANJA	1.127	22.63	23620.5
	ARENA_3	0.398	7.96	6363.1				
12480.000	D TIERRA	2.129	42.40	37826.6	ARENA_1	0.172	3.45	2243.6
	ARENA_2	0.192	3.83	2827.6	RELLENO_ZANJA	1.144	22.71	23643.2
	ARENA_3	0.397	7.95	6371.1				
12500.000	D TIERRA	2.755	48.83	37875.4	ARENA_1	0.172	3.44	2247.1
	ARENA_2	0.192	3.83	2831.4	RELLENO_ZANJA	1.770	29.15	23672.4
	ARENA_3	0.396	7.93	6379.0				
12501.941	D TIERRA	2.819	5.41	37880.8	ARENA_1	0.172	0.33	2247.4
	ARENA_2	0.192	0.37	2831.8	RELLENO_ZANJA	1.835	3.50	23675.9
	ARENA_3	0.396	0.77	6379.7				
12520.000	D TIERRA	2.501	48.04	37928.8	ARENA_1	0.172	3.11	2250.5
	ARENA_2	0.192	3.46	2835.2	RELLENO_ZANJA	1.517	30.26	23706.1
	ARENA_3	0.396	7.15	6386.9				
12530.812	D TIERRA	2.110	24.92	37953.8	ARENA_1	0.172	1.86	2252.4
	ARENA_2	0.191	2.07	2837.3	RELLENO_ZANJA	1.125	14.28	23720.4
	ARENA_3	0.398	4.29	6391.2				

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 PROYECTO : CIDACOS COMPLETO
 EJE : 7: EJE 7. ARQUETA PRINCIPAL (P190) - CALAHORRA (P210)

*** RESUMEN DE VOLUMENES TOTALES ***

MATERIAL	VOLUMEN
TERRAPLEN	0.0
D_TIERRA	37953.8
ARENA_1	2252.4
ARENA_2	2837.3
RELLENO_ZANJA	23720.4
ARENA_3	6391.2

8. EJE 8: P190 (ARQUETA PRINCIPAL) – P350 (TUDELILLA)

Istram 9.04 14/04/20 10:22:22
 PROYECTO : CIDACOS COMPLETO
 EJE : 8: P190 (Arqueta principal) - P350 (Tudelilla)

*** MEDICIONES DE LOS PERFILES TRANSVERSALES ***
 *** CAPAS DE FIRME ***

PERFIL	MATERIAL	AREA PERFIL	VOL. PARCIAL	VOL. ACUMUL.	MATERIAL	AREA PERFIL	VOL. PARCIAL	VOL. ACUMUL.
446.086	D_TIERRA	4.095	0.00	0.0	ARENA_1	0.162	0.00	0.0
	ARENA_2	0.175	0.00	0.0	RELLENO_ZANJA	3.189	0.00	0.0
	ARENA_3	0.424	0.00	0.0				
457.611	D_TIERRA	2.365	37.22	37.2	ARENA_1	0.162	1.87	1.9
	ARENA_2	0.175	2.01	2.0	RELLENO_ZANJA	1.459	26.78	26.8
	ARENA_3	0.424	4.89	4.9				
460.000	D_TIERRA	2.468	5.77	43.0	ARENA_1	0.162	0.39	2.3
	ARENA_2	0.175	0.42	2.4	RELLENO_ZANJA	1.562	3.61	30.4
	ARENA_3	0.424	1.01	5.9				
460.000	D_TIERRA	0.000	0.00	43.0	ARENA_1	0.000	0.00	2.3
	ARENA_2	0.000	0.00	2.4	RELLENO_ZANJA	0.000	0.00	30.4
	ARENA_3	0.000	0.00	5.9				
475.085	D_TIERRA	0.000	0.00	43.0	ARENA_1	0.000	0.00	2.3
	ARENA_2	0.000	0.00	2.4	RELLENO_ZANJA	0.000	0.00	30.4
	ARENA_3	0.000	0.00	5.9				
475.085	D_TIERRA	3.251	0.00	43.0	ARENA_1	0.162	0.00	2.3
	ARENA_2	0.175	0.00	2.4	RELLENO_ZANJA	2.345	0.00	30.4
	ARENA_3	0.424	0.00	5.9				
480.000	D_TIERRA	3.156	15.74	58.7	ARENA_1	0.162	0.80	3.1
	ARENA_2	0.175	0.86	3.3	RELLENO_ZANJA	2.250	11.29	41.7
	ARENA_3	0.424	2.09	8.0				
482.833	D_TIERRA	2.882	8.55	67.3	ARENA_1	0.162	0.46	3.5
	ARENA_2	0.175	0.49	3.8	RELLENO_ZANJA	1.976	5.99	47.7
	ARENA_3	0.424	1.20	9.2				
500.000	D_TIERRA	3.301	53.07	120.4	ARENA_1	0.162	2.79	6.3
	ARENA_2	0.175	3.00	6.8	RELLENO_ZANJA	2.394	37.51	85.2
	ARENA_3	0.424	7.29	16.5				
505.018	D_TIERRA	2.566	14.72	135.1	ARENA_1	0.162	0.82	7.1
	ARENA_2	0.175	0.88	7.7	RELLENO_ZANJA	1.660	10.17	95.4
	ARENA_3	0.424	2.13	18.6				
520.000	D_TIERRA	2.169	35.47	170.6	ARENA_1	0.162	2.43	9.6
	ARENA_2	0.175	2.62	10.3	RELLENO_ZANJA	1.262	21.89	117.2
	ARENA_3	0.424	6.36	25.0				
538.307	D_TIERRA	2.416	41.97	212.5	ARENA_1	0.162	2.97	12.5
	ARENA_2	0.175	3.20	13.5	RELLENO_ZANJA	1.510	25.38	142.6
	ARENA_3	0.425	7.77	32.7				
540.000	D_TIERRA	2.459	4.13	216.6	ARENA_1	0.162	0.28	12.8
	ARENA_2	0.175	0.30	13.8	RELLENO_ZANJA	1.553	2.59	145.2
	ARENA_3	0.425	0.72	33.5				
560.000	D_TIERRA	2.407	48.66	265.3	ARENA_1	0.162	3.25	16.1
	ARENA_2	0.175	3.49	17.3	RELLENO_ZANJA	1.501	30.54	175.8
	ARENA_3	0.425	8.49	41.9				
578.841	D_TIERRA	2.405	45.33	310.6	ARENA_1	0.162	3.06	19.1
	ARENA_2	0.175	3.29	20.6	RELLENO_ZANJA	1.499	28.26	204.0
	ARENA_3	0.425	8.00	49.9				
580.000	D_TIERRA	2.409	2.79	313.4	ARENA_1	0.162	0.19	19.3
	ARENA_2	0.175	0.20	20.8	RELLENO_ZANJA	1.503	1.74	205.8
	ARENA_3	0.425	0.49	50.4				
600.000	D_TIERRA	2.434	48.43	361.9	ARENA_1	0.162	3.25	22.5
	ARENA_2	0.175	3.49	24.3	RELLENO_ZANJA	1.527	30.30	236.1
	ARENA_3	0.425	8.49	58.9				
615.826	D_TIERRA	2.469	38.80	400.6	ARENA_1	0.162	2.57	25.1
	ARENA_2	0.175	2.76	27.0	RELLENO_ZANJA	1.563	24.46	260.5
	ARENA_3	0.425	6.72	65.6				
620.000	D_TIERRA	2.499	10.37	411.0	ARENA_1	0.162	0.68	25.8
	ARENA_2	0.175	0.73	27.7	RELLENO_ZANJA	1.593	6.59	267.1
	ARENA_3	0.425	1.77	67.4				



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PROYECTO : CIDACOS COMPLETO
EJE : 8: P190 (Arqueta principal) - P350 (Tudelilla)

Istram 9.04 14/04/20 10:22:22

PROYECTO : CIDACOS COMPLETO
EJE : 8: P190 (Arqueta principal) - P350 (Tudelilla)

*** MEDICIONES DE LOS PERFILES TRANSVERSALES ***
*** CAPAS DE FIRME ***

*** MEDICIONES DE LOS PERFILES TRANSVERSALES ***
*** CAPAS DE FIRME ***

PERFIL	MATERIAL	AREA PERFIL	VOL. PARCIAL	VOL. ACUMUL.	MATERIAL	AREA PERFIL	VOL. PARCIAL	VOL. ACUMUL.
640.000	D TIERRA	2.679	51.78	462.8	ARENA_1	0.162	3.25	29.0
	ARENA_2	0.175	3.49	31.2	RELLENO_ZANJA	1.773	33.66	300.8
	ARENA_3	0.425	8.49	75.9				
652.213	D TIERRA	2.413	31.10	493.9	ARENA_1	0.162	1.98	31.0
	ARENA_2	0.175	2.13	33.4	RELLENO_ZANJA	1.507	20.03	320.8
	ARENA_3	0.425	5.18	81.1				
660.000	D TIERRA	2.637	19.66	513.6	ARENA_1	0.162	1.26	32.3
	ARENA_2	0.175	1.36	34.7	RELLENO_ZANJA	1.731	12.61	333.4
	ARENA_3	0.425	3.31	84.4				
680.000	D TIERRA	2.709	53.46	567.0	ARENA_1	0.162	3.25	35.5
	ARENA_2	0.175	3.49	38.2	RELLENO_ZANJA	1.803	35.34	368.7
	ARENA_3	0.425	8.49	92.9				
681.657	D TIERRA	2.709	4.49	571.5	ARENA_1	0.162	0.27	35.8
	ARENA_2	0.175	0.29	38.5	RELLENO_ZANJA	1.803	2.99	371.7
	ARENA_3	0.425	0.70	93.6				
700.000	D TIERRA	2.747	50.05	621.6	ARENA_1	0.162	2.98	38.8
	ARENA_2	0.175	3.20	41.7	RELLENO_ZANJA	1.841	33.43	405.1
	ARENA_3	0.425	7.79	101.4				
720.000	D TIERRA	2.849	55.96	677.5	ARENA_1	0.162	3.25	42.0
	ARENA_2	0.175	3.49	45.2	RELLENO_ZANJA	1.943	37.84	443.0
	ARENA_3	0.425	8.49	109.9				
735.625	D TIERRA	2.478	41.62	719.1	ARENA_1	0.162	2.54	44.6
	ARENA_2	0.175	2.73	47.9	RELLENO_ZANJA	1.572	27.46	470.4
	ARENA_3	0.425	6.63	116.5				
740.000	D TIERRA	2.569	11.04	730.2	ARENA_1	0.162	0.71	45.3
	ARENA_2	0.175	0.76	48.7	RELLENO_ZANJA	1.663	7.08	477.5
	ARENA_3	0.425	1.86	118.4				
760.000	D TIERRA	3.152	57.21	787.4	ARENA_1	0.162	3.25	48.5
	ARENA_2	0.175	3.49	52.2	RELLENO_ZANJA	2.246	39.09	516.6
	ARENA_3	0.425	8.49	126.9				
780.000	D TIERRA	3.156	63.09	850.5	ARENA_1	0.162	3.25	51.8
	ARENA_2	0.175	3.49	55.7	RELLENO_ZANJA	2.250	44.96	561.6
	ARENA_3	0.425	8.49	135.3				
785.329	D TIERRA	3.675	18.20	868.7	ARENA_1	0.162	0.87	52.7
	ARENA_2	0.175	0.93	56.6	RELLENO_ZANJA	2.769	13.37	574.9
	ARENA_3	0.425	2.26	137.6				
795.866	D TIERRA	4.140	41.17	909.9	ARENA_1	0.162	1.71	54.4
	ARENA_2	0.175	1.84	58.5	RELLENO_ZANJA	3.233	31.62	606.6
	ARENA_3	0.425	4.47	142.1				
800.000	D TIERRA	4.058	16.95	926.8	ARENA_1	0.162	0.67	55.0
	ARENA_2	0.175	0.72	59.2	RELLENO_ZANJA	3.152	13.20	619.8
	ARENA_3	0.425	1.75	143.8				
812.098	D TIERRA	4.135	49.56	976.4	ARENA_1	0.162	1.97	57.0
	ARENA_2	0.175	2.11	61.3	RELLENO_ZANJA	3.229	38.60	658.4
	ARENA_3	0.425	5.14	149.0				
820.000	D TIERRA	4.167	32.80	1009.2	ARENA_1	0.162	1.28	58.3
	ARENA_2	0.175	1.38	62.7	RELLENO_ZANJA	3.261	25.64	684.0
	ARENA_3	0.425	3.35	152.3				
840.000	D TIERRA	4.273	84.40	1093.6	ARENA_1	0.162	3.25	61.5
	ARENA_2	0.175	3.49	66.2	RELLENO_ZANJA	3.366	66.28	750.3
	ARENA_3	0.425	8.49	160.8				
860.000	D TIERRA	4.170	84.43	1178.0	ARENA_1	0.162	3.25	64.8
	ARENA_2	0.175	3.49	69.7	RELLENO_ZANJA	3.264	66.30	816.6
	ARENA_3	0.425	8.49	169.3				
868.189	D TIERRA	4.059	33.69	1211.7	ARENA_1	0.162	1.33	66.1
	ARENA_2	0.175	1.43	71.1	RELLENO_ZANJA	3.153	26.27	842.9
	ARENA_3	0.425	3.48	172.8				
880.000	D TIERRA	3.777	46.28	1258.0	ARENA_1	0.162	1.92	68.0
	ARENA_2	0.175	2.06	73.2	RELLENO_ZANJA	2.871	35.58	878.4
	ARENA_3	0.425	5.01	177.8				

PERFIL	MATERIAL	AREA PERFIL	VOL. PARCIAL	VOL. ACUMUL.	MATERIAL	AREA PERFIL	VOL. PARCIAL	VOL. ACUMUL.
884.183	D TIERRA	3.538	15.30	1273.3	ARENA_1	0.162	0.68	68.7
	ARENA_2	0.175	0.73	73.9	RELLENO_ZANJA	2.632	11.51	890.0
	ARENA_3	0.425	1.78	179.6				
900.000	D TIERRA	3.368	54.62	1327.9	ARENA_1	0.162	2.57	71.3
	ARENA_2	0.175	2.76	76.7	RELLENO_ZANJA	2.462	40.28	930.2
	ARENA_3	0.425	6.71	186.3				
920.000	D TIERRA	3.033	64.01	1391.9	ARENA_1	0.162	3.25	74.5
	ARENA_2	0.175	3.49	80.2	RELLENO_ZANJA	2.126	45.89	976.1
	ARENA_3	0.425	8.49	194.8				
940.000	D TIERRA	2.683	57.16	1449.0	ARENA_1	0.162	3.25	77.8
	ARENA_2	0.175	3.49	83.6	RELLENO_ZANJA	1.777	39.03	1015.2
	ARENA_3	0.425	8.49	203.3				
942.585	D TIERRA	2.634	6.87	1455.9	ARENA_1	0.162	0.42	78.2
	ARENA_2	0.175	0.45	84.1	RELLENO_ZANJA	1.728	4.53	1019.7
	ARENA_3	0.425	1.10	204.4				
960.000	D TIERRA	2.384	43.69	1499.6	ARENA_1	0.162	2.83	81.0
	ARENA_2	0.175	3.04	87.1	RELLENO_ZANJA	1.478	27.91	1047.6
	ARENA_3	0.425	7.39	211.8				
970.255	D TIERRA	2.303	24.03	1523.6	ARENA_1	0.162	1.67	82.7
	ARENA_2	0.175	1.79	88.9	RELLENO_ZANJA	1.397	14.74	1062.3
	ARENA_3	0.425	4.35	216.1				
980.000	D TIERRA	2.294	22.40	1546.0	ARENA_1	0.162	1.58	84.3
	ARENA_2	0.175	1.70	90.6	RELLENO_ZANJA	1.388	13.57	1075.9
	ARENA_3	0.425	4.14	220.2				
1000.000	D TIERRA	2.238	45.32	1591.4	ARENA_1	0.162	3.25	87.5
	ARENA_2	0.175	3.49	94.1	RELLENO_ZANJA	1.331	27.20	1103.1
	ARENA_3	0.425	8.49	228.7				
1018.166	D TIERRA	2.180	40.13	1631.5	ARENA_1	0.162	2.95	90.5
	ARENA_2	0.175	3.17	97.3	RELLENO_ZANJA	1.274	23.67	1126.8
	ARENA_3	0.425	7.71	236.4				
1020.000	D TIERRA	2.203	4.02	1635.5	ARENA_1	0.162	0.30	90.8
	ARENA_2	0.175	0.32	97.6	RELLENO_ZANJA	1.297	2.36	1129.1
	ARENA_3	0.425	0.78	237.2				
1040.000	D TIERRA	2.446	46.49	1682.0	ARENA_1	0.162	3.25	94.0
	ARENA_2	0.175	3.49	101.1	RELLENO_ZANJA	1.540	28.37	1157.5
	ARENA_3	0.425	8.49	245.7				
1060.000	D TIERRA	2.655	51.01	1733.0	ARENA_1	0.162	3.25	97.3
	ARENA_2	0.175	3.49	104.6	RELLENO_ZANJA	1.749	32.89	1190.4
	ARENA_3	0.425	8.49	254.2				
1080.000	D TIERRA	2.752	54.07	1787.1	ARENA_1	0.162	3.25	100.5
	ARENA_2	0.175	3.49	108.1	RELLENO_ZANJA	1.846	35.95	1226.3
	ARENA_3	0.425	8.49	262.7				
1096.556	D TIERRA	2.816	46.10	1833.2	ARENA_1	0.162	2.69	103.2
	ARENA_2	0.175	2.89	111.0	RELLENO_ZANJA	1.910	31.09	1257.4
	ARENA_3	0.425	7.03	269.7				
1100.000	D TIERRA	2.816	9.70	1842.9	ARENA_1	0.162	0.56	103.8
	ARENA_2	0.175	0.60	111.6	RELLENO_ZANJA	1.910	6.58	1264.0
	ARENA_3	0.425	1.46	271.2				
1120.000	D TIERRA	2.802	56.18	1899.1	ARENA_1	0.162	3.25	107.0
	ARENA_2	0.175	3.49	115.1	RELLENO_ZANJA	1.896	38.06	1302.1
	ARENA_3	0.425	8.49	279.7				
1134.305	D TIERRA	3.750	46.87	1945.9	ARENA_1	0.162	2.32	109.3
	ARENA_2	0.175	2.50	117.6	RELLENO_ZANJA	2.844	33.90	1336.0
	ARENA_3	0.424	6.07	285.8				
1140.000	D TIERRA	3.993	22.05	1968.0	ARENA_1	0.162	0.93	110.3
	ARENA_2	0.175	1.00	118.6	RELLENO_ZANJA	3.087	16.89	1352.9
	ARENA_3	0.424	2.42	288.2				
1140.000	D TIERRA	4.857	0.00	1968.0	ARENA_1	0.167	0.00	110.3
	ARENA_2	0.193	0.00	118.6	RELLENO_ZANJA	3.862	0.00	1352.9
	ARENA_3	0.491	0.00	288.2				



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PROYECTO : CIDACOS COMPLETO
EJE : 8: P190 (Arqueta principal) - P350 (Tudelilla)

Istram 9.04 14/04/20 10:22:22

PROYECTO : CIDACOS COMPLETO
EJE : 8: P190 (Arqueta principal) - P350 (Tudelilla)

*** MEDICIONES DE LOS PERFILES TRANSVERSALES***
*** CAPAS DE FIRME ***

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PERFIL	MATERIAL	AREA PERFIL	VOL. PARCIAL	VOL. ACUMUL.	MATERIAL	AREA PERFIL	VOL. PARCIAL	VOL. ACUMUL.
1146.022	D TIERRA	4.623	28.55	1996.5	ARENA_1	0.167	1.00	111.3
	ARENA_2	0.193	1.16	119.7	RELLENO_ZANJA	3.628	22.55	1375.4
	ARENA_3	0.491	2.96	291.1				
1159.933	D TIERRA	2.921	52.47	2049.0	ARENA_1	0.167	2.32	113.6
	ARENA_2	0.193	2.68	122.4	RELLENO_ZANJA	1.926	38.63	1414.0
	ARENA_3	0.491	6.83	298.0				
1160.000	D TIERRA	2.916	0.20	2049.2	ARENA_1	0.167	0.01	113.6
	ARENA_2	0.193	0.01	122.4	RELLENO_ZANJA	1.921	0.13	1414.2
	ARENA_3	0.491	0.03	298.0				
1173.093	D TIERRA	3.508	42.06	2091.3	ARENA_1	0.167	2.18	115.8
	ARENA_2	0.193	2.52	125.0	RELLENO_ZANJA	2.513	29.03	1443.2
	ARENA_3	0.491	6.43	304.4				
1180.000	D TIERRA	3.120	22.89	2114.1	ARENA_1	0.167	1.15	116.9
	ARENA_2	0.193	1.33	126.3	RELLENO_ZANJA	2.125	16.02	1459.2
	ARENA_3	0.491	3.39	307.8				
1200.000	D TIERRA	3.499	66.18	2180.3	ARENA_1	0.167	3.33	120.3
	ARENA_2	0.193	3.86	130.2	RELLENO_ZANJA	2.503	46.28	1505.5
	ARENA_3	0.491	9.82	317.6				
1220.000	D TIERRA	4.130	76.29	2256.6	ARENA_1	0.167	3.33	123.6
	ARENA_2	0.193	3.86	134.0	RELLENO_ZANJA	3.135	56.39	1561.9
	ARENA_3	0.491	9.82	327.4				
1240.000	D TIERRA	3.161	72.92	2329.5	ARENA_1	0.167	3.33	126.9
	ARENA_2	0.193	3.86	137.9	RELLENO_ZANJA	2.166	53.01	1614.9
	ARENA_3	0.491	9.81	337.3				
1246.068	D TIERRA	3.721	20.88	2350.4	ARENA_1	0.167	1.01	127.9
	ARENA_2	0.193	1.17	139.0	RELLENO_ZANJA	2.726	14.84	1629.7
	ARENA_3	0.491	2.98	340.2				
1260.000	D TIERRA	4.091	54.42	2404.8	ARENA_1	0.167	2.32	130.3
	ARENA_2	0.193	2.69	141.7	RELLENO_ZANJA	3.096	40.56	1670.3
	ARENA_3	0.491	6.84	347.1				
1280.000	D TIERRA	3.541	76.32	2481.2	ARENA_1	0.167	3.33	133.6
	ARENA_2	0.193	3.86	145.6	RELLENO_ZANJA	2.546	56.42	1726.7
	ARENA_3	0.491	9.81	356.9				
1280.000	D TIERRA	2.961	0.00	2481.2	ARENA_1	0.162	0.00	133.6
	ARENA_2	0.175	0.00	145.6	RELLENO_ZANJA	2.054	0.00	1726.7
	ARENA_3	0.424	0.00	356.9				
1288.782	D TIERRA	2.647	24.62	2505.8	ARENA_1	0.162	1.43	135.0
	ARENA_2	0.175	1.53	147.1	RELLENO_ZANJA	1.741	16.67	1743.4
	ARENA_3	0.424	3.72	360.6				
1299.222	D TIERRA	2.664	27.72	2533.5	ARENA_1	0.162	1.70	136.7
	ARENA_2	0.175	1.82	148.9	RELLENO_ZANJA	1.758	18.26	1761.7
	ARENA_3	0.424	4.43	365.0				
1300.000	D TIERRA	2.665	2.07	2535.6	ARENA_1	0.162	0.13	136.8
	ARENA_2	0.175	0.14	149.1	RELLENO_ZANJA	1.759	1.37	1763.0
	ARENA_3	0.424	0.33	365.4				
1320.000	D TIERRA	3.264	59.29	2594.9	ARENA_1	0.162	3.25	140.1
	ARENA_2	0.175	3.49	152.6	RELLENO_ZANJA	2.358	41.17	1804.2
	ARENA_3	0.424	8.49	373.8				
1327.951	D TIERRA	3.905	28.50	2623.4	ARENA_1	0.162	1.29	141.4
	ARENA_2	0.175	1.39	154.0	RELLENO_ZANJA	2.999	21.29	1825.5
	ARENA_3	0.424	3.37	377.2				
1340.000	D TIERRA	4.574	51.08	2674.5	ARENA_1	0.162	1.96	143.3
	ARENA_2	0.175	2.11	156.1	RELLENO_ZANJA	3.668	40.16	1865.6
	ARENA_3	0.424	5.11	382.3				
1357.541	D TIERRA	5.293	86.54	2761.0	ARENA_1	0.162	2.85	146.2
	ARENA_2	0.175	3.06	159.1	RELLENO_ZANJA	4.387	70.65	1936.3
	ARENA_3	0.424	7.44	389.8				
1360.000	D TIERRA	5.321	13.05	2774.0	ARENA_1	0.162	0.40	146.6
	ARENA_2	0.175	0.43	159.6	RELLENO_ZANJA	4.415	10.82	1947.1
	ARENA_3	0.424	1.04	390.8				

PERFIL	MATERIAL	AREA PERFIL	VOL. PARCIAL	VOL. ACUMUL.	MATERIAL	AREA PERFIL	VOL. PARCIAL	VOL. ACUMUL.
1380.000	D TIERRA	5.235	105.56	2879.6	ARENA_1	0.162	3.25	149.8
	ARENA_2	0.175	3.49	163.1	RELLENO_ZANJA	4.328	87.44	2034.6
	ARENA_3	0.424	8.49	399.3				
1392.645	D TIERRA	4.816	63.55	2943.1	ARENA_1	0.162	2.05	151.9
	ARENA_2	0.175	2.21	165.3	RELLENO_ZANJA	3.910	52.09	2086.6
	ARENA_3	0.424	5.36	404.7				
1400.000	D TIERRA	4.423	33.98	2977.1	ARENA_1	0.162	1.19	153.1
	ARENA_2	0.175	1.29	166.6	RELLENO_ZANJA	3.517	27.31	2114.0
	ARENA_3	0.424	3.12	407.8				
1410.732	D TIERRA	3.874	44.52	3021.6	ARENA_1	0.162	1.74	154.8
	ARENA_2	0.175	1.88	168.4	RELLENO_ZANJA	2.968	34.79	2148.7
	ARENA_3	0.424	4.55	412.3				
1420.000	D TIERRA	3.474	34.05	3055.7	ARENA_1	0.162	1.51	156.3
	ARENA_2	0.175	1.62	170.0	RELLENO_ZANJA	2.568	25.65	2174.4
	ARENA_3	0.424	3.93	416.3				
1440.000	D TIERRA	2.617	60.91	3116.6	ARENA_1	0.162	3.25	159.6
	ARENA_2	0.175	3.49	173.5	RELLENO_ZANJA	1.711	42.78	2217.2
	ARENA_3	0.424	8.49	424.8				
1460.000	D TIERRA	2.597	52.14	3168.7	ARENA_1	0.162	3.25	162.8
	ARENA_2	0.175	3.49	177.0	RELLENO_ZANJA	1.691	34.02	2251.2
	ARENA_3	0.424	8.49	433.2				
1479.651	D TIERRA	2.816	53.18	3221.9	ARENA_1	0.162	3.19	166.0
	ARENA_2	0.175	3.43	180.5	RELLENO_ZANJA	1.910	35.38	2286.6
	ARENA_3	0.424	8.34	441.6				
1480.000	D TIERRA	2.790	0.98	3222.9	ARENA_1	0.162	0.06	166.1
	ARENA_2	0.175	0.06	180.5	RELLENO_ZANJA	1.884	0.66	2287.2
	ARENA_3	0.424	0.15	441.7				
1500.000	D TIERRA	2.595	53.85	3276.7	ARENA_1	0.162	3.25	169.3
	ARENA_2	0.175	3.49	184.0	RELLENO_ZANJA	1.688	35.72	2323.0
	ARENA_3	0.424	8.49	450.2				
1520.000	D TIERRA	3.056	56.50	3333.2	ARENA_1	0.162	3.25	172.6
	ARENA_2	0.175	3.49	187.5	RELLENO_ZANJA	2.149	38.38	2361.3
	ARENA_3	0.424	8.49	458.7				
1528.565	D TIERRA	2.750	24.86	3358.1	ARENA_1	0.162	1.39	174.0
	ARENA_2	0.175	1.50	189.0	RELLENO_ZANJA	1.844	17.10	2378.4
	ARENA_3	0.424	3.64	462.3				
1540.000	D TIERRA	3.780	37.34	3395.5	ARENA_1	0.162	1.86	175.8
	ARENA_2	0.175	2.00	191.0	RELLENO_ZANJA	2.874	26.98	2405.4
	ARENA_3	0.424	4.85	467.2				
1554.700	D TIERRA	3.877	56.28	3451.7	ARENA_1	0.162	2.39	178.2
	ARENA_2	0.175	2.57	193.6	RELLENO_ZANJA	2.971	42.96	2448.4
	ARENA_3	0.424	6.24	473.4				
1560.000	D TIERRA	2.119	15.89	3467.6	ARENA_1	0.162	0.86	179.1
	ARENA_2	0.175	0.93	194.5	RELLENO_ZANJA	1.212	11.09	2459.5
	ARENA_3	0.424	2.25	475.7				
1580.000	D TIERRA	2.315	44.34	3512.0	ARENA_1	0.162	3.25	182.3
	ARENA_2	0.175	3.49	198.0	RELLENO_ZANJA	1.409	26.22	2485.7
	ARENA_3	0.424	8.49	484.2				
1583.487	D TIERRA	2.911	9.11	3521.1	ARENA_1	0.162	0.57	182.9
	ARENA_2	0.175	0.61	198.6	RELLENO_ZANJA	2.005	5.95	2491.6
	ARENA_3	0.425	1.48	485.7				
1600.000	D TIERRA	2.474	44.46	3565.5	ARENA_1	0.162	2.68	185.6
	ARENA_2	0.175	2.89	201.5	RELLENO_ZANJA	1.568	29.49	2521.1
	ARENA_3	0.424	7.00	492.7				
1600.307	D TIERRA	2.341	0.74	3566.3	ARENA_1	0.162	0.05	185.6
	ARENA_2	0.175	0.05	201.5	RELLENO_ZANJA	1.435	0.46	2521.6
	ARENA_3	0.424	0.13	492.8				
1620.000	D TIERRA	2.268	45.38	3611.7	ARENA_1	0.162	3.20	188.8
	ARENA_2	0.175	3.44	205.0	RELLENO_ZANJA	1.361	27.54	2549.1
	ARENA_3	0.424	8.34	501.1				

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 PROYECTO : CIDACOS COMPLETO
 EJE : 8: P190 (Arqueta principal) - P350 (Tudelilla)

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 PROYECTO : CIDACOS COMPLETO
 EJE : 8: P190 (Arqueta principal) - P350 (Tudelilla)

 * * * MEDICIONES DE LOS PERFILES TRANSVERSALES* * *
 * * * CAPAS DE FIRME * * *

 * * * MEDICIONES DE LOS PERFILES TRANSVERSALES* * *
 * * * CAPAS DE FIRME * * *

PERFIL	MATERIAL	AREA PERFIL	VOL. PARCIAL	VOL. ACUMUL.	MATERIAL	AREA PERFIL	VOL. PARCIAL	VOL. ACUMUL.	PERFIL	MATERIAL	AREA PERFIL	VOL. PARCIAL	VOL. ACUMUL.	MATERIAL	AREA PERFIL	VOL. PARCIAL	VOL. ACUMUL.
1640.000	D TIERRA	2.536	48.04	3659.7	ARENA_1	0.162	3.25	192.1	1911.784	D TIERRA	2.750	30.62	4411.2	ARENA_1	0.162	1.91	236.2
	ARENA_2	0.175	3.50	208.5	RELLENO_ZANJA	1.630	29.92	2579.0		ARENA_2	0.175	2.06	256.0	RELLENO_ZANJA	1.844	19.95	3084.3
	ARENA_3	0.424	8.47	509.6						ARENA_3	0.425	5.00	624.9				
1660.000	D TIERRA	2.537	50.73	3710.4	ARENA_1	0.162	3.25	195.3	1920.000	D TIERRA	2.668	22.26	4433.5	ARENA_1	0.162	1.33	237.6
	ARENA_2	0.175	3.50	212.0	RELLENO_ZANJA	1.631	32.61	2611.6		ARENA_2	0.175	1.44	257.4	RELLENO_ZANJA	1.761	14.81	3099.1
	ARENA_3	0.424	8.48	518.1						ARENA_3	0.425	3.49	628.4				
1680.000	D TIERRA	2.428	49.65	3760.1	ARENA_1	0.162	3.25	198.6	1940.000	D TIERRA	3.600	62.67	4496.1	ARENA_1	0.162	3.25	240.8
	ARENA_2	0.175	3.50	215.5	RELLENO_ZANJA	1.522	31.53	2643.2		ARENA_2	0.175	3.49	260.9	RELLENO_ZANJA	2.693	44.55	3143.6
	ARENA_3	0.424	8.48	526.6						ARENA_3	0.425	8.49	636.9				
1693.732	D TIERRA	2.310	32.53	3792.6	ARENA_1	0.162	2.23	200.8	1951.406	D TIERRA	3.766	42.01	4538.1	ARENA_1	0.162	1.85	242.7
	ARENA_2	0.175	2.40	217.9	RELLENO_ZANJA	1.404	20.09	2663.3		ARENA_2	0.175	1.99	262.9	RELLENO_ZANJA	2.860	31.67	3175.3
	ARENA_3	0.424	5.82	532.4						ARENA_3	0.425	4.84	641.8				
1700.000	D TIERRA	2.359	14.63	3807.2	ARENA_1	0.162	1.02	201.8	1960.000	D TIERRA	3.795	32.49	4570.6	ARENA_1	0.162	1.40	244.1
	ARENA_2	0.175	1.10	219.0	RELLENO_ZANJA	1.452	8.95	2672.2		ARENA_2	0.175	1.50	264.4	RELLENO_ZANJA	2.889	24.70	3200.0
	ARENA_3	0.424	2.66	535.0						ARENA_3	0.425	3.65	645.4				
1720.000	D TIERRA	3.356	57.15	3864.4	ARENA_1	0.162	3.25	205.1	1972.756	D TIERRA	3.620	47.29	4617.9	ARENA_1	0.162	2.07	246.1
	ARENA_2	0.175	3.49	222.5	RELLENO_ZANJA	2.450	39.02	2711.2		ARENA_2	0.175	2.23	266.6	RELLENO_ZANJA	2.713	35.73	3235.8
	ARENA_3	0.424	8.48	543.5						ARENA_3	0.425	5.42	650.8				
1733.402	D TIERRA	3.929	48.82	3913.2	ARENA_1	0.162	2.18	207.3	1980.000	D TIERRA	3.712	26.56	4644.5	ARENA_1	0.162	1.18	247.3
	ARENA_2	0.175	2.34	224.8	RELLENO_ZANJA	3.023	36.67	2747.9		ARENA_2	0.175	1.27	267.9	RELLENO_ZANJA	2.806	19.99	3255.7
	ARENA_3	0.425	5.69	549.2						ARENA_3	0.425	3.08	653.9				
1740.000	D TIERRA	3.534	24.62	3937.8	ARENA_1	0.162	1.07	208.3	1993.286	D TIERRA	4.427	54.07	4698.6	ARENA_1	0.162	2.16	249.5
	ARENA_2	0.175	1.15	226.0	RELLENO_ZANJA	2.628	18.64	2766.6		ARENA_2	0.175	2.32	270.2	RELLENO_ZANJA	3.521	42.03	3297.8
	ARENA_3	0.425	2.80	552.0						ARENA_3	0.425	5.64	659.5				
1760.000	D TIERRA	3.065	65.99	4003.8	ARENA_1	0.162	3.25	211.6	2000.000	D TIERRA	4.170	28.86	4727.4	ARENA_1	0.162	1.09	250.6
	ARENA_2	0.175	3.49	229.5	RELLENO_ZANJA	2.159	47.87	2814.4		ARENA_2	0.175	1.17	271.4	RELLENO_ZANJA	3.264	22.78	3320.5
	ARENA_3	0.425	8.49	560.5						ARENA_3	0.425	2.85	662.4				
1760.393	D TIERRA	3.072	1.21	4005.0	ARENA_1	0.162	0.06	211.6	2020.000	D TIERRA	3.844	80.14	4807.6	ARENA_1	0.162	3.25	253.8
	ARENA_2	0.175	0.07	229.5	RELLENO_ZANJA	2.166	0.85	2815.3		ARENA_2	0.175	3.49	274.9	RELLENO_ZANJA	2.938	62.02	3382.6
	ARENA_3	0.425	0.17	560.7						ARENA_3	0.425	8.49	670.9				
1780.000	D TIERRA	2.585	55.46	4060.5	ARENA_1	0.162	3.19	214.8	2023.765	D TIERRA	4.016	14.80	4822.4	ARENA_1	0.162	0.61	254.4
	ARENA_2	0.175	3.43	233.0	RELLENO_ZANJA	1.679	37.69	2853.0		ARENA_2	0.175	0.66	275.5	RELLENO_ZANJA	3.110	11.39	3394.0
	ARENA_3	0.425	8.32	569.0						ARENA_3	0.425	1.60	672.5				
1792.194	D TIERRA	2.423	30.53	4091.0	ARENA_1	0.162	1.98	216.8	2040.000	D TIERRA	4.660	70.43	4892.8	ARENA_1	0.162	2.64	257.1
	ARENA_2	0.175	2.13	235.1	RELLENO_ZANJA	1.517	19.48	2872.4		ARENA_2	0.175	2.84	278.4	RELLENO_ZANJA	3.754	55.72	3449.7
	ARENA_3	0.424	5.18	574.2						ARENA_3	0.425	6.89	679.4				
1800.000	D TIERRA	2.359	18.66	4109.7	ARENA_1	0.162	1.27	218.1	2040.099	D TIERRA	4.661	0.46	4893.2	ARENA_1	0.162	0.02	257.1
	ARENA_2	0.175	1.36	236.4	RELLENO_ZANJA	1.452	11.59	2884.0		ARENA_2	0.175	0.02	278.4	RELLENO_ZANJA	3.755	0.37	3450.0
	ARENA_3	0.424	3.31	577.5						ARENA_3	0.425	0.04	679.4				
1820.000	D TIERRA	3.015	53.74	4163.4	ARENA_1	0.162	3.25	221.3	2060.000	D TIERRA	4.015	86.33	4979.6	ARENA_1	0.162	3.23	260.3
	ARENA_2	0.175	3.49	239.9	RELLENO_ZANJA	2.109	35.61	2919.6		ARENA_2	0.175	3.48	281.9	RELLENO_ZANJA	3.109	68.30	3518.3
	ARENA_3	0.424	8.49	586.0						ARENA_3	0.425	8.45	687.9				
1830.381	D TIERRA	3.268	32.61	4196.0	ARENA_1	0.162	1.69	223.0	2080.000	D TIERRA	4.899	89.14	5068.7	ARENA_1	0.162	3.25	263.6
	ARENA_2	0.175	1.81	241.8	RELLENO_ZANJA	2.362	23.21	2942.9		ARENA_2	0.175	3.49	285.4	RELLENO_ZANJA	3.993	71.02	3589.4
	ARENA_3	0.424	4.41	590.4						ARENA_3	0.425	8.49	696.3				
1840.000	D TIERRA	2.973	30.02	4226.0	ARENA_1	0.162	1.56	224.6	2085.896	D TIERRA	5.212	29.81	5098.5	ARENA_1	0.162	0.96	264.5
	ARENA_2	0.175	1.68	243.4	RELLENO_ZANJA	2.066	21.30	2964.2		ARENA_2	0.175	1.03	286.4	RELLENO_ZANJA	4.306	24.47	3613.8
	ARENA_3	0.424	4.08	594.5						ARENA_3	0.425	2.50	698.8				
1858.313	D TIERRA	2.416	49.34	4275.4	ARENA_1	0.162	2.98	227.6	2100.000	D TIERRA	6.419	82.02	5180.5	ARENA_1	0.162	2.29	266.8
	ARENA_2	0.175	3.20	246.6	RELLENO_ZANJA	1.510	32.75	2996.9		ARENA_2	0.175	2.46	288.9	RELLENO_ZANJA	5.513	69.24	3683.1
	ARENA_3	0.424	7.77	602.2						ARENA_3	0.425	5.99	704.8				
1860.000	D TIERRA	2.437	4.09	4279.5	ARENA_1	0.162	0.27	227.8	2103.401	D TIERRA	6.557	22.07	5202.6	ARENA_1	0.162	0.55	267.4
	ARENA_2	0.175	0.29	246.9	RELLENO_ZANJA	1.531	2.56	2999.5		ARENA_2	0.175	0.59	289.4	RELLENO_ZANJA	5.651	18.98	3702.1
	ARENA_3	0.424	0.72	603.0						ARENA_3	0.425	1.44	706.3				
1880.000	D TIERRA	2.614	50.51	4330.0	ARENA_1	0.162	3.25	231.1	2117.620	D TIERRA	4.244	76.79	5279.4	ARENA_1	0.162	2.31	269.7
	ARENA_2	0.175	3.49	250.4	RELLENO_ZANJA	1.708	32.39	3031.9		ARENA_2	0.175	2.48	291.9	RELLENO_ZANJA	3.338	63.90	3766.0
	ARENA_3	0.424	8.49	611.4						ARENA_3	0.425	6.04	712.3				
1900.000	D TIERRA	2.447	50.61	4380.6	ARENA_1	0.162	3.25	234.3	2120.000	D TIERRA	3.918	9.71	5289.1	ARENA_1	0.162	0.39	270.1
	ARENA_2	0.175	3.49	253.9	RELLENO_ZANJA	1.541	32.49	3064.3		ARENA_2	0.175	0.42	292.3	RELLENO_ZANJA	3.011	7.56	3773.5
	ARENA_3	0.424	8.49	619.9						ARENA_3	0.425	1.01	713.3				



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PROYECTO : CIDACOS COMPLETO
EJE : 8: P190 (Arqueta principal) - P350 (Tudelilla)

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PROYECTO : CIDACOS COMPLETO
EJE : 8: P190 (Arqueta principal) - P350 (Tudelilla)

*** MEDICIONES DE LOS PERFILES TRANSVERSALES***
*** CAPAS DE FIRME ***

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*** CAPAS DE FIRME ***

PERFIL	MATERIAL	AREA PERFIL	VOL. PARCIAL	VOL. ACUMUL.	MATERIAL	AREA PERFIL	VOL. PARCIAL	VOL. ACUMUL.
2140.000	D TIERRA	2.874	67.91	5357.0	ARENA_1	0.162	3.25	273.3
	ARENA_2	0.175	3.49	295.8	RELLENO_ZANJA	1.968	49.79	3823.3
	ARENA_3	0.425	8.49	721.8				
2143.415	D TIERRA	2.695	9.51	5366.5	ARENA_1	0.162	0.55	273.9
	ARENA_2	0.175	0.60	296.4	RELLENO_ZANJA	1.789	6.41	3829.7
	ARENA_3	0.425	1.45	723.3				
2160.000	D TIERRA	2.348	41.81	5408.3	ARENA_1	0.162	2.69	276.6
	ARENA_2	0.175	2.90	299.3	RELLENO_ZANJA	1.441	26.79	3856.5
	ARENA_3	0.425	7.04	730.3				
2180.000	D TIERRA	2.465	48.12	5456.5	ARENA_1	0.162	3.25	279.8
	ARENA_2	0.175	3.49	302.8	RELLENO_ZANJA	1.559	30.00	3886.5
	ARENA_3	0.425	8.49	738.8				
2200.000	D TIERRA	37.505	399.69	5856.2	ARENA_1	0.162	3.25	283.1
	ARENA_2	0.175	3.49	306.3	RELLENO_ZANJA	36.598	381.57	4268.1
	ARENA_3	0.425	8.49	747.3				
2208.068	D TIERRA	2.312	160.62	6016.8	ARENA_1	0.162	1.31	284.4
	ARENA_2	0.175	1.41	307.7	RELLENO_ZANJA	1.406	153.31	4421.4
	ARENA_3	0.424	3.42	750.7				
2219.867	D TIERRA	2.727	29.73	6046.5	ARENA_1	0.162	1.92	286.3
	ARENA_2	0.175	2.06	309.8	RELLENO_ZANJA	1.821	19.04	4440.4
	ARENA_3	0.424	5.01	755.7				
2220.000	D TIERRA	2.740	0.36	6046.9	ARENA_1	0.162	0.02	286.3
	ARENA_2	0.175	0.02	309.8	RELLENO_ZANJA	1.834	0.24	4440.7
	ARENA_3	0.424	0.06	755.8				
2236.878	D TIERRA	2.410	43.46	6090.3	ARENA_1	0.162	2.74	289.1
	ARENA_2	0.175	2.95	312.8	RELLENO_ZANJA	1.504	28.16	4468.8
	ARENA_3	0.424	7.16	762.9				
2240.000	D TIERRA	2.568	7.77	6098.1	ARENA_1	0.162	0.51	289.6
	ARENA_2	0.175	0.55	313.3	RELLENO_ZANJA	1.662	4.94	4473.8
	ARENA_3	0.424	1.33	764.3				
2256.976	D TIERRA	2.628	44.11	6142.2	ARENA_1	0.162	2.76	292.3
	ARENA_2	0.175	2.97	316.3	RELLENO_ZANJA	1.722	28.72	4502.5
	ARENA_3	0.425	7.21	771.5				
2260.000	D TIERRA	2.570	7.86	6150.1	ARENA_1	0.162	0.49	292.8
	ARENA_2	0.175	0.53	316.8	RELLENO_ZANJA	1.664	5.12	4507.6
	ARENA_3	0.425	1.28	772.7				
2280.000	D TIERRA	3.662	62.32	6212.4	ARENA_1	0.162	3.25	296.1
	ARENA_2	0.175	3.49	320.3	RELLENO_ZANJA	2.756	44.20	4551.8
	ARENA_3	0.424	8.49	781.2				
2295.020	D TIERRA	2.704	47.81	6260.2	ARENA_1	0.162	2.44	298.5
	ARENA_2	0.175	2.62	322.9	RELLENO_ZANJA	1.798	34.20	4586.0
	ARENA_3	0.424	6.38	787.6				
2300.000	D TIERRA	2.529	13.03	6273.2	ARENA_1	0.162	0.81	299.3
	ARENA_2	0.175	0.87	323.8	RELLENO_ZANJA	1.623	8.52	4594.5
	ARENA_3	0.424	2.11	789.7				
2302.753	D TIERRA	2.559	7.00	6280.2	ARENA_1	0.162	0.45	299.8
	ARENA_2	0.175	0.48	324.3	RELLENO_ZANJA	1.653	4.51	4599.0
	ARENA_3	0.424	1.17	790.9				
2320.000	D TIERRA	2.388	42.66	6322.9	ARENA_1	0.162	2.80	302.6
	ARENA_2	0.175	3.01	327.3	RELLENO_ZANJA	1.482	27.03	4626.1
	ARENA_3	0.424	7.32	798.2				
2340.000	D TIERRA	2.588	49.75	6372.7	ARENA_1	0.162	3.25	305.8
	ARENA_2	0.175	3.49	330.8	RELLENO_ZANJA	1.682	31.63	4657.7
	ARENA_3	0.424	8.49	806.7				
2347.751	D TIERRA	2.789	20.84	6393.5	ARENA_1	0.162	1.26	307.1
	ARENA_2	0.175	1.35	332.1	RELLENO_ZANJA	1.883	13.82	4671.5
	ARENA_3	0.424	3.29	810.0				
2360.000	D TIERRA	2.809	34.29	6427.8	ARENA_1	0.162	1.99	309.1
	ARENA_2	0.175	2.14	334.3	RELLENO_ZANJA	1.903	23.19	4694.7
	ARENA_3	0.424	5.20	815.2				

PERFIL	MATERIAL	AREA PERFIL	VOL. PARCIAL	VOL. ACUMUL.	MATERIAL	AREA PERFIL	VOL. PARCIAL	VOL. ACUMUL.
2380.000	D TIERRA	2.506	53.15	6480.9	ARENA_1	0.162	3.25	312.3
	ARENA_2	0.175	3.49	337.8	RELLENO_ZANJA	1.600	35.03	4729.7
	ARENA_3	0.424	8.49	823.7				
2383.231	D TIERRA	2.452	8.01	6488.9	ARENA_1	0.162	0.52	312.8
	ARENA_2	0.175	0.56	338.3	RELLENO_ZANJA	1.546	5.08	4734.8
	ARENA_3	0.424	1.37	825.0				
2400.000	D TIERRA	2.505	41.56	6530.5	ARENA_1	0.162	2.72	315.6
	ARENA_2	0.175	2.93	341.3	RELLENO_ZANJA	1.598	26.37	4761.2
	ARENA_3	0.424	7.12	832.2				
2420.000	D TIERRA	2.559	50.63	6581.1	ARENA_1	0.162	3.25	318.8
	ARENA_2	0.175	3.49	344.8	RELLENO_ZANJA	1.653	32.51	4793.7
	ARENA_3	0.424	8.49	840.7				
2428.782	D TIERRA	2.514	22.28	6603.4	ARENA_1	0.162	1.43	320.2
	ARENA_2	0.175	1.53	346.3	RELLENO_ZANJA	1.608	14.32	4808.0
	ARENA_3	0.424	3.73	844.4				
2440.000	D TIERRA	2.443	27.81	6631.2	ARENA_1	0.162	1.82	322.1
	ARENA_2	0.175	1.96	348.3	RELLENO_ZANJA	1.537	17.64	4825.7
	ARENA_3	0.424	4.76	849.1				
2460.000	D TIERRA	2.636	50.79	6682.0	ARENA_1	0.162	3.25	325.3
	ARENA_2	0.175	3.49	351.7	RELLENO_ZANJA	1.730	32.67	4858.3
	ARENA_3	0.424	8.49	857.6				
2466.956	D TIERRA	2.646	18.37	6700.4	ARENA_1	0.162	1.13	326.4
	ARENA_2	0.175	1.22	353.0	RELLENO_ZANJA	1.740	12.07	4870.4
	ARENA_3	0.425	2.95	860.6				
2480.000	D TIERRA	2.692	34.82	6735.2	ARENA_1	0.162	2.12	328.6
	ARENA_2	0.175	2.28	355.2	RELLENO_ZANJA	1.786	23.00	4893.4
	ARENA_3	0.425	5.54	866.1				
2500.000	D TIERRA	2.833	55.25	6790.5	ARENA_1	0.162	3.25	331.8
	ARENA_2	0.175	3.49	358.7	RELLENO_ZANJA	1.927	37.13	4930.5
	ARENA_3	0.425	8.49	874.6				
2520.000	D TIERRA	3.275	61.08	6851.5	ARENA_1	0.162	3.25	335.1
	ARENA_2	0.175	3.49	362.2	RELLENO_ZANJA	2.369	42.95	4973.5
	ARENA_3	0.425	8.49	883.1				
2525.127	D TIERRA	3.424	17.17	6868.7	ARENA_1	0.162	0.83	335.9
	ARENA_2	0.175	0.90	363.1	RELLENO_ZANJA	2.518	12.53	4986.0
	ARENA_3	0.424	2.18	885.3				
2540.000	D TIERRA	2.622	44.97	6913.7	ARENA_1	0.162	2.42	338.3
	ARENA_2	0.175	2.60	365.7	RELLENO_ZANJA	1.716	31.49	5017.5
	ARENA_3	0.424	6.31	891.6				
2543.753	D TIERRA	2.587	9.77	6923.4	ARENA_1	0.162	0.61	338.9
	ARENA_2	0.175	0.66	366.4	RELLENO_ZANJA	1.680	6.37	5023.9
	ARENA_3	0.423	1.59	893.2				
2560.000	D TIERRA	3.808	51.94	6975.4	ARENA_1	0.162	2.64	341.6
	ARENA_2	0.175	2.84	369.2	RELLENO_ZANJA	2.902	37.22	5061.1
	ARENA_3	0.423	6.88	900.1				
2580.000	D TIERRA	2.744	65.52	7040.9	ARENA_1	0.162	3.25	344.8
	ARENA_2	0.175	3.50	372.7	RELLENO_ZANJA	1.838	47.40	5108.5
	ARENA_3	0.423	8.47	908.5				
2600.000	D TIERRA	3.070	58.15	7099.1	ARENA_1	0.162	3.24	348.0
	ARENA_2	0.175	3.50	376.2	RELLENO_ZANJA	2.164	40.02	5148.5
	ARENA_3	0.419	8.43	917.0				
2620.000	D TIERRA	3.251	63.21	7162.3	ARENA_1	0.162	3.24	351.3
	ARENA_2	0.175	3.50	379.7	RELLENO_ZANJA	2.344	45.09	5193.6
	ARENA_3	0.423	8.42	925.4				
2627.490	D TIERRA	3.084	23.72	7186.0	ARENA_1	0.162	1.22	352.5
	ARENA_2	0.175	1.31	381.0	RELLENO_ZANJA	2.178	16.94	5210.5
	ARENA_3	0.423	3.17	928.5				
2640.000	D TIERRA	2.689	36.11	7222.1	ARENA_1	0.162	2.03	354.5
	ARENA_2	0.175	2.19	383.2	RELLENO_ZANJA	1.783	24.78	5235.3
	ARENA_3	0.423	5.29	933.8				



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PROYECTO : CIDACOS COMPLETO
EJE : 8: P190 (Arqueta principal) - P350 (Tudelilla)

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PROYECTO : CIDACOS COMPLETO
EJE : 8: P190 (Arqueta principal) - P350 (Tudelilla)

*** MEDICIONES DE LOS PERFILES TRANSVERSALES***
*** CAPAS DE FIRME ***

*** MEDICIONES DE LOS PERFILES TRANSVERSALES***
*** CAPAS DE FIRME ***

PERFIL	MATERIAL	AREA PERFIL	VOL. PARCIAL	VOL. ACUMUL.	MATERIAL	AREA PERFIL	VOL. PARCIAL	VOL. ACUMUL.
2647.720	D TIERRA	2.818	21.26	7243.4	ARENA_1	0.162	1.25	355.8
	ARENA_2	0.175	1.35	384.6	RELLENO_ZANJA	1.912	14.26	5249.6
	ARENA_3	0.424	3.27	937.1				
2654.179	D TIERRA	3.372	19.99	7263.3	ARENA_1	0.162	1.05	356.8
	ARENA_2	0.175	1.13	385.7	RELLENO_ZANJA	2.466	14.14	5263.7
	ARENA_3	0.424	2.74	939.8				
2660.000	D TIERRA	3.395	19.70	7283.0	ARENA_1	0.162	0.95	357.8
	ARENA_2	0.175	1.02	386.7	RELLENO_ZANJA	2.489	14.42	5278.1
	ARENA_3	0.424	2.47	942.3				
2680.000	D TIERRA	2.546	59.41	7342.5	ARENA_1	0.162	3.25	361.0
	ARENA_2	0.175	3.50	390.2	RELLENO_ZANJA	1.640	41.29	5319.4
	ARENA_3	0.424	8.48	950.8				
2700.000	D TIERRA	2.375	49.22	7391.7	ARENA_1	0.162	3.25	364.3
	ARENA_2	0.175	3.50	393.7	RELLENO_ZANJA	1.469	31.09	5350.5
	ARENA_3	0.424	8.48	959.3				
2712.385	D TIERRA	3.730	37.81	7429.5	ARENA_1	0.162	2.01	366.3
	ARENA_2	0.175	2.16	395.9	RELLENO_ZANJA	2.824	26.58	5377.1
	ARENA_3	0.424	5.25	964.5				
2720.000	D TIERRA	3.881	28.98	7458.5	ARENA_1	0.162	1.24	367.5
	ARENA_2	0.175	1.33	397.2	RELLENO_ZANJA	2.975	22.08	5399.2
	ARENA_3	0.424	3.23	967.8				
2740.000	D TIERRA	3.145	70.26	7528.7	ARENA_1	0.162	3.25	370.8
	ARENA_2	0.175	3.49	400.7	RELLENO_ZANJA	2.239	52.14	5451.3
	ARENA_3	0.424	8.49	976.3				
2759.540	D TIERRA	2.514	55.29	7584.0	ARENA_1	0.162	3.17	374.0
	ARENA_2	0.175	3.41	404.1	RELLENO_ZANJA	1.608	37.59	5488.9
	ARENA_3	0.424	8.29	984.5				
2760.000	D TIERRA	2.510	1.16	7585.2	ARENA_1	0.162	0.07	374.0
	ARENA_2	0.175	0.08	404.2	RELLENO_ZANJA	1.604	0.74	5489.6
	ARENA_3	0.424	0.20	984.7				
2780.000	D TIERRA	2.086	45.96	7631.1	ARENA_1	0.162	3.25	377.3
	ARENA_2	0.175	3.49	407.7	RELLENO_ZANJA	1.180	27.84	5517.5
	ARENA_3	0.424	8.49	993.2				
2793.989	D TIERRA	2.537	32.33	7663.5	ARENA_1	0.162	2.27	379.6
	ARENA_2	0.175	2.44	410.1	RELLENO_ZANJA	1.630	19.66	5537.1
	ARENA_3	0.425	5.94	999.2				
2800.000	D TIERRA	2.987	16.60	7680.1	ARENA_1	0.162	0.98	380.5
	ARENA_2	0.175	1.05	411.2	RELLENO_ZANJA	2.081	11.15	5548.3
	ARENA_3	0.425	2.55	1001.7				
2820.000	D TIERRA	2.735	57.22	7737.3	ARENA_1	0.162	3.25	383.8
	ARENA_2	0.175	3.49	414.7	RELLENO_ZANJA	1.829	39.10	5587.4
	ARENA_3	0.425	8.49	1010.2				
2826.850	D TIERRA	2.827	19.05	7756.3	ARENA_1	0.162	1.11	384.9
	ARENA_2	0.175	1.20	415.9	RELLENO_ZANJA	1.921	12.84	5600.2
	ARENA_3	0.425	2.91	1013.1				
2840.000	D TIERRA	3.290	40.22	7796.5	ARENA_1	0.162	2.14	387.0
	ARENA_2	0.175	2.30	418.2	RELLENO_ZANJA	2.383	28.30	5628.5
	ARENA_3	0.425	5.58	1018.7				
2860.000	D TIERRA	3.738	70.27	7866.8	ARENA_1	0.162	3.25	390.3
	ARENA_2	0.175	3.49	421.7	RELLENO_ZANJA	2.832	52.15	5680.7
	ARENA_3	0.425	8.49	1027.2				
2880.000	D TIERRA	3.308	70.46	7937.3	ARENA_1	0.162	3.25	393.5
	ARENA_2	0.175	3.49	425.2	RELLENO_ZANJA	2.402	52.34	5733.0
	ARENA_3	0.425	8.49	1035.7				
2900.000	D TIERRA	3.287	65.95	8003.2	ARENA_1	0.162	3.25	396.8
	ARENA_2	0.175	3.49	428.7	RELLENO_ZANJA	2.381	47.83	5780.8
	ARENA_3	0.425	8.49	1044.2				
2914.578	D TIERRA	3.506	49.52	8052.8	ARENA_1	0.162	2.37	399.1
	ARENA_2	0.175	2.55	431.2	RELLENO_ZANJA	2.600	36.31	5817.1
	ARENA_3	0.425	6.19	1050.4				

PERFIL	MATERIAL	AREA PERFIL	VOL. PARCIAL	VOL. ACUMUL.	MATERIAL	AREA PERFIL	VOL. PARCIAL	VOL. ACUMUL.
2920.000	D TIERRA	3.085	17.87	8070.6	ARENA_1	0.162	0.88	400.0
	ARENA_2	0.175	0.95	432.1	RELLENO_ZANJA	2.179	12.96	5830.1
	ARENA_3	0.425	2.30	1052.7				
2940.000	D TIERRA	2.565	56.50	8127.1	ARENA_1	0.162	3.25	403.3
	ARENA_2	0.175	3.49	435.6	RELLENO_ZANJA	1.659	38.37	5868.5
	ARENA_3	0.425	8.49	1061.1				
2960.000	D TIERRA	2.347	49.12	8176.2	ARENA_1	0.162	3.25	406.5
	ARENA_2	0.175	3.49	439.1	RELLENO_ZANJA	1.441	31.00	5899.5
	ARENA_3	0.424	8.49	1069.6				
2980.000	D TIERRA	2.474	48.22	8224.5	ARENA_1	0.162	3.25	409.8
	ARENA_2	0.175	3.49	442.6	RELLENO_ZANJA	1.568	30.10	5929.6
	ARENA_3	0.424	8.49	1078.1				
3000.000	D TIERRA	2.532	50.07	8274.5	ARENA_1	0.162	3.25	413.0
	ARENA_2	0.175	3.49	446.1	RELLENO_ZANJA	1.626	31.95	5961.5
	ARENA_3	0.424	8.49	1086.6				
3020.000	D TIERRA	2.777	53.10	8327.6	ARENA_1	0.162	3.25	416.3
	ARENA_2	0.175	3.49	449.6	RELLENO_ZANJA	1.871	34.97	5996.5
	ARENA_3	0.424	8.49	1095.1				
3040.000	D TIERRA	2.922	56.99	8384.6	ARENA_1	0.162	3.25	419.5
	ARENA_2	0.175	3.49	453.1	RELLENO_ZANJA	2.016	38.87	6035.4
	ARENA_3	0.424	8.49	1103.6				
3060.000	D TIERRA	2.350	52.72	8437.3	ARENA_1	0.162	3.25	422.8
	ARENA_2	0.175	3.49	456.6	RELLENO_ZANJA	1.444	34.60	6070.0
	ARENA_3	0.424	8.49	1112.1				
3072.971	D TIERRA	2.795	33.37	8470.7	ARENA_1	0.162	2.11	424.9
	ARENA_2	0.175	2.27	458.9	RELLENO_ZANJA	1.889	21.61	6091.6
	ARENA_3	0.424	5.51	1117.6				
3080.000	D TIERRA	2.764	19.54	8490.2	ARENA_1	0.162	1.14	426.0
	ARENA_2	0.175	1.23	460.1	RELLENO_ZANJA	1.858	13.17	6104.7
	ARENA_3	0.424	2.98	1120.6				
3100.000	D TIERRA	2.640	54.04	8544.3	ARENA_1	0.162	3.25	429.3
	ARENA_2	0.175	3.49	463.6	RELLENO_ZANJA	1.734	35.92	6140.7
	ARENA_3	0.424	8.49	1129.1				
3109.570	D TIERRA	2.582	24.99	8569.3	ARENA_1	0.162	1.55	430.8
	ARENA_2	0.175	1.67	465.3	RELLENO_ZANJA	1.676	16.32	6157.0
	ARENA_3	0.424	4.06	1133.1				
3120.000	D TIERRA	2.526	26.64	8595.9	ARENA_1	0.162	1.69	432.5
	ARENA_2	0.175	1.82	467.1	RELLENO_ZANJA	1.619	17.18	6174.2
	ARENA_3	0.424	4.43	1137.6				
3128.720	D TIERRA	2.485	21.85	8617.8	ARENA_1	0.162	1.42	433.9
	ARENA_2	0.175	1.52	468.6	RELLENO_ZANJA	1.579	13.95	6188.1
	ARENA_3	0.424	3.70	1141.3				
3140.000	D TIERRA	2.534	28.31	8646.1	ARENA_1	0.162	1.83	435.8
	ARENA_2	0.175	1.97	470.6	RELLENO_ZANJA	1.628	18.09	6206.2
	ARENA_3	0.424	4.79	1146.0				
3142.186	D TIERRA	2.544	5.55	8651.6	ARENA_1	0.162	0.36	436.1
	ARENA_2	0.175	0.38	471.0	RELLENO_ZANJA	1.638	3.57	6209.8
	ARENA_3	0.424	0.93	1147.0				
3160.000	D TIERRA	2.621	46.00	8697.6	ARENA_1	0.162	2.89	439.0
	ARENA_2	0.175	3.11	474.1	RELLENO_ZANJA	1.714	29.86	6239.6
	ARENA_3	0.424	7.56	1154.5				
3180.000	D TIERRA	2.771	53.91	8751.5	ARENA_1	0.162	3.25	442.3
	ARENA_2	0.175	3.49	477.6	RELLENO_ZANJA	1.865	35.79	6275.4
	ARENA_3	0.424	8.49	1163.0				
3195.713	D TIERRA	2.911	44.64	8796.2	ARENA_1	0.162	2.55	444.8
	ARENA_2	0.175	2.74	480.3	RELLENO_ZANJA	2.005	30.40	6305.8
	ARENA_3	0.424	6.67	1169.7				
3200.000	D TIERRA	2.966	12.60	8808.8	ARENA_1	0.162	0.70	445.5
	ARENA_2	0.175	0.75	481.1	RELLENO_ZANJA	2.060	8.71	6314.5
	ARENA_3	0.424	1.82	1171.5				

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 PROYECTO : CIDACOS COMPLETO
 EJE : 8: P190 (Arqueta principal) - P350 (Tudelilla)

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 PROYECTO : CIDACOS COMPLETO
 EJE : 8: P190 (Arqueta principal) - P350 (Tudelilla)

 * * * MEDICIONES DE LOS PERFILES TRANSVERSALES* * *
 * * * CAPAS DE FIRME * * *

 * * * MEDICIONES DE LOS PERFILES TRANSVERSALES* * *
 * * * CAPAS DE FIRME * * *

PERFIL	MATERIAL	AREA PERFIL	VOL. PARCIAL	VOL. ACUMUL.	MATERIAL	AREA PERFIL	VOL. PARCIAL	VOL. ACUMUL.	PERFIL	MATERIAL	AREA PERFIL	VOL. PARCIAL	VOL. ACUMUL.	MATERIAL	AREA PERFIL	VOL. PARCIAL	VOL. ACUMUL.
3220.000	D TIERRA	3.130	60.97	8869.7	ARENA_1	0.162	3.25	448.8	3470.634	D TIERRA	2.447	26.68	9595.5	ARENA_1	0.162	1.73	489.5
	ARENA_2	0.175	3.49	484.6	RELLENO_ZANJA	2.224	42.85	6357.4		ARENA_2	0.175	1.86	528.3	RELLENO_ZANJA	1.541	17.04	6856.0
	ARENA_3	0.424	8.49	1180.0						ARENA_3	0.425	4.51	1286.4				
3240.000	D TIERRA	3.920	70.50	8940.2	ARENA_1	0.162	3.25	452.0	3478.520	D TIERRA	2.466	19.37	9614.9	ARENA_1	0.162	1.28	490.8
	ARENA_2	0.175	3.49	488.0	RELLENO_ZANJA	3.013	52.38	6409.7		ARENA_2	0.175	1.38	529.7	RELLENO_ZANJA	1.560	12.22	6868.3
	ARENA_3	0.425	8.49	1188.5						ARENA_3	0.425	3.35	1289.7				
3260.000	D TIERRA	4.952	88.71	9028.9	ARENA_1	0.162	3.25	455.3	3480.000	D TIERRA	2.471	3.65	9618.5	ARENA_1	0.162	0.24	491.0
	ARENA_2	0.175	3.49	491.5	RELLENO_ZANJA	4.046	70.59	6480.3		ARENA_2	0.175	0.26	530.0	RELLENO_ZANJA	1.565	2.31	6870.6
	ARENA_3	0.425	8.49	1197.0						ARENA_3	0.425	0.63	1290.4				
3277.011	D TIERRA	3.213	69.45	9098.4	ARENA_1	0.162	2.76	458.0	3494.358	D TIERRA	2.566	36.16	9654.7	ARENA_1	0.162	2.33	493.3
	ARENA_2	0.175	2.97	494.5	RELLENO_ZANJA	2.307	54.03	6534.4		ARENA_2	0.175	2.51	532.5	RELLENO_ZANJA	1.659	23.15	6893.7
	ARENA_3	0.425	7.22	1204.2						ARENA_3	0.425	6.10	1296.5				
3280.000	D TIERRA	3.035	9.34	9107.7	ARENA_1	0.162	0.49	458.5	3500.000	D TIERRA	2.570	14.49	9669.2	ARENA_1	0.162	0.92	494.3
	ARENA_2	0.175	0.52	495.0	RELLENO_ZANJA	2.129	6.63	6541.0		ARENA_2	0.175	0.99	533.5	RELLENO_ZANJA	1.664	9.38	6903.1
	ARENA_3	0.425	1.27	1205.5						ARENA_3	0.425	2.40	1298.9				
3300.000	D TIERRA	1.978	50.12	9157.9	ARENA_1	0.162	3.25	461.8	3516.799	D TIERRA	2.454	42.21	9711.4	ARENA_1	0.162	2.73	497.0
	ARENA_2	0.175	3.49	498.5	RELLENO_ZANJA	1.071	32.00	6573.0		ARENA_2	0.175	2.93	536.4	RELLENO_ZANJA	1.548	26.98	6930.1
	ARENA_3	0.425	8.49	1214.0						ARENA_3	0.425	7.13	1306.0				
3320.000	D TIERRA	3.207	51.84	9209.7	ARENA_1	0.162	3.25	465.0	3520.000	D TIERRA	2.525	7.97	9719.4	ARENA_1	0.162	0.52	497.5
	ARENA_2	0.175	3.49	502.0	RELLENO_ZANJA	2.300	33.72	6606.7		ARENA_2	0.175	0.56	537.0	RELLENO_ZANJA	1.619	5.07	6935.1
	ARENA_3	0.424	8.49	1222.5						ARENA_3	0.425	1.36	1307.4				
3340.000	D TIERRA	2.978	61.85	9271.5	ARENA_1	0.162	3.25	468.3	3540.000	D TIERRA	2.932	54.58	9773.9	ARENA_1	0.162	3.25	500.8
	ARENA_2	0.175	3.49	505.5	RELLENO_ZANJA	2.072	43.72	6650.4		ARENA_2	0.175	3.49	540.5	RELLENO_ZANJA	2.026	36.45	6971.6
	ARENA_3	0.424	8.49	1230.9						ARENA_3	0.425	8.49	1315.8				
3356.730	D TIERRA	2.538	46.14	9317.7	ARENA_1	0.162	2.72	471.0	3553.318	D TIERRA	3.145	40.47	9814.4	ARENA_1	0.162	2.16	502.9
	ARENA_2	0.175	2.92	508.4	RELLENO_ZANJA	1.632	30.98	6681.4		ARENA_2	0.175	2.33	542.8	RELLENO_ZANJA	2.239	28.40	7000.0
	ARENA_3	0.424	7.10	1238.0						ARENA_3	0.425	5.65	1321.5				
3360.000	D TIERRA	2.522	8.27	9326.0	ARENA_1	0.162	0.53	471.5	3560.000	D TIERRA	3.153	21.04	9835.4	ARENA_1	0.162	1.09	504.0
	ARENA_2	0.175	0.57	509.0	RELLENO_ZANJA	1.616	5.31	6686.7		ARENA_2	0.175	1.17	544.0	RELLENO_ZANJA	2.247	14.99	7015.0
	ARENA_3	0.424	1.39	1239.4						ARENA_3	0.425	2.84	1324.3				
3380.000	D TIERRA	2.536	50.57	9376.5	ARENA_1	0.162	3.25	474.8	3573.140	D TIERRA	3.134	41.30	9876.7	ARENA_1	0.162	2.13	506.1
	ARENA_2	0.175	3.49	512.5	RELLENO_ZANJA	1.629	32.45	6719.2		ARENA_2	0.175	2.30	546.2	RELLENO_ZANJA	2.228	29.40	7044.4
	ARENA_3	0.424	8.49	1247.9						ARENA_3	0.425	5.58	1329.9				
3390.249	D TIERRA	2.183	24.18	9400.7	ARENA_1	0.162	1.67	476.4	3573.140	D TIERRA	0.000	0.00	9876.7	ARENA_1	0.000	0.00	506.1
	ARENA_2	0.175	1.79	514.3	RELLENO_ZANJA	1.277	14.89	6734.1		ARENA_2	0.000	0.00	546.2	RELLENO_ZANJA	0.000	0.00	7044.4
	ARENA_3	0.424	4.35	1252.3						ARENA_3	0.000	0.00	1329.9				
3400.000	D TIERRA	2.437	22.53	9423.2	ARENA_1	0.162	1.58	478.0	3580.000	D TIERRA	0.000	0.00	9876.7	ARENA_1	0.000	0.00	506.1
	ARENA_2	0.175	1.70	516.0	RELLENO_ZANJA	1.531	13.69	6747.8		ARENA_2	0.000	0.00	546.2	RELLENO_ZANJA	0.000	0.00	7044.4
	ARENA_3	0.424	4.14	1256.4						ARENA_3	0.000	0.00	1329.9				
3404.379	D TIERRA	2.448	10.70	9433.9	ARENA_1	0.162	0.71	478.7	3595.460	D TIERRA	0.000	0.00	9876.7	ARENA_1	0.000	0.00	506.1
	ARENA_2	0.175	0.76	516.8	RELLENO_ZANJA	1.542	6.73	6754.5		ARENA_2	0.000	0.00	546.2	RELLENO_ZANJA	0.000	0.00	7044.4
	ARENA_3	0.425	1.86	1258.3						ARENA_3	0.000	0.00	1329.9				
3413.329	D TIERRA	2.389	21.65	9455.6	ARENA_1	0.162	1.45	480.2	3595.460	D TIERRA	5.171	0.00	9876.7	ARENA_1	0.162	0.00	506.1
	ARENA_2	0.175	1.56	518.3	RELLENO_ZANJA	1.483	13.54	6768.0		ARENA_2	0.175	0.00	546.2	RELLENO_ZANJA	4.265	0.00	7044.4
	ARENA_3	0.425	3.80	1262.1						ARENA_3	0.425	0.00	1329.9				
3420.000	D TIERRA	2.256	15.49	9471.1	ARENA_1	0.162	1.08	481.3	3600.000	D TIERRA	5.503	24.23	9901.0	ARENA_1	0.162	0.74	506.9
	ARENA_2	0.175	1.17	519.5	RELLENO_ZANJA	1.349	9.45	6777.5		ARENA_2	0.175	0.79	547.0	RELLENO_ZANJA	4.597	20.12	7064.5
	ARENA_3	0.425	2.83	1264.9						ARENA_3	0.425	1.93	1331.8				
3420.266	D TIERRA	2.248	0.60	9471.7	ARENA_1	0.162	0.04	481.3	3620.000	D TIERRA	5.520	110.23	10011.2	ARENA_1	0.162	3.25	510.1
	ARENA_2	0.175	0.05	519.5	RELLENO_ZANJA	1.341	0.36	6777.8		ARENA_2	0.175	3.49	550.5	RELLENO_ZANJA	4.613	92.10	7156.6
	ARENA_3	0.425	0.11	1265.0						ARENA_3	0.425	8.49	1340.3				
3430.871	D TIERRA	2.255	23.88	9495.5	ARENA_1	0.162	1.72	483.0	3623.934	D TIERRA	5.235	21.15	10032.4	ARENA_1	0.162	0.64	510.8
	ARENA_2	0.175	1.85	521.4	RELLENO_ZANJA	1.349	14.27	6792.1		ARENA_2	0.175	0.69	551.2	RELLENO_ZANJA	4.329	17.59	7174.2
	ARENA_3	0.424	4.50	1269.5						ARENA_3	0.425	1.67	1342.0				
3440.000	D TIERRA	2.560	21.98	9517.5	ARENA_1	0.162	1.48	484.5	3635.076	D TIERRA	5.119	57.68	10090.0	ARENA_1	0.162	1.81	512.6
	ARENA_2	0.175	1.59	523.0	RELLENO_ZANJA	1.654	13.71	6805.8		ARENA_2	0.175	1.95	553.2	RELLENO_ZANJA	4.213	47.58	7221.8
	ARENA_3	0.424	3.87	1273.4						ARENA_3	0.425	4.73	1346.7				
3460.000	D TIERRA	2.570	51.30	9568.8	ARENA_1	0.162	3.25	487.8	3640.000	D TIERRA	5.117	25.20	10115.2	ARENA_1	0.162	0.80	513.4
	ARENA_2	0.175	3.49	526.5	RELLENO_ZANJA	1.664	33.18	6839.0		ARENA_2	0.175	0.86	554.0	RELLENO_ZANJA	4.211	20.74	7242.5
	ARENA_3	0.424	8.49	1281.9						ARENA_3	0.425	2.09	1348.8				



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PROYECTO : CIDACOS COMPLETO
EJE : 8: P190 (Arqueta principal) - P350 (Tudelilla)

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PROYECTO : CIDACOS COMPLETO
EJE : 8: P190 (Arqueta principal) - P350 (Tudelilla)

*** MEDICIONES DE LOS PERFILES TRANSVERSALES ***
*** CAPAS DE FIRME ***

*** MEDICIONES DE LOS PERFILES TRANSVERSALES ***
*** CAPAS DE FIRME ***

PERFIL	MATERIAL	AREA PERFIL	VOL. PARCIAL	VOL. ACUMUL.	MATERIAL	AREA PERFIL	VOL. PARCIAL	VOL. ACUMUL.
3660.000	D TIERRA	4.870	99.87	10215.1	ARENA_1	0.162	3.25	516.6
	ARENA_2	0.175	3.49	557.5	RELLENO_ZANJA	3.964	81.75	7324.3
	ARENA_3	0.425	8.49	1357.3				
3680.000	D TIERRA	4.500	93.70	10308.8	ARENA_1	0.162	3.25	519.9
	ARENA_2	0.175	3.49	561.0	RELLENO_ZANJA	3.594	75.58	7399.8
	ARENA_3	0.425	8.49	1365.8				
3700.000	D TIERRA	5.131	96.31	10405.1	ARENA_1	0.162	3.25	523.1
	ARENA_2	0.175	3.49	564.5	RELLENO_ZANJA	4.225	78.18	7478.0
	ARENA_3	0.424	8.48	1374.3				
3720.000	D TIERRA	2.326	74.57	10479.7	ARENA_1	0.162	3.25	526.4
	ARENA_2	0.175	3.50	568.0	RELLENO_ZANJA	1.420	56.44	7534.5
	ARENA_3	0.424	8.48	1382.8				
3740.000	D TIERRA	2.355	46.81	10526.5	ARENA_1	0.162	3.25	529.6
	ARENA_2	0.175	3.50	571.5	RELLENO_ZANJA	1.449	28.69	7563.2
	ARENA_3	0.424	8.48	1391.2				
3760.000	D TIERRA	3.500	58.55	10585.0	ARENA_1	0.162	3.25	532.9
	ARENA_2	0.175	3.50	575.0	RELLENO_ZANJA	2.593	40.43	7603.6
	ARENA_3	0.424	8.48	1399.7				
3780.000	D TIERRA	2.767	62.67	10647.7	ARENA_1	0.162	3.25	536.1
	ARENA_2	0.175	3.50	578.5	RELLENO_ZANJA	1.861	44.54	7648.1
	ARENA_3	0.424	8.47	1408.2				
3791.706	D TIERRA	2.305	29.69	10677.4	ARENA_1	0.162	1.90	538.0
	ARENA_2	0.175	2.05	580.5	RELLENO_ZANJA	1.399	19.08	7667.2
	ARENA_3	0.424	4.96	1413.2				
3800.000	D TIERRA	2.525	20.03	10697.4	ARENA_1	0.162	1.35	539.4
	ARENA_2	0.175	1.45	582.0	RELLENO_ZANJA	1.619	12.52	7679.7
	ARENA_3	0.424	3.52	1416.7				
3820.000	D TIERRA	2.871	53.96	10751.4	ARENA_1	0.162	3.25	542.6
	ARENA_2	0.175	3.49	585.5	RELLENO_ZANJA	1.965	35.83	7715.6
	ARENA_3	0.424	8.48	1425.2				
3827.263	D TIERRA	2.981	21.25	10772.6	ARENA_1	0.162	1.18	543.8
	ARENA_2	0.175	1.27	586.8	RELLENO_ZANJA	2.075	14.67	7730.2
	ARENA_3	0.424	3.08	1428.2				
3840.000	D TIERRA	3.107	38.77	10811.4	ARENA_1	0.162	2.07	545.9
	ARENA_2	0.175	2.23	589.0	RELLENO_ZANJA	2.201	27.23	7757.5
	ARENA_3	0.424	5.40	1433.6				
3860.000	D TIERRA	3.308	64.15	10875.6	ARENA_1	0.162	3.25	549.1
	ARENA_2	0.175	3.49	592.5	RELLENO_ZANJA	2.402	46.02	7803.5
	ARENA_3	0.424	8.48	1442.1				
3879.778	D TIERRA	3.513	67.45	10943.0	ARENA_1	0.162	3.21	552.3
	ARENA_2	0.175	3.46	595.9	RELLENO_ZANJA	2.606	49.52	7853.0
	ARENA_3	0.424	8.39	1450.5				
3880.000	D TIERRA	3.508	0.78	10943.8	ARENA_1	0.162	0.04	552.4
	ARENA_2	0.175	0.04	596.0	RELLENO_ZANJA	2.602	0.58	7853.6
	ARENA_3	0.424	0.09	1450.6				
3900.000	D TIERRA	3.135	66.43	11010.2	ARENA_1	0.162	3.25	555.6
	ARENA_2	0.175	3.49	599.5	RELLENO_ZANJA	2.229	48.31	7901.9
	ARENA_3	0.424	8.48	1459.1				
3920.000	D TIERRA	2.687	58.22	11068.4	ARENA_1	0.162	3.25	558.9
	ARENA_2	0.175	3.49	603.0	RELLENO_ZANJA	1.781	40.10	7942.0
	ARENA_3	0.424	8.48	1467.6				
3940.000	D TIERRA	2.302	49.89	11118.3	ARENA_1	0.162	3.25	562.1
	ARENA_2	0.175	3.49	606.5	RELLENO_ZANJA	1.395	31.77	7973.8
	ARENA_3	0.424	8.48	1476.1				
3960.000	D TIERRA	2.761	50.62	11168.9	ARENA_1	0.162	3.25	565.4
	ARENA_2	0.175	3.49	609.9	RELLENO_ZANJA	1.855	32.50	8006.3
	ARENA_3	0.424	8.48	1484.6				
3979.158	D TIERRA	3.232	57.40	11226.3	ARENA_1	0.162	3.11	568.5
	ARENA_2	0.175	3.35	613.3	RELLENO_ZANJA	2.325	40.04	8046.3
	ARENA_3	0.424	8.13	1492.7				

PERFIL	MATERIAL	AREA PERFIL	VOL. PARCIAL	VOL. ACUMUL.	MATERIAL	AREA PERFIL	VOL. PARCIAL	VOL. ACUMUL.
3980.000	D TIERRA	3.219	2.72	11229.1	ARENA_1	0.162	0.14	568.6
	ARENA_2	0.175	0.15	613.4	RELLENO_ZANJA	2.313	1.95	8048.2
	ARENA_3	0.424	0.36	1493.0				
4000.000	D TIERRA	2.926	61.45	11290.5	ARENA_1	0.162	3.25	571.9
	ARENA_2	0.175	3.49	616.9	RELLENO_ZANJA	2.020	43.33	8091.6
	ARENA_3	0.424	8.49	1501.5				
4020.000	D TIERRA	3.080	60.06	11350.6	ARENA_1	0.162	3.25	575.1
	ARENA_2	0.175	3.49	620.4	RELLENO_ZANJA	2.174	41.93	8133.5
	ARENA_3	0.424	8.49	1510.0				
4031.874	D TIERRA	3.528	39.23	11389.8	ARENA_1	0.162	1.93	577.0
	ARENA_2	0.175	2.07	622.5	RELLENO_ZANJA	2.622	28.47	8162.0
	ARENA_3	0.424	5.04	1515.0				
4040.000	D TIERRA	3.428	28.26	11418.1	ARENA_1	0.162	1.32	578.4
	ARENA_2	0.175	1.42	623.9	RELLENO_ZANJA	2.522	20.90	8182.9
	ARENA_3	0.424	3.45	1518.5				
4044.072	D TIERRA	3.371	13.84	11431.9	ARENA_1	0.162	0.66	579.0
	ARENA_2	0.175	0.71	624.6	RELLENO_ZANJA	2.465	10.15	8193.0
	ARENA_3	0.424	1.73	1520.2				
4060.000	D TIERRA	2.744	48.70	11480.6	ARENA_1	0.162	2.59	581.6
	ARENA_2	0.175	2.78	627.4	RELLENO_ZANJA	1.838	34.27	8227.3
	ARENA_3	0.424	6.76	1527.0				
4060.000	D TIERRA	3.249	0.00	11480.6	ARENA_1	0.167	0.00	581.6
	ARENA_2	0.193	0.00	627.4	RELLENO_ZANJA	2.254	0.00	8227.3
	ARENA_3	0.491	0.00	1527.0				
4068.125	D TIERRA	2.807	24.60	11505.2	ARENA_1	0.167	1.35	583.0
	ARENA_2	0.193	1.57	629.0	RELLENO_ZANJA	1.812	16.52	8243.8
	ARENA_3	0.491	3.99	1531.0				
4079.928	D TIERRA	3.235	35.65	11540.9	ARENA_1	0.167	1.97	584.9
	ARENA_2	0.193	2.28	631.3	RELLENO_ZANJA	2.240	23.91	8267.7
	ARENA_3	0.491	5.80	1536.8				
4080.000	D TIERRA	3.237	0.23	11541.1	ARENA_1	0.167	0.01	584.9
	ARENA_2	0.193	0.01	631.3	RELLENO_ZANJA	2.242	0.16	8267.9
	ARENA_3	0.491	0.04	1536.8				
4100.000	D TIERRA	3.866	71.02	11612.1	ARENA_1	0.167	3.33	588.3
	ARENA_2	0.193	3.86	635.1	RELLENO_ZANJA	2.870	51.12	8319.0
	ARENA_3	0.491	9.82	1546.6				
4120.000	D TIERRA	3.585	74.51	11686.6	ARENA_1	0.167	3.33	591.6
	ARENA_2	0.193	3.86	639.0	RELLENO_ZANJA	2.590	54.61	8373.6
	ARENA_3	0.491	9.82	1556.4				
4140.000	D TIERRA	2.846	64.31	11750.9	ARENA_1	0.167	3.33	594.9
	ARENA_2	0.193	3.86	642.8	RELLENO_ZANJA	1.851	44.41	8418.0
	ARENA_3	0.491	9.82	1566.3				
4160.000	D TIERRA	4.204	70.50	11821.4	ARENA_1	0.167	3.33	598.3
	ARENA_2	0.193	3.86	646.7	RELLENO_ZANJA	3.209	50.60	8468.6
	ARENA_3	0.491	9.82	1576.1				
4180.000	D TIERRA	3.954	81.58	11903.0	ARENA_1	0.167	3.33	601.6
	ARENA_2	0.193	3.86	650.6	RELLENO_ZANJA	2.959	61.68	8530.3
	ARENA_3	0.491	9.82	1585.9				
4200.000	D TIERRA	4.029	79.83	11982.8	ARENA_1	0.167	3.33	604.9
	ARENA_2	0.193	3.86	654.4	RELLENO_ZANJA	3.034	59.92	8590.2
	ARENA_3	0.491	9.82	1595.7				
4220.000	D TIERRA	3.618	76.46	12059.3	ARENA_1	0.167	3.33	608.3
	ARENA_2	0.193	3.86	658.3	RELLENO_ZANJA	2.623	56.56	8646.8
	ARENA_3	0.491	9.82	1605.6				
4240.000	D TIERRA	3.203	68.20	12127.5	ARENA_1	0.167	3.33	611.6
	ARENA_2	0.193	3.86	662.1	RELLENO_ZANJA	2.207	48.30	8695.1
	ARENA_3	0.491	9.82	1615.4				
4260.000	D TIERRA	3.055	62.57	12190.1	ARENA_1	0.167	3.33	614.9
	ARENA_2	0.193	3.86	666.0	RELLENO_ZANJA	2.059	42.67	8737.8
	ARENA_3	0.491	9.82	1625.2				

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 PROYECTO : CIDACOS COMPLETO
 EJE : 8: P190 (Arqueta principal) - P350 (Tudelilla)

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 PROYECTO : CIDACOS COMPLETO
 EJE : 8: P190 (Arqueta principal) - P350 (Tudelilla)

 * * * MEDICIONES DE LOS PERFILES TRANSVERSALES* * *
 * * * CAPAS DE FIRME * * *

 * * * MEDICIONES DE LOS PERFILES TRANSVERSALES* * *
 * * * CAPAS DE FIRME * * *

PERFIL	MATERIAL	AREA PERFIL	VOL. PARCIAL	VOL. ACUMUL.	MATERIAL	AREA PERFIL	VOL. PARCIAL	VOL. ACUMUL.	PERFIL	MATERIAL	AREA PERFIL	VOL. PARCIAL	VOL. ACUMUL.	MATERIAL	AREA PERFIL	VOL. PARCIAL	VOL. ACUMUL.
4280.000	D TIERRA	2.995	60.50	12250.6	ARENA_1	0.167	3.33	618.3	4640.000	D TIERRA	5.148	98.88	13454.3	ARENA_1	0.167	3.33	678.3
	ARENA_2	0.193	3.86	669.8	RELLENO_ZANJA	2.000	40.60	8778.4		ARENA_2	0.193	3.86	739.2	RELLENO_ZANJA	4.152	78.98	9623.8
	ARENA_3	0.491	9.82	1635.0						ARENA_3	0.491	9.82	1811.8				
4300.000	D TIERRA	2.963	59.59	12310.2	ARENA_1	0.167	3.33	621.6	4660.000	D TIERRA	5.378	105.26	13559.6	ARENA_1	0.167	3.33	681.6
	ARENA_2	0.193	3.86	673.7	RELLENO_ZANJA	1.968	39.69	8818.0		ARENA_2	0.193	3.86	743.1	RELLENO_ZANJA	4.383	85.36	9709.2
	ARENA_3	0.491	9.82	1644.8						ARENA_3	0.491	9.82	1821.7				
4312.028	D TIERRA	3.104	36.49	12346.7	ARENA_1	0.167	2.00	623.6	4680.000	D TIERRA	5.577	109.56	13669.1	ARENA_1	0.167	3.33	684.9
	ARENA_2	0.193	2.32	676.0	RELLENO_ZANJA	2.109	24.52	8842.6		ARENA_2	0.193	3.86	746.9	RELLENO_ZANJA	4.582	89.65	9798.9
	ARENA_3	0.491	5.91	1650.8						ARENA_3	0.491	9.82	1831.5				
4320.000	D TIERRA	3.208	25.16	12371.8	ARENA_1	0.167	1.33	624.9	4700.000	D TIERRA	5.492	110.69	13779.8	ARENA_1	0.167	3.33	688.3
	ARENA_2	0.193	1.54	677.5	RELLENO_ZANJA	2.213	17.23	8859.8		ARENA_2	0.193	3.86	750.8	RELLENO_ZANJA	4.497	90.79	9889.6
	ARENA_3	0.491	3.92	1654.7						ARENA_3	0.491	9.82	1841.3				
4340.000	D TIERRA	3.094	63.02	12434.8	ARENA_1	0.167	3.33	628.3	4720.000	D TIERRA	4.009	95.01	13874.8	ARENA_1	0.167	3.33	691.6
	ARENA_2	0.193	3.86	681.4	RELLENO_ZANJA	2.098	43.12	8902.9		ARENA_2	0.193	3.86	754.7	RELLENO_ZANJA	3.014	75.11	9964.8
	ARENA_3	0.491	9.82	1664.5						ARENA_3	0.491	9.82	1851.1				
4360.000	D TIERRA	3.039	61.33	12496.2	ARENA_1	0.167	3.33	631.6	4725.092	D TIERRA	2.327	0.00	13874.8	ARENA_1	0.162	0.00	691.6
	ARENA_2	0.193	3.86	685.3	RELLENO_ZANJA	2.044	41.43	8944.3		ARENA_2	0.175	0.00	754.7	RELLENO_ZANJA	1.421	0.00	9964.8
	ARENA_3	0.491	9.82	1674.3						ARENA_3	0.424	0.00	1851.1				
4380.000	D TIERRA	2.943	59.83	12556.0	ARENA_1	0.167	3.33	634.9	4739.941	D TIERRA	3.752	45.14	13920.0	ARENA_1	0.162	2.41	694.0
	ARENA_2	0.193	3.86	689.1	RELLENO_ZANJA	1.948	39.92	8984.3		ARENA_2	0.175	2.59	757.3	RELLENO_ZANJA	2.846	31.68	9996.4
	ARENA_3	0.491	9.82	1684.1						ARENA_3	0.424	6.30	1857.4				
4400.000	D TIERRA	2.910	58.53	12614.5	ARENA_1	0.167	3.33	638.3	4740.000	D TIERRA	3.776	0.22	13920.2	ARENA_1	0.162	0.01	694.0
	ARENA_2	0.193	3.86	693.0	RELLENO_ZANJA	1.915	38.63	9022.9		ARENA_2	0.175	0.01	757.3	RELLENO_ZANJA	2.870	0.17	9996.6
	ARENA_3	0.491	9.82	1694.0						ARENA_3	0.424	0.03	1857.4				
4420.000	D TIERRA	2.877	57.87	12672.4	ARENA_1	0.167	3.33	641.6	4756.147	D TIERRA	2.995	54.66	13974.8	ARENA_1	0.162	2.62	696.7
	ARENA_2	0.193	3.86	696.8	RELLENO_ZANJA	1.882	37.97	9060.9		ARENA_2	0.175	2.82	760.1	RELLENO_ZANJA	2.089	40.03	10036.6
	ARENA_3	0.491	9.82	1703.8						ARENA_3	0.424	6.85	1864.3				
4427.499	D TIERRA	2.855	21.49	12693.9	ARENA_1	0.167	1.25	642.9	4760.000	D TIERRA	2.508	10.60	13985.4	ARENA_1	0.162	0.63	697.3
	ARENA_2	0.193	1.45	698.3	RELLENO_ZANJA	1.860	14.03	9074.9		ARENA_2	0.175	0.67	760.8	RELLENO_ZANJA	1.602	7.11	10043.7
	ARENA_3	0.491	3.68	1707.5						ARENA_3	0.424	1.63	1865.9				
4440.000	D TIERRA	3.333	38.68	12732.6	ARENA_1	0.167	2.08	644.9	4767.730	D TIERRA	2.507	19.39	14004.8	ARENA_1	0.162	1.26	698.5
	ARENA_2	0.193	2.41	700.7	RELLENO_ZANJA	2.338	26.24	9101.1		ARENA_2	0.175	1.35	762.1	RELLENO_ZANJA	1.601	12.38	10056.1
	ARENA_3	0.491	6.14	1713.6						ARENA_3	0.424	3.28	1869.2				
4460.000	D TIERRA	3.210	65.44	12798.0	ARENA_1	0.167	3.33	648.3	4780.000	D TIERRA	2.442	30.36	14035.2	ARENA_1	0.162	1.99	700.5
	ARENA_2	0.193	3.86	704.5	RELLENO_ZANJA	2.215	45.53	9146.7		ARENA_2	0.175	2.14	764.3	RELLENO_ZANJA	1.536	19.25	10075.4
	ARENA_3	0.491	9.82	1723.4						ARENA_3	0.424	5.21	1874.4				
4480.000	D TIERRA	3.118	63.28	12861.3	ARENA_1	0.167	3.33	651.6	4800.000	D TIERRA	2.432	48.74	14083.9	ARENA_1	0.162	3.25	703.8
	ARENA_2	0.193	3.86	708.4	RELLENO_ZANJA	2.123	43.38	9190.1		ARENA_2	0.175	3.49	767.7	RELLENO_ZANJA	1.526	30.62	10106.0
	ARENA_3	0.491	9.82	1733.3						ARENA_3	0.424	8.49	1882.9				
4500.000	D TIERRA	3.613	67.31	12928.6	ARENA_1	0.167	3.33	654.9	4806.220	D TIERRA	2.363	14.91	14098.8	ARENA_1	0.162	1.01	704.8
	ARENA_2	0.193	3.86	712.2	RELLENO_ZANJA	2.618	47.41	9237.5		ARENA_2	0.175	1.09	768.8	RELLENO_ZANJA	1.456	9.27	10115.3
	ARENA_3	0.491	9.82	1743.1						ARENA_3	0.424	2.64	1885.5				
4520.000	D TIERRA	3.816	74.29	13002.9	ARENA_1	0.167	3.33	658.3	4820.000	D TIERRA	2.545	33.81	14132.7	ARENA_1	0.162	2.24	707.0
	ARENA_2	0.193	3.86	716.1	RELLENO_ZANJA	2.821	54.38	9291.8		ARENA_2	0.175	2.41	771.2	RELLENO_ZANJA	1.639	21.33	10136.6
	ARENA_3	0.491	9.82	1752.9						ARENA_3	0.424	5.85	1891.4				
4540.000	D TIERRA	3.745	75.61	13078.5	ARENA_1	0.167	3.33	661.6	4840.000	D TIERRA	2.446	49.91	14182.6	ARENA_1	0.162	3.25	710.3
	ARENA_2	0.193	3.86	720.0	RELLENO_ZANJA	2.750	55.71	9347.5		ARENA_2	0.175	3.49	774.7	RELLENO_ZANJA	1.540	31.79	10168.4
	ARENA_3	0.491	9.82	1762.7						ARENA_3	0.424	8.48	1899.9				
4560.000	D TIERRA	3.658	74.03	13152.5	ARENA_1	0.167	3.33	664.9	4855.405	D TIERRA	2.323	36.74	14219.3	ARENA_1	0.162	2.50	712.8
	ARENA_2	0.193	3.86	723.8	RELLENO_ZANJA	2.662	54.12	9401.7		ARENA_2	0.175	2.69	777.4	RELLENO_ZANJA	1.417	22.78	10191.2
	ARENA_3	0.491	9.82	1772.5						ARENA_3	0.424	6.53	1906.4				
4580.000	D TIERRA	3.164	68.22	13220.7	ARENA_1	0.167	3.33	668.3	4860.000	D TIERRA	2.307	10.64	14229.9	ARENA_1	0.162	0.75	713.5
	ARENA_2	0.193	3.86	727.7	RELLENO_ZANJA	2.169	48.32	9450.0		ARENA_2	0.175	0.80	778.2	RELLENO_ZANJA	1.401	6.48	10197.6
	ARENA_3	0.491	9.82	1782.4						ARENA_3	0.424	1.95	1908.4				
4600.000	D TIERRA	2.782	59.46	13280.2	ARENA_1	0.167	3.33	671.6	4880.000	D TIERRA	2.312	46.20	14276.1	ARENA_1	0.162	3.25	716.8
	ARENA_2	0.193	3.86	731.5	RELLENO_ZANJA	1.787	39.56	9489.5		ARENA_2	0.175	3.50	781.7	RELLENO_ZANJA	1.406	28.07	10225.7
	ARENA_3	0.491	9.82	1792.2						ARENA_3	0.424	8.48	1916.8				
4620.000	D TIERRA	4.740	75.22	13355.4	ARENA_1	0.167	3.33	674.9	4885.612	D TIERRA	2.368	13.13	14289.3	ARENA_1	0.162	0.91	717.7
	ARENA_2	0.193	3.86	735.4	RELLENO_ZANJA	3.745	55.32	9544.9		ARENA_2	0.175	0.98	782.7	RELLENO_ZANJA	1.462	8.05	10233.8
	ARENA_3	0.491	9.82	1802.0						ARENA_3	0.424	2.38	1919.2				



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PROYECTO : CIDACOS COMPLETO
EJE : 8: P190 (Arqueta principal) - P350 (Tudelilla)

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PROYECTO : CIDACOS COMPLETO
EJE : 8: P190 (Arqueta principal) - P350 (Tudelilla)

*** MEDICIONES DE LOS PERFILES TRANSVERSALES***
*** CAPAS DE FIRME ***

*** MEDICIONES DE LOS PERFILES TRANSVERSALES***
*** CAPAS DE FIRME ***

PERFIL	MATERIAL	AREA PERFIL	VOL. PARCIAL	VOL. ACUMUL.	MATERIAL	AREA PERFIL	VOL. PARCIAL	VOL. ACUMUL.
4900.000	D TIERRA	2.439	34.58	14323.9	ARENA_1	0.162	2.34	720.0
	ARENA_2	0.175	2.51	785.2	RELLENO_ZANJA	1.533	21.54	10255.3
	ARENA_3	0.424	6.11	1925.3				
4920.000	D TIERRA	2.331	47.69	14371.6	ARENA_1	0.162	3.25	723.3
	ARENA_2	0.175	3.49	788.7	RELLENO_ZANJA	1.425	29.57	10284.9
	ARENA_3	0.424	8.49	1933.8				
4923.050	D TIERRA	2.313	7.08	14378.6	ARENA_1	0.162	0.50	723.8
	ARENA_2	0.175	0.53	789.2	RELLENO_ZANJA	1.407	4.32	10289.2
	ARENA_3	0.424	1.29	1935.1				
4940.000	D TIERRA	2.650	42.06	14420.7	ARENA_1	0.162	2.75	726.5
	ARENA_2	0.175	2.96	792.2	RELLENO_ZANJA	1.744	26.70	10315.9
	ARENA_3	0.424	7.19	1942.3				
4951.803	D TIERRA	2.409	29.85	14450.5	ARENA_1	0.162	1.92	728.4
	ARENA_2	0.175	2.06	794.3	RELLENO_ZANJA	1.503	19.16	10335.0
	ARENA_3	0.424	5.01	1947.3				
4960.000	D TIERRA	2.285	19.24	14469.8	ARENA_1	0.162	1.33	729.8
	ARENA_2	0.175	1.43	795.7	RELLENO_ZANJA	1.379	11.81	10346.9
	ARENA_3	0.424	3.48	1950.8				
4972.806	D TIERRA	2.443	30.28	14500.1	ARENA_1	0.162	2.08	731.9
	ARENA_2	0.175	2.24	797.9	RELLENO_ZANJA	1.537	18.67	10365.5
	ARENA_3	0.424	5.43	1956.2				
4980.000	D TIERRA	2.470	17.67	14517.7	ARENA_1	0.162	1.17	733.0
	ARENA_2	0.175	1.26	799.2	RELLENO_ZANJA	1.564	11.15	10376.7
	ARENA_3	0.424	3.05	1959.3				
4990.314	D TIERRA	2.519	25.73	14543.5	ARENA_1	0.162	1.68	734.7
	ARENA_2	0.175	1.80	801.0	RELLENO_ZANJA	1.613	16.38	10393.1
	ARENA_3	0.424	4.38	1963.6				
5000.000	D TIERRA	2.519	24.40	14567.9	ARENA_1	0.162	1.57	736.3
	ARENA_2	0.175	1.69	802.7	RELLENO_ZANJA	1.613	15.62	10408.7
	ARENA_3	0.424	4.11	1967.8				
5020.000	D TIERRA	2.407	49.27	14617.1	ARENA_1	0.162	3.25	739.5
	ARENA_2	0.175	3.49	806.2	RELLENO_ZANJA	1.501	31.14	10439.8
	ARENA_3	0.424	8.49	1976.2				
5040.000	D TIERRA	2.426	48.33	14665.5	ARENA_1	0.162	3.25	742.8
	ARENA_2	0.175	3.49	809.7	RELLENO_ZANJA	1.520	30.21	10470.0
	ARENA_3	0.424	8.49	1984.7				
5056.934	D TIERRA	2.526	41.93	14707.4	ARENA_1	0.162	2.75	745.5
	ARENA_2	0.175	2.96	812.6	RELLENO_ZANJA	1.620	26.59	10496.6
	ARENA_3	0.424	7.19	1991.9				
5060.000	D TIERRA	2.525	7.74	14715.1	ARENA_1	0.162	0.50	746.0
	ARENA_2	0.175	0.54	813.2	RELLENO_ZANJA	1.618	4.96	10501.6
	ARENA_3	0.424	1.30	1993.2				
5080.000	D TIERRA	2.412	49.37	14764.5	ARENA_1	0.162	3.25	749.3
	ARENA_2	0.175	3.49	816.7	RELLENO_ZANJA	1.506	31.25	10532.8
	ARENA_3	0.424	8.49	2001.7				
5099.854	D TIERRA	2.324	47.02	14811.5	ARENA_1	0.162	3.22	752.5
	ARENA_2	0.175	3.47	820.1	RELLENO_ZANJA	1.418	29.03	10561.9
	ARENA_3	0.424	8.43	2010.1				
5100.000	D TIERRA	2.326	0.34	14811.9	ARENA_1	0.162	0.02	752.5
	ARENA_2	0.175	0.03	820.2	RELLENO_ZANJA	1.420	0.21	10562.1
	ARENA_3	0.424	0.06	2010.2				
5120.000	D TIERRA	2.395	47.21	14859.1	ARENA_1	0.162	3.25	755.8
	ARENA_2	0.175	3.49	823.7	RELLENO_ZANJA	1.489	29.09	10591.2
	ARENA_3	0.424	8.49	2018.7				
5137.662	D TIERRA	2.491	43.14	14902.2	ARENA_1	0.162	2.87	758.6
	ARENA_2	0.175	3.09	826.7	RELLENO_ZANJA	1.585	27.14	10618.3
	ARENA_3	0.424	7.49	2026.2				
5140.000	D TIERRA	2.338	5.64	14907.9	ARENA_1	0.162	0.38	759.0
	ARENA_2	0.175	0.41	827.2	RELLENO_ZANJA	1.432	3.53	10621.8
	ARENA_3	0.424	0.99	2027.2				

PERFIL	MATERIAL	AREA PERFIL	VOL. PARCIAL	VOL. ACUMUL.	MATERIAL	AREA PERFIL	VOL. PARCIAL	VOL. ACUMUL.
5155.059	D TIERRA	2.309	34.99	14942.9	ARENA_1	0.162	2.45	761.5
	ARENA_2	0.175	2.63	829.8	RELLENO_ZANJA	1.403	21.34	10643.2
	ARENA_3	0.424	6.38	2033.6				
5160.000	D TIERRA	2.334	11.47	14954.3	ARENA_1	0.162	0.80	762.3
	ARENA_2	0.175	0.86	830.7	RELLENO_ZANJA	1.428	6.99	10650.2
	ARENA_3	0.424	2.09	2035.6				
5180.000	D TIERRA	2.502	48.36	15002.7	ARENA_1	0.162	3.25	765.5
	ARENA_2	0.175	3.50	834.1	RELLENO_ZANJA	1.596	30.24	10680.4
	ARENA_3	0.424	8.48	2044.1				
5200.000	D TIERRA	2.391	48.93	15051.6	ARENA_1	0.162	3.25	768.8
	ARENA_2	0.175	3.49	837.6	RELLENO_ZANJA	1.485	30.81	10711.2
	ARENA_3	0.424	8.49	2052.6				
5206.560	D TIERRA	2.345	15.53	15067.2	ARENA_1	0.162	1.07	769.8
	ARENA_2	0.175	1.15	838.8	RELLENO_ZANJA	1.439	9.59	10720.8
	ARENA_3	0.424	2.78	2055.4				
5220.000	D TIERRA	2.417	32.00	15099.2	ARENA_1	0.162	2.18	772.0
	ARENA_2	0.175	2.35	841.1	RELLENO_ZANJA	1.511	19.82	10740.6
	ARENA_3	0.424	5.70	2061.1				
5240.000	D TIERRA	2.605	50.22	15149.4	ARENA_1	0.162	3.25	775.3
	ARENA_2	0.175	3.49	844.6	RELLENO_ZANJA	1.699	32.10	10772.7
	ARENA_3	0.424	8.49	2069.6				
5260.000	D TIERRA	2.347	49.52	15198.9	ARENA_1	0.162	3.25	778.5
	ARENA_2	0.175	3.50	848.1	RELLENO_ZANJA	1.441	31.40	10804.1
	ARENA_3	0.424	8.48	2078.1				
5261.592	D TIERRA	2.317	3.71	15202.6	ARENA_1	0.162	0.26	778.8
	ARENA_2	0.175	0.28	848.4	RELLENO_ZANJA	1.411	2.27	10806.4
	ARENA_3	0.424	0.68	2078.7				
5280.000	D TIERRA	2.660	45.81	15248.4	ARENA_1	0.162	2.99	781.7
	ARENA_2	0.175	3.22	851.6	RELLENO_ZANJA	1.754	29.13	10835.5
	ARENA_3	0.424	7.81	2086.6				
5300.000	D TIERRA	2.346	50.06	15298.5	ARENA_1	0.162	3.25	785.0
	ARENA_2	0.175	3.50	855.1	RELLENO_ZANJA	1.440	31.93	10867.5
	ARENA_3	0.424	8.49	2095.0				
5306.183	D TIERRA	2.444	14.81	15313.3	ARENA_1	0.162	1.00	786.0
	ARENA_2	0.175	1.08	856.2	RELLENO_ZANJA	1.537	9.20	10876.7
	ARENA_3	0.424	2.62	2097.7				
5320.000	D TIERRA	2.345	33.08	15346.4	ARENA_1	0.162	2.24	788.2
	ARENA_2	0.175	2.41	858.6	RELLENO_ZANJA	1.439	20.56	10897.2
	ARENA_3	0.424	5.86	2103.5				
5340.000	D TIERRA	2.299	46.44	15392.8	ARENA_1	0.162	3.25	791.5
	ARENA_2	0.175	3.50	862.1	RELLENO_ZANJA	1.393	28.32	10925.6
	ARENA_3	0.424	8.49	2112.0				
5340.000	D TIERRA	2.107	0.00	15392.8	ARENA_1	0.160	0.00	791.5
	ARENA_2	0.166	0.00	862.1	RELLENO_ZANJA	1.245	0.00	10925.6
	ARENA_3	0.391	0.00	2112.0				
5345.932	D TIERRA	2.219	12.83	15405.7	ARENA_1	0.160	0.95	792.4
	ARENA_2	0.166	0.98	863.1	RELLENO_ZANJA	1.358	7.72	10933.3
	ARENA_3	0.391	2.32	2114.3				
5360.000	D TIERRA	2.112	30.46	15436.1	ARENA_1	0.160	2.25	794.7
	ARENA_2	0.166	2.33	865.4	RELLENO_ZANJA	1.250	18.34	10951.6
	ARENA_3	0.391	5.50	2119.8				
5380.000	D TIERRA	2.089	42.01	15478.1	ARENA_1	0.160	3.21	797.9
	ARENA_2	0.166	3.31	868.7	RELLENO_ZANJA	1.227	24.77	10976.4
	ARENA_3	0.391	7.82	2127.7				
5395.602	D TIERRA	2.237	33.74	15511.9	ARENA_1	0.160	2.50	800.4
	ARENA_2	0.166	2.59	871.3	RELLENO_ZANJA	1.375	20.30	10996.7
	ARENA_3	0.391	6.10	2133.8				
5400.000	D TIERRA	2.711	10.88	15522.8	ARENA_1	0.160	0.71	801.1
	ARENA_2	0.166	0.73	872.1	RELLENO_ZANJA	1.849	7.09	11003.8
	ARENA_3	0.391	1.72	2135.5				



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PROYECTO : CIDACOS COMPLETO
 EJE : 8: P190 (Arqueta principal) - P350 (Tudelilla)

*** MEDICIONES DE LOS PERFILES TRANSVERSALES ***
 *** CAPAS DE FIRME ***

PERFIL	MATERIAL	AREA PERFIL	VOL. PARCIAL	VOL. ACUMUL.	MATERIAL	AREA PERFIL	VOL. PARCIAL	VOL. ACUMUL.
5406.001	D TIERRA	2.885	16.79	15539.5	ARENA_1	0.160	0.96	802.1
	ARENA_2	0.166	0.99	873.0	RELLENO_ZANJA	2.023	11.62	11015.4
	ARENA_3	0.391	2.35	2137.8				
5420.000	D TIERRA	2.505	37.73	15577.3	ARENA_1	0.160	2.24	804.3
	ARENA_2	0.166	2.32	875.4	RELLENO_ZANJA	1.643	25.66	11041.1
	ARENA_3	0.391	5.47	2143.3				
5429.632	D TIERRA	2.364	23.45	15600.7	ARENA_1	0.160	1.54	805.9
	ARENA_2	0.166	1.60	877.0	RELLENO_ZANJA	1.502	15.15	11056.2
	ARENA_3	0.391	3.77	2147.1				
5440.000	D TIERRA	2.271	24.03	15624.7	ARENA_1	0.160	1.66	807.5
	ARENA_2	0.166	1.72	878.7	RELLENO_ZANJA	1.409	15.09	11071.3
	ARENA_3	0.391	4.05	2151.1				
5460.000	D TIERRA	2.360	46.31	15671.1	ARENA_1	0.160	3.21	810.7
	ARENA_2	0.166	3.31	882.0	RELLENO_ZANJA	1.499	29.08	11100.4
	ARENA_3	0.391	7.82	2158.9				
5460.366	D TIERRA	2.359	0.86	15671.9	ARENA_1	0.160	0.06	810.8
	ARENA_2	0.166	0.06	882.1	RELLENO_ZANJA	1.497	0.55	11100.9
	ARENA_3	0.391	0.14	2159.1				
5480.000	D TIERRA	2.260	45.35	15717.3	ARENA_1	0.160	3.15	813.9
	ARENA_2	0.166	3.25	885.3	RELLENO_ZANJA	1.399	28.43	11129.4
	ARENA_3	0.391	7.68	2166.8				
5500.000	D TIERRA	2.383	46.43	15763.7	ARENA_1	0.160	3.21	817.1
	ARENA_2	0.166	3.31	888.6	RELLENO_ZANJA	1.521	29.20	11158.6
	ARENA_3	0.391	7.82	2174.6				
5520.000	D TIERRA	2.347	47.30	15811.0	ARENA_1	0.160	3.21	820.4
	ARENA_2	0.166	3.31	891.9	RELLENO_ZANJA	1.485	30.06	11188.6
	ARENA_3	0.391	7.82	2182.4				
5540.000	D TIERRA	2.280	46.27	15857.3	ARENA_1	0.160	3.21	823.6
	ARENA_2	0.166	3.31	895.2	RELLENO_ZANJA	1.419	29.04	11217.7
	ARENA_3	0.391	7.82	2190.2				
5560.000	D TIERRA	2.220	45.00	15902.3	ARENA_1	0.160	3.21	826.8
	ARENA_2	0.166	3.31	898.6	RELLENO_ZANJA	1.358	27.77	11245.4
	ARENA_3	0.391	7.82	2198.1				
5580.000	D TIERRA	2.217	44.37	15946.6	ARENA_1	0.160	3.21	830.0
	ARENA_2	0.166	3.31	901.9	RELLENO_ZANJA	1.355	27.13	11272.6
	ARENA_3	0.391	7.82	2205.9				
5600.000	D TIERRA	2.233	44.49	15991.1	ARENA_1	0.160	3.21	833.2
	ARENA_2	0.166	3.31	905.2	RELLENO_ZANJA	1.371	27.26	11299.8
	ARENA_3	0.391	7.82	2213.7				
5617.174	D TIERRA	2.245	38.45	16029.6	ARENA_1	0.160	2.75	835.9
	ARENA_2	0.166	2.85	908.0	RELLENO_ZANJA	1.383	23.65	11323.5
	ARENA_3	0.391	6.72	2220.4				
5620.000	D TIERRA	2.242	6.34	16035.9	ARENA_1	0.160	0.45	836.4
	ARENA_2	0.166	0.47	908.5	RELLENO_ZANJA	1.380	3.90	11327.4
	ARENA_3	0.391	1.11	2221.5				
5640.000	D TIERRA	2.231	44.73	16080.7	ARENA_1	0.160	3.21	839.6
	ARENA_2	0.166	3.31	911.8	RELLENO_ZANJA	1.369	27.50	11354.9
	ARENA_3	0.391	7.82	2229.4				
5640.000	D TIERRA	2.447	0.00	16080.7	ARENA_1	0.162	0.00	839.6
	ARENA_2	0.175	0.00	911.8	RELLENO_ZANJA	1.541	0.00	11354.9
	ARENA_3	0.425	0.00	2229.4				
5660.000	D TIERRA	2.529	49.75	16130.4	ARENA_1	0.162	3.25	842.8
	ARENA_2	0.175	3.49	915.3	RELLENO_ZANJA	1.622	31.63	11386.5
	ARENA_3	0.425	8.49	2237.8				
5680.000	D TIERRA	2.669	51.98	16182.4	ARENA_1	0.162	3.25	846.1
	ARENA_2	0.175	3.49	918.8	RELLENO_ZANJA	1.763	33.85	11420.4
	ARENA_3	0.425	8.49	2246.3				
5700.000	D TIERRA	2.858	55.27	16237.7	ARENA_1	0.162	3.25	849.3
	ARENA_2	0.175	3.49	922.3	RELLENO_ZANJA	1.952	37.15	11457.5
	ARENA_3	0.425	8.49	2254.8				

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PROYECTO : CIDACOS COMPLETO
 EJE : 8: P190 (Arqueta principal) - P350 (Tudelilla)

*** MEDICIONES DE LOS PERFILES TRANSVERSALES ***
 *** CAPAS DE FIRME ***

PERFIL	MATERIAL	AREA PERFIL	VOL. PARCIAL	VOL. ACUMUL.	MATERIAL	AREA PERFIL	VOL. PARCIAL	VOL. ACUMUL.
5720.000	D TIERRA	2.572	54.30	16292.0	ARENA_1	0.162	3.25	852.6
	ARENA_2	0.175	3.49	925.8	RELLENO_ZANJA	1.666	36.17	11493.7
	ARENA_3	0.425	8.49	2263.3				
5740.000	D TIERRA	3.674	62.45	16354.4	ARENA_1	0.162	3.25	855.8
	ARENA_2	0.175	3.49	929.3	RELLENO_ZANJA	2.768	44.33	11538.0
	ARENA_3	0.425	8.49	2271.8				
5760.000	D TIERRA	1.995	56.69	16411.1	ARENA_1	0.162	3.25	859.1
	ARENA_2	0.175	3.50	932.8	RELLENO_ZANJA	1.089	38.56	11576.6
	ARENA_3	0.423	8.48	2280.3				
5780.000	D TIERRA	3.905	59.00	16470.1	ARENA_1	0.162	3.25	862.3
	ARENA_2	0.175	3.50	936.3	RELLENO_ZANJA	2.999	40.87	11617.5
	ARENA_3	0.423	8.47	2288.7				
5784.879	D TIERRA	2.286	15.10	16485.2	ARENA_1	0.162	0.79	863.1
	ARENA_2	0.175	0.85	937.1	RELLENO_ZANJA	1.380	10.68	11628.1
	ARENA_3	0.424	2.07	2290.8				
5791.469	D TIERRA	2.218	14.84	16500.0	ARENA_1	0.162	1.07	864.2
	ARENA_2	0.175	1.15	938.3	RELLENO_ZANJA	1.311	8.87	11637.0
	ARENA_3	0.423	2.79	2293.6				
5791.469	D TIERRA	0.000	0.00	16500.0	ARENA_1	0.000	0.00	864.2
	ARENA_2	0.000	0.00	938.3	RELLENO_ZANJA	0.000	0.00	11637.0
	ARENA_3	0.000	0.00	2293.6				
5800.000	D TIERRA	0.000	0.00	16500.0	ARENA_1	0.000	0.00	864.2
	ARENA_2	0.000	0.00	938.3	RELLENO_ZANJA	0.000	0.00	11637.0
	ARENA_3	0.000	0.00	2293.6				
5809.951	D TIERRA	0.000	0.00	16500.0	ARENA_1	0.000	0.00	864.2
	ARENA_2	0.000	0.00	938.3	RELLENO_ZANJA	0.000	0.00	11637.0
	ARENA_3	0.000	0.00	2293.6				
5809.951	D TIERRA	3.737	0.00	16500.0	ARENA_1	0.162	0.00	864.2
	ARENA_2	0.175	0.00	938.3	RELLENO_ZANJA	2.831	0.00	11637.0
	ARENA_3	0.425	0.00	2293.6				
5820.000	D TIERRA	2.764	32.67	16532.7	ARENA_1	0.162	1.63	865.8
	ARENA_2	0.175	1.76	940.0	RELLENO_ZANJA	1.858	23.56	11660.6
	ARENA_3	0.425	4.27	2297.9				
5821.273	D TIERRA	2.722	3.49	16536.2	ARENA_1	0.162	0.21	866.0
	ARENA_2	0.175	0.22	940.3	RELLENO_ZANJA	1.816	2.34	11662.9
	ARENA_3	0.425	0.54	2298.4				
5840.000	D TIERRA	2.490	48.81	16585.0	ARENA_1	0.162	3.04	869.1
	ARENA_2	0.175	3.27	943.5	RELLENO_ZANJA	1.584	31.84	11694.7
	ARENA_3	0.425	7.95	2306.4				
5860.000	D TIERRA	2.431	49.21	16634.2	ARENA_1	0.162	3.25	872.3
	ARENA_2	0.175	3.49	947.0	RELLENO_ZANJA	1.525	31.09	11725.8
	ARENA_3	0.424	8.49	2314.9				
5872.072	D TIERRA	2.482	29.66	16663.9	ARENA_1	0.162	1.96	874.3
	ARENA_2	0.175	2.11	949.1	RELLENO_ZANJA	1.576	18.72	11744.5
	ARENA_3	0.425	5.12	2320.0				
5880.000	D TIERRA	2.571	20.03	16683.9	ARENA_1	0.162	1.29	875.6
	ARENA_2	0.175	1.39	950.5	RELLENO_ZANJA	1.665	12.85	11757.4
	ARENA_3	0.424	3.37	2323.3				
5900.000	D TIERRA	2.729	53.00	16736.9	ARENA_1	0.162	3.25	878.8
	ARENA_2	0.175	3.49	954.0	RELLENO_ZANJA	1.823	34.88	11792.3
	ARENA_3	0.425	8.49	2331.8				
5920.000	D TIERRA	2.437	51.66	16788.6	ARENA_1	0.162	3.25	882.1
	ARENA_2	0.175	3.49	957.5	RELLENO_ZANJA	1.530	33.54	11825.8
	ARENA_3	0.425	8.49	2340.3				
5940.000	D TIERRA	2.379	48.16	16836.7	ARENA_1	0.162	3.25	885.3
	ARENA_2	0.175	3.49	961.0	RELLENO_ZANJA	1.473	30.03	11855.8
	ARENA_3	0.425	8.49	2348.8				
5960.000	D TIERRA	2.566	49.45	16886.2	ARENA_1	0.162	3.25	888.6
	ARENA_2	0.175	3.49	964.5	RELLENO_ZANJA	1.660	31.33	11887.2
	ARENA_3	0.425	8.49	2357.3				



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PROYECTO : CIDACOS COMPLETO
EJE : 8: P190 (Arqueta principal) - P350 (Tudelilla)

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PROYECTO : CIDACOS COMPLETO
EJE : 8: P190 (Arqueta principal) - P350 (Tudelilla)

*** MEDICIONES DE LOS PERFILES TRANSVERSALES ***
*** CAPAS DE FIRME ***

*** MEDICIONES DE LOS PERFILES TRANSVERSALES ***
*** CAPAS DE FIRME ***

PERFIL	MATERIAL	AREA PERFIL	VOL. PARCIAL	VOL. ACUMUL.	MATERIAL	AREA PERFIL	VOL. PARCIAL	VOL. ACUMUL.
5980.000	D TIERRA	2.779	53.45	16939.6	ARENA_1	0.162	3.25	891.8
	ARENA_2	0.175	3.49	968.0	RELLENO_ZANJA	1.873	35.33	11922.5
	ARENA_3	0.424	8.49	2365.8				
6000.000	D TIERRA	3.231	60.11	16999.7	ARENA_1	0.162	3.25	895.1
	ARENA_2	0.175	3.49	971.5	RELLENO_ZANJA	2.325	41.98	11964.5
	ARENA_3	0.425	8.49	2374.3				
6020.000	D TIERRA	2.900	61.31	17061.0	ARENA_1	0.162	3.25	898.3
	ARENA_2	0.175	3.49	975.0	RELLENO_ZANJA	1.994	43.19	12007.7
	ARENA_3	0.424	8.49	2382.8				
6040.000	D TIERRA	2.431	53.31	17114.3	ARENA_1	0.162	3.25	901.6
	ARENA_2	0.175	3.49	978.5	RELLENO_ZANJA	1.525	35.19	12042.9
	ARENA_3	0.425	8.49	2391.3				
6060.000	D TIERRA	2.364	47.95	17162.3	ARENA_1	0.162	3.25	904.8
	ARENA_2	0.175	3.49	982.0	RELLENO_ZANJA	1.458	29.83	12072.7
	ARENA_3	0.424	8.49	2399.8				
6080.000	D TIERRA	2.373	47.37	17209.7	ARENA_1	0.162	3.25	908.1
	ARENA_2	0.175	3.49	985.5	RELLENO_ZANJA	1.467	29.25	12101.9
	ARENA_3	0.424	8.49	2408.2				
6100.000	D TIERRA	2.382	47.55	17257.2	ARENA_1	0.162	3.25	911.3
	ARENA_2	0.175	3.49	989.0	RELLENO_ZANJA	1.476	29.43	12131.4
	ARENA_3	0.424	8.49	2416.7				
6120.000	D TIERRA	2.391	47.73	17305.0	ARENA_1	0.162	3.25	914.6
	ARENA_2	0.175	3.49	992.4	RELLENO_ZANJA	1.485	29.61	12161.0
	ARENA_3	0.424	8.49	2425.2				
6140.000	D TIERRA	2.468	48.58	17353.5	ARENA_1	0.162	3.25	917.8
	ARENA_2	0.175	3.50	995.9	RELLENO_ZANJA	1.562	30.46	12191.4
	ARENA_3	0.423	8.47	2433.7				
6140.000	D TIERRA	2.252	0.00	17353.5	ARENA_1	0.160	0.00	917.8
	ARENA_2	0.166	0.00	995.9	RELLENO_ZANJA	1.390	0.00	12191.4
	ARENA_3	0.389	0.00	2433.7				
6160.000	D TIERRA	0.000	0.00	17353.5	ARENA_1	0.000	0.00	917.8
	ARENA_2	0.000	0.00	995.9	RELLENO_ZANJA	0.000	0.00	12191.4
	ARENA_3	0.000	0.00	2433.7				
6174.086	D TIERRA	0.000	0.00	17353.5	ARENA_1	0.000	0.00	917.8
	ARENA_2	0.000	0.00	995.9	RELLENO_ZANJA	0.000	0.00	12191.4
	ARENA_3	0.000	0.00	2433.7				
6174.086	D TIERRA	2.353	0.00	17353.5	ARENA_1	0.160	0.00	917.8
	ARENA_2	0.166	0.00	995.9	RELLENO_ZANJA	1.492	0.00	12191.4
	ARENA_3	0.391	0.00	2433.7				
6180.000	D TIERRA	2.165	13.36	17366.9	ARENA_1	0.160	0.95	918.7
	ARENA_2	0.166	0.98	996.9	RELLENO_ZANJA	1.303	8.26	12199.7
	ARENA_3	0.391	2.31	2436.0				
6200.000	D TIERRA	2.146	43.11	17410.0	ARENA_1	0.160	3.21	922.0
	ARENA_2	0.166	3.31	1000.2	RELLENO_ZANJA	1.285	25.87	12225.6
	ARENA_3	0.391	7.82	2443.8				
6220.000	D TIERRA	2.179	43.25	17453.3	ARENA_1	0.160	3.21	925.2
	ARENA_2	0.166	3.31	1003.6	RELLENO_ZANJA	1.317	26.02	12251.6
	ARENA_3	0.391	7.82	2451.6				
6240.000	D TIERRA	1.926	41.04	17494.3	ARENA_1	0.160	3.21	928.4
	ARENA_2	0.166	3.31	1006.9	RELLENO_ZANJA	1.064	23.81	12275.4
	ARENA_3	0.391	7.82	2459.5				
6260.000	D TIERRA	2.329	42.55	17536.8	ARENA_1	0.160	3.21	931.6
	ARENA_2	0.166	3.31	1010.2	RELLENO_ZANJA	1.467	25.32	12300.7
	ARENA_3	0.391	7.82	2467.3				
6280.000	D TIERRA	2.139	44.68	17581.5	ARENA_1	0.160	3.21	934.8
	ARENA_2	0.166	3.31	1013.5	RELLENO_ZANJA	1.277	27.45	12328.2
	ARENA_3	0.391	7.82	2475.1				
6300.000	TERRAPLEN	0.008	0.08	0.1	D TIERRA	1.496	36.35	17617.9
	ARENA_1	0.160	3.21	938.0	ARENA_2	0.166	3.32	1016.8
	RELLENO_ZANJA	0.662	19.39	12347.5	ARENA_3	0.390	7.81	2482.9

PERFIL	MATERIAL	AREA PERFIL	VOL. PARCIAL	VOL. ACUMUL.	MATERIAL	AREA PERFIL	VOL. PARCIAL	VOL. ACUMUL.
6320.000	TERRAPLEN	0.000	0.08	0.2	D TIERRA	2.193	36.89	17654.8
	ARENA_1	0.160	3.21	941.2	ARENA_2	0.166	3.32	1020.1
	RELLENO_ZANJA	1.331	19.93	12367.5	ARENA_3	0.391	7.80	2490.7
6340.000	TERRAPLEN	0.000	0.00	0.2	D TIERRA	2.091	42.83	17697.6
	ARENA_1	0.160	3.21	944.4	ARENA_2	0.166	3.31	1023.4
	RELLENO_ZANJA	1.229	25.60	12393.1	ARENA_3	0.391	7.82	2498.5
6360.000	TERRAPLEN	0.000	0.00	0.2	D TIERRA	2.249	43.40	17741.0
	ARENA_1	0.160	3.21	947.6	ARENA_2	0.166	3.31	1026.8
	RELLENO_ZANJA	1.387	26.16	12419.2	ARENA_3	0.391	7.82	2506.3
6364.923	TERRAPLEN	0.000	0.00	0.2	D TIERRA	2.174	10.89	17751.9
	ARENA_1	0.160	0.79	948.4	ARENA_2	0.166	0.82	1027.6
	RELLENO_ZANJA	1.312	6.64	12425.9	ARENA_3	0.391	1.93	2508.3
6380.000	TERRAPLEN	0.000	0.00	0.2	D TIERRA	2.265	33.46	17785.3
	ARENA_1	0.160	2.42	950.8	ARENA_2	0.166	2.50	1030.1
	RELLENO_ZANJA	1.403	20.47	12446.4	ARENA_3	0.391	5.90	2514.2
6400.000	TERRAPLEN	0.000	0.00	0.2	D TIERRA	2.585	48.50	17833.8
	ARENA_1	0.160	3.21	954.0	ARENA_2	0.166	3.31	1033.4
	RELLENO_ZANJA	1.723	31.26	12477.6	ARENA_3	0.391	7.82	2522.0
6405.537	TERRAPLEN	0.000	0.00	0.2	D TIERRA	2.248	13.38	17847.2
	ARENA_1	0.160	0.89	954.9	ARENA_2	0.166	0.92	1034.3
	RELLENO_ZANJA	1.386	8.61	12486.2	ARENA_3	0.391	2.17	2524.2
6420.000	TERRAPLEN	0.000	0.00	0.2	D TIERRA	2.306	32.93	17880.1
	ARENA_1	0.160	2.32	957.2	ARENA_2	0.166	2.40	1036.7
	RELLENO_ZANJA	1.444	20.47	12506.7	ARENA_3	0.391	5.66	2529.8
6437.680	TERRAPLEN	0.000	0.00	0.2	D TIERRA	2.971	46.65	17926.8
	ARENA_1	0.160	2.83	960.1	ARENA_2	0.166	2.93	1039.6
	RELLENO_ZANJA	2.109	31.41	12538.1	ARENA_3	0.391	6.91	2536.7
6440.000	TERRAPLEN	0.000	0.00	0.2	D TIERRA	2.963	6.88	17933.7
	ARENA_1	0.160	0.37	960.4	ARENA_2	0.166	0.38	1040.0
	RELLENO_ZANJA	2.101	4.88	12543.0	ARENA_3	0.391	0.91	2537.6
6460.000	TERRAPLEN	0.000	0.00	0.2	D TIERRA	2.587	55.50	17989.2
	ARENA_1	0.160	3.21	963.6	ARENA_2	0.166	3.31	1043.3
	RELLENO_ZANJA	1.726	38.27	12581.3	ARENA_3	0.391	7.82	2545.5
6480.000	TERRAPLEN	0.000	0.00	0.2	D TIERRA	2.406	49.93	18039.1
	ARENA_1	0.160	3.21	966.8	ARENA_2	0.166	3.31	1046.6
	RELLENO_ZANJA	1.544	32.69	12614.0	ARENA_3	0.391	7.82	2553.3
6496.510	TERRAPLEN	0.000	0.00	0.2	D TIERRA	2.400	39.67	18078.8
	ARENA_1	0.160	2.65	969.5	ARENA_2	0.166	2.74	1049.4
	RELLENO_ZANJA	1.538	25.44	12639.4	ARENA_3	0.391	6.46	2559.7
6500.000	TERRAPLEN	0.000	0.00	0.2	D TIERRA	2.294	8.19	18087.0
	ARENA_1	0.160	0.56	970.0	ARENA_2	0.166	0.58	1050.0
	RELLENO_ZANJA	1.433	5.18	12644.6	ARENA_3	0.391	1.37	2561.1
6520.000	TERRAPLEN	0.000	0.00	0.2	D TIERRA	2.221	45.15	18132.1
	ARENA_1	0.160	3.21	973.3	ARENA_2	0.166	3.31	1053.3
	RELLENO_ZANJA	1.359	27.92	12672.5	ARENA_3	0.391	7.82	2568.9
6540.000	TERRAPLEN	0.000	0.00	0.2	D TIERRA	2.251	44.72	18176.8
	ARENA_1	0.160	3.21	976.5	ARENA_2	0.166	3.31	1056.6
	RELLENO_ZANJA	1.390	27.49	12700.0	ARENA_3	0.391	7.82	2576.7
6560.000	TERRAPLEN	0.000	0.00	0.2	D TIERRA	2.385	46.37	18223.2
	ARENA_1	0.160	3.21	979.7	ARENA_2	0.166	3.31	1059.9
	RELLENO_ZANJA	1.524	29.13	12729.1	ARENA_3	0.391	7.82	2584.6
6580.000	TERRAPLEN	0.000	0.00	0.2	D TIERRA	2.578	49.64	18272.8
	ARENA_1	0.160	3.21	982.9	ARENA_2	0.166	3.31	1063.2
	RELLENO_ZANJA	1.716	32.40	12761.5	ARENA_3	0.391	7.82	2592.4
6600.000	TERRAPLEN	0.000	0.00	0.2	D TIERRA	2.268	48.46	18321.3
	ARENA_1	0.160	3.21	986.1	ARENA_2	0.166	3.31	1066.5
	RELLENO_ZANJA	1.406	31.23	12792.8	ARENA_3	0.391	7.82	2600.2
6607.506	TERRAPLEN	0.000	0.00	0.2	D TIERRA	2.305	17.16	18338.5
	ARENA_1	0.160	1.20	987.3	ARENA_2	0.166	1.24	1067.8
	RELLENO_ZANJA	1.444	10.70	12803.4	ARENA_3	0.391	2.94	2603.1

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 PROYECTO : CIDACOS COMPLETO
 EJE : 8: P190 (Arqueta principal) - P350 (Tudelilla)

Istram 9.04 14/04/20 10:22:23
 PROYECTO : CIDACOS COMPLETO
 EJE : 8: P190 (Arqueta principal) - P350 (Tudelilla)

*** MEDICIONES DE LOS PERFILES TRANSVERSALES ***
 *** CAPAS DE FIRME ***

*** MEDICIONES DE LOS PERFILES TRANSVERSALES ***
 *** CAPAS DE FIRME ***

PERFIL	MATERIAL	AREA PERFIL	VOL. PARCIAL	VOL. ACUMUL.	MATERIAL	AREA PERFIL	VOL. PARCIAL	VOL. ACUMUL.
6620.000	TERRAPLEN	0.000	0.00	0.2	D TIERRA	2.707	31.31	18369.8
	ARENA_1	0.160	2.00	989.3	ARENA_2	0.166	2.07	1069.8
	RELLENO_ZANJA	1.845	20.55	12824.0	ARENA_3	0.391	4.88	2608.0
6627.687	TERRAPLEN	0.000	0.00	0.2	D TIERRA	2.660	20.63	18390.4
	ARENA_1	0.160	1.23	990.5	ARENA_2	0.166	1.27	1071.1
	RELLENO_ZANJA	1.799	14.01	12838.0	ARENA_3	0.391	3.00	2611.0
6640.000	TERRAPLEN	0.000	0.00	0.2	D TIERRA	2.566	32.17	18422.6
	ARENA_1	0.160	1.97	992.5	ARENA_2	0.166	2.04	1073.2
	RELLENO_ZANJA	1.704	21.56	12859.6	ARENA_3	0.391	4.81	2615.8
6642.631	TERRAPLEN	0.000	0.00	0.2	D TIERRA	2.546	6.72	18429.3
	ARENA_1	0.160	0.42	992.9	ARENA_2	0.166	0.44	1073.6
	RELLENO_ZANJA	1.684	4.46	12864.0	ARENA_3	0.391	1.03	2616.9
6660.000	TERRAPLEN	0.000	0.00	0.2	D TIERRA	2.424	43.15	18472.5
	ARENA_1	0.160	2.78	995.7	ARENA_2	0.166	2.88	1076.5
	RELLENO_ZANJA	1.562	28.19	12892.2	ARENA_3	0.391	6.79	2623.7
6680.000	TERRAPLEN	0.000	0.00	0.2	D TIERRA	2.296	47.19	18519.7
	ARENA_1	0.160	3.21	998.9	ARENA_2	0.166	3.31	1079.8
	RELLENO_ZANJA	1.434	29.96	12922.2	ARENA_3	0.391	7.82	2631.5
6700.000	TERRAPLEN	0.000	0.00	0.2	D TIERRA	2.524	48.20	18567.9
	ARENA_1	0.160	3.21	1002.1	ARENA_2	0.166	3.32	1083.1
	RELLENO_ZANJA	1.663	30.97	12953.1	ARENA_3	0.391	7.82	2639.3
6720.000	TERRAPLEN	0.000	0.00	0.2	D TIERRA	2.302	48.26	18616.1
	ARENA_1	0.160	3.21	1005.3	ARENA_2	0.166	3.31	1086.4
	RELLENO_ZANJA	1.440	31.03	12984.2	ARENA_3	0.391	7.82	2647.1
6740.000	TERRAPLEN	0.000	0.00	0.2	D TIERRA	2.288	45.90	18662.0
	ARENA_1	0.160	3.21	1008.5	ARENA_2	0.166	3.31	1089.7
	RELLENO_ZANJA	1.427	28.67	13012.8	ARENA_3	0.391	7.82	2654.9
6760.000	TERRAPLEN	0.000	0.00	0.2	D TIERRA	2.204	44.92	18706.9
	ARENA_1	0.160	3.21	1011.7	ARENA_2	0.166	3.31	1093.0
	RELLENO_ZANJA	1.342	27.69	13040.5	ARENA_3	0.391	7.82	2662.8
6773.787	TERRAPLEN	0.000	0.00	0.2	D TIERRA	2.258	30.76	18737.7
	ARENA_1	0.160	2.21	1013.9	ARENA_2	0.166	2.28	1095.3
	RELLENO_ZANJA	1.397	18.88	13059.4	ARENA_3	0.391	5.39	2668.2
6780.000	TERRAPLEN	0.000	0.00	0.2	D TIERRA	2.401	14.48	18752.2
	ARENA_1	0.160	1.00	1014.9	ARENA_2	0.166	1.03	1096.4
	RELLENO_ZANJA	1.540	9.12	13068.5	ARENA_3	0.391	2.43	2670.6
6782.009	TERRAPLEN	0.000	0.00	0.2	D TIERRA	2.448	4.87	18757.0
	ARENA_1	0.160	0.32	1015.3	ARENA_2	0.166	0.33	1096.7
	RELLENO_ZANJA	1.586	3.14	13071.7	ARENA_3	0.391	0.79	2671.4
6800.000	TERRAPLEN	0.000	0.00	0.2	D TIERRA	2.508	44.58	18801.6
	ARENA_1	0.160	2.89	1018.1	ARENA_2	0.166	2.98	1099.7
	RELLENO_ZANJA	1.646	29.08	13100.7	ARENA_3	0.391	7.04	2678.4
6820.000	TERRAPLEN	0.000	0.00	0.2	D TIERRA	2.489	49.97	18851.6
	ARENA_1	0.160	3.21	1021.4	ARENA_2	0.166	3.31	1103.0
	RELLENO_ZANJA	1.627	32.73	13133.5	ARENA_3	0.391	7.82	2686.2
6840.000	TERRAPLEN	0.000	0.00	0.2	D TIERRA	2.282	47.70	18899.3
	ARENA_1	0.160	3.21	1024.6	ARENA_2	0.166	3.31	1106.3
	RELLENO_ZANJA	1.420	30.47	13163.9	ARENA_3	0.391	7.82	2694.1
6860.000	TERRAPLEN	0.000	0.00	0.2	D TIERRA	2.236	45.18	18944.5
	ARENA_1	0.160	3.21	1027.8	ARENA_2	0.166	3.31	1109.6
	RELLENO_ZANJA	1.374	27.94	13191.9	ARENA_3	0.391	7.82	2701.9
6880.000	TERRAPLEN	0.000	0.00	0.2	D TIERRA	2.231	44.67	18989.1
	ARENA_1	0.160	3.21	1031.0	ARENA_2	0.166	3.31	1112.9
	RELLENO_ZANJA	1.369	27.44	13219.3	ARENA_3	0.391	7.82	2709.7
6891.785	TERRAPLEN	0.000	0.00	0.2	D TIERRA	2.262	26.47	19015.6
	ARENA_1	0.160	1.89	1032.9	ARENA_2	0.166	1.95	1114.9
	RELLENO_ZANJA	1.400	16.32	13235.6	ARENA_3	0.391	4.61	2714.3
6900.000	TERRAPLEN	0.000	0.00	0.2	D TIERRA	2.267	18.60	19034.2
	ARENA_1	0.160	1.32	1034.2	ARENA_2	0.166	1.36	1116.2
	RELLENO_ZANJA	1.405	11.52	13247.2	ARENA_3	0.391	3.21	2717.5

PERFIL	MATERIAL	AREA PERFIL	VOL. PARCIAL	VOL. ACUMUL.	MATERIAL	AREA PERFIL	VOL. PARCIAL	VOL. ACUMUL.
6900.000	TERRAPLEN	0.000	0.00	0.2	D TIERRA	2.469	0.00	19034.2
	ARENA_1	0.162	0.00	1034.2	ARENA_2	0.175	0.00	1116.2
	RELLENO_ZANJA	1.563	0.00	13247.2	ARENA_3	0.425	0.00	2717.5
6920.000	TERRAPLEN	0.000	0.00	0.2	D TIERRA	2.421	48.90	19083.1
	ARENA_1	0.162	3.25	1037.4	ARENA_2	0.175	3.49	1119.7
	RELLENO_ZANJA	1.515	30.78	13277.9	ARENA_3	0.425	8.49	2726.0
6940.000	TERRAPLEN	0.000	0.00	0.2	D TIERRA	3.057	54.79	19137.9
	ARENA_1	0.162	3.25	1040.7	ARENA_2	0.175	3.49	1123.2
	RELLENO_ZANJA	2.151	36.66	13314.6	ARENA_3	0.425	8.49	2734.5
6941.943	TERRAPLEN	0.000	0.00	0.2	D TIERRA	3.077	5.96	19143.9
	ARENA_1	0.162	0.32	1041.0	ARENA_2	0.175	0.34	1123.6
	RELLENO_ZANJA	2.171	4.20	13318.8	ARENA_3	0.425	0.82	2735.3
6960.000	TERRAPLEN	0.000	0.00	0.2	D TIERRA	3.081	55.60	19199.5
	ARENA_1	0.162	2.93	1043.9	ARENA_2	0.175	3.16	1126.7
	RELLENO_ZANJA	2.175	39.23	13358.0	ARENA_3	0.425	7.67	2743.0
6972.172	TERRAPLEN	0.000	0.00	0.2	D TIERRA	3.005	37.04	19236.5
	ARENA_1	0.162	1.98	1045.9	ARENA_2	0.175	2.13	1128.8
	RELLENO_ZANJA	2.099	26.01	13384.1	ARENA_3	0.425	5.17	2748.2
6980.000	TERRAPLEN	0.000	0.00	0.2	D TIERRA	2.922	23.20	19259.7
	ARENA_1	0.162	1.27	1047.2	ARENA_2	0.175	1.37	1130.2
	RELLENO_ZANJA	2.016	16.11	13400.2	ARENA_3	0.425	3.32	2751.5
6982.205	TERRAPLEN	0.000	0.00	0.2	D TIERRA	2.900	6.42	19266.1
	ARENA_1	0.162	0.36	1047.5	ARENA_2	0.175	0.39	1130.6
	RELLENO_ZANJA	1.993	4.42	13404.6	ARENA_3	0.425	0.94	2752.4
7000.000	TERRAPLEN	0.000	0.00	0.2	D TIERRA	2.726	50.05	19316.2
	ARENA_1	0.162	2.89	1050.4	ARENA_2	0.175	3.11	1133.7
	RELLENO_ZANJA	1.819	33.92	13438.5	ARENA_3	0.425	7.55	2760.0
7020.000	TERRAPLEN	0.000	0.00	0.2	D TIERRA	2.699	54.25	19370.4
	ARENA_1	0.162	3.25	1053.7	ARENA_2	0.175	3.49	1137.2
	RELLENO_ZANJA	1.793	36.12	13474.6	ARENA_3	0.425	8.49	2768.5
7040.000	TERRAPLEN	0.000	0.00	0.2	D TIERRA	2.410	51.10	19421.5
	ARENA_1	0.162	3.25	1056.9	ARENA_2	0.175	3.49	1140.7
	RELLENO_ZANJA	1.504	32.97	13507.6	ARENA_3	0.425	8.49	2777.0
7050.073	TERRAPLEN	0.000	0.00	0.2	D TIERRA	2.569	25.08	19446.6
	ARENA_1	0.162	1.64	1058.6	ARENA_2	0.175	1.76	1142.5
	RELLENO_ZANJA	1.663	15.95	13523.6	ARENA_3	0.425	4.28	2781.2
7060.000	TERRAPLEN	0.000	0.00	0.2	D TIERRA	2.479	25.06	19471.7
	ARENA_1	0.162	1.61	1060.2	ARENA_2	0.175	1.73	1144.2
	RELLENO_ZANJA	1.573	16.06	13539.6	ARENA_3	0.425	4.21	2785.4
7068.652	TERRAPLEN	0.000	0.00	0.2	D TIERRA	2.508	21.57	19493.2
	ARENA_1	0.162	1.41	1061.6	ARENA_2	0.175	1.51	1145.7
	RELLENO_ZANJA	1.602	13.73	13553.4	ARENA_3	0.425	3.67	2789.1
7080.000	TERRAPLEN	0.000	0.00	0.2	D TIERRA	2.583	28.88	19522.1
	ARENA_1	0.162	1.84	1063.4	ARENA_2	0.175	1.98	1147.7
	RELLENO_ZANJA	1.677	18.60	13572.0	ARENA_3	0.425	4.82	2793.9
7100.000	TERRAPLEN	0.000	0.00	0.2	D TIERRA	2.707	52.90	19575.0
	ARENA_1	0.162	3.25	1066.7	ARENA_2	0.175	3.49	1151.2
	RELLENO_ZANJA	1.801	34.78	13606.7	ARENA_3	0.425	8.49	2802.4
7113.220	TERRAPLEN	0.000	0.00	0.2	D TIERRA	2.739	36.00	19611.0
	ARENA_1	0.162	2.15	1068.8	ARENA_2	0.175	2.31	1153.5
	RELLENO_ZANJA	1.833	24.02	13630.8	ARENA_3	0.425	5.61	2808.0
7120.000	TERRAPLEN	0.000	0.00	0.2	D TIERRA	2.796	18.76	19629.8
	ARENA_1	0.162	1.10	1069.9	ARENA_2	0.175	1.18	1154.7
	RELLENO_ZANJA	1.890	12.62	13643.4	ARENA_3	0.425	2.88	2810.9
7140.000	TERRAPLEN	0.000	0.00	0.2	D TIERRA	2.626	54.22	19684.0
	ARENA_1	0.162	3.25	1073.2	ARENA_2	0.175	3.49	1158.2
	RELLENO_ZANJA	1.720	36.10	13679.5	ARENA_3	0.425	8.49	2819.4
7160.000	TERRAPLEN	0.000	0.00	0.2	D TIERRA	2.438	50.64	19734.6
	ARENA_1	0.162	3.25	1076.4	ARENA_2	0.175	3.49	1161.7
	RELLENO_ZANJA	1.532	32.52	13712.0	ARENA_3	0.425	8.49	2827.9

Istram 9.04 14/04/20 10:22:22
 PROYECTO : CIDACOS COMPLETO
 EJE : 8: P190 (Arqueta principal) - P350 (Tudelilla)

Istram 9.04 14/04/20 10:22:22
 PROYECTO : CIDACOS COMPLETO
 EJE : 8: P190 (Arqueta principal) - P350 (Tudelilla)

***** MEDICIONES DE LOS PERFILES TRANSVERSALES*****
 ***** CAPAS DE FIRME *****

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PERFIL	MATERIAL	AREA PERFIL	VOL. PARCIAL	VOL. ACUMUL.	MATERIAL	AREA PERFIL	VOL. PARCIAL	VOL. ACUMUL.	PERFIL	MATERIAL	AREA PERFIL	VOL. PARCIAL	VOL. ACUMUL.	MATERIAL	AREA PERFIL	VOL. PARCIAL	VOL. ACUMUL.
7166.056	TERRAPLEN	0.000	0.00	0.2	D TIERRA	2.408	14.67	19749.3	7420.000	TERRAPLEN	0.000	0.00	0.2	D TIERRA	2.422	48.84	20444.3
	ARENA_1	0.162	0.98	1077.4	ARENA_2	0.175	1.06	1162.7		ARENA_1	0.162	3.25	1118.6	ARENA_2	0.175	3.49	1207.1
	RELLENO_ZANJA	1.502	9.19	13721.2	ARENA_3	0.425	2.57	2830.5		RELLENO_ZANJA	1.516	30.72	14186.1	ARENA_3	0.425	8.49	2938.3
7180.000	TERRAPLEN	0.000	0.00	0.2	D TIERRA	2.558	34.63	19783.9	7423.732	TERRAPLEN	0.000	0.00	0.2	D TIERRA	2.404	9.01	20453.3
	ARENA_1	0.162	2.27	1079.7	ARENA_2	0.175	2.44	1165.2		ARENA_1	0.162	0.61	1119.2	ARENA_2	0.175	0.65	1207.7
	RELLENO_ZANJA	1.652	21.99	13743.2	ARENA_3	0.425	5.92	2836.4		RELLENO_ZANJA	1.498	5.62	14191.7	ARENA_3	0.425	1.58	2939.9
7181.597	TERRAPLEN	0.000	0.00	0.2	D TIERRA	2.567	4.09	19788.0	7440.000	TERRAPLEN	0.000	0.00	0.2	D TIERRA	2.506	39.94	20493.3
	ARENA_1	0.162	0.26	1079.9	ARENA_2	0.175	0.28	1165.4		ARENA_1	0.162	2.64	1121.9	ARENA_2	0.175	2.84	1210.6
	RELLENO_ZANJA	1.661	2.65	13745.8	ARENA_3	0.425	0.68	2837.1		RELLENO_ZANJA	1.600	25.20	14216.9	ARENA_3	0.425	6.91	2946.8
7188.244	TERRAPLEN	0.000	0.00	0.2	D TIERRA	2.633	17.28	19805.3	7460.000	TERRAPLEN	0.000	0.00	0.2	D TIERRA	2.680	51.87	20545.2
	ARENA_1	0.162	1.08	1081.0	ARENA_2	0.175	1.16	1166.6		ARENA_1	0.162	3.25	1125.1	ARENA_2	0.175	3.49	1214.1
	RELLENO_ZANJA	1.727	11.26	13757.1	ARENA_3	0.425	2.82	2839.9		RELLENO_ZANJA	1.774	33.75	14250.7	ARENA_3	0.425	8.49	2955.3
7199.027	TERRAPLEN	0.000	0.00	0.2	D TIERRA	2.816	29.38	19834.7	7468.818	TERRAPLEN	0.000	0.00	0.2	D TIERRA	2.746	23.92	20569.1
	ARENA_1	0.162	1.75	1082.7	ARENA_2	0.175	1.88	1168.5		ARENA_1	0.162	1.43	1126.6	ARENA_2	0.175	1.54	1215.6
	RELLENO_ZANJA	1.910	19.61	13776.7	ARENA_3	0.425	4.58	2844.5		RELLENO_ZANJA	1.839	15.93	14266.6	ARENA_3	0.425	3.74	2959.0
7200.000	TERRAPLEN	0.000	0.00	0.2	D TIERRA	2.841	2.75	19837.4	7480.000	TERRAPLEN	0.000	0.00	0.2	D TIERRA	2.736	30.65	20599.7
	ARENA_1	0.162	0.16	1082.9	ARENA_2	0.175	0.17	1168.7		ARENA_1	0.162	1.82	1128.4	ARENA_2	0.175	1.95	1217.6
	RELLENO_ZANJA	1.935	1.87	13778.5	ARENA_3	0.425	0.41	2844.9		RELLENO_ZANJA	1.830	20.52	14287.1	ARENA_3	0.425	4.75	2963.7
7220.000	TERRAPLEN	0.000	0.00	0.2	D TIERRA	2.526	53.68	19891.1	7500.000	TERRAPLEN	0.000	0.00	0.2	D TIERRA	2.683	54.19	20653.9
	ARENA_1	0.162	3.25	1086.2	ARENA_2	0.175	3.49	1172.1		ARENA_1	0.162	3.25	1131.6	ARENA_2	0.175	3.49	1221.1
	RELLENO_ZANJA	1.620	35.55	13814.1	ARENA_3	0.425	8.49	2853.4		RELLENO_ZANJA	1.777	36.07	14323.2	ARENA_3	0.425	8.49	2972.2
7240.000	TERRAPLEN	0.000	0.00	0.2	D TIERRA	2.504	50.30	19941.4	7503.564	TERRAPLEN	0.000	0.00	0.2	D TIERRA	2.675	9.55	20663.5
	ARENA_1	0.162	3.25	1089.4	ARENA_2	0.175	3.49	1175.6		ARENA_1	0.162	0.58	1132.2	ARENA_2	0.175	0.62	1221.7
	RELLENO_ZANJA	1.598	32.18	13846.3	ARENA_3	0.424	8.49	2861.9		RELLENO_ZANJA	1.769	6.32	14329.5	ARENA_3	0.425	1.51	2973.7
7260.000	TERRAPLEN	0.000	0.00	0.2	D TIERRA	2.666	51.69	19993.1	7520.000	TERRAPLEN	0.000	0.00	0.2	D TIERRA	2.655	43.80	20707.3
	ARENA_1	0.162	3.25	1092.6	ARENA_2	0.175	3.49	1179.1		ARENA_1	0.162	2.67	1134.9	ARENA_2	0.175	2.87	1224.6
	RELLENO_ZANJA	1.760	33.57	13879.8	ARENA_3	0.424	8.49	2870.4		RELLENO_ZANJA	1.749	28.91	14358.4	ARENA_3	0.425	6.98	2980.7
7280.000	TERRAPLEN	0.000	0.00	0.2	D TIERRA	3.252	59.18	20052.3	7540.000	TERRAPLEN	0.000	0.00	0.2	D TIERRA	2.636	52.91	20760.2
	ARENA_1	0.162	3.25	1095.9	ARENA_2	0.175	3.49	1182.6		ARENA_1	0.162	3.25	1138.1	ARENA_2	0.175	3.49	1228.0
	RELLENO_ZANJA	2.346	41.06	13920.9	ARENA_3	0.425	8.49	2878.8		RELLENO_ZANJA	1.730	34.79	14393.2	ARENA_3	0.425	8.49	2989.2
7300.000	TERRAPLEN	0.000	0.00	0.2	D TIERRA	3.079	63.31	20115.6	7560.000	TERRAPLEN	0.000	0.00	0.2	D TIERRA	2.516	51.52	20811.7
	ARENA_1	0.162	3.25	1099.1	ARENA_2	0.175	3.49	1186.1		ARENA_1	0.162	3.25	1141.4	ARENA_2	0.175	3.49	1231.5
	RELLENO_ZANJA	2.173	45.19	13966.1	ARENA_3	0.425	8.49	2887.3		RELLENO_ZANJA	1.610	33.40	14426.6	ARENA_3	0.425	8.49	2997.7
7316.715	TERRAPLEN	0.000	0.00	0.2	D TIERRA	3.005	50.85	20166.5	7580.000	TERRAPLEN	0.000	0.00	0.2	D TIERRA	2.308	48.24	20860.0
	ARENA_1	0.162	2.72	1101.9	ARENA_2	0.175	2.92	1189.0		ARENA_1	0.162	3.25	1144.6	ARENA_2	0.175	3.49	1235.0
	RELLENO_ZANJA	2.099	35.70	14001.8	ARENA_3	0.425	7.10	2894.4		RELLENO_ZANJA	1.402	30.12	14456.7	ARENA_3	0.425	8.49	3006.2
7320.000	TERRAPLEN	0.000	0.00	0.2	D TIERRA	3.011	9.88	20176.3	7597.042	TERRAPLEN	0.000	0.00	0.2	D TIERRA	2.447	40.51	20900.5
	ARENA_1	0.162	0.53	1102.4	ARENA_2	0.175	0.57	1189.6		ARENA_1	0.162	2.77	1147.4	ARENA_2	0.175	2.98	1238.0
	RELLENO_ZANJA	2.105	6.91	14008.7	ARENA_3	0.425	1.39	2895.8		RELLENO_ZANJA	1.540	25.07	14481.8	ARENA_3	0.425	7.23	3013.4
7330.708	TERRAPLEN	0.000	0.00	0.2	D TIERRA	2.995	32.16	20208.5	7600.000	TERRAPLEN	0.000	0.00	0.2	D TIERRA	2.501	7.32	20907.8
	ARENA_1	0.162	1.74	1104.1	ARENA_2	0.175	1.87	1191.5		ARENA_1	0.162	0.48	1147.9	ARENA_2	0.175	0.52	1238.5
	RELLENO_ZANJA	2.089	22.46	14031.2	ARENA_3	0.425	4.55	2900.4		RELLENO_ZANJA	1.595	4.64	14486.4	ARENA_3	0.425	1.26	3014.7
7340.000	TERRAPLEN	0.000	0.00	0.2	D TIERRA	2.936	27.55	20236.1	7606.379	TERRAPLEN	0.000	0.00	0.2	D TIERRA	2.524	16.03	20923.8
	ARENA_1	0.162	1.51	1105.6	ARENA_2	0.175	1.62	1193.1		ARENA_1	0.162	1.04	1148.9	ARENA_2	0.175	1.11	1239.6
	RELLENO_ZANJA	2.030	19.13	14050.3	ARENA_3	0.425	3.94	2904.3		RELLENO_ZANJA	1.618	10.25	14496.7	ARENA_3	0.425	2.71	3017.4
7356.450	TERRAPLEN	0.000	0.00	0.2	D TIERRA	2.767	46.90	20283.0	7620.000	TERRAPLEN	0.000	0.00	0.2	D TIERRA	2.508	34.27	20958.1
	ARENA_1	0.162	2.67	1108.3	ARENA_2	0.175	2.87	1196.0		ARENA_1	0.162	2.21	1151.1	ARENA_2	0.175	2.38	1242.0
	RELLENO_ZANJA	1.860	31.99	14082.3	ARENA_3	0.425	6.98	2911.3		RELLENO_ZANJA	1.602	21.92	14518.6	ARENA_3	0.425	5.78	3023.2
7360.000	TERRAPLEN	0.000	0.00	0.2	D TIERRA	2.726	9.75	20292.7	7621.609	TERRAPLEN	0.000	0.00	0.2	D TIERRA	2.515	4.04	20962.1
	ARENA_1	0.162	0.58	1108.9	ARENA_2	0.175	0.62	1196.6		ARENA_1	0.162	0.26	1151.4	ARENA_2	0.175	0.28	1242.3
	RELLENO_ZANJA	1.820	6.53	14088.8	ARENA_3	0.425	1.51	2912.8		RELLENO_ZANJA	1.608	2.58	14521.2	ARENA_3	0.425	0.68	3023.9
7380.000	TERRAPLEN	0.000	0.00	0.2	D TIERRA	2.568	52.93	20345.6	7640.000	TERRAPLEN	0.000	0.00	0.2	D TIERRA	2.603	47.06	21009.2
	ARENA_1	0.162	3.25	1112.1	ARENA_2	0.175	3.49	1200.1		ARENA_1	0.162	2.99	1154.4	ARENA_2	0.175	3.21	1245.5
	RELLENO_ZANJA	1.661	34.81	14123.6	ARENA_3	0.425	8.49	2921.3		RELLENO_ZANJA	1.697	30.40	14551.6	ARENA_3	0.425	7.81	3031.7
7390.136	TERRAPLEN	0.000	0.00	0.2	D TIERRA	2.471	25.53	20371.2	7660.000	TERRAPLEN	0.000	0.00	0.2	D TIERRA	2.733	53.37	21062.6
	ARENA_1	0.162	1.65	1113.8	ARENA_2	0.175	1.77	1201.9		ARENA_1	0.162	3.25	1157.6	ARENA_2	0.175	3.49	1249.0
	RELLENO_ZANJA	1.565	16.35	14140.0	ARENA_3	0.425	4.30	2925.6		RELLENO_ZANJA	1.827	35.24	14586.8	ARENA_3	0.425	8.49	3040.2
7400.000	TERRAPLEN	0.000	0.00	0.2	D TIERRA	2.462	24.33	20395.5	7680.000	TERRAPLEN	0.000	0.00	0.2	D TIERRA	2.857	55.90	21118.5
	ARENA_1	0.162	1.60	1115.4	ARENA_2	0.175	1.72	1203.6		ARENA_1	0.162	3.25	1160.9	ARENA_2	0.175	3.49	1252.5
	RELLENO_ZANJA	1.556	15.39	14155.4	ARENA_3	0.425	4.19	2929.8		RELLENO_ZANJA							

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 PROYECTO : CIDACOS COMPLETO
 EJE : 8: P190 (Arqueta principal) - P350 (Tudelilla)

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 PROYECTO : CIDACOS COMPLETO
 EJE : 8: P190 (Arqueta principal) - P350 (Tudelilla)

 * * * MEDICIONES DE LOS PERFILES TRANSVERSALES* * *
 * * * CAPAS DE FIRME * * *

 * * * MEDICIONES DE LOS PERFILES TRANSVERSALES* * *
 * * * CAPAS DE FIRME * * *

PERFIL	MATERIAL	AREA PERFIL	VOL. PARCIAL	VOL. ACUMUL.	MATERIAL	AREA PERFIL	VOL. PARCIAL	VOL. ACUMUL.	PERFIL	MATERIAL	AREA PERFIL	VOL. PARCIAL	VOL. ACUMUL.	MATERIAL	AREA PERFIL	VOL. PARCIAL	VOL. ACUMUL.
7700.000	TERRAPLEN	0.000	0.00	0.2	D TIERRA	2.900	57.57	21176.0	8020.000	TERRAPLEN	0.000	0.00	0.2	D TIERRA	2.692	47.92	22040.8
	ARENA_1	0.162	3.25	1164.1	ARENA_2	0.175	3.49	1256.0		ARENA_1	0.162	2.93	1216.1	ARENA_2	0.175	3.15	1311.9
	RELLENO_ZANJA	1.994	39.45	14664.0	ARENA_3	0.425	8.49	3057.1		RELLENO_ZANJA	1.786	31.60	15238.9	ARENA_3	0.424	7.65	3193.0
7720.000	TERRAPLEN	0.000	0.00	0.2	D TIERRA	2.921	58.21	21234.2	8040.000	TERRAPLEN	0.000	0.00	0.2	D TIERRA	2.583	52.75	22093.6
	ARENA_1	0.162	3.25	1167.4	ARENA_2	0.175	3.49	1259.5		ARENA_1	0.162	3.25	1219.3	ARENA_2	0.175	3.49	1315.4
	RELLENO_ZANJA	2.015	40.09	14704.1	ARENA_3	0.425	8.49	3065.6		RELLENO_ZANJA	1.677	34.63	15273.5	ARENA_3	0.424	8.49	3201.5
7740.000	TERRAPLEN	0.000	0.00	0.2	D TIERRA	2.939	58.60	21292.8	8054.714	TERRAPLEN	0.000	0.00	0.2	D TIERRA	2.984	40.95	22134.5
	ARENA_1	0.162	3.25	1170.6	ARENA_2	0.175	3.49	1263.0		ARENA_1	0.162	2.39	1221.7	ARENA_2	0.175	2.57	1318.0
	RELLENO_ZANJA	2.033	40.48	14744.6	ARENA_3	0.425	8.49	3074.1		RELLENO_ZANJA	2.078	27.62	15301.1	ARENA_3	0.424	6.25	3207.7
7760.000	TERRAPLEN	0.000	0.00	0.2	D TIERRA	2.880	58.20	21351.0	8060.000	TERRAPLEN	0.000	0.00	0.2	D TIERRA	2.923	15.61	22150.1
	ARENA_1	0.162	3.25	1173.9	ARENA_2	0.175	3.49	1266.5		ARENA_1	0.162	0.86	1222.6	ARENA_2	0.175	0.92	1318.9
	RELLENO_ZANJA	1.974	40.07	14784.7	ARENA_3	0.425	8.49	3082.6		RELLENO_ZANJA	2.017	10.82	15311.9	ARENA_3	0.424	2.24	3210.0
7780.000	TERRAPLEN	0.000	0.00	0.2	D TIERRA	2.767	56.47	21407.5	8062.878	TERRAPLEN	0.000	0.00	0.2	D TIERRA	2.899	8.38	22158.5
	ARENA_1	0.162	3.25	1177.1	ARENA_2	0.175	3.49	1270.0		ARENA_1	0.162	0.47	1223.1	ARENA_2	0.175	0.50	1319.4
	RELLENO_ZANJA	1.861	38.35	14823.0	ARENA_3	0.425	8.49	3091.1		RELLENO_ZANJA	1.993	5.77	15317.7	ARENA_3	0.424	1.22	3211.2
7800.000	TERRAPLEN	0.000	0.00	0.2	D TIERRA	2.804	55.71	21463.2	8080.000	TERRAPLEN	0.000	0.00	0.2	D TIERRA	2.729	48.19	22206.7
	ARENA_1	0.162	3.25	1180.4	ARENA_2	0.175	3.49	1273.5		ARENA_1	0.162	2.78	1225.8	ARENA_2	0.175	2.99	1322.4
	RELLENO_ZANJA	1.898	37.58	14860.6	ARENA_3	0.425	8.49	3099.6		RELLENO_ZANJA	1.823	32.67	15350.4	ARENA_3	0.424	7.27	3218.4
7801.052	TERRAPLEN	0.000	0.00	0.2	D TIERRA	2.829	2.96	21466.2	8096.341	TERRAPLEN	0.000	0.00	0.2	D TIERRA	2.575	43.34	22250.0
	ARENA_1	0.162	0.17	1180.5	ARENA_2	0.175	0.18	1273.7		ARENA_1	0.162	2.65	1228.5	ARENA_2	0.175	2.86	1325.3
	RELLENO_ZANJA	1.923	2.01	14862.6	ARENA_3	0.425	0.45	3100.0		RELLENO_ZANJA	1.669	28.53	15378.9	ARENA_3	0.425	6.94	3225.4
7810.760	TERRAPLEN	0.000	0.00	0.2	D TIERRA	2.799	27.32	21493.5	8100.000	TERRAPLEN	0.000	0.00	0.2	D TIERRA	2.572	9.42	22259.4
	ARENA_1	0.162	1.58	1182.1	ARENA_2	0.175	1.70	1275.4		ARENA_1	0.162	0.59	1229.1	ARENA_2	0.175	0.64	1325.9
	RELLENO_ZANJA	1.893	18.52	14881.2	ARENA_3	0.424	4.12	3104.2		RELLENO_ZANJA	1.666	6.10	15385.0	ARENA_3	0.425	1.55	3226.9
7820.000	TERRAPLEN	0.000	0.00	0.2	D TIERRA	2.750	25.64	21519.1	8108.411	TERRAPLEN	0.000	0.00	0.2	D TIERRA	2.586	21.70	22281.1
	ARENA_1	0.162	1.50	1183.6	ARENA_2	0.175	1.61	1277.0		ARENA_1	0.162	1.37	1230.5	ARENA_2	0.175	1.47	1327.4
	RELLENO_ZANJA	1.844	17.27	14898.4	ARENA_3	0.424	3.92	3108.1		RELLENO_ZANJA	1.680	14.07	15399.1	ARENA_3	0.424	3.57	3230.5
7822.437	TERRAPLEN	0.000	0.00	0.2	D TIERRA	2.739	6.69	21525.8	8120.000	TERRAPLEN	0.000	0.00	0.2	D TIERRA	2.565	29.85	22311.0
	ARENA_1	0.162	0.40	1184.0	ARENA_2	0.175	0.43	1277.4		ARENA_1	0.162	1.88	1232.3	ARENA_2	0.175	2.02	1329.4
	RELLENO_ZANJA	1.833	4.48	14902.9	ARENA_3	0.424	1.03	3109.1		RELLENO_ZANJA	1.659	19.35	15418.4	ARENA_3	0.425	4.92	3235.4
7840.000	TERRAPLEN	0.000	0.00	0.2	D TIERRA	2.684	47.63	21573.5	8140.000	TERRAPLEN	0.000	0.00	0.2	D TIERRA	2.499	50.64	22361.6
	ARENA_1	0.162	2.85	1186.9	ARENA_2	0.175	3.07	1280.5		ARENA_1	0.162	3.25	1235.6	ARENA_2	0.175	3.49	1332.9
	RELLENO_ZANJA	1.778	31.71	14934.6	ARENA_3	0.424	7.45	3116.6		RELLENO_ZANJA	1.593	32.52	15451.0	ARENA_3	0.425	8.49	3243.9
7860.000	TERRAPLEN	0.000	0.00	0.2	D TIERRA	2.653	53.38	21626.8	8160.000	TERRAPLEN	0.000	0.00	0.2	D TIERRA	2.513	50.12	22411.8
	ARENA_1	0.162	3.25	1190.1	ARENA_2	0.175	3.49	1284.0		ARENA_1	0.162	3.25	1238.8	ARENA_2	0.175	3.49	1336.4
	RELLENO_ZANJA	1.747	35.26	14969.9	ARENA_3	0.424	8.49	3125.1		RELLENO_ZANJA	1.607	32.00	15482.9	ARENA_3	0.425	8.49	3252.4
7880.000	TERRAPLEN	0.000	0.00	0.2	D TIERRA	2.621	52.74	21679.6	8173.592	TERRAPLEN	0.000	0.00	0.2	D TIERRA	2.574	34.57	22446.3
	ARENA_1	0.162	3.25	1193.4	ARENA_2	0.175	3.49	1287.5		ARENA_1	0.162	2.21	1241.0	ARENA_2	0.175	2.37	1338.7
	RELLENO_ZANJA	1.715	34.62	15004.5	ARENA_3	0.424	8.49	3133.5		RELLENO_ZANJA	1.667	22.25	15505.2	ARENA_3	0.425	5.77	3258.2
7900.000	TERRAPLEN	0.000	0.00	0.2	D TIERRA	2.588	52.09	21731.7	8180.000	TERRAPLEN	0.000	0.00	0.2	D TIERRA	2.569	16.48	22462.8
	ARENA_1	0.162	3.25	1196.6	ARENA_2	0.175	3.49	1290.9		ARENA_1	0.162	1.04	1242.1	ARENA_2	0.175	1.12	1339.9
	RELLENO_ZANJA	1.682	33.96	15038.5	ARENA_3	0.424	8.49	3142.0		RELLENO_ZANJA	1.663	10.67	15515.9	ARENA_3	0.425	2.72	3260.9
7920.000	TERRAPLEN	0.000	0.00	0.2	D TIERRA	2.591	51.79	21783.5	8200.000	TERRAPLEN	0.000	0.00	0.2	D TIERRA	2.497	50.66	22513.5
	ARENA_1	0.162	3.25	1199.9	ARENA_2	0.175	3.49	1294.4		ARENA_1	0.162	3.25	1245.3	ARENA_2	0.175	3.49	1343.4
	RELLENO_ZANJA	1.685	33.67	15072.1	ARENA_3	0.424	8.49	3150.5		RELLENO_ZANJA	1.591	32.53	15548.4	ARENA_3	0.425	8.49	3269.4
7940.000	TERRAPLEN	0.000	0.00	0.2	D TIERRA	2.571	51.62	21835.1	8200.000	TERRAPLEN	0.000	0.00	0.2	D TIERRA	2.279	0.00	22513.5
	ARENA_1	0.162	3.25	1203.1	ARENA_2	0.175	3.49	1297.9		ARENA_1	0.160	0.00	1245.3	ARENA_2	0.166	0.00	1343.4
	RELLENO_ZANJA	1.664	33.50	15105.6	ARENA_3	0.424	8.49	3159.0		RELLENO_ZANJA	1.417	0.00	15548.4	ARENA_3	0.391	0.00	3269.4
7960.000	TERRAPLEN	0.000	0.00	0.2	D TIERRA	2.516	50.86	21885.9	8203.633	TERRAPLEN	0.000	0.00	0.2	D TIERRA	2.269	8.26	22521.7
	ARENA_1	0.162	3.25	1206.3	ARENA_2	0.175	3.49	1301.4		ARENA_1	0.160	0.58	1245.9	ARENA_2	0.166	0.60	1344.0
	RELLENO_ZANJA	1.609	32.74	15138.4	ARENA_3	0.424	8.49	3167.5		RELLENO_ZANJA	1.408	5.13	15553.5	ARENA_3	0.391	1.42	3270.8
7980.000	TERRAPLEN	0.000	0.00	0.2	D TIERRA	2.519	50.35	21936.3	8220.000	TERRAPLEN	0.000	0.00	0.2	D TIERRA	2.277	37.20	22558.9
	ARENA_1	0.162	3.25	1209.6	ARENA_2	0.175	3.49	1304.9		ARENA_1	0.160	2.62	1248.5	ARENA_2	0.166	2.71	1346.7
	RELLENO_ZANJA	1.613	32.23	15170.6	ARENA_3	0.424	8.49	3176.0		RELLENO_ZANJA	1.415	23.10	15576.6	ARENA_3	0.391	6.40	3277.2
8000.000	TERRAPLEN	0.000	0.00	0.2	D TIERRA	2.619	51.39	21987.7	8222.374	TERRAPLEN	0.000	0.00	0.2	D TIERRA	2.278	5.41	22564.3
	ARENA_1	0.162	3.25	1212.8	ARENA_2	0.175	3.49	1308.4		ARENA_1	0.160	0.38	1248.9	ARENA_2	0.166	0.39	1347.1
	RELLENO_ZANJA	1.713	33.26	15203.8	ARENA_3	0.424	8.49	3184.5		RELLENO_ZANJA	1.416	3.36	15580.0	ARENA_3	0.391	0.93	3278.1
8001.989	TERRAPLEN	0.000	0.00	0.2	D TIERRA	2.629	5.22	21992.9	8230.864	TERRAPLEN	0.000	0.00	0.2	D TIERRA	2.299	19.43	22583.8
	ARENA_1	0.162	0.32	1213.2	ARENA_2	0.175	0.35	1308.8		ARENA_1	0.160	1.36	1250.3	ARENA_2	0.166	1.41	1348.5
	RELLENO_ZANJA	1.723	3.42	15207.3													



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PROYECTO : CIDACOS COMPLETO
EJE : 8: P190 (Arqueta principal) - P350 (Tudelilla)

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PROYECTO : CIDACOS COMPLETO
EJE : 8: P190 (Arqueta principal) - P350 (Tudelilla)

MEDICIONES DE LOS PERFILES TRANSVERSALES
CAPAS DE FIRME

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CAPAS DE FIRME

Table with 5 columns: PERFIL, MATERIAL, AREA PERFIL, VOL. PARCIAL, VOL. ACUMUL. for profiles 8240.000 to 8500.000.

Table with 5 columns: PERFIL, MATERIAL, AREA PERFIL, VOL. PARCIAL, VOL. ACUMUL. for profiles 8520.000 to 8728.494.



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PROYECTO : CIDACOS COMPLETO
EJE : 8: P190 (Arqueta principal) - P350 (Tudelilla)

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PROYECTO : CIDACOS COMPLETO
EJE : 8: P190 (Arqueta principal) - P350 (Tudelilla)

*** MEDICIONES DE LOS PERFILES TRANSVERSALES ***
*** CAPAS DE FIRME ***

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*** CAPAS DE FIRME ***

PERFIL	MATERIAL	AREA PERFIL	VOL. PARCIAL	VOL. ACUMUL.	MATERIAL	AREA PERFIL	VOL. PARCIAL	VOL. ACUMUL.
8740.000	TERRAPLEN	0.000	0.00	0.2	D TIERRA	2.213	25.26	23771.4
	ARENA_1	0.160	1.84	1331.9	ARENA_2	0.166	1.91	1432.8
	RELLENO_ZANJA	1.352	15.35	16341.1	ARENA_3	0.391	4.50	3480.6
8760.000	TERRAPLEN	0.000	0.00	0.2	D TIERRA	2.185	43.98	23815.4
	ARENA_1	0.160	3.21	1335.1	ARENA_2	0.166	3.31	1436.1
	RELLENO_ZANJA	1.323	26.75	16367.8	ARENA_3	0.391	7.82	3488.5
8780.000	TERRAPLEN	0.000	0.00	0.2	D TIERRA	2.213	43.98	23859.4
	ARENA_1	0.160	3.21	1338.3	ARENA_2	0.166	3.31	1439.4
	RELLENO_ZANJA	1.351	26.75	16394.6	ARENA_3	0.391	7.82	3496.3
8800.000	TERRAPLEN	0.000	0.00	0.2	D TIERRA	2.268	44.82	23904.2
	ARENA_1	0.160	3.21	1341.5	ARENA_2	0.166	3.31	1442.8
	RELLENO_ZANJA	1.407	27.58	16422.1	ARENA_3	0.391	7.82	3504.1
8800.000	TERRAPLEN	0.000	0.00	0.2	D TIERRA	2.487	0.00	23904.2
	ARENA_1	0.162	0.00	1341.5	ARENA_2	0.175	0.00	1442.8
	RELLENO_ZANJA	1.581	0.00	16422.1	ARENA_3	0.425	0.00	3504.1
8818.203	TERRAPLEN	0.000	0.00	0.2	D TIERRA	2.617	46.45	23950.7
	ARENA_1	0.162	2.96	1344.5	ARENA_2	0.175	3.18	1445.9
	RELLENO_ZANJA	1.711	29.96	16452.1	ARENA_3	0.425	7.73	3511.8
8820.000	TERRAPLEN	0.000	0.00	0.2	D TIERRA	2.633	4.72	23955.4
	ARENA_1	0.162	0.29	1344.8	ARENA_2	0.175	0.31	1446.3
	RELLENO_ZANJA	1.727	3.09	16455.2	ARENA_3	0.425	0.76	3512.6
8837.266	TERRAPLEN	0.000	0.00	0.2	D TIERRA	2.427	43.69	23999.1
	ARENA_1	0.162	2.80	1347.6	ARENA_2	0.175	3.02	1449.3
	RELLENO_ZANJA	1.521	28.04	16483.2	ARENA_3	0.425	7.33	3519.9
8840.000	TERRAPLEN	0.000	0.00	0.2	D TIERRA	2.489	6.72	24005.8
	ARENA_1	0.162	0.44	1348.0	ARENA_2	0.175	0.48	1449.8
	RELLENO_ZANJA	1.583	4.24	16487.5	ARENA_3	0.425	1.16	3521.1
8860.000	TERRAPLEN	0.000	0.00	0.2	D TIERRA	2.412	49.01	24054.8
	ARENA_1	0.162	3.25	1351.3	ARENA_2	0.175	3.49	1453.2
	RELLENO_ZANJA	1.506	30.89	16518.4	ARENA_3	0.425	8.49	3529.6
8868.046	TERRAPLEN	0.000	0.00	0.2	D TIERRA	2.520	19.84	24074.6
	ARENA_1	0.162	1.31	1352.6	ARENA_2	0.175	1.41	1454.7
	RELLENO_ZANJA	1.614	12.55	16530.9	ARENA_3	0.425	3.42	3533.0
8880.000	TERRAPLEN	0.000	0.00	0.2	D TIERRA	2.525	30.15	24104.8
	ARENA_1	0.162	1.94	1354.5	ARENA_2	0.175	2.09	1456.7
	RELLENO_ZANJA	1.619	19.32	16550.2	ARENA_3	0.425	5.07	3538.1
8900.000	TERRAPLEN	0.000	0.00	0.2	D TIERRA	3.259	57.84	24162.6
	ARENA_1	0.162	3.25	1357.8	ARENA_2	0.175	3.49	1460.2
	RELLENO_ZANJA	2.353	39.71	16589.9	ARENA_3	0.425	8.49	3546.6
8911.749	TERRAPLEN	0.000	0.00	0.2	D TIERRA	2.758	35.35	24198.0
	ARENA_1	0.162	1.91	1359.7	ARENA_2	0.175	2.05	1462.3
	RELLENO_ZANJA	1.852	24.70	16614.6	ARENA_3	0.424	4.99	3551.5
8920.000	TERRAPLEN	0.000	0.00	0.2	D TIERRA	2.438	21.43	24219.4
	ARENA_1	0.162	1.34	1361.0	ARENA_2	0.175	1.44	1463.7
	RELLENO_ZANJA	1.532	13.96	16628.6	ARENA_3	0.424	3.50	3555.0
8940.000	TERRAPLEN	0.000	0.00	0.2	D TIERRA	2.720	51.57	24271.0
	ARENA_1	0.162	3.25	1364.3	ARENA_2	0.175	3.49	1467.2
	RELLENO_ZANJA	1.813	33.45	16662.0	ARENA_3	0.425	8.49	3563.5
8960.000	TERRAPLEN	0.000	0.00	0.2	D TIERRA	2.285	50.05	24321.0
	ARENA_1	0.162	3.25	1367.5	ARENA_2	0.175	3.49	1470.7
	RELLENO_ZANJA	1.379	31.93	16694.0	ARENA_3	0.425	8.49	3572.0
8961.283	TERRAPLEN	0.000	0.00	0.2	D TIERRA	2.366	2.98	24324.0
	ARENA_1	0.162	0.21	1367.7	ARENA_2	0.175	0.22	1470.9
	RELLENO_ZANJA	1.459	1.82	16695.8	ARENA_3	0.424	0.54	3572.6
8980.000	TERRAPLEN	0.000	0.00	0.2	D TIERRA	2.488	45.42	24369.4
	ARENA_1	0.162	3.04	1370.8	ARENA_2	0.175	3.27	1474.2
	RELLENO_ZANJA	1.581	28.46	16724.3	ARENA_3	0.424	7.95	3580.5
8982.554	TERRAPLEN	0.000	0.00	0.2	D TIERRA	2.378	6.21	24375.6
	ARENA_1	0.162	0.41	1371.2	ARENA_2	0.175	0.45	1474.7
	RELLENO_ZANJA	1.472	3.90	16728.1	ARENA_3	0.424	1.08	3581.6

PERFIL	MATERIAL	AREA PERFIL	VOL. PARCIAL	VOL. ACUMUL.	MATERIAL	AREA PERFIL	VOL. PARCIAL	VOL. ACUMUL.
9000.000	TERRAPLEN	0.000	0.00	0.2	D TIERRA	2.707	44.36	24420.0
	ARENA_1	0.162	2.83	1374.0	ARENA_2	0.175	3.05	1477.7
	RELLENO_ZANJA	1.801	28.55	16756.7	ARENA_3	0.424	7.41	3589.0
9010.753	TERRAPLEN	0.000	0.00	0.2	D TIERRA	2.357	27.23	24447.2
	ARENA_1	0.162	1.75	1375.8	ARENA_2	0.175	1.88	1479.6
	RELLENO_ZANJA	1.451	17.48	16774.2	ARENA_3	0.424	4.56	3593.6
9020.000	TERRAPLEN	0.000	0.00	0.2	D TIERRA	2.973	24.64	24471.9
	ARENA_1	0.162	1.50	1377.3	ARENA_2	0.175	1.62	1481.2
	RELLENO_ZANJA	2.067	16.26	16790.4	ARENA_3	0.424	3.92	3597.5
9040.000	TERRAPLEN	0.000	0.00	0.2	D TIERRA	2.421	53.93	24525.8
	ARENA_1	0.162	3.25	1380.5	ARENA_2	0.175	3.49	1484.7
	RELLENO_ZANJA	1.514	35.81	16826.3	ARENA_3	0.424	8.49	3606.0
9040.062	TERRAPLEN	0.000	0.00	0.2	D TIERRA	2.420	0.15	24526.0
	ARENA_1	0.162	0.01	1380.5	ARENA_2	0.175	0.01	1484.7
	RELLENO_ZANJA	1.514	0.09	16826.4	ARENA_3	0.424	0.03	3606.0
9060.000	TERRAPLEN	0.000	0.00	0.2	D TIERRA	2.447	48.52	24574.5
	ARENA_1	0.162	3.24	1383.8	ARENA_2	0.175	3.48	1488.2
	RELLENO_ZANJA	1.541	30.45	16856.8	ARENA_3	0.424	8.46	3614.5
9080.000	TERRAPLEN	0.000	0.00	0.2	D TIERRA	2.397	48.43	24622.9
	ARENA_1	0.162	3.25	1387.0	ARENA_2	0.175	3.49	1491.7
	RELLENO_ZANJA	1.491	30.31	16887.1	ARENA_3	0.424	8.49	3623.0
9100.000	TERRAPLEN	0.000	0.00	0.2	D TIERRA	2.468	48.65	24671.6
	ARENA_1	0.162	3.25	1390.3	ARENA_2	0.175	3.49	1495.2
	RELLENO_ZANJA	1.562	30.52	16917.6	ARENA_3	0.424	8.49	3631.4
9120.000	TERRAPLEN	0.000	0.00	0.2	D TIERRA	2.578	50.45	24722.0
	ARENA_1	0.162	3.25	1393.5	ARENA_2	0.175	3.49	1498.7
	RELLENO_ZANJA	1.671	32.33	16950.0	ARENA_3	0.424	8.49	3639.9
9140.000	TERRAPLEN	0.000	0.00	0.2	D TIERRA	2.445	50.23	24772.2
	ARENA_1	0.162	3.25	1396.8	ARENA_2	0.175	3.49	1502.2
	RELLENO_ZANJA	1.539	32.11	16982.1	ARENA_3	0.424	8.49	3648.4
9146.019	TERRAPLEN	0.000	0.00	0.2	D TIERRA	2.447	14.72	24787.0
	ARENA_1	0.162	0.98	1397.7	ARENA_2	0.175	1.05	1503.2
	RELLENO_ZANJA	1.541	9.27	16991.3	ARENA_3	0.424	2.55	3651.0
9160.000	TERRAPLEN	0.000	0.00	0.2	D TIERRA	2.674	35.80	24822.8
	ARENA_1	0.162	2.27	1400.0	ARENA_2	0.175	2.44	1505.7
	RELLENO_ZANJA	1.768	23.13	17014.5	ARENA_3	0.424	5.93	3656.9
9180.000	TERRAPLEN	0.000	0.00	0.2	D TIERRA	2.559	52.32	24875.1
	ARENA_1	0.162	3.25	1403.3	ARENA_2	0.175	3.49	1509.2
	RELLENO_ZANJA	1.652	34.20	17048.7	ARENA_3	0.424	8.49	3665.4
9200.000	TERRAPLEN	0.000	0.00	0.2	D TIERRA	2.402	49.61	24924.7
	ARENA_1	0.162	3.25	1406.5	ARENA_2	0.175	3.49	1512.6
	RELLENO_ZANJA	1.496	31.48	17080.2	ARENA_3	0.424	8.49	3673.9
9220.000	TERRAPLEN	0.000	0.00	0.2	D TIERRA	2.401	48.03	24972.7
	ARENA_1	0.162	3.25	1409.8	ARENA_2	0.175	3.49	1516.1
	RELLENO_ZANJA	1.495	29.91	17110.1	ARENA_3	0.424	8.49	3682.4
9225.874	TERRAPLEN	0.000	0.00	0.2	D TIERRA	2.390	14.07	24986.8
	ARENA_1	0.162	0.95	1410.7	ARENA_2	0.175	1.03	1517.2
	RELLENO_ZANJA	1.484	8.75	17118.8	ARENA_3	0.424	2.49	3684.9
9240.000	TERRAPLEN	0.000	0.00	0.2	D TIERRA	2.455	34.22	25021.0
	ARENA_1	0.162	2.29	1413.0	ARENA_2	0.175	2.47	1519.6
	RELLENO_ZANJA	1.549	21.42	17140.2	ARENA_3	0.424	6.00	3690.9
9260.000	TERRAPLEN	0.000	0.00	0.2	D TIERRA	2.389	48.44	25069.5
	ARENA_1	0.162	3.25	1416.3	ARENA_2	0.175	3.49	1523.1
	RELLENO_ZANJA	1.483	30.32	17170.6	ARENA_3	0.424	8.49	3699.4
9280.000	TERRAPLEN	0.000	0.00	0.2	D TIERRA	2.420	48.10	25117.6
	ARENA_1	0.162	3.25	1419.5	ARENA_2	0.175	3.49	1526.6
	RELLENO_ZANJA	1.514	29.97	17200.5	ARENA_3	0.424	8.49	3707.8
9297.333	TERRAPLEN	0.000	0.00	0.2	D TIERRA	2.526	42.87	25160.4
	ARENA_1	0.162	2.82	1422.3	ARENA_2	0.175	3.03	1529.7
	RELLENO_ZANJA	1.620	27.17	17227.7	ARENA_3	0.424	7.36	3715.2

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 PROYECTO : CIDACOS COMPLETO
 EJE : 8: P190 (Arqueta principal) - P350 (Tudelilla)

 * * * MEDICIONES DE LOS PERFILES TRANSVERSALES* * *
 * * * CAPAS DE FIRME * * *

PERFIL	MATERIAL	AREA PERFIL	VOL. PARCIAL	VOL. ACUMUL.	MATERIAL	AREA PERFIL	VOL. PARCIAL	VOL. ACUMUL.
9300.000	TERRAPLEN	0.000	0.00	0.2	D_TIERRA	2.474	6.67	25167.1
	ARENA_1	0.162	0.43	1422.7	ARENA_2	0.175	0.47	1530.1
	RELLENO_ZANJA	1.568	4.25	17232.0	ARENA_3	0.424	1.13	3716.3
9320.000	TERRAPLEN	0.000	0.00	0.2	D_TIERRA	3.039	55.13	25222.2
	ARENA_1	0.162	3.25	1426.0	ARENA_2	0.175	3.49	1533.6
	RELLENO_ZANJA	2.133	37.01	17269.0	ARENA_3	0.425	8.49	3724.8
9331.417	TERRAPLEN	0.000	0.00	0.2	D_TIERRA	2.485	31.53	25253.8
	ARENA_1	0.162	1.85	1427.9	ARENA_2	0.175	1.99	1535.6
	RELLENO_ZANJA	1.578	21.19	17290.1	ARENA_3	0.425	4.85	3729.7

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 PROYECTO : CIDACOS COMPLETO
 EJE : 8: P190 (Arqueta principal) - P350 (Tudelilla)

* * * RESUMEN DE VOLUMENES TOTALES * * *

MATERIAL	VOLUMEN
TERRAPLEN	0.2
D_TIERRA	25253.8
ARENA_1	1427.9
ARENA_2	1535.6
RELLENO_ZANJA	17290.1
ARENA_3	3729.7

9. EJE 9: P350 (TUDELILLA) – P400 (ETAP VALLE DE OCÓN)

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 PROYECTO : CIDACOS COMPLETO
 EJE : 9: P350 (Tudelilla)-P400 (ETAP Ocón)

 * * * MEDICIONES DE LOS PERFILES TRANSVERSALES* * *
 * * * CAPAS DE FIRME * * *

PERFIL	MATERIAL	AREA PERFIL	VOL. PARCIAL	VOL. ACUMUL.	MATERIAL	AREA PERFIL	VOL. PARCIAL	VOL. ACUMUL.
0.000	D_TIERRA	2.080	0.00	0.0	ARENA_1	0.130	0.00	0.0
	ARENA_2	0.082	0.00	0.0	RELLENO_ZANJA	1.572	0.00	0.0
	ARENA_3	0.257	0.00	0.0				
20.000	D_TIERRA	1.686	37.66	37.7	ARENA_1	0.130	2.59	2.6
	ARENA_2	0.082	1.65	1.6	RELLENO_ZANJA	1.178	27.49	27.5
	ARENA_3	0.258	5.15	5.2				
40.000	D_TIERRA	1.618	33.03	70.7	ARENA_1	0.130	2.59	5.2
	ARENA_2	0.082	1.65	3.3	RELLENO_ZANJA	1.109	22.87	50.4
	ARENA_3	0.258	5.15	10.3				
60.000	D_TIERRA	1.689	33.06	103.8	ARENA_1	0.130	2.59	7.8
	ARENA_2	0.082	1.65	4.9	RELLENO_ZANJA	1.180	22.89	73.3
	ARENA_3	0.258	5.15	15.5				
75.477	D_TIERRA	1.749	26.60	130.4	ARENA_1	0.130	2.01	9.8
	ARENA_2	0.082	1.28	6.2	RELLENO_ZANJA	1.240	18.73	92.0
	ARENA_3	0.258	3.99	19.4				
80.000	D_TIERRA	1.761	7.94	138.3	ARENA_1	0.130	0.59	10.4
	ARENA_2	0.082	0.37	6.6	RELLENO_ZANJA	1.253	5.64	97.6
	ARENA_3	0.258	1.16	20.6				
83.597	D_TIERRA	1.767	6.35	144.6	ARENA_1	0.130	0.47	10.8
	ARENA_2	0.082	0.30	6.9	RELLENO_ZANJA	1.259	4.52	102.1
	ARENA_3	0.258	0.93	21.5				
100.000	D_TIERRA	1.828	29.48	174.1	ARENA_1	0.130	2.13	13.0
	ARENA_2	0.082	1.35	8.2	RELLENO_ZANJA	1.319	21.15	123.3
	ARENA_3	0.258	4.22	25.8				
120.000	D_TIERRA	1.703	35.31	209.4	ARENA_1	0.130	2.59	15.6
	ARENA_2	0.082	1.65	9.9	RELLENO_ZANJA	1.195	25.14	148.4
	ARENA_3	0.258	5.15	30.9				
140.000	D_TIERRA	2.323	40.27	249.7	ARENA_1	0.130	2.59	18.2
	ARENA_2	0.082	1.65	11.5	RELLENO_ZANJA	1.815	30.10	178.5
	ARENA_3	0.258	5.15	36.1				
160.000	D_TIERRA	2.501	48.25	297.9	ARENA_1	0.130	2.59	20.8
	ARENA_2	0.082	1.65	13.2	RELLENO_ZANJA	1.993	38.08	216.6
	ARENA_3	0.258	5.15	41.2				
174.890	D_TIERRA	2.666	38.47	336.4	ARENA_1	0.130	1.93	22.7
	ARENA_2	0.082	1.23	14.4	RELLENO_ZANJA	2.158	30.90	247.5
	ARENA_3	0.258	3.83	45.0				
180.000	D_TIERRA	2.215	12.47	348.9	ARENA_1	0.130	0.66	23.4
	ARENA_2	0.082	0.42	14.8	RELLENO_ZANJA	1.706	9.87	257.4
	ARENA_3	0.258	1.32	46.4				
186.531	D_TIERRA	1.881	13.37	362.3	ARENA_1	0.130	0.85	24.2
	ARENA_2	0.082	0.54	15.4	RELLENO_ZANJA	1.372	10.05	267.4
	ARENA_3	0.258	1.68	48.0				
200.000	D_TIERRA	2.079	26.67	388.9	ARENA_1	0.130	1.75	25.9
	ARENA_2	0.082	1.11	16.5	RELLENO_ZANJA	1.570	19.82	287.2
	ARENA_3	0.258	3.47	51.5				
205.251	D_TIERRA	2.196	11.22	400.2	ARENA_1	0.130	0.68	26.6
	ARENA_2	0.082	0.43	16.9	RELLENO_ZANJA	1.687	8.55	295.8
	ARENA_3	0.258	1.35	52.9				
220.000	D_TIERRA	2.059	31.38	431.5	ARENA_1	0.130	1.91	28.5
	ARENA_2	0.082	1.22	18.1	RELLENO_ZANJA	1.551	23.88	319.7
	ARENA_3	0.258	3.80	56.7				
240.000	D_TIERRA	2.273	43.32	474.8	ARENA_1	0.130	2.60	31.1
	ARENA_2	0.082	1.65	19.8	RELLENO_ZANJA	1.765	33.15	352.8
	ARENA_3	0.258	5.15	61.8				
260.000	D_TIERRA	2.052	43.25	518.1	ARENA_1	0.130	2.60	33.7
	ARENA_2	0.082	1.65	21.4	RELLENO_ZANJA	1.543	33.08	385.9
	ARENA_3	0.257	5.15	67.0				



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 PROYECTO : CIDACOS COMPLETO
 EJE : 9: P350 (Tudelilla)-P400 (ETAP Ocón)

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 PROYECTO : CIDACOS COMPLETO
 EJE : 9: P350 (Tudelilla)-P400 (ETAP Ocón)

*** MEDICIONES DE LOS PERFILES TRANSVERSALES ***
 *** CAPAS DE FIRME ***

*** MEDICIONES DE LOS PERFILES TRANSVERSALES ***
 *** CAPAS DE FIRME ***

PERFIL	MATERIAL	AREA PERFIL	VOL. PARCIAL	VOL. ACUMUL.	MATERIAL	AREA PERFIL	VOL. PARCIAL	VOL. ACUMUL.
280.000	D TIERRA	1.953	40.05	558.1	ARENA_1	0.130	2.60	36.3
	ARENA_2	0.082	1.65	23.1	RELLENO_ZANJA	1.445	29.88	415.8
	ARENA_3	0.257	5.15	72.1				
300.000	D TIERRA	1.436	33.89	592.0	ARENA_1	0.130	2.60	38.9
	ARENA_2	0.082	1.65	24.7	RELLENO_ZANJA	0.927	23.72	439.5
	ARENA_3	0.257	5.15	77.3				
306.376	D TIERRA	1.603	9.69	601.7	ARENA_1	0.130	0.83	39.8
	ARENA_2	0.082	0.53	25.3	RELLENO_ZANJA	1.094	6.44	446.0
	ARENA_3	0.258	1.64	78.9				
320.000	D TIERRA	1.796	23.15	624.9	ARENA_1	0.130	1.77	41.5
	ARENA_2	0.082	1.12	26.4	RELLENO_ZANJA	1.288	16.23	462.2
	ARENA_3	0.258	3.51	82.4				
340.000	D TIERRA	1.832	36.28	661.2	ARENA_1	0.130	2.59	44.1
	ARENA_2	0.082	1.65	28.0	RELLENO_ZANJA	1.324	26.12	488.3
	ARENA_3	0.258	5.15	87.6				
344.922	D TIERRA	1.834	9.02	670.2	ARENA_1	0.130	0.64	44.8
	ARENA_2	0.082	0.41	28.4	RELLENO_ZANJA	1.326	6.52	494.8
	ARENA_3	0.258	1.27	88.8				
360.000	D TIERRA	2.190	30.34	700.5	ARENA_1	0.130	1.96	46.7
	ARENA_2	0.082	1.24	29.7	RELLENO_ZANJA	1.682	22.68	517.5
	ARENA_3	0.258	3.88	92.7				
365.540	D TIERRA	2.156	12.04	712.6	ARENA_1	0.130	0.72	47.4
	ARENA_2	0.082	0.46	30.1	RELLENO_ZANJA	1.648	9.22	526.7
	ARENA_3	0.258	1.43	94.1				
380.000	D TIERRA	1.732	28.11	740.7	ARENA_1	0.130	1.88	49.3
	ARENA_2	0.082	1.19	31.3	RELLENO_ZANJA	1.224	20.76	547.5
	ARENA_3	0.258	3.72	97.9				
400.000	D TIERRA	1.616	33.48	774.2	ARENA_1	0.130	2.60	51.9
	ARENA_2	0.082	1.65	33.0	RELLENO_ZANJA	1.107	23.31	570.8
	ARENA_3	0.258	5.15	103.0				
420.000	D TIERRA	1.686	33.02	807.2	ARENA_1	0.130	2.59	54.5
	ARENA_2	0.082	1.65	34.6	RELLENO_ZANJA	1.178	22.85	593.6
	ARENA_3	0.258	5.15	108.2				
440.000	D TIERRA	1.717	34.03	841.2	ARENA_1	0.130	2.59	57.1
	ARENA_2	0.082	1.65	36.3	RELLENO_ZANJA	1.208	23.86	617.5
	ARENA_3	0.258	5.15	113.3				
460.000	D TIERRA	1.710	34.26	875.5	ARENA_1	0.130	2.59	59.7
	ARENA_2	0.082	1.65	37.9	RELLENO_ZANJA	1.201	24.10	641.6
	ARENA_3	0.258	5.15	118.5				
467.388	D TIERRA	1.713	12.64	888.1	ARENA_1	0.130	0.96	60.6
	ARENA_2	0.082	0.61	38.5	RELLENO_ZANJA	1.204	8.89	650.5
	ARENA_3	0.258	1.90	120.4				
480.000	D TIERRA	1.841	22.41	910.5	ARENA_1	0.130	1.64	62.3
	ARENA_2	0.082	1.04	39.6	RELLENO_ZANJA	1.333	16.00	666.5
	ARENA_3	0.258	3.25	123.6				
482.551	D TIERRA	1.867	4.73	915.2	ARENA_1	0.130	0.33	62.6
	ARENA_2	0.082	0.21	39.8	RELLENO_ZANJA	1.359	3.43	669.9
	ARENA_3	0.258	0.66	124.3				
500.000	D TIERRA	1.754	31.59	946.8	ARENA_1	0.130	2.26	64.9
	ARENA_2	0.082	1.44	41.2	RELLENO_ZANJA	1.245	22.72	692.6
	ARENA_3	0.258	4.49	128.8				
520.000	D TIERRA	1.728	34.81	981.7	ARENA_1	0.130	2.59	67.5
	ARENA_2	0.082	1.65	42.9	RELLENO_ZANJA	1.219	24.65	717.3
	ARENA_3	0.257	5.15	133.9				
540.000	D TIERRA	1.729	34.56	1016.2	ARENA_1	0.130	2.60	70.1
	ARENA_2	0.082	1.65	44.5	RELLENO_ZANJA	1.220	24.40	741.7
	ARENA_3	0.257	5.15	139.1				
540.865	D TIERRA	1.705	1.49	1017.7	ARENA_1	0.130	0.11	70.2
	ARENA_2	0.082	0.07	44.6	RELLENO_ZANJA	1.196	1.05	742.7
	ARENA_3	0.258	0.22	139.3				

PERFIL	MATERIAL	AREA PERFIL	VOL. PARCIAL	VOL. ACUMUL.	MATERIAL	AREA PERFIL	VOL. PARCIAL	VOL. ACUMUL.
560.000	D TIERRA	1.900	34.49	1052.2	ARENA_1	0.130	2.48	72.7
	ARENA_2	0.082	1.58	46.2	RELLENO_ZANJA	1.392	24.76	767.5
	ARENA_3	0.258	4.93	144.2				
575.335	D TIERRA	1.906	29.19	1081.4	ARENA_1	0.130	1.99	74.6
	ARENA_2	0.082	1.26	47.4	RELLENO_ZANJA	1.398	21.39	788.9
	ARENA_3	0.258	3.95	148.2				
580.000	D TIERRA	1.863	8.79	1090.2	ARENA_1	0.130	0.61	75.3
	ARENA_2	0.082	0.38	47.8	RELLENO_ZANJA	1.354	6.42	795.3
	ARENA_3	0.258	1.20	149.4				
600.000	D TIERRA	1.733	35.95	1126.1	ARENA_1	0.130	2.59	77.8
	ARENA_2	0.082	1.65	49.5	RELLENO_ZANJA	1.224	25.79	821.1
	ARENA_3	0.258	5.15	154.5				
601.958	D TIERRA	1.739	3.40	1129.5	ARENA_1	0.130	0.25	78.1
	ARENA_2	0.082	0.16	49.6	RELLENO_ZANJA	1.231	2.40	823.5
	ARENA_3	0.258	0.50	155.0				
619.565	D TIERRA	1.644	29.79	1159.3	ARENA_1	0.130	2.28	80.4
	ARENA_2	0.082	1.45	51.1	RELLENO_ZANJA	1.136	20.83	844.3
	ARENA_3	0.258	4.53	159.6				
620.000	D TIERRA	1.645	0.72	1160.0	ARENA_1	0.130	0.06	80.4
	ARENA_2	0.082	0.04	51.1	RELLENO_ZANJA	1.137	0.49	844.8
	ARENA_3	0.258	0.11	159.7				
632.176	D TIERRA	1.691	20.31	1180.3	ARENA_1	0.130	1.58	82.0
	ARENA_2	0.082	1.00	52.1	RELLENO_ZANJA	1.183	14.12	858.9
	ARENA_3	0.258	3.14	162.8				
640.000	D TIERRA	1.740	13.42	1193.8	ARENA_1	0.130	1.02	83.0
	ARENA_2	0.082	0.64	52.8	RELLENO_ZANJA	1.231	9.44	868.4
	ARENA_3	0.258	2.02	164.8				
660.000	D TIERRA	1.979	37.19	1230.9	ARENA_1	0.130	2.60	85.6
	ARENA_2	0.082	1.65	54.4	RELLENO_ZANJA	1.471	27.02	895.4
	ARENA_3	0.258	5.15	170.0				
680.000	D TIERRA	1.709	36.88	1267.8	ARENA_1	0.130	2.59	88.2
	ARENA_2	0.083	1.65	56.0	RELLENO_ZANJA	1.201	26.72	922.1
	ARENA_3	0.257	5.15	175.1				
700.000	D TIERRA	1.710	34.19	1302.0	ARENA_1	0.130	2.59	90.8
	ARENA_2	0.082	1.65	57.7	RELLENO_ZANJA	1.201	24.02	946.1
	ARENA_3	0.257	5.14	180.3				
720.000	D TIERRA	1.710	34.19	1336.2	ARENA_1	0.130	2.59	93.4
	ARENA_2	0.082	1.65	59.3	RELLENO_ZANJA	1.201	24.02	970.2
	ARENA_3	0.257	5.14	185.4				
732.231	D TIERRA	1.756	21.19	1357.4	ARENA_1	0.130	1.59	95.0
	ARENA_2	0.082	1.01	60.4	RELLENO_ZANJA	1.247	14.97	985.1
	ARENA_3	0.257	3.15	188.6				
740.000	D TIERRA	1.707	13.45	1370.9	ARENA_1	0.130	1.01	96.0
	ARENA_2	0.082	0.64	61.0	RELLENO_ZANJA	1.198	9.50	994.6
	ARENA_3	0.257	2.00	190.6				
755.194	D TIERRA	2.311	30.52	1401.4	ARENA_1	0.130	1.97	98.0
	ARENA_2	0.083	1.25	62.2	RELLENO_ZANJA	1.802	22.80	1017.4
	ARENA_3	0.257	3.91	194.5				
760.000	D TIERRA	1.544	9.26	1410.6	ARENA_1	0.130	0.62	98.6
	ARENA_2	0.083	0.40	62.6	RELLENO_ZANJA	1.036	6.82	1024.3
	ARENA_3	0.257	1.23	195.7				
780.000	D TIERRA	1.615	31.60	1442.2	ARENA_1	0.130	2.59	101.2
	ARENA_2	0.082	1.65	64.3	RELLENO_ZANJA	1.107	21.43	1045.7
	ARENA_3	0.258	5.14	200.8				
800.000	D TIERRA	1.572	31.87	1474.1	ARENA_1	0.130	2.60	103.8
	ARENA_2	0.082	1.65	65.9	RELLENO_ZANJA	1.063	21.70	1067.4
	ARENA_3	0.257	5.15	206.0				
820.000	D TIERRA	1.515	30.86	1505.0	ARENA_1	0.130	2.60	106.4
	ARENA_2	0.082	1.65	67.6	RELLENO_ZANJA	1.006	20.69	1088.1
	ARENA_3	0.257	5.15	211.1				

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 PROYECTO : CIDACOS COMPLETO
 EJE : 9: P350 (Tudelilla)-P400 (ETAP Ocón)

Istram 9.04 13/04/20 17:55:16
 PROYECTO : CIDACOS COMPLETO
 EJE : 9: P350 (Tudelilla)-P400 (ETAP Ocón)

***** MEDICIONES DE LOS PERFILES TRANSVERSALES*****
 ***** CAPAS DE FIRME *****

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 ***** CAPAS DE FIRME *****

PERFIL	MATERIAL	AREA PERFIL	VOL. PARCIAL	VOL. ACUMUL.	MATERIAL	AREA PERFIL	VOL. PARCIAL	VOL. ACUMUL.	PERFIL	MATERIAL	AREA PERFIL	VOL. PARCIAL	VOL. ACUMUL.	MATERIAL	AREA PERFIL	VOL. PARCIAL	VOL. ACUMUL.
840.000	D TIERRA	1.661	31.75	1536.7	ARENA_1	0.130	2.59	109.0	1067.576	D TIERRA	2.282	16.86	1949.0	ARENA_1	0.130	0.98	138.5
	ARENA_2	0.082	1.65	69.2	RELLENO_ZANJA	1.152	21.59	1109.7		ARENA_2	0.082	0.62	88.0	RELLENO_ZANJA	1.774	13.01	1406.3
	ARENA_3	0.258	5.15	216.3						ARENA_3	0.258	1.95	274.9				
860.000	D TIERRA	1.678	33.39	1570.1	ARENA_1	0.130	2.59	111.6	1080.000	D TIERRA	2.341	28.72	1977.8	ARENA_1	0.130	1.61	140.1
	ARENA_2	0.082	1.65	70.9	RELLENO_ZANJA	1.170	23.22	1132.9		ARENA_2	0.082	1.02	89.0	RELLENO_ZANJA	1.833	22.41	1428.7
	ARENA_3	0.258	5.15	221.4						ARENA_3	0.258	3.20	278.1				
860.437	D TIERRA	1.669	0.73	1570.8	ARENA_1	0.130	0.06	111.6	1096.714	D TIERRA	1.919	35.60	2013.4	ARENA_1	0.130	2.17	142.3
	ARENA_2	0.082	0.04	70.9	RELLENO_ZANJA	1.161	0.51	1133.4		ARENA_2	0.082	1.38	90.4	RELLENO_ZANJA	1.410	27.10	1455.8
	ARENA_3	0.258	0.11	221.6						ARENA_3	0.258	4.30	282.4				
880.000	D TIERRA	1.916	35.07	1605.9	ARENA_1	0.130	2.54	114.2	1100.000	D TIERRA	1.734	6.00	2019.4	ARENA_1	0.130	0.43	142.7
	ARENA_2	0.082	1.61	72.5	RELLENO_ZANJA	1.408	25.12	1158.5		ARENA_2	0.082	0.27	90.7	RELLENO_ZANJA	1.225	4.33	1460.1
	ARENA_3	0.258	5.04	226.6						ARENA_3	0.258	0.85	283.2				
900.000	D TIERRA	1.790	37.06	1643.0	ARENA_1	0.130	2.60	116.8	1118.205	D TIERRA	0.000	0.00	2019.4	ARENA_1	0.000	0.00	142.7
	ARENA_2	0.082	1.65	74.2	RELLENO_ZANJA	1.282	26.89	1185.4		ARENA_2	0.000	0.00	90.7	RELLENO_ZANJA	0.000	0.00	1460.1
	ARENA_3	0.258	5.15	231.7						ARENA_3	0.000	0.00	283.2				
920.000	D TIERRA	1.716	35.06	1678.0	ARENA_1	0.130	2.60	119.4	1120.000	D TIERRA	0.000	0.00	2019.4	ARENA_1	0.000	0.00	142.7
	ARENA_2	0.082	1.65	75.8	RELLENO_ZANJA	1.208	24.90	1210.3		ARENA_2	0.000	0.00	90.7	RELLENO_ZANJA	0.000	0.00	1460.1
	ARENA_3	0.258	5.15	236.9						ARENA_3	0.000	0.00	283.2				
929.594	D TIERRA	1.679	16.28	1694.3	ARENA_1	0.130	1.24	120.6	1140.000	D TIERRA	2.033	0.00	2019.4	ARENA_1	0.130	0.00	142.7
	ARENA_2	0.082	0.79	76.6	RELLENO_ZANJA	1.170	11.41	1221.7		ARENA_2	0.083	0.00	90.7	RELLENO_ZANJA	1.525	0.00	1460.1
	ARENA_3	0.258	2.47	239.4						ARENA_3	0.257	0.00	283.2				
940.000	D TIERRA	1.680	17.47	1711.8	ARENA_1	0.130	1.35	122.0	1160.000	D TIERRA	3.601	56.34	2075.7	ARENA_1	0.129	2.59	145.3
	ARENA_2	0.082	0.86	77.5	RELLENO_ZANJA	1.172	12.18	1233.9		ARENA_2	0.083	1.66	92.3	RELLENO_ZANJA	3.092	46.17	1506.3
	ARENA_3	0.258	2.68	242.0						ARENA_3	0.255	5.12	288.4				
960.000	D TIERRA	1.706	33.86	1745.6	ARENA_1	0.130	2.59	124.6	1180.000	D TIERRA	2.121	57.21	2132.9	ARENA_1	0.129	2.59	147.9
	ARENA_2	0.082	1.65	79.1	RELLENO_ZANJA	1.197	23.69	1257.6		ARENA_2	0.083	1.66	94.0	RELLENO_ZANJA	1.612	47.05	1553.3
	ARENA_3	0.258	5.15	247.2						ARENA_3	0.256	5.11	293.5				
970.858	D TIERRA	1.733	18.67	1764.3	ARENA_1	0.130	1.41	126.0	1200.000	D TIERRA	2.335	44.55	2177.5	ARENA_1	0.129	2.59	150.5
	ARENA_2	0.082	0.89	80.0	RELLENO_ZANJA	1.224	13.15	1270.7		ARENA_2	0.083	1.66	95.6	RELLENO_ZANJA	1.826	34.38	1587.7
	ARENA_3	0.258	2.80	250.0						ARENA_3	0.256	5.12	298.6				
980.000	D TIERRA	1.955	16.86	1781.2	ARENA_1	0.130	1.19	127.1	1218.795	D TIERRA	2.002	40.75	2218.2	ARENA_1	0.129	2.43	152.9
	ARENA_2	0.082	0.75	80.8	RELLENO_ZANJA	1.447	12.21	1282.9		ARENA_2	0.083	1.56	97.2	RELLENO_ZANJA	1.493	31.20	1618.9
	ARENA_3	0.258	2.35	252.3						ARENA_3	0.256	4.81	303.4				
1000.000	D TIERRA	1.713	36.68	1817.9	ARENA_1	0.130	2.60	129.7	1220.000	D TIERRA	2.040	2.43	2220.7	ARENA_1	0.130	0.16	153.1
	ARENA_2	0.082	1.65	82.4	RELLENO_ZANJA	1.204	26.51	1309.5		ARENA_2	0.082	0.10	97.3	RELLENO_ZANJA	1.531	1.82	1620.7
	ARENA_3	0.258	5.15	257.5						ARENA_3	0.258	0.31	303.7				
1010.207	D TIERRA	1.781	17.83	1835.7	ARENA_1	0.130	1.32	131.1	1230.274	D TIERRA	1.933	20.41	2241.1	ARENA_1	0.130	1.33	154.4
	ARENA_2	0.082	0.84	83.3	RELLENO_ZANJA	1.272	12.64	1322.1		ARENA_2	0.082	0.85	98.1	RELLENO_ZANJA	1.425	15.19	1635.9
	ARENA_3	0.257	2.63	260.1						ARENA_3	0.258	2.65	306.4				
1017.347	D TIERRA	1.826	12.88	1848.6	ARENA_1	0.130	0.93	132.0	1240.000	D TIERRA	2.068	19.46	2260.5	ARENA_1	0.130	1.26	155.7
	ARENA_2	0.082	0.59	83.9	RELLENO_ZANJA	1.318	9.25	1331.3		ARENA_2	0.082	0.80	98.9	RELLENO_ZANJA	1.560	14.51	1650.4
	ARENA_3	0.258	1.84	262.0						ARENA_3	0.258	2.51	308.9				
1018.564	D TIERRA	1.844	2.23	1850.8	ARENA_1	0.130	0.16	132.2	1247.095	D TIERRA	2.131	14.90	2275.4	ARENA_1	0.130	0.92	156.6
	ARENA_2	0.082	0.10	84.0	RELLENO_ZANJA	1.336	1.61	1333.0		ARENA_2	0.082	0.58	99.5	RELLENO_ZANJA	1.623	11.29	1661.7
	ARENA_3	0.258	0.31	262.3						ARENA_3	0.258	1.83	310.7				
1020.000	D TIERRA	1.849	2.65	1853.4	ARENA_1	0.130	0.19	132.3	1260.000	D TIERRA	2.019	26.78	2302.2	ARENA_1	0.130	1.67	158.3
	ARENA_2	0.082	0.12	84.1	RELLENO_ZANJA	1.340	1.92	1334.9		ARENA_2	0.082	1.06	100.6	RELLENO_ZANJA	1.510	20.22	1682.0
	ARENA_3	0.258	0.37	262.6						ARENA_3	0.258	3.32	314.0				
1036.812	D TIERRA	1.749	30.24	1883.7	ARENA_1	0.130	2.18	134.5	1280.000	D TIERRA	1.733	37.52	2339.7	ARENA_1	0.130	2.59	160.9
	ARENA_2	0.082	1.39	85.5	RELLENO_ZANJA	1.241	21.69	1356.6		ARENA_2	0.082	1.65	102.2	RELLENO_ZANJA	1.225	27.35	1709.3
	ARENA_3	0.257	4.33	267.0						ARENA_3	0.258	5.15	319.2				
1040.000	D TIERRA	2.116	6.16	1889.8	ARENA_1	0.130	0.41	134.9	1286.875	D TIERRA	1.708	11.83	2351.5	ARENA_1	0.130	0.89	161.7
	ARENA_2	0.082	0.26	85.7	RELLENO_ZANJA	1.607	4.54	1361.1		ARENA_2	0.082	0.57	102.8	RELLENO_ZANJA	1.199	8.33	1717.6
	ARENA_3	0.257	0.82	267.8						ARENA_3	0.258	1.77	320.9				
1044.531	D TIERRA	2.078	9.50	1899.3	ARENA_1	0.130	0.59	135.5	1300.000	D TIERRA	1.791	22.96	2374.5	ARENA_1	0.130	1.70	163.4
	ARENA_2	0.082	0.37	86.1	RELLENO_ZANJA	1.569	7.20	1368.3		ARENA_2	0.082	1.08	103.9	RELLENO_ZANJA	1.282	16.29	1733.9
	ARENA_3	0.257	1.17	269.0						ARENA_3	0.258	3.38	324.3				
1060.000	D TIERRA	2.168	32.84	1932.2	ARENA_1	0.130	2.01	137.5	1320.000	D TIERRA	1.775	35.66	2410.2	ARENA_1	0.130	2.59	166.0
	ARENA_2	0.082	1.27	87.4	RELLENO_ZANJA	1.659	24.97	1393.3		ARENA_2	0.082	1.65	105.5	RELLENO_ZANJA	1.267	25.49	1759.4
	ARENA_3	0.258	3.98	272.9						ARENA_3	0.258	5.15	329.5				



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PROYECTO : CIDACOS COMPLETO
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*** CAPAS DE FIRME ***

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*** CAPAS DE FIRME ***

PERFIL	MATERIAL	AREA PERFIL	VOL. PARCIAL	VOL. ACUMUL.	MATERIAL	AREA PERFIL	VOL. PARCIAL	VOL. ACUMUL.
1340.000	D TIERRA	1.734	35.09	2445.3	ARENA_1	0.130	2.59	168.6
	ARENA_2	0.082	1.65	107.2	RELLENO_ZANJA	1.225	24.92	1784.3
	ARENA_3	0.258	5.15	334.6				
1360.000	D TIERRA	1.785	35.19	2480.5	ARENA_1	0.130	2.59	171.2
	ARENA_2	0.082	1.65	108.8	RELLENO_ZANJA	1.277	25.03	1809.4
	ARENA_3	0.258	5.15	339.8				
1363.295	D TIERRA	1.844	5.98	2486.4	ARENA_1	0.130	0.43	171.7
	ARENA_2	0.082	0.27	109.1	RELLENO_ZANJA	1.335	4.30	1813.7
	ARENA_3	0.258	0.85	340.6				
1380.000	D TIERRA	1.723	29.79	2516.2	ARENA_1	0.130	2.17	173.8
	ARENA_2	0.082	1.38	110.5	RELLENO_ZANJA	1.215	21.30	1835.0
	ARENA_3	0.258	4.30	344.9				
1381.103	D TIERRA	1.751	1.92	2518.1	ARENA_1	0.130	0.14	174.0
	ARENA_2	0.082	0.09	110.6	RELLENO_ZANJA	1.243	1.36	1836.3
	ARENA_3	0.258	0.28	345.2				
1400.000	D TIERRA	1.610	31.75	2549.9	ARENA_1	0.130	2.45	176.4
	ARENA_2	0.082	1.56	112.1	RELLENO_ZANJA	1.101	22.15	1858.5
	ARENA_3	0.258	4.87	350.1				
1417.822	D TIERRA	1.706	29.55	2579.4	ARENA_1	0.130	2.31	178.7
	ARENA_2	0.082	1.47	113.6	RELLENO_ZANJA	1.198	20.49	1879.0
	ARENA_3	0.258	4.59	354.7				
1420.000	D TIERRA	1.680	3.69	2583.1	ARENA_1	0.130	0.28	179.0
	ARENA_2	0.082	0.18	113.8	RELLENO_ZANJA	1.172	2.58	1881.5
	ARENA_3	0.258	0.56	355.2				
1440.000	D TIERRA	1.411	30.92	2614.0	ARENA_1	0.130	2.60	181.6
	ARENA_2	0.082	1.65	115.4	RELLENO_ZANJA	0.903	20.75	1902.3
	ARENA_3	0.258	5.15	360.4				
1460.000	D TIERRA	1.308	27.20	2641.2	ARENA_1	0.130	2.59	184.2
	ARENA_2	0.082	1.65	117.1	RELLENO_ZANJA	0.800	17.03	1919.3
	ARENA_3	0.258	5.15	365.5				
1480.000	D TIERRA	1.397	27.05	2668.3	ARENA_1	0.130	2.59	186.8
	ARENA_2	0.082	1.65	118.7	RELLENO_ZANJA	0.889	16.88	1936.2
	ARENA_3	0.258	5.15	370.7				
1488.082	D TIERRA	1.482	11.64	2679.9	ARENA_1	0.130	1.05	187.9
	ARENA_2	0.082	0.67	119.4	RELLENO_ZANJA	0.974	7.53	1943.7
	ARENA_3	0.258	2.08	372.8				
1500.000	D TIERRA	1.547	18.05	2698.0	ARENA_1	0.130	1.55	189.4
	ARENA_2	0.082	0.98	120.4	RELLENO_ZANJA	1.039	11.99	1955.7
	ARENA_3	0.258	3.07	375.8				
1520.000	D TIERRA	1.733	32.80	2730.8	ARENA_1	0.130	2.59	192.0
	ARENA_2	0.082	1.65	122.0	RELLENO_ZANJA	1.224	22.63	1978.3
	ARENA_3	0.258	5.15	381.0				
1540.000	D TIERRA	1.912	36.44	2767.2	ARENA_1	0.130	2.60	194.6
	ARENA_2	0.082	1.65	123.7	RELLENO_ZANJA	1.403	26.28	2004.6
	ARENA_3	0.258	5.15	386.1				
1543.521	D TIERRA	1.911	6.73	2774.0	ARENA_1	0.130	0.46	195.0
	ARENA_2	0.082	0.29	124.0	RELLENO_ZANJA	1.403	4.94	2009.6
	ARENA_3	0.258	0.91	387.0				
1557.233	D TIERRA	1.922	26.28	2800.2	ARENA_1	0.130	1.78	196.8
	ARENA_2	0.082	1.13	125.1	RELLENO_ZANJA	1.414	19.31	2028.9
	ARENA_3	0.258	3.53	390.6				
1560.000	D TIERRA	1.925	5.32	2805.6	ARENA_1	0.130	0.36	197.2
	ARENA_2	0.082	0.23	125.3	RELLENO_ZANJA	1.417	3.92	2032.8
	ARENA_3	0.258	0.71	391.3				
1580.000	D TIERRA	1.775	37.00	2842.6	ARENA_1	0.130	2.60	199.8
	ARENA_2	0.082	1.65	127.0	RELLENO_ZANJA	1.266	26.83	2059.6
	ARENA_3	0.258	5.15	396.4				
1597.998	D TIERRA	1.691	31.19	2873.7	ARENA_1	0.130	2.34	202.1
	ARENA_2	0.082	1.48	128.4	RELLENO_ZANJA	1.183	22.04	2081.7
	ARENA_3	0.258	4.64	401.1				

PERFIL	MATERIAL	AREA PERFIL	VOL. PARCIAL	VOL. ACUMUL.	MATERIAL	AREA PERFIL	VOL. PARCIAL	VOL. ACUMUL.
1600.000	D TIERRA	1.706	3.40	2877.1	ARENA_1	0.130	0.26	202.4
	ARENA_2	0.082	0.17	128.6	RELLENO_ZANJA	1.197	2.38	2084.0
	ARENA_3	0.258	0.52	401.6				
1611.899	D TIERRA	1.671	20.09	2897.2	ARENA_1	0.130	1.54	203.9
	ARENA_2	0.082	0.98	129.6	RELLENO_ZANJA	1.163	14.04	2098.1
	ARENA_3	0.257	3.06	404.7				
1620.000	D TIERRA	1.708	13.69	2910.9	ARENA_1	0.130	1.05	205.0
	ARENA_2	0.082	0.67	130.3	RELLENO_ZANJA	1.199	9.57	2107.7
	ARENA_3	0.257	2.09	406.7				
1640.000	D TIERRA	2.343	40.51	2951.4	ARENA_1	0.130	2.60	207.6
	ARENA_2	0.082	1.65	131.9	RELLENO_ZANJA	1.834	30.34	2138.0
	ARENA_3	0.257	5.15	411.9				
1648.505	D TIERRA	3.436	24.57	2976.0	ARENA_1	0.130	1.10	208.7
	ARENA_2	0.082	0.70	132.6	RELLENO_ZANJA	2.927	20.25	2158.2
	ARENA_3	0.258	2.19	414.1				
1659.074	D TIERRA	4.595	42.44	3018.4	ARENA_1	0.130	1.37	210.0
	ARENA_2	0.082	0.87	133.5	RELLENO_ZANJA	4.086	37.06	2195.3
	ARENA_3	0.258	2.72	416.8				
1660.000	D TIERRA	4.669	4.29	3022.7	ARENA_1	0.130	0.12	210.2
	ARENA_2	0.082	0.08	133.6	RELLENO_ZANJA	4.161	3.82	2199.1
	ARENA_3	0.258	0.24	417.0				
1680.000	D TIERRA	5.424	100.93	3123.7	ARENA_1	0.130	2.59	212.8
	ARENA_2	0.082	1.65	135.2	RELLENO_ZANJA	4.915	90.76	2289.9
	ARENA_3	0.258	5.15	422.2				
1697.470	D TIERRA	2.536	69.53	3193.2	ARENA_1	0.130	2.27	215.0
	ARENA_2	0.082	1.44	136.6	RELLENO_ZANJA	2.028	60.65	2350.5
	ARENA_3	0.258	4.50	426.7				
1700.000	D TIERRA	2.066	5.82	3199.0	ARENA_1	0.130	0.33	215.3
	ARENA_2	0.082	0.21	136.9	RELLENO_ZANJA	1.558	4.54	2355.1
	ARENA_3	0.258	0.65	427.3				
1713.799	D TIERRA	1.706	26.03	3225.0	ARENA_1	0.130	1.79	217.1
	ARENA_2	0.082	1.14	138.0	RELLENO_ZANJA	1.198	19.01	2374.1
	ARENA_3	0.257	3.55	430.9				
1720.000	D TIERRA	1.628	10.34	3235.4	ARENA_1	0.130	0.80	217.9
	ARENA_2	0.082	0.51	138.5	RELLENO_ZANJA	1.120	7.19	2381.3
	ARENA_3	0.257	1.60	432.5				
1734.813	D TIERRA	1.840	25.69	3261.1	ARENA_1	0.130	1.92	219.9
	ARENA_2	0.082	1.22	139.7	RELLENO_ZANJA	1.332	18.16	2399.4
	ARENA_3	0.258	3.81	436.3				
1740.000	D TIERRA	1.712	9.21	3270.3	ARENA_1	0.130	0.67	220.5
	ARENA_2	0.082	0.43	140.2	RELLENO_ZANJA	1.203	6.58	2406.0
	ARENA_3	0.257	1.34	437.6				
1752.369	D TIERRA	1.696	21.08	3291.4	ARENA_1	0.130	1.60	222.1
	ARENA_2	0.082	1.02	141.2	RELLENO_ZANJA	1.188	14.79	2420.8
	ARENA_3	0.257	3.18	440.8				
1760.000	D TIERRA	1.880	13.65	3305.0	ARENA_1	0.130	0.99	223.1
	ARENA_2	0.083	0.63	141.8	RELLENO_ZANJA	1.372	9.77	2430.6
	ARENA_3	0.257	1.96	442.8				
1780.000	D TIERRA	2.912	47.92	3352.9	ARENA_1	0.130	2.59	225.7
	ARENA_2	0.083	1.65	143.5	RELLENO_ZANJA	2.403	37.75	2468.3
	ARENA_3	0.257	5.14	447.9				
1797.164	D TIERRA	2.919	50.04	3403.0	ARENA_1	0.130	2.23	228.0
	ARENA_2	0.083	1.42	144.9	RELLENO_ZANJA	2.410	41.31	2509.6
	ARENA_3	0.257	4.41	452.3				
1800.000	D TIERRA	3.007	8.40	3411.4	ARENA_1	0.130	0.37	228.3
	ARENA_2	0.083	0.23	145.1	RELLENO_ZANJA	2.499	6.96	2516.6
	ARENA_3	0.257	0.73	453.1				
1820.000	D TIERRA	3.470	64.78	3476.1	ARENA_1	0.130	2.59	230.9
	ARENA_2	0.083	1.65	146.8	RELLENO_ZANJA	2.962	54.61	2571.2
	ARENA_3	0.257	5.14	458.2				



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PROYECTO : CIDACOS COMPLETO
EJE : 9: P350 (Tudelilla)-P400 (ETAP Ocón)

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PROYECTO : CIDACOS COMPLETO
EJE : 9: P350 (Tudelilla)-P400 (ETAP Ocón)

MEDICIONES DE LOS PERFILES TRANSVERSALES
CAPAS DE FIRME

MEDICIONES DE LOS PERFILES TRANSVERSALES
CAPAS DE FIRME

Table with columns: PERFIL, MATERIAL, AREA PERFIL, VOL. PARCIAL, VOL. ACUMUL., MATERIAL, AREA PERFIL, VOL. PARCIAL, VOL. ACUMUL. Rows include profiles 1820.202, 1832.072, 1840.000, etc.

Table with columns: PERFIL, MATERIAL, AREA PERFIL, VOL. PARCIAL, VOL. ACUMUL., MATERIAL, AREA PERFIL, VOL. PARCIAL, VOL. ACUMUL. Rows include profiles 2040.000, 2049.892, 2060.000, etc.

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***** MEDICIONES DE LOS PERFILES TRANSVERSALES*****
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PERFIL	MATERIAL	AREA PERFIL	VOL. PARCIAL	VOL. ACUMUL.	MATERIAL	AREA PERFIL	VOL. PARCIAL	VOL. ACUMUL.	PERFIL	MATERIAL	AREA PERFIL	VOL. PARCIAL	VOL. ACUMUL.	MATERIAL	AREA PERFIL	VOL. PARCIAL	VOL. ACUMUL.
2260.000	D TIERRA	1.738	24.67	4302.6	ARENA_1	0.130	1.86	288.0	2604.518	D TIERRA	1.783	8.05	4934.5	ARENA_1	0.130	0.59	332.7
	ARENA_2	0.082	1.18	183.0	RELLENO_ZANJA	1.230	17.40	3173.9		ARENA_2	0.082	0.37	211.4	RELLENO_ZANJA	1.275	5.75	3630.7
	ARENA_3	0.257	3.68	571.4						ARENA_3	0.258	1.16	660.1				
2280.000	D TIERRA	1.777	35.15	4337.7	ARENA_1	0.130	2.60	290.6	2620.000	D TIERRA	1.679	26.80	4961.3	ARENA_1	0.130	2.01	334.7
	ARENA_2	0.082	1.65	184.7	RELLENO_ZANJA	1.268	24.98	3198.9		ARENA_2	0.082	1.28	212.7	RELLENO_ZANJA	1.171	18.93	3649.6
	ARENA_3	0.257	5.15	576.6						ARENA_3	0.258	3.99	664.1				
2300.000	D TIERRA	1.806	35.83	4373.5	ARENA_1	0.130	2.60	293.2	2623.432	D TIERRA	1.665	5.74	4967.0	ARENA_1	0.130	0.45	335.1
	ARENA_2	0.082	1.65	186.3	RELLENO_ZANJA	1.298	25.66	3224.6		ARENA_2	0.082	0.28	213.0	RELLENO_ZANJA	1.157	3.99	3653.6
	ARENA_3	0.257	5.15	581.7						ARENA_3	0.258	0.88	665.0				
2303.412	D TIERRA	1.809	6.17	4379.7	ARENA_1	0.130	0.44	293.6	2640.000	D TIERRA	1.648	27.44	4994.5	ARENA_1	0.130	2.15	337.3
	ARENA_2	0.082	0.28	186.6	RELLENO_ZANJA	1.300	4.43	3229.0		ARENA_2	0.082	1.37	214.4	RELLENO_ZANJA	1.139	19.02	3672.6
	ARENA_3	0.257	0.88	582.6						ARENA_3	0.258	4.27	669.3				
2320.000	D TIERRA	1.822	30.11	4409.8	ARENA_1	0.130	2.15	295.8	2660.000	D TIERRA	1.629	32.77	5027.2	ARENA_1	0.130	2.60	339.9
	ARENA_2	0.082	1.37	188.0	RELLENO_ZANJA	1.313	21.68	3250.7		ARENA_2	0.082	1.65	216.0	RELLENO_ZANJA	1.121	22.60	3695.2
	ARENA_3	0.257	4.27	586.9						ARENA_3	0.258	5.15	674.4				
2340.000	D TIERRA	1.706	35.28	4445.1	ARENA_1	0.130	2.60	298.4	2680.000	D TIERRA	1.619	32.48	5059.7	ARENA_1	0.130	2.60	342.5
	ARENA_2	0.082	1.65	189.6	RELLENO_ZANJA	1.198	25.11	3275.8		ARENA_2	0.082	1.65	217.7	RELLENO_ZANJA	1.110	22.31	3717.5
	ARENA_3	0.257	5.15	592.0						ARENA_3	0.258	5.15	679.6				
2360.000	D TIERRA	1.827	35.33	4480.4	ARENA_1	0.130	2.60	301.0	2700.000	D TIERRA	1.607	32.26	5092.0	ARENA_1	0.130	2.59	345.1
	ARENA_2	0.082	1.65	191.3	RELLENO_ZANJA	1.318	25.16	3300.9		ARENA_2	0.082	1.65	219.3	RELLENO_ZANJA	1.099	22.09	3739.6
	ARENA_3	0.258	5.15	597.2						ARENA_3	0.258	5.15	684.7				
2376.894	D TIERRA	1.898	31.46	4511.9	ARENA_1	0.130	2.19	303.1	2720.000	D TIERRA	1.605	32.12	5124.1	ARENA_1	0.130	2.59	347.7
	ARENA_2	0.082	1.39	192.7	RELLENO_ZANJA	1.389	22.87	3323.8		ARENA_2	0.082	1.65	221.0	RELLENO_ZANJA	1.096	21.95	3761.6
	ARENA_3	0.258	4.35	601.5						ARENA_3	0.258	5.15	689.9				
2380.000	D TIERRA	1.884	5.87	4517.8	ARENA_1	0.130	0.40	303.6	2722.070	D TIERRA	1.610	3.33	5127.4	ARENA_1	0.130	0.27	347.9
	ARENA_2	0.082	0.26	192.9	RELLENO_ZANJA	1.376	4.29	3328.1		ARENA_2	0.082	0.17	221.1	RELLENO_ZANJA	1.101	2.27	3763.9
	ARENA_3	0.258	0.80	602.3						ARENA_3	0.258	0.53	690.4				
2400.000	D TIERRA	1.835	37.20	4555.0	ARENA_1	0.130	2.59	306.1	2740.000	D TIERRA	1.667	29.38	5156.8	ARENA_1	0.130	2.33	350.3
	ARENA_2	0.082	1.65	194.6	RELLENO_ZANJA	1.327	27.03	3355.1		ARENA_2	0.082	1.48	222.6	RELLENO_ZANJA	1.159	20.26	3784.1
	ARENA_3	0.258	5.15	607.5						ARENA_3	0.258	4.62	695.0				
2420.000	D TIERRA	1.840	36.76	4591.7	ARENA_1	0.130	2.59	308.7	2760.000	D TIERRA	1.734	34.01	5190.8	ARENA_1	0.130	2.60	352.9
	ARENA_2	0.082	1.65	196.2	RELLENO_ZANJA	1.332	26.59	3381.7		ARENA_2	0.082	1.65	224.3	RELLENO_ZANJA	1.226	23.85	3808.0
	ARENA_3	0.258	5.15	612.6						ARENA_3	0.258	5.15	700.2				
2440.000	D TIERRA	1.854	36.95	4628.7	ARENA_1	0.130	2.59	311.3	2778.468	D TIERRA	1.797	32.61	5223.4	ARENA_1	0.130	2.40	355.3
	ARENA_2	0.082	1.65	197.9	RELLENO_ZANJA	1.346	26.78	3408.5		ARENA_2	0.082	1.52	225.8	RELLENO_ZANJA	1.289	23.22	3831.2
	ARENA_3	0.258	5.15	617.8						ARENA_3	0.258	4.76	704.9				
2460.000	D TIERRA	1.868	37.23	4665.9	ARENA_1	0.130	2.59	313.9	2780.000	D TIERRA	1.802	2.76	5226.2	ARENA_1	0.130	0.20	355.5
	ARENA_2	0.082	1.65	199.5	RELLENO_ZANJA	1.360	27.06	3435.5		ARENA_2	0.082	0.13	225.9	RELLENO_ZANJA	1.294	1.98	3833.2
	ARENA_3	0.258	5.15	622.9						ARENA_3	0.258	0.39	705.3				
2480.000	D TIERRA	1.883	37.51	4703.4	ARENA_1	0.130	2.60	316.5	2800.000	D TIERRA	1.879	36.82	5263.0	ARENA_1	0.130	2.59	358.0
	ARENA_2	0.082	1.65	201.2	RELLENO_ZANJA	1.374	27.34	3462.9		ARENA_2	0.082	1.65	227.6	RELLENO_ZANJA	1.371	26.65	3859.8
	ARENA_3	0.258	5.15	628.1						ARENA_3	0.258	5.15	710.5				
2500.000	D TIERRA	1.897	37.80	4741.2	ARENA_1	0.130	2.60	319.1	2820.000	D TIERRA	1.966	38.45	5301.5	ARENA_1	0.130	2.59	360.6
	ARENA_2	0.082	1.65	202.8	RELLENO_ZANJA	1.389	27.63	3490.5		ARENA_2	0.082	1.65	229.2	RELLENO_ZANJA	1.458	28.29	3888.1
	ARENA_3	0.258	5.15	633.2						ARENA_3	0.258	5.15	715.6				
2520.000	D TIERRA	1.911	38.08	4779.3	ARENA_1	0.130	2.59	321.7	2840.000	D TIERRA	2.053	40.19	5341.7	ARENA_1	0.130	2.60	363.2
	ARENA_2	0.082	1.65	204.5	RELLENO_ZANJA	1.403	27.91	3518.4		ARENA_2	0.082	1.65	230.8	RELLENO_ZANJA	1.545	30.02	3918.1
	ARENA_3	0.258	5.15	638.4						ARENA_3	0.258	5.15	720.8				
2540.000	D TIERRA	1.913	38.25	4817.5	ARENA_1	0.130	2.59	324.3	2841.822	D TIERRA	2.060	3.75	5345.4	ARENA_1	0.130	0.24	363.5
	ARENA_2	0.082	1.65	206.1	RELLENO_ZANJA	1.405	28.08	3546.5		ARENA_2	0.082	0.15	231.0	RELLENO_ZANJA	1.552	2.82	3920.9
	ARENA_3	0.258	5.15	643.5						ARENA_3	0.258	0.47	721.3				
2560.000	D TIERRA	1.827	37.41	4854.9	ARENA_1	0.130	2.59	326.9	2860.000	D TIERRA	2.059	37.44	5382.8	ARENA_1	0.130	2.36	365.8
	ARENA_2	0.082	1.65	207.8	RELLENO_ZANJA	1.319	27.24	3573.7		ARENA_2	0.082	1.50	232.5	RELLENO_ZANJA	1.550	28.19	3949.1
	ARENA_3	0.258	5.15	648.7						ARENA_3	0.258	4.68	725.9				
2580.000	D TIERRA	1.772	35.99	4890.9	ARENA_1	0.130	2.59	329.5	2867.786	D TIERRA	2.049	15.99	5398.8	ARENA_1	0.130	1.01	366.8
	ARENA_2	0.082	1.65	209.4	RELLENO_ZANJA	1.264	25.83	3599.6		ARENA_2	0.082	0.64	233.1	RELLENO_ZANJA	1.541	12.03	3961.2
	ARENA_3	0.258	5.15	653.8						ARENA_3	0.258	2.01	727.9				
2600.000	D TIERRA	1.781	35.53	4926.4	ARENA_1	0.130	2.59	332.1	2880.000	D TIERRA	2.047	25.01	5423.8	ARENA_1	0.130	1.58	368.4
	ARENA_2	0.082	1.65	211.1	RELLENO_ZANJA	1.272	25.36	3624.9		ARENA_2	0.082	1.01	234.1	RELLENO_ZANJA	1.539	18.80	3980.0
	ARENA_3	0.258	5.15	659.0						ARENA_3	0.258	3.15	731.1				



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PROYECTO : CIDACOS COMPLETO
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MEDICIONES DE LOS PERFILES TRANSVERSALES
CAPAS DE FIRME

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CAPAS DE FIRME

Table with columns: PERFIL, MATERIAL, AREA PERFIL, VOL. PARCIAL, VOL. ACUMUL., MATERIAL, AREA PERFIL, VOL. PARCIAL, VOL. ACUMUL. Rows include profiles 2900.000 to 3164.358.

Table with columns: PERFIL, MATERIAL, AREA PERFIL, VOL. PARCIAL, VOL. ACUMUL., MATERIAL, AREA PERFIL, VOL. PARCIAL, VOL. ACUMUL. Rows include profiles 3172.371 to 3372.920.



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MEDICIONES DE LOS PERFILES TRANSVERSALES
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CAPAS DE FIRME

Table with 9 columns: PERFIL, MATERIAL, AREA PERFIL, VOL. PARCIAL, VOL. ACUMUL., MATERIAL, AREA PERFIL, VOL. PARCIAL, VOL. ACUMUL. Rows include profiles 3380.000 to 3680.000 with materials like TIERRA, ARENA, and RELLENO_ZANJA.

Table with 9 columns: PERFIL, MATERIAL, AREA PERFIL, VOL. PARCIAL, VOL. ACUMUL., MATERIAL, AREA PERFIL, VOL. PARCIAL, VOL. ACUMUL. Rows include profiles 3700.000 to 4000.000 with materials like TIERRA, ARENA, and RELLENO_ZANJA.

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PERFIL	MATERIAL	AREA PERFIL	VOL. PARCIAL	VOL. ACUMUL.	MATERIAL	AREA PERFIL	VOL. PARCIAL	VOL. ACUMUL.	PERFIL	MATERIAL	AREA PERFIL	VOL. PARCIAL	VOL. ACUMUL.	MATERIAL	AREA PERFIL	VOL. PARCIAL	VOL. ACUMUL.
4020.000	D TIERRA	1.677	33.93	7432.1	ARENA_1	0.128	2.56	514.1	4340.000	D TIERRA	1.613	31.63	7934.6	ARENA_1	0.128	2.56	555.0
	ARENA_2	0.079	1.58	325.2	RELLENO_ZANJA	1.191	24.21	5426.7		ARENA_2	0.079	1.58	350.4	RELLENO_ZANJA	1.128	21.91	5773.6
	ARENA_3	0.241	4.81	1012.0						ARENA_3	0.241	4.81	1089.0				
4040.000	D TIERRA	1.576	32.53	7464.7	ARENA_1	0.128	2.56	516.7	4360.000	D TIERRA	1.852	34.65	7969.3	ARENA_1	0.128	2.56	557.6
	ARENA_2	0.079	1.58	326.8	RELLENO_ZANJA	1.090	22.81	5449.5		ARENA_2	0.079	1.58	352.0	RELLENO_ZANJA	1.366	24.94	5798.6
	ARENA_3	0.241	4.81	1016.8						ARENA_3	0.241	4.81	1093.8				
4042.327	D TIERRA	1.578	3.67	7468.3	ARENA_1	0.128	0.30	517.0	4380.000	D TIERRA	1.891	37.43	8006.7	ARENA_1	0.128	2.55	560.1
	ARENA_2	0.079	0.18	327.0	RELLENO_ZANJA	1.092	2.54	5452.0		ARENA_2	0.079	1.58	353.6	RELLENO_ZANJA	1.405	27.71	5826.3
	ARENA_3	0.241	0.56	1017.4						ARENA_3	0.241	4.81	1098.6				
4060.000	D TIERRA	1.571	27.83	7496.2	ARENA_1	0.128	2.26	519.3	4400.000	D TIERRA	1.814	37.05	8043.8	ARENA_1	0.128	2.55	562.7
	ARENA_2	0.079	1.39	328.4	RELLENO_ZANJA	1.086	19.24	5471.2		ARENA_2	0.079	1.58	355.1	RELLENO_ZANJA	1.328	27.33	5853.6
	ARENA_3	0.241	4.25	1021.6						ARENA_3	0.241	4.81	1103.5				
4080.000	D TIERRA	1.569	31.41	7527.6	ARENA_1	0.128	2.56	521.8	4420.000	D TIERRA	1.531	33.45	8077.2	ARENA_1	0.128	2.55	565.2
	ARENA_2	0.079	1.58	329.9	RELLENO_ZANJA	1.083	21.69	5492.9		ARENA_2	0.079	1.58	356.7	RELLENO_ZANJA	1.045	23.73	5877.3
	ARENA_3	0.241	4.81	1026.4						ARENA_3	0.241	4.81	1108.3				
4080.615	D TIERRA	1.561	0.96	7528.5	ARENA_1	0.128	0.08	521.9	4440.000	D TIERRA	1.585	31.16	8108.4	ARENA_1	0.128	2.55	567.8
	ARENA_2	0.079	0.05	330.0	RELLENO_ZANJA	1.075	0.66	5493.6		ARENA_2	0.079	1.58	358.3	RELLENO_ZANJA	1.099	21.44	5898.8
	ARENA_3	0.241	0.15	1026.6						ARENA_3	0.241	4.81	1113.1				
4100.000	D TIERRA	1.555	30.19	7558.7	ARENA_1	0.128	2.48	524.4	4460.000	D TIERRA	1.615	32.00	8140.4	ARENA_1	0.128	2.55	570.3
	ARENA_2	0.079	1.53	331.5	RELLENO_ZANJA	1.069	20.77	5514.4		ARENA_2	0.079	1.58	359.9	RELLENO_ZANJA	1.130	22.28	5921.1
	ARENA_3	0.241	4.67	1031.3						ARENA_3	0.241	4.81	1117.9				
4120.000	D TIERRA	1.559	31.14	7589.9	ARENA_1	0.128	2.55	526.9	4480.000	D TIERRA	1.627	32.43	8172.8	ARENA_1	0.128	2.56	572.9
	ARENA_2	0.079	1.58	333.1	RELLENO_ZANJA	1.073	21.42	5535.8		ARENA_2	0.079	1.58	361.5	RELLENO_ZANJA	1.141	22.71	5943.8
	ARENA_3	0.241	4.81	1036.1						ARENA_3	0.241	4.81	1122.7				
4140.000	D TIERRA	1.454	30.13	7620.0	ARENA_1	0.128	2.56	529.5	4500.000	D TIERRA	1.625	32.52	8205.3	ARENA_1	0.128	2.56	575.5
	ARENA_2	0.079	1.58	334.7	RELLENO_ZANJA	0.968	20.41	5556.2		ARENA_2	0.079	1.58	363.0	RELLENO_ZANJA	1.139	22.80	5966.6
	ARENA_3	0.241	4.81	1040.9						ARENA_3	0.241	4.81	1127.5				
4148.544	D TIERRA	1.511	12.67	7632.7	ARENA_1	0.128	1.09	530.6	4520.000	D TIERRA	1.680	33.05	8238.4	ARENA_1	0.128	2.56	578.0
	ARENA_2	0.079	0.67	335.3	RELLENO_ZANJA	1.025	8.51	5564.7		ARENA_2	0.079	1.58	364.6	RELLENO_ZANJA	1.194	23.33	5989.9
	ARENA_3	0.241	2.06	1042.9						ARENA_3	0.241	4.81	1132.3				
4160.000	D TIERRA	1.491	17.19	7649.9	ARENA_1	0.128	1.46	532.0	4532.855	D TIERRA	1.783	22.26	8260.6	ARENA_1	0.128	1.64	579.7
	ARENA_2	0.079	0.90	336.2	RELLENO_ZANJA	1.005	11.63	5576.3		ARENA_2	0.079	1.01	365.6	RELLENO_ZANJA	1.297	16.01	6005.9
	ARENA_3	0.241	2.76	1045.7						ARENA_3	0.241	3.09	1135.4				
4180.000	D TIERRA	1.553	30.44	7680.3	ARENA_1	0.128	2.56	534.6	4540.000	D TIERRA	1.852	12.99	8273.6	ARENA_1	0.128	0.91	580.6
	ARENA_2	0.079	1.58	337.8	RELLENO_ZANJA	1.067	20.72	5597.1		ARENA_2	0.079	0.56	366.2	RELLENO_ZANJA	1.366	9.52	6015.4
	ARENA_3	0.241	4.81	1050.5						ARENA_3	0.241	1.72	1137.1				
4200.000	D TIERRA	1.535	30.88	7711.2	ARENA_1	0.128	2.56	537.1	4560.000	D TIERRA	2.037	38.89	8312.5	ARENA_1	0.128	2.56	583.1
	ARENA_2	0.079	1.58	339.4	RELLENO_ZANJA	1.049	21.16	5618.2		ARENA_2	0.079	1.58	367.8	RELLENO_ZANJA	1.551	29.17	6044.6
	ARENA_3	0.241	4.81	1055.3						ARENA_3	0.241	4.81	1142.0				
4217.272	D TIERRA	1.553	26.67	7737.8	ARENA_1	0.128	2.21	539.3	4564.240	D TIERRA	2.060	8.69	8321.2	ARENA_1	0.128	0.54	583.7
	ARENA_2	0.079	1.36	340.7	RELLENO_ZANJA	1.067	18.28	5636.5		ARENA_2	0.079	0.33	368.1	RELLENO_ZANJA	1.574	6.62	6051.2
	ARENA_3	0.241	4.16	1059.5						ARENA_3	0.241	1.02	1143.0				
4220.000	D TIERRA	1.695	4.43	7742.3	ARENA_1	0.128	0.35	539.7	4580.000	D TIERRA	1.991	31.92	8353.1	ARENA_1	0.128	2.01	585.7
	ARENA_2	0.079	0.21	341.0	RELLENO_ZANJA	1.209	3.11	5639.6		ARENA_2	0.079	1.24	369.3	RELLENO_ZANJA	1.505	24.26	6075.5
	ARENA_3	0.241	0.66	1060.1						ARENA_3	0.241	3.79	1146.8				
4240.000	D TIERRA	1.629	33.24	7775.5	ARENA_1	0.128	2.56	542.2	4600.000	D TIERRA	1.867	38.57	8391.7	ARENA_1	0.128	2.56	588.2
	ARENA_2	0.079	1.58	342.5	RELLENO_ZANJA	1.143	23.52	5663.1		ARENA_2	0.079	1.58	370.9	RELLENO_ZANJA	1.381	28.85	6104.3
	ARENA_3	0.241	4.81	1065.0						ARENA_3	0.241	4.81	1151.6				
4260.000	D TIERRA	1.544	31.73	7807.3	ARENA_1	0.128	2.55	544.8	4620.000	D TIERRA	1.745	36.12	8427.8	ARENA_1	0.128	2.56	590.8
	ARENA_2	0.079	1.58	344.1	RELLENO_ZANJA	1.058	22.01	5685.1		ARENA_2	0.079	1.58	372.5	RELLENO_ZANJA	1.259	26.40	6130.7
	ARENA_3	0.241	4.81	1069.8						ARENA_3	0.241	4.81	1156.4				
4280.000	D TIERRA	1.643	31.87	7839.1	ARENA_1	0.128	2.55	547.4	4640.000	D TIERRA	1.571	33.16	8460.9	ARENA_1	0.128	2.56	593.3
	ARENA_2	0.079	1.58	345.7	RELLENO_ZANJA	1.157	22.16	5707.3		ARENA_2	0.079	1.58	374.1	RELLENO_ZANJA	1.085	23.44	6154.2
	ARENA_3	0.241	4.81	1074.6						ARENA_3	0.241	4.81	1161.2				
4300.000	D TIERRA	1.596	32.40	7871.5	ARENA_1	0.128	2.55	549.9	4660.000	D TIERRA	1.614	31.84	8492.8	ARENA_1	0.128	2.56	595.9
	ARENA_2	0.079	1.58	347.3	RELLENO_ZANJA	1.110	22.68	5730.0		ARENA_2	0.079	1.58	375.6	RELLENO_ZANJA	1.128	22.12	6176.3
	ARENA_3	0.241	4.81	1079.4						ARENA_3	0.241	4.81	1166.0				
4320.000	D TIERRA	1.550	31.46	7903.0	ARENA_1	0.128	2.56	552.5	4680.000	D TIERRA	1.661	32.74	8525.5	ARENA_1	0.128	2.55	598.5
	ARENA_2	0.079	1.58	348.8	RELLENO_ZANJA	1.064	21.74	5751.7		ARENA_2	0.079	1.58	377.2	RELLENO_ZANJA	1.175	23.03	6199.3
	ARENA_3	0.241	4.81	1084.2						ARENA_3	0.241	4.81	1170.8				



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PROYECTO : CIDACOS COMPLETO
EJE : 9: P350 (Tudelilla)-P400 (ETAP Ocón)

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PROYECTO : CIDACOS COMPLETO
EJE : 9: P350 (Tudelilla)-P400 (ETAP Ocón)

*** MEDICIONES DE LOS PERFILES TRANSVERSALES ***
*** CAPAS DE FIRME ***

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PERFIL	MATERIAL	AREA PERFIL	VOL. PARCIAL	VOL. ACUMUL.	MATERIAL	AREA PERFIL	VOL. PARCIAL	VOL. ACUMUL.
4700.000	D TIERRA	1.712	33.73	8559.3	ARENA_1	0.128	2.55	601.0
	ARENA_2	0.079	1.58	378.8	RELLENO_ZANJA	1.226	24.01	6223.3
	ARENA_3	0.241	4.81	1175.7				
4720.000	D TIERRA	1.768	34.80	8594.0	ARENA_1	0.128	2.55	603.6
	ARENA_2	0.079	1.58	380.4	RELLENO_ZANJA	1.282	25.08	6248.4
	ARENA_3	0.241	4.81	1180.5				
4740.000	D TIERRA	1.834	36.02	8630.1	ARENA_1	0.128	2.55	606.1
	ARENA_2	0.079	1.58	381.9	RELLENO_ZANJA	1.348	26.30	6274.7
	ARENA_3	0.241	4.81	1185.3				
4760.000	D TIERRA	1.925	37.59	8667.7	ARENA_1	0.128	2.55	608.7
	ARENA_2	0.079	1.58	383.5	RELLENO_ZANJA	1.439	27.87	6302.6
	ARENA_3	0.241	4.81	1190.1				
4780.000	D TIERRA	2.095	40.20	8707.9	ARENA_1	0.128	2.55	611.2
	ARENA_2	0.079	1.58	385.1	RELLENO_ZANJA	1.610	30.48	6333.1
	ARENA_3	0.241	4.81	1194.9				
4800.000	D TIERRA	2.002	40.98	8748.8	ARENA_1	0.128	2.56	613.8
	ARENA_2	0.079	1.58	386.7	RELLENO_ZANJA	1.516	31.26	6364.3
	ARENA_3	0.241	4.81	1199.7				
4820.000	D TIERRA	1.961	39.63	8788.5	ARENA_1	0.128	2.56	616.3
	ARENA_2	0.079	1.58	388.2	RELLENO_ZANJA	1.475	29.91	6394.2
	ARENA_3	0.241	4.81	1204.5				
4840.000	D TIERRA	1.955	39.16	8827.6	ARENA_1	0.128	2.55	618.9
	ARENA_2	0.079	1.58	389.8	RELLENO_ZANJA	1.469	29.44	6423.7
	ARENA_3	0.241	4.81	1209.4				
4860.000	D TIERRA	1.947	39.02	8866.7	ARENA_1	0.128	2.55	621.4
	ARENA_2	0.079	1.58	391.4	RELLENO_ZANJA	1.461	29.30	6453.0
	ARENA_3	0.241	4.81	1214.2				
4880.000	D TIERRA	1.936	38.84	8905.5	ARENA_1	0.128	2.55	624.0
	ARENA_2	0.079	1.58	393.0	RELLENO_ZANJA	1.450	29.12	6482.1
	ARENA_3	0.241	4.81	1219.0				
4900.000	D TIERRA	1.923	38.60	8944.1	ARENA_1	0.128	2.55	626.6
	ARENA_2	0.079	1.58	394.6	RELLENO_ZANJA	1.437	28.88	6511.0
	ARENA_3	0.241	4.81	1223.8				
4920.000	D TIERRA	1.928	38.51	8982.6	ARENA_1	0.128	2.56	629.1
	ARENA_2	0.079	1.58	396.1	RELLENO_ZANJA	1.442	28.79	6539.8
	ARENA_3	0.241	4.81	1228.6				
4940.000	D TIERRA	1.873	38.01	9020.6	ARENA_1	0.128	2.56	631.7
	ARENA_2	0.079	1.58	397.7	RELLENO_ZANJA	1.387	28.29	6568.0
	ARENA_3	0.241	4.81	1233.4				
4960.000	D TIERRA	1.841	37.14	9057.7	ARENA_1	0.128	2.55	634.2
	ARENA_2	0.079	1.58	399.3	RELLENO_ZANJA	1.355	27.42	6595.5
	ARENA_3	0.241	4.81	1238.2				
4980.000	D TIERRA	1.806	36.47	9094.2	ARENA_1	0.128	2.55	636.8
	ARENA_2	0.079	1.58	400.9	RELLENO_ZANJA	1.320	26.75	6622.2
	ARENA_3	0.241	4.81	1243.0				
5000.000	D TIERRA	1.767	35.74	9129.9	ARENA_1	0.128	2.55	639.3
	ARENA_2	0.079	1.58	402.4	RELLENO_ZANJA	1.281	26.02	6648.2
	ARENA_3	0.241	4.81	1247.9				
5020.000	D TIERRA	1.724	34.92	9164.9	ARENA_1	0.128	2.55	641.9
	ARENA_2	0.079	1.58	404.0	RELLENO_ZANJA	1.238	25.20	6673.4
	ARENA_3	0.241	4.81	1252.7				
5040.000	D TIERRA	1.746	34.70	9199.6	ARENA_1	0.128	2.55	644.4
	ARENA_2	0.079	1.58	405.6	RELLENO_ZANJA	1.260	24.99	6698.4
	ARENA_3	0.241	4.81	1257.5				
5060.000	D TIERRA	1.823	35.69	9235.3	ARENA_1	0.128	2.55	647.0
	ARENA_2	0.079	1.58	407.2	RELLENO_ZANJA	1.337	25.97	6724.4
	ARENA_3	0.241	4.81	1262.3				
5080.000	D TIERRA	1.886	37.09	9272.3	ARENA_1	0.128	2.55	649.5
	ARENA_2	0.079	1.58	408.7	RELLENO_ZANJA	1.400	27.37	6751.8
	ARENA_3	0.241	4.81	1267.1				

PERFIL	MATERIAL	AREA PERFIL	VOL. PARCIAL	VOL. ACUMUL.	MATERIAL	AREA PERFIL	VOL. PARCIAL	VOL. ACUMUL.
5100.000	D TIERRA	1.950	38.36	9310.7	ARENA_1	0.128	2.55	652.1
	ARENA_2	0.079	1.58	410.3	RELLENO_ZANJA	1.464	28.64	6780.4
	ARENA_3	0.241	4.81	1271.9				
5117.001	D TIERRA	1.964	33.27	9344.0	ARENA_1	0.128	2.17	654.3
	ARENA_2	0.079	1.34	411.7	RELLENO_ZANJA	1.478	25.01	6805.4
	ARENA_3	0.241	4.09	1276.0				
5120.000	D TIERRA	1.927	5.83	9349.8	ARENA_1	0.128	0.38	654.7
	ARENA_2	0.079	0.24	411.9	RELLENO_ZANJA	1.441	4.38	6809.8
	ARENA_3	0.241	0.72	1276.7				
5127.889	D TIERRA	1.853	14.91	9364.7	ARENA_1	0.128	1.01	655.7
	ARENA_2	0.079	0.62	412.5	RELLENO_ZANJA	1.367	11.07	6820.9
	ARENA_3	0.241	1.90	1278.6				
5140.000	D TIERRA	1.783	22.02	9386.7	ARENA_1	0.128	1.55	657.2
	ARENA_2	0.079	0.95	413.5	RELLENO_ZANJA	1.297	16.13	6837.0
	ARENA_3	0.241	2.91	1281.6				
5160.000	D TIERRA	1.703	34.86	9421.6	ARENA_1	0.128	2.55	659.8
	ARENA_2	0.079	1.58	415.0	RELLENO_ZANJA	1.217	25.14	6862.1
	ARENA_3	0.241	4.81	1286.4				
5180.000	D TIERRA	1.627	33.29	9454.9	ARENA_1	0.128	2.56	662.3
	ARENA_2	0.079	1.58	416.6	RELLENO_ZANJA	1.141	23.58	6885.7
	ARENA_3	0.241	4.81	1291.2				
5200.000	D TIERRA	1.553	31.80	9486.7	ARENA_1	0.128	2.56	664.9
	ARENA_2	0.079	1.58	418.2	RELLENO_ZANJA	1.067	22.08	6907.8
	ARENA_3	0.241	4.81	1296.0				
5220.000	D TIERRA	2.388	39.41	9526.1	ARENA_1	0.128	2.55	667.4
	ARENA_2	0.079	1.58	419.8	RELLENO_ZANJA	1.902	29.69	6937.5
	ARENA_3	0.241	4.81	1300.8				
5240.000	D TIERRA	3.182	55.70	9581.8	ARENA_1	0.128	2.55	670.0
	ARENA_2	0.079	1.58	421.4	RELLENO_ZANJA	2.696	45.98	6983.5
	ARENA_3	0.241	4.81	1305.6				
5260.000	D TIERRA	3.631	68.13	9649.9	ARENA_1	0.128	2.56	672.5
	ARENA_2	0.079	1.58	422.9	RELLENO_ZANJA	3.145	58.41	7041.9
	ARENA_3	0.241	4.81	1310.4				
5271.588	D TIERRA	3.274	40.01	9689.9	ARENA_1	0.128	1.48	674.0
	ARENA_2	0.079	0.91	423.8	RELLENO_ZANJA	2.788	34.37	7076.2
	ARENA_3	0.241	2.79	1313.2				
5280.000	D TIERRA	2.954	26.19	9716.1	ARENA_1	0.128	1.07	675.1
	ARENA_2	0.079	0.66	424.5	RELLENO_ZANJA	2.468	22.10	7098.3
	ARENA_3	0.241	2.02	1315.3				
5300.000	D TIERRA	1.960	49.13	9765.3	ARENA_1	0.128	2.55	677.6
	ARENA_2	0.079	1.58	426.1	RELLENO_ZANJA	1.474	39.42	7137.8
	ARENA_3	0.241	4.81	1320.1				
5310.399	D TIERRA	1.684	18.94	9784.2	ARENA_1	0.128	1.33	679.0
	ARENA_2	0.079	0.82	426.9	RELLENO_ZANJA	1.198	13.89	7151.7
	ARENA_3	0.241	2.50	1322.6				
5320.000	D TIERRA	1.574	15.64	9799.9	ARENA_1	0.128	1.23	680.2
	ARENA_2	0.079	0.76	427.7	RELLENO_ZANJA	1.089	10.98	7162.6
	ARENA_3	0.241	2.31	1324.9				
5340.000	D TIERRA	1.553	31.28	9831.1	ARENA_1	0.128	2.56	682.8
	ARENA_2	0.079	1.58	429.2	RELLENO_ZANJA	1.067	21.56	7184.2
	ARENA_3	0.241	4.81	1329.7				
5360.000	D TIERRA	1.707	32.60	9863.7	ARENA_1	0.128	2.56	685.3
	ARENA_2	0.079	1.58	430.8	RELLENO_ZANJA	1.221	22.88	7207.1
	ARENA_3	0.241	4.81	1334.5				
5380.000	D TIERRA	1.561	32.68	9896.4	ARENA_1	0.128	2.56	687.9
	ARENA_2	0.079	1.58	432.4	RELLENO_ZANJA	1.075	22.96	7230.0
	ARENA_3	0.241	4.81	1339.3				
5400.000	D TIERRA	1.679	32.40	9928.8	ARENA_1	0.128	2.56	690.4
	ARENA_2	0.079	1.58	434.0	RELLENO_ZANJA	1.193	22.68	7252.7
	ARENA_3	0.241	4.81	1344.1				



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PROYECTO : CIDACOS COMPLETO
EJE : 9: P350 (Tudelilla)-P400 (ETAP Ocón)

MEDICIONES DE LOS PERFILES TRANSVERSALES
CAPAS DE FIRME

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CAPAS DE FIRME

Table with columns: PERFIL, MATERIAL, AREA PERFIL, VOL. PARCIAL, VOL. ACUMUL., MATERIAL, AREA PERFIL, VOL. PARCIAL, VOL. ACUMUL. Rows include profiles 5420.000 to 5751.250.

Table with columns: PERFIL, MATERIAL, AREA PERFIL, VOL. PARCIAL, VOL. ACUMUL., MATERIAL, AREA PERFIL, VOL. PARCIAL, VOL. ACUMUL. Rows include profiles 5760.000 to 5987.424.

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 PROYECTO : CIDACOS COMPLETO
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Istram 9.04 13/04/20 17:55:16
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***** MEDICIONES DE LOS PERFILES TRANSVERSALES* * *
 * * * CAPAS DE FIRME * * *

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PERFIL	MATERIAL	AREA PERFIL	VOL. PARCIAL	VOL. ACUMUL.	MATERIAL	AREA PERFIL	VOL. PARCIAL	VOL. ACUMUL.	PERFIL	MATERIAL	AREA PERFIL	VOL. PARCIAL	VOL. ACUMUL.	MATERIAL	AREA PERFIL	VOL. PARCIAL	VOL. ACUMUL.
6000.000	D TIERRA	1.709	21.26	10926.3	ARENA_1	0.130	1.63	766.1	6240.000	D TIERRA	1.787	11.13	11344.5	ARENA_1	0.130	0.81	797.2
	ARENA_2	0.082	1.04	481.5	RELLENO_ZANJA	1.201	14.87	7956.8		ARENA_2	0.082	0.52	501.3	RELLENO_ZANJA	1.279	7.95	8253.0
	ARENA_3	0.258	3.24	1491.5						ARENA_3	0.258	1.61	1553.3				
6000.544	D TIERRA	1.702	0.93	10927.2	ARENA_1	0.130	0.07	766.2	6246.164	D TIERRA	1.823	11.13	11355.6	ARENA_1	0.130	0.80	798.0
	ARENA_2	0.082	0.04	481.6	RELLENO_ZANJA	1.194	0.65	7957.4		ARENA_2	0.082	0.51	501.8	RELLENO_ZANJA	1.314	7.99	8261.0
	ARENA_3	0.257	0.14	1491.7						ARENA_3	0.258	1.59	1554.9				
6020.000	D TIERRA	1.628	32.40	10959.6	ARENA_1	0.130	2.52	768.7	6260.000	D TIERRA	1.801	25.07	11380.7	ARENA_1	0.130	1.80	799.8
	ARENA_2	0.082	1.60	483.2	RELLENO_ZANJA	1.120	22.51	7980.0		ARENA_2	0.082	1.14	503.0	RELLENO_ZANJA	1.293	18.04	8279.0
	ARENA_3	0.257	5.01	1496.7						ARENA_3	0.258	3.56	1558.5				
6022.297	D TIERRA	1.624	3.74	10963.3	ARENA_1	0.130	0.30	769.0	6280.000	D TIERRA	2.222	40.23	11420.9	ARENA_1	0.130	2.59	802.4
	ARENA_2	0.082	0.19	483.4	RELLENO_ZANJA	1.115	2.57	7982.5		ARENA_2	0.082	1.65	504.6	RELLENO_ZANJA	1.713	30.06	8309.1
	ARENA_3	0.257	0.59	1497.3						ARENA_3	0.258	5.15	1563.6				
6040.000	D TIERRA	1.673	29.18	10992.5	ARENA_1	0.130	2.30	771.3	6300.000	D TIERRA	2.053	42.75	11463.6	ARENA_1	0.130	2.59	805.0
	ARENA_2	0.082	1.46	484.8	RELLENO_ZANJA	1.165	20.18	8002.7		ARENA_2	0.082	1.65	506.3	RELLENO_ZANJA	1.545	32.58	8341.7
	ARENA_3	0.257	4.56	1501.8						ARENA_3	0.258	5.15	1568.8				
6060.000	D TIERRA	1.746	34.19	11026.7	ARENA_1	0.130	2.59	773.9	6302.817	D TIERRA	1.929	5.61	11469.3	ARENA_1	0.130	0.37	805.4
	ARENA_2	0.082	1.65	486.5	RELLENO_ZANJA	1.238	24.02	8026.7		ARENA_2	0.082	0.23	506.5	RELLENO_ZANJA	1.421	4.18	8345.8
	ARENA_3	0.257	5.15	1507.0						ARENA_3	0.258	0.73	1569.5				
6065.151	D TIERRA	1.788	9.10	11035.8	ARENA_1	0.130	0.67	774.6	6311.526	D TIERRA	1.732	15.94	11485.2	ARENA_1	0.130	1.13	806.5
	ARENA_2	0.082	0.42	486.9	RELLENO_ZANJA	1.279	6.48	8033.2		ARENA_2	0.082	0.72	507.2	RELLENO_ZANJA	1.223	11.51	8357.3
	ARENA_3	0.257	1.33	1508.3						ARENA_3	0.258	2.24	1571.7				
6071.315	D TIERRA	1.673	10.67	11046.5	ARENA_1	0.130	0.80	775.4	6320.000	D TIERRA	1.703	14.55	11499.7	ARENA_1	0.130	1.10	807.6
	ARENA_2	0.082	0.51	487.4	RELLENO_ZANJA	1.165	7.53	8040.7		ARENA_2	0.082	0.70	507.9	RELLENO_ZANJA	1.195	10.25	8367.6
	ARENA_3	0.258	1.59	1509.9						ARENA_3	0.258	2.18	1573.9				
6080.000	D TIERRA	1.700	14.65	11061.1	ARENA_1	0.130	1.13	776.5	6328.734	D TIERRA	1.747	15.07	11514.8	ARENA_1	0.130	1.13	808.8
	ARENA_2	0.082	0.72	488.1	RELLENO_ZANJA	1.191	10.23	8051.0		ARENA_2	0.082	0.72	508.6	RELLENO_ZANJA	1.238	10.63	8378.2
	ARENA_3	0.258	2.24	1512.1						ARENA_3	0.258	2.25	1576.2				
6100.000	D TIERRA	1.689	33.89	11095.0	ARENA_1	0.130	2.59	779.1	6340.000	D TIERRA	1.831	20.15	11535.0	ARENA_1	0.130	1.46	810.2
	ARENA_2	0.082	1.65	489.8	RELLENO_ZANJA	1.181	23.72	8074.7		ARENA_2	0.082	0.93	509.6	RELLENO_ZANJA	1.323	14.42	8392.6
	ARENA_3	0.258	5.15	1517.3						ARENA_3	0.258	2.90	1579.1				
6105.377	D TIERRA	1.939	9.75	11104.8	ARENA_1	0.130	0.70	779.8	6360.000	D TIERRA	1.947	37.78	11572.7	ARENA_1	0.130	2.59	812.8
	ARENA_2	0.082	0.44	490.2	RELLENO_ZANJA	1.431	7.02	8081.7		ARENA_2	0.082	1.65	511.2	RELLENO_ZANJA	1.439	27.61	8420.3
	ARENA_3	0.258	1.38	1518.7						ARENA_3	0.258	5.15	1584.2				
6120.000	D TIERRA	1.785	27.23	11132.0	ARENA_1	0.130	1.90	781.7	6368.447	D TIERRA	1.976	16.57	11589.3	ARENA_1	0.130	1.10	813.9
	ARENA_2	0.082	1.21	491.4	RELLENO_ZANJA	1.276	19.79	8101.5		ARENA_2	0.082	0.70	511.9	RELLENO_ZANJA	1.468	12.27	8432.5
	ARENA_3	0.258	3.77	1522.4						ARENA_3	0.258	2.18	1586.4				
6140.000	D TIERRA	1.569	33.54	11165.5	ARENA_1	0.130	2.59	784.3	6380.000	D TIERRA	2.005	23.00	11612.3	ARENA_1	0.130	1.50	815.4
	ARENA_2	0.082	1.65	493.1	RELLENO_ZANJA	1.061	23.37	8124.9		ARENA_2	0.082	0.95	512.9	RELLENO_ZANJA	1.497	17.12	8449.7
	ARENA_3	0.257	5.15	1527.6						ARENA_3	0.258	2.98	1589.4				
6160.000	D TIERRA	1.676	32.45	11198.0	ARENA_1	0.130	2.59	786.9	6400.000	D TIERRA	2.273	42.78	11655.1	ARENA_1	0.130	2.59	818.0
	ARENA_2	0.082	1.65	494.7	RELLENO_ZANJA	1.168	22.29	8147.2		ARENA_2	0.082	1.65	514.5	RELLENO_ZANJA	1.765	32.62	8482.3
	ARENA_3	0.257	5.15	1532.7						ARENA_3	0.258	5.15	1594.5				
6180.000	D TIERRA	1.806	34.83	11232.8	ARENA_1	0.130	2.59	789.5	6420.000	D TIERRA	2.628	49.02	11704.1	ARENA_1	0.130	2.59	820.6
	ARENA_2	0.082	1.65	496.4	RELLENO_ZANJA	1.298	24.66	8171.8		ARENA_2	0.082	1.65	516.1	RELLENO_ZANJA	2.120	38.85	8521.1
	ARENA_3	0.257	5.15	1537.9						ARENA_3	0.258	5.15	1599.7				
6181.576	D TIERRA	1.818	2.86	11235.7	ARENA_1	0.130	0.20	789.7	6440.000	D TIERRA	3.031	56.59	11760.7	ARENA_1	0.130	2.59	823.2
	ARENA_2	0.082	0.13	496.5	RELLENO_ZANJA	1.309	2.05	8173.9		ARENA_2	0.082	1.65	517.8	RELLENO_ZANJA	2.523	46.43	8567.5
	ARENA_3	0.257	0.41	1538.3						ARENA_3	0.258	5.15	1604.8				
6200.000	D TIERRA	1.814	33.46	11269.1	ARENA_1	0.130	2.39	792.1	6443.493	D TIERRA	3.178	10.84	11771.6	ARENA_1	0.130	0.45	823.6
	ARENA_2	0.082	1.52	498.0	RELLENO_ZANJA	1.306	24.09	8198.0		ARENA_2	0.082	0.29	518.1	RELLENO_ZANJA	2.669	9.07	8576.6
	ARENA_3	0.257	4.74	1543.0						ARENA_3	0.258	0.90	1605.7				
6210.436	D TIERRA	2.085	20.35	11289.5	ARENA_1	0.130	1.35	793.4	6460.000	D TIERRA	3.690	56.69	11828.2	ARENA_1	0.130	2.14	825.8
	ARENA_2	0.082	0.86	498.9	RELLENO_ZANJA	1.577	15.04	8213.0		ARENA_2	0.082	1.36	519.4	RELLENO_ZANJA	3.182	48.29	8624.9
	ARENA_3	0.258	2.69	1545.7						ARENA_3	0.258	4.25	1610.0				
6220.000	D TIERRA	1.867	18.90	11308.4	ARENA_1	0.130	1.24	794.7	6460.111	D TIERRA	3.692	0.41	11828.6	ARENA_1	0.130	0.01	825.8
	ARENA_2	0.082	0.79	499.7	RELLENO_ZANJA	1.358	14.04	8227.0		ARENA_2	0.082	0.01	519.5	RELLENO_ZANJA	3.184	0.35	8625.3
	ARENA_3	0.258	2.46	1548.2						ARENA_3	0.258	0.03	1610.0				
6233.736	D TIERRA	1.768	24.96	11333.3	ARENA_1	0.130	1.78	796.4	6480.000	D TIERRA	4.018	76.67	11905.3	ARENA_1	0.130	2.58	828.4
	ARENA_2	0.082	1.13	500.8	RELLENO_ZANJA	1.260	17.98	8245.0		ARENA_2	0.082	1.64	521.1	RELLENO_ZANJA	3.510	66.56	8691.8
	ARENA_3	0.258	3.54	1551.7						ARENA_3	0.258	5.12	1615.1				

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PERFIL	MATERIAL	AREA PERFIL	VOL. PARCIAL	VOL. ACUMUL.	MATERIAL	AREA PERFIL	VOL. PARCIAL	VOL. ACUMUL.	PERFIL	MATERIAL	AREA PERFIL	VOL. PARCIAL	VOL. ACUMUL.	MATERIAL	AREA PERFIL	VOL. PARCIAL	VOL. ACUMUL.
6489.837	D TIERRA	4.181	40.33	11945.6	ARENA_1	0.130	1.28	829.7	6691.122	D TIERRA	1.903	20.14	12391.8	ARENA_1	0.130	1.44	855.8
	ARENA_2	0.082	0.81	521.9	RELLENO_ZANJA	3.672	35.32	8727.1		ARENA_2	0.082	0.92	538.5	RELLENO_ZANJA	1.395	14.48	9071.0
	ARENA_3	0.258	2.53	1617.7						ARENA_3	0.257	2.86	1669.5				
6499.975	D TIERRA	4.178	42.37	11988.0	ARENA_1	0.130	1.32	831.0	6700.000	D TIERRA	1.900	16.88	12408.7	ARENA_1	0.130	1.15	856.9
	ARENA_2	0.082	0.84	522.7	RELLENO_ZANJA	3.669	37.21	8764.4		ARENA_2	0.082	0.73	539.2	RELLENO_ZANJA	1.392	12.37	9083.3
	ARENA_3	0.258	2.61	1620.3						ARENA_3	0.257	2.29	1671.8				
6500.000	D TIERRA	4.177	0.10	11988.1	ARENA_1	0.130	0.00	831.0	6704.725	D TIERRA	1.932	9.05	12417.7	ARENA_1	0.130	0.61	857.5
	ARENA_2	0.082	0.00	522.7	RELLENO_ZANJA	3.669	0.09	8764.5		ARENA_2	0.082	0.39	539.6	RELLENO_ZANJA	1.424	6.65	9090.0
	ARENA_3	0.258	0.01	1620.3						ARENA_3	0.257	1.22	1673.0				
6513.483	D TIERRA	3.828	53.96	12042.1	ARENA_1	0.130	1.75	832.7	6717.110	D TIERRA	1.960	24.10	12441.8	ARENA_1	0.130	1.61	859.1
	ARENA_2	0.082	1.11	523.9	RELLENO_ZANJA	3.319	47.11	8811.6		ARENA_2	0.082	1.02	540.6	RELLENO_ZANJA	1.452	17.81	9107.8
	ARENA_3	0.258	3.47	1623.8						ARENA_3	0.257	3.19	1676.2				
6520.000	D TIERRA	3.608	24.23	12066.3	ARENA_1	0.130	0.85	833.6	6720.000	D TIERRA	1.842	5.49	12447.3	ARENA_1	0.130	0.37	859.5
	ARENA_2	0.082	0.54	524.4	RELLENO_ZANJA	3.100	20.92	8832.5		ARENA_2	0.082	0.24	540.9	RELLENO_ZANJA	1.334	4.03	9111.8
	ARENA_3	0.258	1.68	1625.4						ARENA_3	0.257	0.74	1676.9				
6540.000	D TIERRA	2.420	60.28	12126.6	ARENA_1	0.130	2.59	836.2	6735.071	D TIERRA	1.933	28.45	12475.8	ARENA_1	0.130	1.96	861.5
	ARENA_2	0.082	1.65	526.0	RELLENO_ZANJA	1.911	50.11	8882.6		ARENA_2	0.082	1.24	542.1	RELLENO_ZANJA	1.424	20.79	9132.6
	ARENA_3	0.258	5.15	1630.6						ARENA_3	0.257	3.88	1680.8				
6542.817	D TIERRA	2.228	6.55	12133.1	ARENA_1	0.130	0.37	836.5	6740.000	D TIERRA	1.899	9.44	12485.2	ARENA_1	0.130	0.64	862.1
	ARENA_2	0.082	0.23	526.3	RELLENO_ZANJA	1.719	5.11	8887.7		ARENA_2	0.082	0.41	542.5	RELLENO_ZANJA	1.391	6.94	9139.5
	ARENA_3	0.258	0.73	1631.3						ARENA_3	0.257	1.27	1682.1				
6560.000	D TIERRA	1.692	33.68	12166.8	ARENA_1	0.130	2.23	838.8	6760.000	D TIERRA	1.825	37.25	12522.5	ARENA_1	0.130	2.60	864.7
	ARENA_2	0.082	1.42	527.7	RELLENO_ZANJA	1.184	24.94	8912.6		ARENA_2	0.082	1.65	544.2	RELLENO_ZANJA	1.317	27.08	9166.6
	ARENA_3	0.258	4.43	1635.7						ARENA_3	0.257	5.15	1687.2				
6576.310	D TIERRA	1.705	27.71	12194.5	ARENA_1	0.130	2.12	840.9	6780.000	D TIERRA	1.828	36.53	12559.0	ARENA_1	0.130	2.60	867.3
	ARENA_2	0.082	1.34	529.0	RELLENO_ZANJA	1.197	19.41	8932.1		ARENA_2	0.082	1.65	545.8	RELLENO_ZANJA	1.320	26.37	9193.0
	ARENA_3	0.258	4.20	1639.9						ARENA_3	0.257	5.15	1692.4				
6580.000	D TIERRA	1.790	6.45	12201.0	ARENA_1	0.130	0.48	841.4	6799.010	D TIERRA	1.878	35.23	12594.2	ARENA_1	0.130	2.47	869.8
	ARENA_2	0.082	0.30	529.3	RELLENO_ZANJA	1.282	4.57	8936.6		ARENA_2	0.082	1.57	547.4	RELLENO_ZANJA	1.370	25.57	9218.6
	ARENA_3	0.258	0.95	1640.9						ARENA_3	0.257	4.89	1697.3				
6586.362	D TIERRA	1.889	11.70	12212.7	ARENA_1	0.130	0.83	842.2	6800.000	D TIERRA	1.767	1.80	12596.1	ARENA_1	0.130	0.13	869.9
	ARENA_2	0.082	0.52	529.9	RELLENO_ZANJA	1.380	8.47	8945.1		ARENA_2	0.082	0.08	547.5	RELLENO_ZANJA	1.258	1.30	9219.9
	ARENA_3	0.258	1.64	1642.5						ARENA_3	0.257	0.25	1697.5				
6600.000	D TIERRA	1.656	24.18	12236.8	ARENA_1	0.130	1.77	844.0	6820.000	D TIERRA	1.765	35.31	12631.4	ARENA_1	0.130	2.59	872.5
	ARENA_2	0.082	1.12	531.0	RELLENO_ZANJA	1.148	17.24	8962.3		ARENA_2	0.082	1.65	549.1	RELLENO_ZANJA	1.256	25.15	9245.0
	ARENA_3	0.258	3.51	1646.0						ARENA_3	0.257	5.15	1702.7				
6620.000	D TIERRA	1.709	33.65	12270.5	ARENA_1	0.130	2.60	846.5	6823.546	D TIERRA	1.927	6.55	12637.9	ARENA_1	0.130	0.46	873.0
	ARENA_2	0.082	1.65	532.6	RELLENO_ZANJA	1.201	23.48	8985.8		ARENA_2	0.082	0.29	549.4	RELLENO_ZANJA	1.418	4.74	9249.8
	ARENA_3	0.257	5.15	1651.2						ARENA_3	0.257	0.91	1703.6				
6628.822	D TIERRA	1.854	15.71	12286.2	ARENA_1	0.130	1.14	847.7	6834.868	D TIERRA	1.657	20.29	12658.2	ARENA_1	0.130	1.47	874.4
	ARENA_2	0.082	0.73	533.4	RELLENO_ZANJA	1.345	11.23	8997.0		ARENA_2	0.082	0.93	550.3	RELLENO_ZANJA	1.149	14.53	9264.3
	ARENA_3	0.257	2.27	1653.5						ARENA_3	0.257	2.91	1706.5				
6637.324	D TIERRA	1.723	15.20	12301.4	ARENA_1	0.130	1.10	848.8	6840.000	D TIERRA	1.759	8.77	12667.0	ARENA_1	0.130	0.67	875.1
	ARENA_2	0.082	0.70	534.1	RELLENO_ZANJA	1.215	10.88	9007.9		ARENA_2	0.082	0.42	550.8	RELLENO_ZANJA	1.251	6.16	9270.4
	ARENA_3	0.257	2.19	1655.6						ARENA_3	0.257	1.32	1707.8				
6640.000	D TIERRA	1.709	4.59	12306.0	ARENA_1	0.130	0.35	849.1	6853.519	D TIERRA	1.794	24.02	12691.0	ARENA_1	0.130	1.75	876.8
	ARENA_2	0.082	0.22	534.3	RELLENO_ZANJA	1.201	3.23	9011.2		ARENA_2	0.082	1.11	551.9	RELLENO_ZANJA	1.286	17.15	9287.6
	ARENA_3	0.257	0.69	1656.3						ARENA_3	0.258	3.48	1711.3				
6643.804	D TIERRA	1.646	6.38	12312.4	ARENA_1	0.130	0.49	849.6	6860.000	D TIERRA	1.905	11.99	12703.0	ARENA_1	0.130	0.84	877.7
	ARENA_2	0.082	0.31	534.6	RELLENO_ZANJA	1.137	4.45	9015.6		ARENA_2	0.082	0.53	552.4	RELLENO_ZANJA	1.396	8.69	9296.3
	ARENA_3	0.257	0.98	1657.3						ARENA_3	0.258	1.67	1713.0				
6660.000	D TIERRA	1.617	26.43	12338.8	ARENA_1	0.130	2.10	851.7	6880.000	D TIERRA	1.852	37.57	12740.5	ARENA_1	0.130	2.59	880.3
	ARENA_2	0.082	1.34	535.9	RELLENO_ZANJA	1.109	18.19	9033.8		ARENA_2	0.082	1.65	554.1	RELLENO_ZANJA	1.344	27.40	9323.7
	ARENA_3	0.257	4.17	1661.5						ARENA_3	0.258	5.15	1718.1				
6672.886	D TIERRA	1.632	20.94	12359.7	ARENA_1	0.130	1.67	853.4	6883.825	D TIERRA	1.717	6.83	12747.4	ARENA_1	0.130	0.50	880.8
	ARENA_2	0.082	1.06	537.0	RELLENO_ZANJA	1.124	14.38	9048.2		ARENA_2	0.082	0.32	554.4	RELLENO_ZANJA	1.209	4.88	9328.6
	ARENA_3	0.257	3.32	1664.8						ARENA_3	0.258	0.99	1719.1				
6680.000	D TIERRA	1.718	11.92	12371.7	ARENA_1	0.130	0.92	854.3	6900.000	D TIERRA	1.759	28.11	12775.5	ARENA_1	0.130	2.10	882.9
	ARENA_2	0.082	0.59	537.6	RELLENO_ZANJA	1.210	8.30	9056.5		ARENA_2	0.082	1.33	555.7	RELLENO_ZANJA	1.250	19.89	9348.5
	ARENA_3	0.257	1.83	1666.6						ARENA_3	0.258	4.17	1723.3				



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PROYECTO : CIDACOS COMPLETO
EJE : 9: P350 (Tudelilla)-P400 (ETAP Ocón)

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PROYECTO : CIDACOS COMPLETO
EJE : 9: P350 (Tudelilla)-P400 (ETAP Ocón)

MEDICIONES DE LOS PERFILES TRANSVERSALES
CAPAS DE FIRME

MEDICIONES DE LOS PERFILES TRANSVERSALES
CAPAS DE FIRME

Table with 9 columns: PERFIL, MATERIAL, AREA PERFIL, VOL. PARCIAL, VOL. ACUMUL., MATERIAL, AREA PERFIL, VOL. PARCIAL, VOL. ACUMUL. It lists data for various profiles from 6920.000 to 7121.257.

Table with 9 columns: PERFIL, MATERIAL, AREA PERFIL, VOL. PARCIAL, VOL. ACUMUL., MATERIAL, AREA PERFIL, VOL. PARCIAL, VOL. ACUMUL. It lists data for various profiles from 7140.000 to 7380.000.



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 PROYECTO : CIDACOS COMPLETO
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 PROYECTO : CIDACOS COMPLETO
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*** MEDICIONES DE LOS PERFILES TRANSVERSALES ***
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PERFIL	MATERIAL	AREA PERFIL	VOL. PARCIAL	VOL. ACUMUL.	MATERIAL	AREA PERFIL	VOL. PARCIAL	VOL. ACUMUL.
7381.305	D TIERRA	1.464	1.97	13749.8	ARENA_1	0.128	0.17	942.2
	ARENA_2	0.079	0.10	592.7	RELLENO_ZANJA	0.978	1.33	10094.6
	ARENA_3	0.241	0.31	1837.3				
7400.000	D TIERRA	1.553	28.20	13778.0	ARENA_1	0.128	2.39	944.5
	ARENA_2	0.079	1.47	594.2	RELLENO_ZANJA	1.067	19.12	10113.7
	ARENA_3	0.241	4.50	1841.8				
7420.000	D TIERRA	1.800	33.53	13811.6	ARENA_1	0.128	2.56	947.1
	ARENA_2	0.079	1.58	595.8	RELLENO_ZANJA	1.314	23.81	10137.5
	ARENA_3	0.241	4.81	1846.6				
7440.000	D TIERRA	1.509	33.09	13844.6	ARENA_1	0.128	2.55	949.7
	ARENA_2	0.079	1.58	597.4	RELLENO_ZANJA	1.023	23.37	10160.9
	ARENA_3	0.241	4.81	1851.4				
7460.000	D TIERRA	1.566	30.75	13875.4	ARENA_1	0.128	2.55	952.2
	ARENA_2	0.079	1.58	598.9	RELLENO_ZANJA	1.080	21.04	10181.9
	ARENA_3	0.241	4.81	1856.2				
7480.000	D TIERRA	1.567	31.33	13906.7	ARENA_1	0.128	2.55	954.8
	ARENA_2	0.079	1.58	600.5	RELLENO_ZANJA	1.081	21.61	10203.5
	ARENA_3	0.241	4.81	1861.0				
7482.238	D TIERRA	1.553	3.49	13910.2	ARENA_1	0.128	0.29	955.1
	ARENA_2	0.079	0.18	600.7	RELLENO_ZANJA	1.068	2.40	10205.9
	ARENA_3	0.241	0.54	1861.6				
7492.935	D TIERRA	1.649	17.13	13927.4	ARENA_1	0.128	1.37	956.4
	ARENA_2	0.079	0.84	601.5	RELLENO_ZANJA	1.163	11.93	10217.9
	ARENA_3	0.241	2.57	1864.1				
7500.000	D TIERRA	1.628	11.58	13938.9	ARENA_1	0.128	0.90	957.3
	ARENA_2	0.079	0.56	602.1	RELLENO_ZANJA	1.142	8.14	10226.0
	ARENA_3	0.241	1.70	1865.8				
7504.044	D TIERRA	1.694	6.72	13945.6	ARENA_1	0.128	0.52	957.8
	ARENA_2	0.079	0.32	602.4	RELLENO_ZANJA	1.208	4.75	10230.8
	ARENA_3	0.241	0.97	1866.8				
7520.000	D TIERRA	1.546	25.84	13971.5	ARENA_1	0.128	2.04	959.9
	ARENA_2	0.079	1.26	603.7	RELLENO_ZANJA	1.060	18.09	10248.8
	ARENA_3	0.241	3.84	1870.7				
7534.039	D TIERRA	1.573	21.89	13993.4	ARENA_1	0.128	1.79	961.7
	ARENA_2	0.079	1.11	604.8	RELLENO_ZANJA	1.087	15.07	10263.9
	ARENA_3	0.241	3.38	1874.0				
7540.000	D TIERRA	1.607	9.48	14002.9	ARENA_1	0.128	0.76	962.4
	ARENA_2	0.079	0.47	605.2	RELLENO_ZANJA	1.121	6.58	10270.5
	ARENA_3	0.241	1.43	1875.5				
7560.000	D TIERRA	1.712	33.19	14036.0	ARENA_1	0.128	2.56	965.0
	ARENA_2	0.079	1.58	606.8	RELLENO_ZANJA	1.226	23.47	10294.0
	ARENA_3	0.241	4.81	1880.3				
7580.000	D TIERRA	1.722	34.35	14070.4	ARENA_1	0.128	2.56	967.5
	ARENA_2	0.079	1.58	608.4	RELLENO_ZANJA	1.236	24.63	10318.6
	ARENA_3	0.241	4.81	1885.1				
7600.000	D TIERRA	1.729	34.51	14104.9	ARENA_1	0.128	2.55	970.1
	ARENA_2	0.079	1.58	610.0	RELLENO_ZANJA	1.243	24.79	10343.4
	ARENA_3	0.241	4.81	1889.9				
7620.000	D TIERRA	1.719	34.48	14139.4	ARENA_1	0.128	2.56	972.7
	ARENA_2	0.079	1.58	611.5	RELLENO_ZANJA	1.233	24.76	10368.1
	ARENA_3	0.241	4.81	1894.7				
7640.000	D TIERRA	1.682	34.01	14173.4	ARENA_1	0.128	2.56	975.2
	ARENA_2	0.079	1.58	613.1	RELLENO_ZANJA	1.196	24.29	10392.4
	ARENA_3	0.241	4.81	1899.5				
7660.000	D TIERRA	1.644	33.26	14206.6	ARENA_1	0.128	2.56	977.8
	ARENA_2	0.079	1.58	614.7	RELLENO_ZANJA	1.158	23.54	10416.0
	ARENA_3	0.241	4.81	1904.4				
7680.000	D TIERRA	1.582	32.26	14238.9	ARENA_1	0.128	2.56	980.3
	ARENA_2	0.079	1.58	616.3	RELLENO_ZANJA	1.096	22.54	10438.5
	ARENA_3	0.241	4.81	1909.2				

PERFIL	MATERIAL	AREA PERFIL	VOL. PARCIAL	VOL. ACUMUL.	MATERIAL	AREA PERFIL	VOL. PARCIAL	VOL. ACUMUL.
7683.808	D TIERRA	1.569	6.00	14244.9	ARENA_1	0.128	0.49	980.8
	ARENA_2	0.079	0.30	616.6	RELLENO_ZANJA	1.083	4.15	10442.7
	ARENA_3	0.241	0.92	1910.1				
7700.000	D TIERRA	1.539	25.16	14270.1	ARENA_1	0.128	2.07	982.9
	ARENA_2	0.079	1.28	617.8	RELLENO_ZANJA	1.053	17.29	10460.0
	ARENA_3	0.241	3.90	1914.0				
7720.000	D TIERRA	1.566	31.05	14301.1	ARENA_1	0.128	2.56	985.4
	ARENA_2	0.079	1.58	619.4	RELLENO_ZANJA	1.080	21.33	10481.3
	ARENA_3	0.241	4.81	1918.8				
7740.000	D TIERRA	1.639	32.05	14333.2	ARENA_1	0.128	2.56	988.0
	ARENA_2	0.079	1.58	621.0	RELLENO_ZANJA	1.153	22.33	10503.6
	ARENA_3	0.241	4.81	1923.6				
7760.000	D TIERRA	1.558	31.96	14365.1	ARENA_1	0.128	2.56	990.5
	ARENA_2	0.079	1.58	622.6	RELLENO_ZANJA	1.072	22.24	10525.9
	ARENA_3	0.241	4.81	1928.4				
7780.000	D TIERRA	1.665	32.23	14397.4	ARENA_1	0.128	2.56	993.1
	ARENA_2	0.079	1.58	624.1	RELLENO_ZANJA	1.179	22.51	10548.4
	ARENA_3	0.241	4.81	1933.2				
7800.000	D TIERRA	1.722	33.87	14431.2	ARENA_1	0.128	2.56	995.7
	ARENA_2	0.079	1.58	625.7	RELLENO_ZANJA	1.236	24.15	10572.5
	ARENA_3	0.241	4.81	1938.1				
7820.000	D TIERRA	1.552	32.73	14464.0	ARENA_1	0.128	2.56	998.2
	ARENA_2	0.079	1.58	627.3	RELLENO_ZANJA	1.066	23.01	10595.5
	ARENA_3	0.241	4.81	1942.9				
7840.000	D TIERRA	1.491	30.42	14494.4	ARENA_1	0.128	2.56	1000.8
	ARENA_2	0.079	1.58	628.9	RELLENO_ZANJA	1.005	20.70	10616.2
	ARENA_3	0.241	4.81	1947.7				
7860.000	D TIERRA	1.518	30.09	14524.5	ARENA_1	0.128	2.55	1003.3
	ARENA_2	0.079	1.58	630.4	RELLENO_ZANJA	1.032	20.37	10636.6
	ARENA_3	0.241	4.81	1952.5				
7880.000	D TIERRA	1.493	30.11	14554.6	ARENA_1	0.128	2.56	1005.9
	ARENA_2	0.079	1.58	632.0	RELLENO_ZANJA	1.007	20.39	10657.0
	ARENA_3	0.241	4.81	1957.3				
7900.000	D TIERRA	1.548	30.40	14585.0	ARENA_1	0.128	2.56	1008.4
	ARENA_2	0.079	1.58	633.6	RELLENO_ZANJA	1.062	20.68	10677.7
	ARENA_3	0.241	4.81	1962.1				
7920.000	D TIERRA	1.511	30.59	14615.6	ARENA_1	0.128	2.55	1011.0
	ARENA_2	0.079	1.58	635.2	RELLENO_ZANJA	1.025	20.87	10698.6
	ARENA_3	0.241	4.81	1966.9				
7940.000	D TIERRA	1.464	29.75	14645.3	ARENA_1	0.128	2.56	1013.5
	ARENA_2	0.079	1.58	636.7	RELLENO_ZANJA	0.978	20.03	10718.6
	ARENA_3	0.241	4.81	1971.8				
7960.000	D TIERRA	1.497	29.61	14674.9	ARENA_1	0.128	2.56	1016.1
	ARENA_2	0.079	1.58	638.3	RELLENO_ZANJA	1.011	19.89	10738.5
	ARENA_3	0.241	4.81	1976.6				
7980.000	D TIERRA	1.545	30.42	14705.4	ARENA_1	0.128	2.55	1018.6
	ARENA_2	0.079	1.58	639.9	RELLENO_ZANJA	1.059	20.70	10759.2
	ARENA_3	0.241	4.81	1981.4				
7987.376	D TIERRA	1.536	11.36	14716.7	ARENA_1	0.128	0.94	1019.6
	ARENA_2	0.079	0.58	640.5	RELLENO_ZANJA	1.050	7.78	10767.0
	ARENA_3	0.241	1.78	1983.2				
8000.000	D TIERRA	1.499	19.16	14735.9	ARENA_1	0.128	1.61	1021.2
	ARENA_2	0.079	0.99	641.5	RELLENO_ZANJA	1.013	13.02	10780.0
	ARENA_3	0.241	3.04	1986.2				
8020.000	D TIERRA	1.476	29.75	14765.6	ARENA_1	0.128	2.56	1023.8
	ARENA_2	0.079	1.58	643.0	RELLENO_ZANJA	0.990	20.04	10800.0
	ARENA_3	0.241	4.81	1991.0				
8040.000	D TIERRA	1.478	29.54	14795.2	ARENA_1	0.128	2.56	1026.3
	ARENA_2	0.079	1.58	644.6	RELLENO_ZANJA	0.992	19.82	10819.8
	ARENA_3	0.241	4.81	1995.8				

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 PROYECTO : CIDACOS COMPLETO
 EJE : 9: P350 (Tudelilla)-P400 (ETAP Ocón)

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 ***** CAPAS DE FIRME *****

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PERFIL	MATERIAL	AREA PERFIL	VOL. PARCIAL	VOL. ACUMUL.	MATERIAL	AREA PERFIL	VOL. PARCIAL	VOL. ACUMUL.
8060.000	D TIERRA	1.523	30.01	14825.2	ARENA_1	0.128	2.55	1028.9
	ARENA_2	0.079	1.58	646.2	RELLENO_ZANJA	1.037	20.29	10840.1
	ARENA_3	0.241	4.81	2000.6				
8080.000	D TIERRA	1.562	30.85	14856.0	ARENA_1	0.128	2.56	1031.4
	ARENA_2	0.079	1.58	647.8	RELLENO_ZANJA	1.076	21.13	10861.2
	ARENA_3	0.241	4.81	2005.5				
8100.000	D TIERRA	1.544	31.06	14887.1	ARENA_1	0.128	2.56	1034.0
	ARENA_2	0.079	1.58	649.4	RELLENO_ZANJA	1.058	21.34	10882.6
	ARENA_3	0.241	4.81	2010.3				
8120.000	D TIERRA	1.556	31.00	14918.1	ARENA_1	0.128	2.56	1036.5
	ARENA_2	0.079	1.58	650.9	RELLENO_ZANJA	1.070	21.28	10903.9
	ARENA_3	0.241	4.81	2015.1				
8140.000	D TIERRA	1.632	31.88	14950.0	ARENA_1	0.128	2.56	1039.1
	ARENA_2	0.079	1.58	652.5	RELLENO_ZANJA	1.146	22.16	10926.0
	ARENA_3	0.241	4.81	2019.9				
8160.000	D TIERRA	1.539	31.70	14981.7	ARENA_1	0.128	2.56	1041.6
	ARENA_2	0.079	1.58	654.1	RELLENO_ZANJA	1.053	21.98	10948.0
	ARENA_3	0.241	4.81	2024.7				
8180.000	D TIERRA	1.857	33.96	15015.6	ARENA_1	0.128	2.56	1044.2
	ARENA_2	0.079	1.58	655.7	RELLENO_ZANJA	1.371	24.24	10972.2
	ARENA_3	0.241	4.81	2029.5				
8200.000	D TIERRA	1.651	35.09	15050.7	ARENA_1	0.128	2.56	1046.8
	ARENA_2	0.079	1.58	657.2	RELLENO_ZANJA	1.165	25.37	10997.6
	ARENA_3	0.241	4.81	2034.3				
8220.000	D TIERRA	1.550	32.01	15082.7	ARENA_1	0.128	2.56	1049.3
	ARENA_2	0.079	1.58	658.8	RELLENO_ZANJA	1.064	22.29	11019.9
	ARENA_3	0.241	4.81	2039.2				
8240.000	D TIERRA	1.547	30.96	15113.7	ARENA_1	0.128	2.56	1051.9
	ARENA_2	0.079	1.58	660.4	RELLENO_ZANJA	1.061	21.24	11041.1
	ARENA_3	0.241	4.81	2044.0				
8253.398	D TIERRA	1.563	20.83	15134.5	ARENA_1	0.128	1.71	1053.6
	ARENA_2	0.079	1.06	661.4	RELLENO_ZANJA	1.077	14.32	11055.5
	ARENA_3	0.241	3.23	2047.2				
8260.000	D TIERRA	1.690	10.74	15145.3	ARENA_1	0.128	0.84	1054.4
	ARENA_2	0.079	0.52	662.0	RELLENO_ZANJA	1.204	7.53	11063.0
	ARENA_3	0.241	1.59	2048.8				
8261.191	D TIERRA	1.717	2.03	15147.3	ARENA_1	0.128	0.15	1054.6
	ARENA_2	0.079	0.09	662.0	RELLENO_ZANJA	1.231	1.45	11064.5
	ARENA_3	0.241	0.29	2049.1				
8267.156	D TIERRA	1.640	10.01	15157.3	ARENA_1	0.128	0.76	1055.3
	ARENA_2	0.079	0.47	662.5	RELLENO_ZANJA	1.154	7.11	11071.6
	ARENA_3	0.241	1.44	2050.5				
8276.311	D TIERRA	1.686	15.23	15172.5	ARENA_1	0.128	1.17	1056.5
	ARENA_2	0.079	0.72	663.2	RELLENO_ZANJA	1.200	10.78	11082.3
	ARENA_3	0.241	2.20	2052.7				
8280.000	D TIERRA	1.704	6.25	15178.8	ARENA_1	0.128	0.47	1057.0
	ARENA_2	0.079	0.29	663.5	RELLENO_ZANJA	1.218	4.46	11086.8
	ARENA_3	0.241	0.89	2053.6				
8300.000	D TIERRA	1.524	32.28	15211.1	ARENA_1	0.128	2.55	1059.5
	ARENA_2	0.079	1.58	665.1	RELLENO_ZANJA	1.038	22.56	11109.4
	ARENA_3	0.241	4.81	2058.4				
8305.415	D TIERRA	1.649	8.59	15219.6	ARENA_1	0.128	0.69	1060.2
	ARENA_2	0.079	0.43	665.5	RELLENO_ZANJA	1.164	5.96	11115.3
	ARENA_3	0.241	1.30	2059.7				
8320.000	D TIERRA	2.693	31.67	15251.3	ARENA_1	0.128	1.86	1062.1
	ARENA_2	0.079	1.15	666.7	RELLENO_ZANJA	2.207	24.58	11139.9
	ARENA_3	0.241	3.51	2063.2				
8322.371	D TIERRA	2.782	6.49	15257.8	ARENA_1	0.128	0.30	1062.4
	ARENA_2	0.079	0.19	666.9	RELLENO_ZANJA	2.296	5.34	11145.2
	ARENA_3	0.241	0.57	2063.8				

PERFIL	MATERIAL	AREA PERFIL	VOL. PARCIAL	VOL. ACUMUL.	MATERIAL	AREA PERFIL	VOL. PARCIAL	VOL. ACUMUL.
8335.413	D TIERRA	2.589	35.03	15292.8	ARENA_1	0.128	1.67	1064.1
	ARENA_2	0.079	1.03	667.9	RELLENO_ZANJA	2.103	28.69	11173.9
	ARENA_3	0.241	3.14	2066.9				
8340.000	D TIERRA	2.600	11.90	15304.7	ARENA_1	0.128	0.59	1064.6
	ARENA_2	0.079	0.36	668.3	RELLENO_ZANJA	2.114	9.67	11183.6
	ARENA_3	0.241	1.10	2068.0				
8360.000	D TIERRA	1.893	44.93	15349.7	ARENA_1	0.128	2.55	1067.2
	ARENA_2	0.079	1.58	669.8	RELLENO_ZANJA	1.407	35.21	11218.8
	ARENA_3	0.241	4.81	2072.9				
8372.736	D TIERRA	1.854	23.86	15373.5	ARENA_1	0.128	1.63	1068.8
	ARENA_2	0.079	1.00	670.8	RELLENO_ZANJA	1.368	17.67	11236.5
	ARENA_3	0.241	3.07	2075.9				
8380.000	D TIERRA	1.887	13.59	15387.1	ARENA_1	0.128	0.93	1069.7
	ARENA_2	0.079	0.57	671.4	RELLENO_ZANJA	1.401	10.06	11246.5
	ARENA_3	0.241	1.75	2077.7				
8400.000	D TIERRA	1.560	34.47	15421.6	ARENA_1	0.128	2.56	1072.3
	ARENA_2	0.079	1.58	673.0	RELLENO_ZANJA	1.074	24.75	11271.3
	ARENA_3	0.241	4.81	2082.5				
8420.000	D TIERRA	1.735	32.95	15454.5	ARENA_1	0.128	2.56	1074.9
	ARENA_2	0.079	1.58	674.6	RELLENO_ZANJA	1.249	23.23	11294.5
	ARENA_3	0.241	4.81	2087.3				
8420.204	D TIERRA	1.740	0.35	15454.9	ARENA_1	0.128	0.03	1074.9
	ARENA_2	0.079	0.02	674.6	RELLENO_ZANJA	1.254	0.26	11294.8
	ARENA_3	0.241	0.05	2087.3				
8440.000	D TIERRA	1.554	32.61	15487.5	ARENA_1	0.128	2.53	1077.4
	ARENA_2	0.079	1.56	676.1	RELLENO_ZANJA	1.068	22.99	11317.8
	ARENA_3	0.241	4.76	2092.1				
8442.471	D TIERRA	1.673	3.99	15491.5	ARENA_1	0.128	0.32	1077.7
	ARENA_2	0.079	0.19	676.3	RELLENO_ZANJA	1.187	2.79	11320.5
	ARENA_3	0.241	0.59	2092.7				
8455.412	D TIERRA	1.595	21.15	15512.6	ARENA_1	0.128	1.65	1079.4
	ARENA_2	0.079	1.02	677.4	RELLENO_ZANJA	1.109	14.86	11335.4
	ARENA_3	0.241	3.11	2095.8				
8460.000	D TIERRA	1.644	7.43	15520.1	ARENA_1	0.128	0.59	1080.0
	ARENA_2	0.079	0.36	677.7	RELLENO_ZANJA	1.158	5.20	11340.6
	ARENA_3	0.241	1.10	2096.9				
8467.148	D TIERRA	1.593	11.57	15531.6	ARENA_1	0.128	0.91	1080.9
	ARENA_2	0.079	0.56	678.3	RELLENO_ZANJA	1.107	8.10	11348.7
	ARENA_3	0.241	1.72	2098.6				
8476.154	D TIERRA	1.562	14.21	15545.8	ARENA_1	0.128	1.15	1082.0
	ARENA_2	0.079	0.71	679.0	RELLENO_ZANJA	1.076	9.83	11358.5
	ARENA_3	0.241	2.17	2100.8				
8480.000	D TIERRA	1.554	5.99	15551.8	ARENA_1	0.128	0.49	1082.5
	ARENA_2	0.079	0.30	679.3	RELLENO_ZANJA	1.068	4.12	11362.7
	ARENA_3	0.241	0.93	2101.7				
8500.000	D TIERRA	1.554	31.08	15582.9	ARENA_1	0.128	2.56	1085.1
	ARENA_2	0.079	1.58	680.9	RELLENO_ZANJA	1.068	21.36	11384.0
	ARENA_3	0.241	4.81	2106.5				
8520.000	D TIERRA	1.553	31.08	15614.0	ARENA_1	0.128	2.56	1087.6
	ARENA_2	0.079	1.58	682.4	RELLENO_ZANJA	1.067	21.36	11405.4
	ARENA_3	0.241	4.81	2111.4				
8523.171	D TIERRA	1.722	5.19	15619.2	ARENA_1	0.128	0.41	1088.0
	ARENA_2	0.079	0.25	682.7	RELLENO_ZANJA	1.236	3.65	11409.0
	ARENA_3	0.241	0.76	2112.1				
8540.000	D TIERRA	1.820	29.80	15649.0	ARENA_1	0.128	2.15	1090.2
	ARENA_2	0.079	1.33	684.0	RELLENO_ZANJA	1.334	21.62	11430.6
	ARENA_3	0.241	4.05	2116.2				
8541.285	D TIERRA	1.791	2.32	15651.3	ARENA_1	0.128	0.16	1090.4
	ARENA_2	0.079	0.10	684.1	RELLENO_ZANJA	1.305	1.70	11432.3
	ARENA_3	0.241	0.31	2116.5				

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 PROYECTO : CIDACOS COMPLETO
 EJE : 9: P350 (Tudelilla)-P400 (ETAP Ocón)

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 PROYECTO : CIDACOS COMPLETO
 EJE : 9: P350 (Tudelilla)-P400 (ETAP Ocón)

***** MEDICIONES DE LOS PERFILES TRANSVERSALES* * *
 * * * CAPAS DE FIRME * * *

***** MEDICIONES DE LOS PERFILES TRANSVERSALES* * *
 * * * CAPAS DE FIRME * * *

PERFIL	MATERIAL	AREA PERFIL	VOL. PARCIAL	VOL. ACUMUL.	MATERIAL	AREA PERFIL	VOL. PARCIAL	VOL. ACUMUL.
8550.894	D TIERRA	1.554	16.07	15667.4	ARENA_1	0.128	1.23	1091.6
	ARENA_2	0.079	0.76	684.9	RELLENO_ZANJA	1.068	11.40	11443.7
	ARENA_3	0.241	2.31	2118.8				
8560.000	D TIERRA	1.556	14.16	15681.5	ARENA_1	0.128	1.16	1092.7
	ARENA_2	0.079	0.72	685.6	RELLENO_ZANJA	1.070	9.73	11453.5
	ARENA_3	0.241	2.19	2121.0				
8565.317	D TIERRA	1.557	8.28	15689.8	ARENA_1	0.128	0.68	1093.4
	ARENA_2	0.079	0.42	686.0	RELLENO_ZANJA	1.071	5.69	11459.2
	ARENA_3	0.241	1.28	2122.3				
8580.000	D TIERRA	1.553	22.83	15712.6	ARENA_1	0.128	1.88	1095.3
	ARENA_2	0.079	1.16	687.2	RELLENO_ZANJA	1.067	15.70	11474.9
	ARENA_3	0.241	3.53	2125.8				
8594.641	D TIERRA	1.862	25.00	15737.6	ARENA_1	0.128	1.87	1097.2
	ARENA_2	0.079	1.15	688.3	RELLENO_ZANJA	1.376	17.89	11492.8
	ARENA_3	0.241	3.52	2129.3				
8600.000	D TIERRA	1.612	9.31	15746.9	ARENA_1	0.128	0.68	1097.9
	ARENA_2	0.079	0.42	688.7	RELLENO_ZANJA	1.126	6.70	11499.5
	ARENA_3	0.241	1.29	2130.6				
8610.192	D TIERRA	1.553	16.13	15763.1	ARENA_1	0.128	1.30	1099.2
	ARENA_2	0.079	0.80	689.5	RELLENO_ZANJA	1.067	11.18	11510.6
	ARENA_3	0.241	2.45	2133.1				
8620.000	D TIERRA	1.554	15.23	15778.3	ARENA_1	0.128	1.25	1100.4
	ARENA_2	0.079	0.77	690.3	RELLENO_ZANJA	1.068	10.47	11521.1
	ARENA_3	0.241	2.36	2135.4				
8640.000	D TIERRA	1.677	32.31	15810.6	ARENA_1	0.128	2.56	1103.0
	ARENA_2	0.079	1.58	691.9	RELLENO_ZANJA	1.191	22.59	11543.7
	ARENA_3	0.241	4.81	2140.2				
8660.000	D TIERRA	1.675	33.52	15844.1	ARENA_1	0.128	2.56	1105.5
	ARENA_2	0.079	1.58	693.5	RELLENO_ZANJA	1.189	23.80	11567.5
	ARENA_3	0.241	4.81	2145.1				
8674.639	D TIERRA	1.653	24.36	15868.5	ARENA_1	0.128	1.87	1107.4
	ARENA_2	0.079	1.15	694.6	RELLENO_ZANJA	1.167	17.24	11584.7
	ARENA_3	0.241	3.52	2148.6				
8680.000	D TIERRA	1.643	8.83	15877.3	ARENA_1	0.128	0.69	1108.1
	ARENA_2	0.079	0.42	695.0	RELLENO_ZANJA	1.157	6.23	11591.0
	ARENA_3	0.241	1.29	2149.9				
8700.000	D TIERRA	1.665	33.08	15910.4	ARENA_1	0.128	2.56	1110.6
	ARENA_2	0.079	1.58	696.6	RELLENO_ZANJA	1.179	23.36	11614.3
	ARENA_3	0.241	4.81	2154.7				
8703.923	D TIERRA	1.695	6.59	15917.0	ARENA_1	0.128	0.50	1111.1
	ARENA_2	0.079	0.31	696.9	RELLENO_ZANJA	1.209	4.68	11619.0
	ARENA_3	0.241	0.94	2155.6				
8720.000	D TIERRA	1.759	27.77	15944.8	ARENA_1	0.128	2.05	1113.2
	ARENA_2	0.079	1.27	698.2	RELLENO_ZANJA	1.273	19.95	11639.0
	ARENA_3	0.241	3.87	2159.5				
8740.000	D TIERRA	1.432	31.91	15976.7	ARENA_1	0.128	2.56	1115.7
	ARENA_2	0.079	1.58	699.8	RELLENO_ZANJA	0.946	22.19	11661.1
	ARENA_3	0.241	4.81	2164.3				
8760.000	D TIERRA	1.720	31.52	16008.2	ARENA_1	0.128	2.56	1118.3
	ARENA_2	0.079	1.58	701.3	RELLENO_ZANJA	1.235	21.81	11683.0
	ARENA_3	0.241	4.81	2169.1				
8760.875	D TIERRA	1.621	1.46	16009.6	ARENA_1	0.128	0.11	1118.4
	ARENA_2	0.079	0.07	701.4	RELLENO_ZANJA	1.135	1.04	11684.0
	ARENA_3	0.241	0.21	2169.3				
8780.000	D TIERRA	1.555	30.38	16040.0	ARENA_1	0.128	2.44	1120.9
	ARENA_2	0.079	1.51	702.9	RELLENO_ZANJA	1.069	21.08	11705.1
	ARENA_3	0.241	4.60	2173.9				
8800.000	D TIERRA	1.695	32.51	16072.5	ARENA_1	0.128	2.56	1123.4
	ARENA_2	0.079	1.58	704.5	RELLENO_ZANJA	1.209	22.79	11727.9
	ARENA_3	0.241	4.81	2178.8				

PERFIL	MATERIAL	AREA PERFIL	VOL. PARCIAL	VOL. ACUMUL.	MATERIAL	AREA PERFIL	VOL. PARCIAL	VOL. ACUMUL.
8801.447	D TIERRA	1.682	2.44	16075.0	ARENA_1	0.128	0.18	1123.6
	ARENA_2	0.079	0.11	704.6	RELLENO_ZANJA	1.196	1.74	11729.6
	ARENA_3	0.241	0.35	2179.1				
8820.000	D TIERRA	1.560	30.08	16105.0	ARENA_1	0.128	2.37	1126.0
	ARENA_2	0.079	1.46	706.1	RELLENO_ZANJA	1.074	21.06	11750.7
	ARENA_3	0.241	4.47	2183.6				
8840.000	D TIERRA	1.554	31.14	16136.2	ARENA_1	0.128	2.56	1128.5
	ARENA_2	0.079	1.58	707.7	RELLENO_ZANJA	1.068	21.42	11772.1
	ARENA_3	0.241	4.81	2188.4				
8860.000	D TIERRA	1.560	31.14	16167.3	ARENA_1	0.128	2.56	1131.1
	ARENA_2	0.079	1.58	709.2	RELLENO_ZANJA	1.074	21.42	11793.5
	ARENA_3	0.241	4.81	2193.2				
8880.000	D TIERRA	1.714	32.74	16200.1	ARENA_1	0.128	2.56	1133.6
	ARENA_2	0.079	1.58	710.8	RELLENO_ZANJA	1.228	23.02	11816.5
	ARENA_3	0.241	4.81	2198.0				
8900.000	D TIERRA	1.553	32.67	16232.7	ARENA_1	0.128	2.55	1136.2
	ARENA_2	0.079	1.58	712.4	RELLENO_ZANJA	1.067	22.95	11839.5
	ARENA_3	0.241	4.81	2202.8				
8920.000	D TIERRA	1.554	31.07	16263.8	ARENA_1	0.128	2.56	1138.7
	ARENA_2	0.079	1.58	714.0	RELLENO_ZANJA	1.068	21.35	11860.8
	ARENA_3	0.241	4.81	2207.6				
8936.779	D TIERRA	1.549	26.03	16289.8	ARENA_1	0.128	2.14	1140.9
	ARENA_2	0.079	1.32	715.3	RELLENO_ZANJA	1.063	17.87	11878.7
	ARENA_3	0.241	4.04	2211.7				
8940.000	D TIERRA	1.554	5.00	16294.8	ARENA_1	0.128	0.41	1141.3
	ARENA_2	0.079	0.25	715.5	RELLENO_ZANJA	1.068	3.43	11882.1
	ARENA_3	0.241	0.78	2212.5				
8960.000	D TIERRA	1.688	32.41	16327.3	ARENA_1	0.128	2.56	1143.9
	ARENA_2	0.079	1.58	717.1	RELLENO_ZANJA	1.202	22.69	11904.8
	ARENA_3	0.241	4.81	2217.3				
8980.000	D TIERRA	1.944	36.32	16363.6	ARENA_1	0.128	2.56	1146.4
	ARENA_2	0.079	1.58	718.7	RELLENO_ZANJA	1.458	26.60	11931.4
	ARENA_3	0.241	4.81	2222.1				
9000.000	D TIERRA	2.178	41.22	16404.8	ARENA_1	0.128	2.56	1149.0
	ARENA_2	0.079	1.58	720.3	RELLENO_ZANJA	1.692	31.50	11962.9
	ARENA_3	0.241	4.81	2226.9				
9020.000	D TIERRA	1.554	37.32	16442.1	ARENA_1	0.128	2.56	1151.5
	ARENA_2	0.079	1.58	721.8	RELLENO_ZANJA	1.068	27.60	11990.5
	ARENA_3	0.241	4.81	2231.7				
9040.000	D TIERRA	1.553	31.07	16473.2	ARENA_1	0.128	2.56	1154.1
	ARENA_2	0.079	1.58	723.4	RELLENO_ZANJA	1.067	21.35	12011.9
	ARENA_3	0.241	4.81	2236.5				
9060.000	D TIERRA	1.551	31.04	16504.2	ARENA_1	0.128	2.56	1156.6
	ARENA_2	0.079	1.58	725.0	RELLENO_ZANJA	1.065	21.32	12033.2
	ARENA_3	0.241	4.81	2241.3				
9080.000	D TIERRA	2.532	40.82	16545.0	ARENA_1	0.128	2.56	1159.2
	ARENA_2	0.079	1.58	726.6	RELLENO_ZANJA	2.046	31.11	12064.3
	ARENA_3	0.241	4.81	2246.2				
9100.000	D TIERRA	2.977	55.09	16600.1	ARENA_1	0.128	2.55	1161.7
	ARENA_2	0.079	1.58	728.1	RELLENO_ZANJA	2.491	45.37	12109.7
	ARENA_3	0.241	4.81	2251.0				
9101.901	D TIERRA	2.888	5.57	16605.7	ARENA_1	0.128	0.24	1162.0
	ARENA_2	0.079	0.15	728.3	RELLENO_ZANJA	2.402	4.65	12114.3
	ARENA_3	0.241	0.46	2251.4				
9120.000	D TIERRA	1.599	40.61	16646.3	ARENA_1	0.128	2.31	1164.3
	ARENA_2	0.079	1.43	729.7	RELLENO_ZANJA	1.113	31.81	12146.1
	ARENA_3	0.241	4.36	2255.8				
9123.088	D TIERRA	1.570	4.89	16651.2	ARENA_1	0.128	0.39	1164.7
	ARENA_2	0.079	0.24	730.0	RELLENO_ZANJA	1.084	3.39	12149.5
	ARENA_3	0.241	0.74	2256.5				



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PROYECTO : CIDACOS COMPLETO
EJE : 9: P350 (Tudelilla)-P400 (ETAP Ocón)

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PROYECTO : CIDACOS COMPLETO
EJE : 9: P350 (Tudelilla)-P400 (ETAP Ocón)

*** MEDICIONES DE LOS PERFILES TRANSVERSALES***
CAPAS DE FIRME

*** MEDICIONES DE LOS PERFILES TRANSVERSALES***
CAPAS DE FIRME

Table with columns: PERFIL, MATERIAL, AREA PERFIL, VOL. PARCIAL, VOL. ACUMUL., MATERIAL, AREA PERFIL, VOL. PARCIAL, VOL. ACUMUL. It lists various cross-section measurements for different profiles and materials.

Table with columns: PERFIL, MATERIAL, AREA PERFIL, VOL. PARCIAL, VOL. ACUMUL., MATERIAL, AREA PERFIL, VOL. PARCIAL, VOL. ACUMUL. It lists various cross-section measurements for different profiles and materials.

Istram 9.04 13/04/20 17:55:17
PROYECTO : CIDACOS COMPLETO
EJE : 9: P350 (Tudelilla)-P400 (ETAP Ocón)

*** RESUMEN DE VOLUMENES TOTALES ***

Summary table with columns: MATERIAL, VOLUMEN. It provides a total volume breakdown for different materials like TERRAPLEN, D_TIERRA, ARENA_1, ARENA_2, RELLENO_ZANJA, and ARENA_3.

10. EJE 10: P350 (TUDELILLA) – P410 (VILLAR DE ARNEDEO)

Istram 9.04 22/07/20 09:22:26
 PROYECTO : CIDACOS COMPLETO
 EJE : 10: P350 (Tudelilla) - P410 (Villar de Arnedo)

Istram 9.04 22/07/20 09:22:26
 PROYECTO : CIDACOS COMPLETO
 EJE : 10: P350 (Tudelilla) - P410 (Villar de Arnedo)

*** MEDICIONES DE LOS PERFILES TRANSVERSALES***
 *** CAPAS DE FIRME ***

*** MEDICIONES DE LOS PERFILES TRANSVERSALES***
 *** CAPAS DE FIRME ***

PERFIL	MATERIAL	AREA PERFIL	VOL. PARCIAL	VOL. ACUMUL.	MATERIAL	AREA PERFIL	VOL. PARCIAL	VOL. ACUMUL.
0.000	D TIERRA	2.097	0.00	0.0	ARENA_1	0.144	0.00	0.0
	ARENA_2	0.121	0.00	0.0	RELLENO_ZANJA	1.435	0.00	0.0
	ARENA_3	0.314	0.00	0.0				
20.000	D TIERRA	1.879	39.76	39.8	ARENA_1	0.144	2.88	2.9
	ARENA_2	0.121	2.42	2.4	RELLENO_ZANJA	1.217	26.52	26.5
	ARENA_3	0.314	6.27	6.3				
40.000	D TIERRA	1.885	37.64	77.4	ARENA_1	0.144	2.88	5.8
	ARENA_2	0.121	2.42	4.8	RELLENO_ZANJA	1.223	24.40	50.9
	ARENA_3	0.314	6.27	12.5				
60.000	D TIERRA	1.897	37.81	115.2	ARENA_1	0.144	2.88	8.6
	ARENA_2	0.121	2.42	7.2	RELLENO_ZANJA	1.235	24.58	75.5
	ARENA_3	0.314	6.27	18.8				
78.726	D TIERRA	1.878	35.34	150.5	ARENA_1	0.144	2.69	11.3
	ARENA_2	0.121	2.26	9.5	RELLENO_ZANJA	1.216	22.95	98.5
	ARENA_3	0.314	5.87	24.7				
80.000	D TIERRA	1.879	2.39	152.9	ARENA_1	0.144	0.18	11.5
	ARENA_2	0.121	0.15	9.7	RELLENO_ZANJA	1.217	1.55	100.0
	ARENA_3	0.314	0.40	25.1				
100.000	D TIERRA	1.999	38.78	191.7	ARENA_1	0.144	2.87	14.4
	ARENA_2	0.121	2.42	12.1	RELLENO_ZANJA	1.338	25.55	125.6
	ARENA_3	0.314	6.27	31.4				
120.000	D TIERRA	2.403	44.02	235.7	ARENA_1	0.144	2.88	17.3
	ARENA_2	0.121	2.42	14.5	RELLENO_ZANJA	1.741	30.79	156.3
	ARENA_3	0.314	6.27	37.6				
140.000	D TIERRA	2.827	52.30	288.0	ARENA_1	0.144	2.88	20.1
	ARENA_2	0.121	2.42	16.9	RELLENO_ZANJA	2.166	39.07	195.4
	ARENA_3	0.314	6.27	43.9				
157.915	D TIERRA	3.210	54.08	342.1	ARENA_1	0.144	2.58	22.7
	ARENA_2	0.121	2.16	19.1	RELLENO_ZANJA	2.549	42.23	237.6
	ARENA_3	0.314	5.62	49.5				
160.000	D TIERRA	3.114	6.59	348.7	ARENA_1	0.144	0.30	23.0
	ARENA_2	0.121	0.25	19.3	RELLENO_ZANJA	2.453	5.21	242.8
	ARENA_3	0.314	0.65	50.2				
164.412	D TIERRA	3.061	13.62	362.3	ARENA_1	0.144	0.63	23.6
	ARENA_2	0.121	0.53	19.9	RELLENO_ZANJA	2.400	10.70	253.5
	ARENA_3	0.314	1.38	51.6				
172.988	D TIERRA	2.634	24.42	386.8	ARENA_1	0.144	1.23	24.9
	ARENA_2	0.121	1.04	20.9	RELLENO_ZANJA	1.972	18.75	272.3
	ARENA_3	0.314	2.69	54.3				
172.988	D TIERRA	0.000	0.00	386.8	ARENA_1	0.000	0.00	24.9
	ARENA_2	0.000	0.00	20.9	RELLENO_ZANJA	0.000	0.00	272.3
	ARENA_3	0.000	0.00	54.3				
180.000	D TIERRA	0.000	0.00	386.8	ARENA_1	0.000	0.00	24.9
	ARENA_2	0.000	0.00	20.9	RELLENO_ZANJA	0.000	0.00	272.3
	ARENA_3	0.000	0.00	54.3				
181.856	D TIERRA	0.000	0.00	386.8	ARENA_1	0.000	0.00	24.9
	ARENA_2	0.000	0.00	20.9	RELLENO_ZANJA	0.000	0.00	272.3
	ARENA_3	0.000	0.00	54.3				
188.996	D TIERRA	0.000	0.00	386.8	ARENA_1	0.000	0.00	24.9
	ARENA_2	0.000	0.00	20.9	RELLENO_ZANJA	0.000	0.00	272.3
	ARENA_3	0.000	0.00	54.3				
188.996	D TIERRA	2.152	0.00	386.8	ARENA_1	0.144	0.00	24.9
	ARENA_2	0.121	0.00	20.9	RELLENO_ZANJA	1.490	0.00	272.3
	ARENA_3	0.314	0.00	54.3				
200.000	D TIERRA	1.850	22.02	408.8	ARENA_1	0.144	1.58	26.5
	ARENA_2	0.121	1.33	22.2	RELLENO_ZANJA	1.188	14.74	287.0
	ARENA_3	0.314	3.45	57.7				

PERFIL	MATERIAL	AREA PERFIL	VOL. PARCIAL	VOL. ACUMUL.	MATERIAL	AREA PERFIL	VOL. PARCIAL	VOL. ACUMUL.
214.645	D TIERRA	1.886	27.36	436.1	ARENA_1	0.144	2.11	28.6
	ARENA_2	0.121	1.77	24.0	RELLENO_ZANJA	1.225	17.67	304.7
	ARENA_3	0.314	4.59	62.3				
220.000	D TIERRA	1.869	10.06	446.2	ARENA_1	0.144	0.77	29.3
	ARENA_2	0.121	0.65	24.6	RELLENO_ZANJA	1.208	6.51	311.2
	ARENA_3	0.314	1.68	64.0				
240.000	D TIERRA	3.270	51.39	497.6	ARENA_1	0.144	2.88	32.2
	ARENA_2	0.121	2.42	27.1	RELLENO_ZANJA	2.609	38.16	349.4
	ARENA_3	0.314	6.27	70.3				
260.000	D TIERRA	2.521	57.91	555.5	ARENA_1	0.144	2.88	35.1
	ARENA_2	0.121	2.42	29.5	RELLENO_ZANJA	1.860	44.68	394.1
	ARENA_3	0.314	6.27	76.5				
280.000	D TIERRA	2.233	47.54	603.0	ARENA_1	0.144	2.88	38.0
	ARENA_2	0.121	2.42	31.9	RELLENO_ZANJA	1.572	34.31	428.4
	ARENA_3	0.314	6.27	82.8				
300.000	D TIERRA	2.046	42.79	645.8	ARENA_1	0.144	2.88	40.8
	ARENA_2	0.121	2.42	34.3	RELLENO_ZANJA	1.384	29.56	457.9
	ARENA_3	0.314	6.27	89.1				
315.123	D TIERRA	2.073	31.14	677.0	ARENA_1	0.144	2.17	43.0
	ARENA_2	0.121	1.83	36.1	RELLENO_ZANJA	1.411	21.14	479.1
	ARENA_3	0.314	4.74	93.8				
320.000	D TIERRA	2.052	10.06	687.0	ARENA_1	0.144	0.70	43.7
	ARENA_2	0.121	0.59	36.7	RELLENO_ZANJA	1.390	6.83	485.9
	ARENA_3	0.314	1.53	95.3				
340.000	D TIERRA	1.913	39.65	726.7	ARENA_1	0.144	2.88	46.6
	ARENA_2	0.121	2.42	39.1	RELLENO_ZANJA	1.252	26.42	512.3
	ARENA_3	0.314	6.27	101.6				
344.997	D TIERRA	1.877	9.47	736.2	ARENA_1	0.144	0.72	47.3
	ARENA_2	0.121	0.60	39.7	RELLENO_ZANJA	1.215	6.16	518.5
	ARENA_3	0.314	1.57	103.2				
358.483	D TIERRA	1.882	25.35	761.5	ARENA_1	0.144	1.94	49.2
	ARENA_2	0.121	1.63	41.4	RELLENO_ZANJA	1.220	16.42	534.9
	ARENA_3	0.314	4.23	107.4				
360.000	D TIERRA	1.884	2.86	764.4	ARENA_1	0.144	0.22	49.5
	ARENA_2	0.121	0.18	41.6	RELLENO_ZANJA	1.222	1.85	536.8
	ARENA_3	0.314	0.48	107.9				
380.000	D TIERRA	1.912	37.95	802.3	ARENA_1	0.144	2.88	52.3
	ARENA_2	0.121	2.42	44.0	RELLENO_ZANJA	1.250	24.72	561.5
	ARENA_3	0.314	6.27	114.2				
400.000	D TIERRA	1.939	38.51	840.8	ARENA_1	0.144	2.88	55.2
	ARENA_2	0.121	2.42	46.4	RELLENO_ZANJA	1.277	25.27	586.7
	ARENA_3	0.314	6.27	120.4				
420.000	D TIERRA	1.965	39.04	879.9	ARENA_1	0.144	2.88	58.1
	ARENA_2	0.121	2.42	48.8	RELLENO_ZANJA	1.304	25.81	612.6
	ARENA_3	0.314	6.27	126.7				
440.000	D TIERRA	1.989	39.54	919.4	ARENA_1	0.144	2.87	61.0
	ARENA_2	0.121	2.42	51.2	RELLENO_ZANJA	1.327	26.31	638.9
	ARENA_3	0.314	6.27	133.0				
448.902	D TIERRA	2.012	17.81	937.2	ARENA_1	0.144	1.28	62.2
	ARENA_2	0.121	1.08	52.3	RELLENO_ZANJA	1.350	11.92	650.8
	ARENA_3	0.314	2.79	135.8				
460.000	D TIERRA	1.945	21.96	959.2	ARENA_1	0.144	1.60	63.8
	ARENA_2	0.121	1.34	53.6	RELLENO_ZANJA	1.283	14.61	665.4
	ARENA_3	0.314	3.48	139.3				
480.000	D TIERRA	1.815	37.60	996.8	ARENA_1	0.144	2.88	66.7
	ARENA_2	0.121	2.42	56.1	RELLENO_ZANJA	1.153	24.36	689.8
	ARENA_3	0.314	6.27	145.5				
485.743	D TIERRA	1.788	10.34	1007.1	ARENA_1	0.144	0.83	67.5
	ARENA_2	0.121	0.69	56.7	RELLENO_ZANJA	1.126	6.54	696.3
	ARENA_3	0.314	1.80	147.3				



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PROYECTO : CIDACOS COMPLETO
EJE : 10: P350 (Tudelilla) - P410 (Villar de Arnedo)

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PROYECTO : CIDACOS COMPLETO
EJE : 10: P350 (Tudelilla) - P410 (Villar de Arnedo)

*** MEDICIONES DE LOS PERFILES TRANSVERSALES ***
*** CAPAS DE FIRME ***

*** MEDICIONES DE LOS PERFILES TRANSVERSALES ***
*** CAPAS DE FIRME ***

PERFIL	MATERIAL	AREA PERFIL	VOL. PARCIAL	VOL. ACUMUL.	MATERIAL	AREA PERFIL	VOL. PARCIAL	VOL. ACUMUL.
496.424	D TIERRA	1.832	19.33	1026.4	ARENA_1	0.144	1.54	69.1
	ARENA_2	0.121	1.29	58.0	RELLENO_ZANJA	1.170	12.26	708.6
	ARENA_3	0.314	3.35	150.7				
500.000	D TIERRA	1.863	6.61	1033.0	ARENA_1	0.144	0.51	69.6
	ARENA_2	0.121	0.43	58.5	RELLENO_ZANJA	1.201	4.24	712.8
	ARENA_3	0.314	1.12	151.8				
520.000	D TIERRA	1.951	38.13	1071.2	ARENA_1	0.144	2.88	72.5
	ARENA_2	0.121	2.42	60.9	RELLENO_ZANJA	1.289	24.90	737.7
	ARENA_3	0.314	6.27	158.1				
528.603	D TIERRA	1.916	16.63	1087.8	ARENA_1	0.144	1.24	73.7
	ARENA_2	0.121	1.04	61.9	RELLENO_ZANJA	1.255	10.94	748.6
	ARENA_3	0.314	2.70	160.8				
540.000	D TIERRA	1.894	21.72	1109.5	ARENA_1	0.144	1.64	75.3
	ARENA_2	0.121	1.38	63.3	RELLENO_ZANJA	1.233	14.17	762.8
	ARENA_3	0.314	3.57	164.3				
560.000	D TIERRA	1.931	38.25	1147.8	ARENA_1	0.144	2.88	78.2
	ARENA_2	0.121	2.42	65.7	RELLENO_ZANJA	1.269	25.02	787.8
	ARENA_3	0.314	6.27	170.6				
580.000	D TIERRA	1.918	38.49	1186.3	ARENA_1	0.144	2.88	81.1
	ARENA_2	0.121	2.42	68.1	RELLENO_ZANJA	1.257	25.26	813.1
	ARENA_3	0.314	6.27	176.9				
600.000	D TIERRA	1.842	37.60	1223.9	ARENA_1	0.144	2.88	84.0
	ARENA_2	0.121	2.42	70.5	RELLENO_ZANJA	1.180	24.37	837.5
	ARENA_3	0.314	6.27	183.2				
601.790	D TIERRA	1.913	3.36	1227.2	ARENA_1	0.144	0.26	84.2
	ARENA_2	0.121	0.22	70.8	RELLENO_ZANJA	1.251	2.18	839.6
	ARENA_3	0.314	0.56	183.7				
620.000	D TIERRA	2.551	40.64	1267.9	ARENA_1	0.144	2.62	86.8
	ARENA_2	0.121	2.20	73.0	RELLENO_ZANJA	1.889	28.59	868.2
	ARENA_3	0.314	5.71	189.4				
620.339	D TIERRA	2.564	0.87	1268.7	ARENA_1	0.144	0.05	86.9
	ARENA_2	0.121	0.04	73.0	RELLENO_ZANJA	1.902	0.64	868.9
	ARENA_3	0.314	0.11	189.5				
631.884	D TIERRA	2.542	29.47	1298.2	ARENA_1	0.144	1.66	88.5
	ARENA_2	0.121	1.39	74.4	RELLENO_ZANJA	1.880	21.83	890.7
	ARENA_3	0.314	3.62	193.2				
640.000	D TIERRA	2.242	19.41	1317.6	ARENA_1	0.144	1.17	89.7
	ARENA_2	0.121	0.98	75.4	RELLENO_ZANJA	1.580	14.04	904.7
	ARENA_3	0.314	2.55	195.7				
660.000	D TIERRA	1.870	41.12	1358.7	ARENA_1	0.144	2.88	92.6
	ARENA_2	0.121	2.42	77.8	RELLENO_ZANJA	1.208	27.88	932.6
	ARENA_3	0.314	6.27	202.0				
680.000	D TIERRA	2.286	41.56	1400.3	ARENA_1	0.144	2.88	95.5
	ARENA_2	0.121	2.42	80.2	RELLENO_ZANJA	1.624	28.32	961.0
	ARENA_3	0.313	6.27	208.3				
684.144	D TIERRA	1.942	8.76	1409.1	ARENA_1	0.144	0.60	96.1
	ARENA_2	0.121	0.50	80.7	RELLENO_ZANJA	1.280	6.02	967.0
	ARENA_3	0.314	1.30	209.6				
684.144	D TIERRA	0.000	0.00	1409.1	ARENA_1	0.000	0.00	96.1
	ARENA_2	0.000	0.00	80.7	RELLENO_ZANJA	0.000	0.00	967.0
	ARENA_3	0.000	0.00	209.6				
700.000	D TIERRA	0.000	0.00	1409.1	ARENA_1	0.000	0.00	96.1
	ARENA_2	0.000	0.00	80.7	RELLENO_ZANJA	0.000	0.00	967.0
	ARENA_3	0.000	0.00	209.6				
700.000	D TIERRA	2.249	0.00	1409.1	ARENA_1	0.144	0.00	96.1
	ARENA_2	0.121	0.00	80.7	RELLENO_ZANJA	1.587	0.00	967.0
	ARENA_3	0.314	0.00	209.6				
714.932	D TIERRA	1.928	31.18	1440.2	ARENA_1	0.144	2.15	98.2
	ARENA_2	0.121	1.80	82.5	RELLENO_ZANJA	1.266	21.30	988.3
	ARENA_3	0.314	4.68	214.2				

PERFIL	MATERIAL	AREA PERFIL	VOL. PARCIAL	VOL. ACUMUL.	MATERIAL	AREA PERFIL	VOL. PARCIAL	VOL. ACUMUL.
720.000	D TIERRA	1.906	9.72	1449.9	ARENA_1	0.144	0.73	98.9
	ARENA_2	0.121	0.61	83.1	RELLENO_ZANJA	1.245	6.36	994.6
	ARENA_3	0.313	1.59	215.8				
723.785	D TIERRA	1.902	7.21	1457.2	ARENA_1	0.144	0.54	99.5
	ARENA_2	0.121	0.46	83.6	RELLENO_ZANJA	1.240	4.70	999.3
	ARENA_3	0.313	1.19	217.0				
740.000	D TIERRA	1.989	31.54	1488.7	ARENA_1	0.144	2.33	101.8
	ARENA_2	0.121	1.96	85.5	RELLENO_ZANJA	1.328	20.82	1020.2
	ARENA_3	0.313	5.08	222.1				
760.000	D TIERRA	1.869	38.59	1527.3	ARENA_1	0.144	2.88	104.7
	ARENA_2	0.121	2.42	88.0	RELLENO_ZANJA	1.208	25.35	1045.5
	ARENA_3	0.313	6.27	228.4				
780.000	D TIERRA	1.906	37.76	1565.0	ARENA_1	0.144	2.88	107.6
	ARENA_2	0.121	2.42	90.4	RELLENO_ZANJA	1.245	24.53	1070.0
	ARENA_3	0.313	6.27	234.6				
800.000	D TIERRA	1.935	38.41	1603.5	ARENA_1	0.144	2.87	110.4
	ARENA_2	0.121	2.42	92.8	RELLENO_ZANJA	1.273	25.18	1095.2
	ARENA_3	0.313	6.27	240.9				
813.857	D TIERRA	2.062	27.69	1631.1	ARENA_1	0.144	1.99	112.4
	ARENA_2	0.121	1.67	94.5	RELLENO_ZANJA	1.401	18.52	1113.7
	ARENA_3	0.314	4.34	245.2				
820.000	D TIERRA	1.997	12.47	1643.6	ARENA_1	0.144	0.88	113.3
	ARENA_2	0.121	0.74	95.2	RELLENO_ZANJA	1.336	8.40	1122.1
	ARENA_3	0.314	1.93	247.2				
820.004	D TIERRA	1.997	0.01	1643.6	ARENA_1	0.144	0.00	113.3
	ARENA_2	0.121	0.00	95.2	RELLENO_ZANJA	1.336	0.01	1122.1
	ARENA_3	0.314	0.00	247.2				
840.000	D TIERRA	1.892	38.89	1682.5	ARENA_1	0.144	2.87	116.2
	ARENA_2	0.121	2.42	97.6	RELLENO_ZANJA	1.231	25.66	1147.8
	ARENA_3	0.314	6.27	253.4				
860.000	D TIERRA	1.957	38.49	1721.0	ARENA_1	0.144	2.88	119.1
	ARENA_2	0.121	2.42	100.0	RELLENO_ZANJA	1.295	25.26	1173.1
	ARENA_3	0.314	6.27	259.7				
864.357	D TIERRA	1.962	8.54	1729.5	ARENA_1	0.144	0.63	119.7
	ARENA_2	0.121	0.53	100.6	RELLENO_ZANJA	1.300	5.65	1178.7
	ARENA_3	0.314	1.37	261.1				
880.000	D TIERRA	2.059	31.45	1761.0	ARENA_1	0.144	2.25	121.9
	ARENA_2	0.121	1.89	102.5	RELLENO_ZANJA	1.397	21.10	1199.8
	ARENA_3	0.314	4.91	266.0				
880.284	D TIERRA	2.060	0.58	1761.6	ARENA_1	0.144	0.04	122.0
	ARENA_2	0.121	0.03	102.5	RELLENO_ZANJA	1.398	0.40	1200.2
	ARENA_3	0.314	0.09	266.1				
893.254	D TIERRA	2.066	26.76	1788.3	ARENA_1	0.144	1.86	123.8
	ARENA_2	0.121	1.57	104.1	RELLENO_ZANJA	1.405	18.18	1218.4
	ARENA_3	0.314	4.07	270.1				
899.462	D TIERRA	2.033	12.72	1801.1	ARENA_1	0.144	0.89	124.7
	ARENA_2	0.121	0.75	104.8	RELLENO_ZANJA	1.372	8.62	1227.0
	ARENA_3	0.314	1.95	272.1				
900.000	D TIERRA	2.030	1.09	1802.2	ARENA_1	0.144	0.08	124.8
	ARENA_2	0.121	0.07	104.9	RELLENO_ZANJA	1.369	0.74	1227.7
	ARENA_3	0.314	0.17	272.3				
920.000	D TIERRA	2.046	40.77	1842.9	ARENA_1	0.144	2.87	127.7
	ARENA_2	0.121	2.42	107.3	RELLENO_ZANJA	1.385	27.53	1255.3
	ARENA_3	0.314	6.27	278.5				
920.920	D TIERRA	2.055	1.89	1844.8	ARENA_1	0.144	0.13	127.8
	ARENA_2	0.121	0.11	107.4	RELLENO_ZANJA	1.393	1.28	1256.6
	ARENA_3	0.314	0.29	278.8				
940.000	D TIERRA	2.270	41.26	1886.1	ARENA_1	0.144	2.74	130.6
	ARENA_2	0.121	2.31	109.7	RELLENO_ZANJA	1.608	28.63	1285.2
	ARENA_3	0.314	5.98	284.8				



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PROYECTO : CIDACOS COMPLETO
EJE : 10: P350 (Tudelilla) - P410 (Villar de Arnedo)

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PROYECTO : CIDACOS COMPLETO
EJE : 10: P350 (Tudelilla) - P410 (Villar de Arnedo)

*** MEDICIONES DE LOS PERFILES TRANSVERSALES ***
*** CAPAS DE FIRME ***

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PERFIL	MATERIAL	AREA PERFIL	VOL. PARCIAL	VOL. ACUMUL.	MATERIAL	AREA PERFIL	VOL. PARCIAL	VOL. ACUMUL.
945.117	D TIERRA	2.265	11.60	1897.7	ARENA_1	0.144	0.74	131.3
	ARENA_2	0.121	0.62	110.3	RELLENO_ZANJA	1.603	8.22	1293.4
	ARENA_3	0.314	1.60	286.4				
960.000	D TIERRA	2.263	33.69	1931.4	ARENA_1	0.144	2.14	133.4
	ARENA_2	0.121	1.80	112.1	RELLENO_ZANJA	1.601	23.84	1317.2
	ARENA_3	0.314	4.67	291.1				
960.645	D TIERRA	2.263	1.46	1932.8	ARENA_1	0.144	0.09	133.5
	ARENA_2	0.121	0.08	112.2	RELLENO_ZANJA	1.602	1.03	1318.3
	ARENA_3	0.314	0.20	291.3				
979.969	D TIERRA	2.264	43.75	1976.6	ARENA_1	0.144	2.78	136.3
	ARENA_2	0.121	2.33	114.5	RELLENO_ZANJA	1.603	30.96	1349.2
	ARENA_3	0.314	6.06	297.3				
980.000	D TIERRA	2.264	0.07	1976.6	ARENA_1	0.144	0.00	136.3
	ARENA_2	0.121	0.00	114.5	RELLENO_ZANJA	1.602	0.05	1349.3
	ARENA_3	0.314	0.01	297.3				
996.345	D TIERRA	2.161	36.17	2012.8	ARENA_1	0.144	2.35	138.7
	ARENA_2	0.121	1.97	116.5	RELLENO_ZANJA	1.499	25.35	1374.6
	ARENA_3	0.314	5.13	302.5				
1000.000	D TIERRA	2.086	7.76	2020.6	ARENA_1	0.144	0.53	139.2
	ARENA_2	0.121	0.44	117.0	RELLENO_ZANJA	1.425	5.34	1380.0
	ARENA_3	0.314	1.15	303.6				
1008.188	D TIERRA	1.858	16.15	2036.7	ARENA_1	0.144	1.18	140.4
	ARENA_2	0.121	0.99	117.9	RELLENO_ZANJA	1.197	10.73	1390.7
	ARENA_3	0.314	2.57	306.2				
1016.457	D TIERRA	1.979	15.87	2052.6	ARENA_1	0.144	1.19	141.5
	ARENA_2	0.121	1.00	118.9	RELLENO_ZANJA	1.318	10.40	1401.1
	ARENA_3	0.314	2.59	308.8				
1020.000	D TIERRA	2.082	7.19	2059.8	ARENA_1	0.144	0.51	142.1
	ARENA_2	0.121	0.43	119.4	RELLENO_ZANJA	1.420	4.85	1406.0
	ARENA_3	0.314	1.11	309.9				
1040.000	D TIERRA	2.567	46.49	2106.3	ARENA_1	0.144	2.87	144.9
	ARENA_2	0.121	2.42	121.8	RELLENO_ZANJA	1.905	33.25	1439.2
	ARENA_3	0.314	6.27	316.2				
1060.000	D TIERRA	2.656	52.22	2158.5	ARENA_1	0.144	2.87	147.8
	ARENA_2	0.121	2.42	124.2	RELLENO_ZANJA	1.994	38.99	1478.2
	ARENA_3	0.314	6.27	322.4				
1073.511	D TIERRA	2.689	36.11	2194.6	ARENA_1	0.144	1.94	149.7
	ARENA_2	0.121	1.63	125.8	RELLENO_ZANJA	2.028	27.17	1505.4
	ARENA_3	0.314	4.24	326.7				
1080.000	D TIERRA	2.541	16.97	2211.6	ARENA_1	0.144	0.93	150.7
	ARENA_2	0.121	0.78	126.6	RELLENO_ZANJA	1.879	12.68	1518.0
	ARENA_3	0.314	2.03	328.7				
1100.000	D TIERRA	2.071	46.12	2257.7	ARENA_1	0.144	2.87	153.5
	ARENA_2	0.121	2.42	129.0	RELLENO_ZANJA	1.409	32.88	1550.9
	ARENA_3	0.314	6.27	335.0				
1119.819	D TIERRA	1.873	39.08	2296.7	ARENA_1	0.144	2.85	156.4
	ARENA_2	0.121	2.39	131.4	RELLENO_ZANJA	1.211	25.96	1576.9
	ARENA_3	0.314	6.21	341.2				
1120.000	D TIERRA	1.873	0.34	2297.1	ARENA_1	0.144	0.03	156.4
	ARENA_2	0.121	0.02	131.5	RELLENO_ZANJA	1.211	0.22	1577.1
	ARENA_3	0.314	0.06	341.2				
1140.000	D TIERRA	1.893	37.66	2334.7	ARENA_1	0.144	2.87	159.3
	ARENA_2	0.121	2.42	133.9	RELLENO_ZANJA	1.231	24.42	1601.5
	ARENA_3	0.314	6.27	347.5				
1143.502	D TIERRA	1.899	6.64	2341.4	ARENA_1	0.144	0.50	159.8
	ARENA_2	0.121	0.42	134.3	RELLENO_ZANJA	1.238	4.32	1605.9
	ARENA_3	0.314	1.10	348.6				
1160.000	D TIERRA	2.059	32.65	2374.0	ARENA_1	0.144	2.37	162.2
	ARENA_2	0.121	1.99	136.3	RELLENO_ZANJA	1.397	21.73	1627.6
	ARENA_3	0.314	5.17	353.8				

PERFIL	MATERIAL	AREA PERFIL	VOL. PARCIAL	VOL. ACUMUL.	MATERIAL	AREA PERFIL	VOL. PARCIAL	VOL. ACUMUL.
1172.469	D TIERRA	1.992	25.25	2399.3	ARENA_1	0.144	1.79	164.0
	ARENA_2	0.121	1.51	137.8	RELLENO_ZANJA	1.330	17.00	1644.6
	ARENA_3	0.314	3.91	357.7				
1180.000	D TIERRA	2.028	15.13	2414.4	ARENA_1	0.144	1.08	165.0
	ARENA_2	0.121	0.91	138.7	RELLENO_ZANJA	1.366	10.15	1654.7
	ARENA_3	0.314	2.36	360.1				
1195.489	D TIERRA	1.916	30.54	2445.0	ARENA_1	0.144	2.23	167.3
	ARENA_2	0.121	1.87	140.6	RELLENO_ZANJA	1.254	20.29	1675.0
	ARENA_3	0.314	4.86	364.9				
1200.000	D TIERRA	1.870	8.54	2453.5	ARENA_1	0.144	0.65	167.9
	ARENA_2	0.121	0.55	141.1	RELLENO_ZANJA	1.208	5.55	1680.6
	ARENA_3	0.314	1.41	366.3				
1220.000	D TIERRA	2.204	40.74	2494.2	ARENA_1	0.144	2.87	170.8
	ARENA_2	0.121	2.42	143.5	RELLENO_ZANJA	1.542	27.50	1708.1
	ARENA_3	0.314	6.27	372.6				
1220.724	D TIERRA	2.208	1.60	2495.8	ARENA_1	0.144	0.10	170.9
	ARENA_2	0.121	0.09	143.6	RELLENO_ZANJA	1.546	1.12	1709.2
	ARENA_3	0.314	0.23	372.8				
1240.000	D TIERRA	2.230	42.77	2538.6	ARENA_1	0.144	2.77	173.7
	ARENA_2	0.121	2.33	146.0	RELLENO_ZANJA	1.568	30.02	1739.2
	ARENA_3	0.314	6.05	378.9				
1242.010	D TIERRA	2.228	4.48	2543.1	ARENA_1	0.144	0.29	174.0
	ARENA_2	0.121	0.24	146.2	RELLENO_ZANJA	1.567	3.15	1742.4
	ARENA_3	0.314	0.63	379.5				
1254.037	D TIERRA	2.157	26.37	2569.5	ARENA_1	0.144	1.73	175.7
	ARENA_2	0.121	1.45	147.7	RELLENO_ZANJA	1.495	18.41	1760.8
	ARENA_3	0.314	3.77	383.3				
1260.000	D TIERRA	2.139	12.81	2582.3	ARENA_1	0.144	0.86	176.5
	ARENA_2	0.121	0.72	148.4	RELLENO_ZANJA	1.477	8.86	1769.6
	ARENA_3	0.314	1.87	385.1				
1269.315	D TIERRA	2.115	19.81	2602.1	ARENA_1	0.144	1.34	177.9
	ARENA_2	0.121	1.13	149.5	RELLENO_ZANJA	1.454	13.65	1783.3
	ARENA_3	0.314	2.92	388.1				
1280.000	D TIERRA	2.090	22.47	2624.5	ARENA_1	0.144	1.54	179.4
	ARENA_2	0.121	1.29	150.8	RELLENO_ZANJA	1.429	15.40	1798.7
	ARENA_3	0.314	3.35	391.4				
1300.000	D TIERRA	2.047	41.37	2665.9	ARENA_1	0.144	2.87	182.3
	ARENA_2	0.121	2.42	153.2	RELLENO_ZANJA	1.385	28.13	1826.8
	ARENA_3	0.314	6.27	397.7				
1320.000	D TIERRA	2.005	40.52	2706.4	ARENA_1	0.144	2.87	185.2
	ARENA_2	0.121	2.42	155.6	RELLENO_ZANJA	1.344	27.28	1854.1
	ARENA_3	0.314	6.27	404.0				
1340.000	D TIERRA	1.963	39.69	2746.1	ARENA_1	0.144	2.87	188.0
	ARENA_2	0.121	2.42	158.0	RELLENO_ZANJA	1.302	26.45	1880.6
	ARENA_3	0.314	6.27	410.2				
1360.000	D TIERRA	1.921	38.85	2785.0	ARENA_1	0.144	2.87	190.9
	ARENA_2	0.121	2.42	160.5	RELLENO_ZANJA	1.259	25.61	1906.2
	ARENA_3	0.314	6.27	416.5				
1380.000	D TIERRA	1.517	34.38	2819.3	ARENA_1	0.144	2.87	193.8
	ARENA_2	0.121	2.42	162.9	RELLENO_ZANJA	0.855	21.14	1927.3
	ARENA_3	0.314	6.27	422.8				
1400.000	D TIERRA	1.559	30.76	2850.1	ARENA_1	0.144	2.87	196.7
	ARENA_2	0.121	2.42	165.3	RELLENO_ZANJA	0.898	17.53	1944.8
	ARENA_3	0.314	6.27	429.0				
1420.000	D TIERRA	1.659	32.19	2882.3	ARENA_1	0.144	2.87	199.5
	ARENA_2	0.121	2.42	167.7	RELLENO_ZANJA	0.998	18.95	1963.8
	ARENA_3	0.314	6.27	435.3				
1440.000	D TIERRA	1.765	34.25	2916.5	ARENA_1	0.144	2.87	202.4
	ARENA_2	0.121	2.42	170.1	RELLENO_ZANJA	1.104	21.01	1984.8
	ARENA_3	0.314	6.27	441.6				



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PROYECTO : CIDACOS COMPLETO
EJE : 10: P350 (Tudelilla) - P410 (Villar de Arnedo)

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PROYECTO : CIDACOS COMPLETO
EJE : 10: P350 (Tudelilla) - P410 (Villar de Arnedo)

*** MEDICIONES DE LOS PERFILES TRANSVERSALES ***
*** CAPAS DE FIRME ***

*** MEDICIONES DE LOS PERFILES TRANSVERSALES ***
*** CAPAS DE FIRME ***

PERFIL	MATERIAL	AREA PERFIL	VOL. PARCIAL	VOL. ACUMUL.	MATERIAL	AREA PERFIL	VOL. PARCIAL	VOL. ACUMUL.
1452.458	D TIERRA	1.953	23.16	2939.7	ARENA_1	0.144	1.79	204.2
	ARENA_2	0.121	1.51	171.6	RELLENO_ZANJA	1.292	14.92	1999.7
	ARENA_3	0.314	3.91	445.5				
1460.000	D TIERRA	1.993	14.88	2954.6	ARENA_1	0.144	1.08	205.3
	ARENA_2	0.121	0.91	172.5	RELLENO_ZANJA	1.331	9.89	2009.6
	ARENA_3	0.314	2.37	447.9				
1467.116	D TIERRA	2.032	14.32	2968.9	ARENA_1	0.144	1.02	206.3
	ARENA_2	0.121	0.86	173.4	RELLENO_ZANJA	1.370	9.61	2019.2
	ARENA_3	0.314	2.23	450.1				
1480.000	D TIERRA	1.893	25.29	2994.2	ARENA_1	0.144	1.85	208.2
	ARENA_2	0.121	1.56	175.0	RELLENO_ZANJA	1.231	16.76	2036.0
	ARENA_3	0.314	4.04	454.1				
1482.838	D TIERRA	1.852	5.31	2999.5	ARENA_1	0.144	0.41	208.6
	ARENA_2	0.121	0.34	175.3	RELLENO_ZANJA	1.191	3.44	2039.4
	ARENA_3	0.314	0.89	455.0				
1490.375	D TIERRA	1.893	14.11	3013.6	ARENA_1	0.144	1.08	209.7
	ARENA_2	0.121	0.91	176.2	RELLENO_ZANJA	1.231	9.13	2048.6
	ARENA_3	0.314	2.36	457.4				
1500.000	D TIERRA	1.882	18.17	3031.8	ARENA_1	0.144	1.38	211.0
	ARENA_2	0.121	1.16	177.4	RELLENO_ZANJA	1.220	11.80	2060.4
	ARENA_3	0.314	3.02	460.4				
1515.053	D TIERRA	1.854	28.11	3059.9	ARENA_1	0.144	2.16	213.2
	ARENA_2	0.121	1.82	179.2	RELLENO_ZANJA	1.192	18.15	2078.5
	ARENA_3	0.314	4.72	465.1				
1520.000	D TIERRA	1.867	9.20	3069.1	ARENA_1	0.144	0.71	213.9
	ARENA_2	0.121	0.60	179.8	RELLENO_ZANJA	1.205	5.93	2084.4
	ARENA_3	0.314	1.55	466.7				
1539.120	D TIERRA	1.939	36.39	3105.5	ARENA_1	0.144	2.75	216.7
	ARENA_2	0.121	2.31	182.1	RELLENO_ZANJA	1.278	23.74	2108.2
	ARENA_3	0.314	6.00	472.7				
1540.000	D TIERRA	1.943	1.71	3107.2	ARENA_1	0.144	0.13	216.8
	ARENA_2	0.121	0.11	182.2	RELLENO_ZANJA	1.282	1.13	2109.3
	ARENA_3	0.314	0.28	473.0				
1560.000	D TIERRA	2.062	40.05	3147.2	ARENA_1	0.144	2.87	219.7
	ARENA_2	0.121	2.42	184.6	RELLENO_ZANJA	1.400	26.82	2136.1
	ARENA_3	0.314	6.27	479.2				
1580.000	D TIERRA	2.109	41.71	3189.0	ARENA_1	0.144	2.87	222.5
	ARENA_2	0.121	2.42	187.0	RELLENO_ZANJA	1.448	28.48	2164.6
	ARENA_3	0.314	6.27	485.5				
1586.619	D TIERRA	1.979	13.53	3202.5	ARENA_1	0.144	0.95	223.5
	ARENA_2	0.121	0.80	187.8	RELLENO_ZANJA	1.317	9.15	2173.7
	ARENA_3	0.314	2.08	487.6				
1600.000	D TIERRA	2.005	26.65	3229.1	ARENA_1	0.144	1.92	225.4
	ARENA_2	0.121	1.62	189.5	RELLENO_ZANJA	1.343	17.80	2191.5
	ARENA_3	0.314	4.20	491.8				
1607.145	D TIERRA	2.189	14.98	3244.1	ARENA_1	0.144	1.03	226.4
	ARENA_2	0.121	0.86	190.3	RELLENO_ZANJA	1.527	10.25	2201.8
	ARENA_3	0.314	2.24	494.0				
1616.924	D TIERRA	2.189	21.40	3265.5	ARENA_1	0.144	1.41	227.8
	ARENA_2	0.121	1.18	191.5	RELLENO_ZANJA	1.527	14.93	2216.7
	ARENA_3	0.314	3.07	497.1				
1620.000	D TIERRA	2.176	6.71	3272.2	ARENA_1	0.144	0.44	228.3
	ARENA_2	0.121	0.37	191.9	RELLENO_ZANJA	1.514	4.68	2221.4
	ARENA_3	0.314	0.96	498.0				
1630.734	D TIERRA	2.131	23.11	3295.4	ARENA_1	0.144	1.54	229.8
	ARENA_2	0.121	1.30	193.2	RELLENO_ZANJA	1.469	16.01	2237.4
	ARENA_3	0.314	3.37	501.4				
1640.000	D TIERRA	2.070	19.46	3314.8	ARENA_1	0.144	1.33	231.2
	ARENA_2	0.121	1.12	194.3	RELLENO_ZANJA	1.408	13.33	2250.7
	ARENA_3	0.314	2.91	504.3				

PERFIL	MATERIAL	AREA PERFIL	VOL. PARCIAL	VOL. ACUMUL.	MATERIAL	AREA PERFIL	VOL. PARCIAL	VOL. ACUMUL.
1643.953	D TIERRA	2.044	8.13	3322.9	ARENA_1	0.144	0.57	231.7
	ARENA_2	0.121	0.48	194.8	RELLENO_ZANJA	1.382	5.51	2256.3
	ARENA_3	0.314	1.24	505.6				
1660.000	D TIERRA	1.905	31.68	3354.6	ARENA_1	0.144	2.31	234.0
	ARENA_2	0.121	1.94	196.7	RELLENO_ZANJA	1.243	21.07	2277.3
	ARENA_3	0.314	5.03	510.6				
1680.000	D TIERRA	1.853	37.58	3392.2	ARENA_1	0.144	2.87	236.9
	ARENA_2	0.121	2.42	199.1	RELLENO_ZANJA	1.191	24.35	2301.7
	ARENA_3	0.314	6.27	516.9				
1700.000	D TIERRA	1.876	37.29	3429.5	ARENA_1	0.144	2.87	239.8
	ARENA_2	0.121	2.42	201.5	RELLENO_ZANJA	1.214	24.06	2325.7
	ARENA_3	0.314	6.27	523.1				
1720.000	D TIERRA	1.933	38.09	3467.6	ARENA_1	0.144	2.87	242.7
	ARENA_2	0.121	2.42	204.0	RELLENO_ZANJA	1.271	24.86	2350.6
	ARENA_3	0.314	6.27	529.4				
1735.406	D TIERRA	2.004	30.33	3497.9	ARENA_1	0.144	2.21	244.9
	ARENA_2	0.121	1.86	205.8	RELLENO_ZANJA	1.342	20.13	2370.7
	ARENA_3	0.314	4.83	534.2				
1740.000	D TIERRA	1.976	9.14	3507.1	ARENA_1	0.144	0.66	245.5
	ARENA_2	0.121	0.56	206.4	RELLENO_ZANJA	1.315	6.10	2376.8
	ARENA_3	0.314	1.44	535.7				
1744.134	D TIERRA	1.954	8.12	3515.2	ARENA_1	0.144	0.59	246.1
	ARENA_2	0.121	0.50	206.9	RELLENO_ZANJA	1.292	5.39	2382.2
	ARENA_3	0.314	1.30	537.0				
1760.000	D TIERRA	1.853	30.20	3545.4	ARENA_1	0.144	2.28	248.4
	ARENA_2	0.121	1.92	208.8	RELLENO_ZANJA	1.191	19.70	2401.9
	ARENA_3	0.314	4.98	542.0				
1780.000	D TIERRA	1.806	36.59	3582.0	ARENA_1	0.144	2.87	251.3
	ARENA_2	0.121	2.42	211.2	RELLENO_ZANJA	1.144	23.35	2425.3
	ARENA_3	0.314	6.27	548.2				
1800.000	D TIERRA	1.881	36.87	3618.8	ARENA_1	0.144	2.87	254.2
	ARENA_2	0.121	2.42	213.6	RELLENO_ZANJA	1.220	23.64	2448.9
	ARENA_3	0.314	6.27	554.5				
1804.364	D TIERRA	1.828	8.09	3626.9	ARENA_1	0.144	0.63	254.8
	ARENA_2	0.121	0.53	214.1	RELLENO_ZANJA	1.167	5.21	2454.1
	ARENA_3	0.314	1.37	555.9				
1820.000	D TIERRA	1.855	28.80	3655.7	ARENA_1	0.144	2.25	257.0
	ARENA_2	0.121	1.89	216.0	RELLENO_ZANJA	1.193	18.45	2472.6
	ARENA_3	0.314	4.90	560.8				
1829.493	D TIERRA	2.316	19.80	3675.5	ARENA_1	0.144	1.36	258.4
	ARENA_2	0.121	1.15	217.2	RELLENO_ZANJA	1.654	13.52	2486.1
	ARENA_3	0.314	2.98	563.7				
1840.000	D TIERRA	1.992	22.63	3698.2	ARENA_1	0.144	1.51	259.9
	ARENA_2	0.121	1.27	218.5	RELLENO_ZANJA	1.330	15.68	2501.8
	ARENA_3	0.314	3.30	567.0				
1847.790	D TIERRA	1.853	14.97	3713.1	ARENA_1	0.144	1.12	261.0
	ARENA_2	0.121	0.94	219.4	RELLENO_ZANJA	1.191	9.82	2511.6
	ARENA_3	0.314	2.44	569.5				
1860.000	D TIERRA	1.933	23.11	3736.2	ARENA_1	0.144	1.75	262.8
	ARENA_2	0.121	1.48	220.9	RELLENO_ZANJA	1.271	15.03	2526.6
	ARENA_3	0.314	3.83	573.3				
1867.701	D TIERRA	1.970	15.03	3751.3	ARENA_1	0.144	1.11	263.9
	ARENA_2	0.121	0.93	221.8	RELLENO_ZANJA	1.308	9.93	2536.5
	ARENA_3	0.314	2.42	575.7				
1880.000	D TIERRA	1.843	23.45	3774.7	ARENA_1	0.144	1.77	265.7
	ARENA_2	0.121	1.49	223.3	RELLENO_ZANJA	1.181	15.31	2551.8
	ARENA_3	0.314	3.86	579.6				
1900.000	D TIERRA	1.835	36.78	3811.5	ARENA_1	0.144	2.87	268.5
	ARENA_2	0.121	2.42	225.7	RELLENO_ZANJA	1.174	23.55	2575.4
	ARENA_3	0.314	6.27	585.9				



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PROYECTO : CIDACOS COMPLETO
EJE : 10: P350 (Tudelilla) - P410 (Villar de Arnedo)

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PROYECTO : CIDACOS COMPLETO
EJE : 10: P350 (Tudelilla) - P410 (Villar de Arnedo)

*** MEDICIONES DE LOS PERFILES TRANSVERSALES ***
*** CAPAS DE FIRME ***

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*** CAPAS DE FIRME ***

PERFIL	MATERIAL	AREA PERFIL	VOL. PARCIAL	VOL. ACUMUL.	MATERIAL	AREA PERFIL	VOL. PARCIAL	VOL. ACUMUL.
1920.000	D TIERRA	1.932	37.67	3849.2	ARENA_1	0.144	2.87	271.4
	ARENA_2	0.121	2.42	228.1	RELLENO_ZANJA	1.270	24.44	2599.8
	ARENA_3	0.314	6.27	592.1				
1938.369	D TIERRA	1.952	35.67	3884.8	ARENA_1	0.144	2.64	274.0
	ARENA_2	0.121	2.22	230.3	RELLENO_ZANJA	1.290	23.52	2623.4
	ARENA_3	0.314	5.76	597.9				
1940.000	D TIERRA	1.962	3.19	3888.0	ARENA_1	0.144	0.23	274.3
	ARENA_2	0.121	0.20	230.5	RELLENO_ZANJA	1.300	2.11	2625.5
	ARENA_3	0.314	0.51	598.4				
1960.000	D TIERRA	2.015	39.77	3927.8	ARENA_1	0.144	2.87	277.2
	ARENA_2	0.121	2.42	232.9	RELLENO_ZANJA	1.353	26.53	2652.0
	ARENA_3	0.314	6.27	604.7				
1980.000	D TIERRA	1.897	39.12	3966.9	ARENA_1	0.144	2.87	280.0
	ARENA_2	0.121	2.42	235.4	RELLENO_ZANJA	1.235	25.89	2677.9
	ARENA_3	0.314	6.27	611.0				
2000.000	D TIERRA	1.854	37.51	4004.4	ARENA_1	0.144	2.87	282.9
	ARENA_2	0.121	2.42	237.8	RELLENO_ZANJA	1.192	24.28	2702.2
	ARENA_3	0.314	6.27	617.2				
2020.000	D TIERRA	1.853	37.07	4041.5	ARENA_1	0.144	2.87	285.8
	ARENA_2	0.121	2.42	240.2	RELLENO_ZANJA	1.192	23.84	2726.0
	ARENA_3	0.314	6.27	623.5				
2040.000	D TIERRA	1.760	36.13	4077.6	ARENA_1	0.144	2.87	288.6
	ARENA_2	0.121	2.42	242.6	RELLENO_ZANJA	1.098	22.90	2748.9
	ARENA_3	0.314	6.27	629.8				
2060.000	D TIERRA	1.764	35.24	4112.9	ARENA_1	0.144	2.87	291.5
	ARENA_2	0.121	2.42	245.0	RELLENO_ZANJA	1.102	22.00	2770.9
	ARENA_3	0.314	6.27	636.1				
2080.000	D TIERRA	2.336	41.00	4153.9	ARENA_1	0.144	2.87	294.4
	ARENA_2	0.121	2.42	247.4	RELLENO_ZANJA	1.675	27.77	2798.7
	ARENA_3	0.314	6.27	642.3				
2085.157	D TIERRA	2.307	11.97	4165.8	ARENA_1	0.144	0.74	295.1
	ARENA_2	0.121	0.62	248.1	RELLENO_ZANJA	1.646	8.56	2807.2
	ARENA_3	0.314	1.62	643.9				
2100.000	D TIERRA	1.975	31.78	4197.6	ARENA_1	0.144	2.13	297.3
	ARENA_2	0.121	1.79	249.9	RELLENO_ZANJA	1.313	21.96	2829.2
	ARENA_3	0.314	4.66	648.6				
2120.000	D TIERRA	2.125	41.00	4238.6	ARENA_1	0.144	2.87	300.1
	ARENA_2	0.121	2.42	252.3	RELLENO_ZANJA	1.463	27.77	2857.0
	ARENA_3	0.314	6.27	654.9				
2140.000	D TIERRA	2.342	44.67	4283.3	ARENA_1	0.144	2.87	303.0
	ARENA_2	0.121	2.42	254.7	RELLENO_ZANJA	1.681	31.44	2888.4
	ARENA_3	0.314	6.27	661.1				
2151.314	D TIERRA	1.989	24.50	4307.8	ARENA_1	0.144	1.63	304.6
	ARENA_2	0.121	1.37	256.1	RELLENO_ZANJA	1.328	17.02	2905.4
	ARENA_3	0.314	3.55	664.7				
2160.000	D TIERRA	2.042	17.51	4325.3	ARENA_1	0.144	1.25	305.9
	ARENA_2	0.121	1.05	257.1	RELLENO_ZANJA	1.381	11.76	2917.2
	ARENA_3	0.314	2.72	667.4				
2180.000	D TIERRA	2.130	41.72	4367.0	ARENA_1	0.144	2.87	308.8
	ARENA_2	0.121	2.42	259.5	RELLENO_ZANJA	1.468	28.49	2945.7
	ARENA_3	0.314	6.27	673.7				
2186.817	D TIERRA	1.949	13.90	4380.9	ARENA_1	0.144	0.98	309.7
	ARENA_2	0.121	0.82	260.4	RELLENO_ZANJA	1.287	9.39	2955.1
	ARENA_3	0.314	2.14	675.8				
2200.000	D TIERRA	1.878	25.23	4406.2	ARENA_1	0.144	1.89	311.6
	ARENA_2	0.121	1.59	261.9	RELLENO_ZANJA	1.216	16.50	2971.6
	ARENA_3	0.314	4.14	680.0				
2207.391	D TIERRA	2.070	14.59	4420.8	ARENA_1	0.144	1.06	312.7
	ARENA_2	0.121	0.89	262.8	RELLENO_ZANJA	1.408	9.70	2981.3
	ARENA_3	0.314	2.32	682.3				

PERFIL	MATERIAL	AREA PERFIL	VOL. PARCIAL	VOL. ACUMUL.	MATERIAL	AREA PERFIL	VOL. PARCIAL	VOL. ACUMUL.
2220.000	D TIERRA	2.978	31.82	4452.6	ARENA_1	0.144	1.81	314.5
	ARENA_2	0.121	1.52	264.4	RELLENO_ZANJA	2.316	23.48	3004.7
	ARENA_3	0.314	3.96	686.2				
2224.845	D TIERRA	2.664	13.67	4466.2	ARENA_1	0.144	0.70	315.2
	ARENA_2	0.121	0.59	264.9	RELLENO_ZANJA	2.003	10.46	3015.2
	ARENA_3	0.314	1.52	687.8				
2240.000	D TIERRA	2.154	36.51	4502.8	ARENA_1	0.144	2.18	317.4
	ARENA_2	0.121	1.83	266.8	RELLENO_ZANJA	1.492	26.48	3041.7
	ARENA_3	0.314	4.75	692.5				
2260.000	D TIERRA	2.476	46.30	4549.1	ARENA_1	0.144	2.87	320.3
	ARENA_2	0.121	2.42	269.2	RELLENO_ZANJA	1.814	33.06	3074.7
	ARENA_3	0.314	6.27	698.8				
2280.000	D TIERRA	2.150	46.26	4595.3	ARENA_1	0.144	2.87	323.1
	ARENA_2	0.121	2.42	271.6	RELLENO_ZANJA	1.489	33.03	3107.8
	ARENA_3	0.314	6.27	705.1				
2300.000	D TIERRA	1.853	40.03	4635.3	ARENA_1	0.144	2.87	326.0
	ARENA_2	0.121	2.42	274.0	RELLENO_ZANJA	1.191	26.80	3134.6
	ARENA_3	0.314	6.27	711.3				
2306.183	D TIERRA	2.061	12.10	4647.4	ARENA_1	0.144	0.89	326.9
	ARENA_2	0.121	0.75	274.8	RELLENO_ZANJA	1.400	8.01	3142.6
	ARENA_3	0.314	1.94	713.3				
2320.000	D TIERRA	1.817	26.80	4674.2	ARENA_1	0.144	1.99	328.9
	ARENA_2	0.121	1.67	276.4	RELLENO_ZANJA	1.156	17.65	3160.2
	ARENA_3	0.314	4.33	717.6				
2340.000	D TIERRA	2.013	38.31	4712.6	ARENA_1	0.144	2.87	331.8
	ARENA_2	0.121	2.42	278.9	RELLENO_ZANJA	1.352	25.07	3185.3
	ARENA_3	0.314	6.27	723.9				
2360.000	D TIERRA	1.854	38.67	4751.2	ARENA_1	0.144	2.87	334.6
	ARENA_2	0.121	2.42	281.3	RELLENO_ZANJA	1.192	25.44	3210.7
	ARENA_3	0.314	6.27	730.2				
2380.000	D TIERRA	1.853	37.06	4788.3	ARENA_1	0.144	2.87	337.5
	ARENA_2	0.121	2.42	283.7	RELLENO_ZANJA	1.191	23.83	3234.6
	ARENA_3	0.314	6.27	736.4				
2400.000	D TIERRA	2.112	39.65	4827.9	ARENA_1	0.144	2.87	340.4
	ARENA_2	0.121	2.42	286.1	RELLENO_ZANJA	1.451	26.42	3261.0
	ARENA_3	0.314	6.27	742.7				
2411.063	D TIERRA	1.853	21.93	4849.9	ARENA_1	0.144	1.59	342.0
	ARENA_2	0.121	1.34	287.4	RELLENO_ZANJA	1.191	14.61	3275.6
	ARENA_3	0.314	3.47	746.2				
2420.000	D TIERRA	1.993	17.19	4867.1	ARENA_1	0.144	1.28	343.3
	ARENA_2	0.121	1.08	288.5	RELLENO_ZANJA	1.332	11.27	3286.9
	ARENA_3	0.314	2.80	749.0				
2440.000	D TIERRA	0.000	0.00	4867.1	ARENA_1	0.000	0.00	343.3
	ARENA_2	0.000	0.00	288.5	RELLENO_ZANJA	0.000	0.00	3286.9
	ARENA_3	0.000	0.00	749.0				
2460.000	D TIERRA	1.972	0.00	4867.1	ARENA_1	0.144	0.00	343.3
	ARENA_2	0.121	0.00	288.5	RELLENO_ZANJA	1.310	0.00	3286.9
	ARENA_3	0.314	0.00	749.0				
2480.000	D TIERRA	1.853	38.25	4905.3	ARENA_1	0.144	2.87	346.1
	ARENA_2	0.121	2.42	290.9	RELLENO_ZANJA	1.192	25.02	3311.9
	ARENA_3	0.314	6.27	755.2				
2500.000	D TIERRA	1.930	37.84	4943.1	ARENA_1	0.144	2.87	349.0
	ARENA_2	0.121	2.42	293.4	RELLENO_ZANJA	1.268	24.60	3336.5
	ARENA_3	0.314	6.27	761.5				
2520.000	D TIERRA	1.875	38.05	4981.2	ARENA_1	0.144	2.87	351.9
	ARENA_2	0.121	2.42	295.8	RELLENO_ZANJA	1.213	24.82	3361.3
	ARENA_3	0.314	6.27	767.8				
2536.029	D TIERRA	1.853	29.88	5011.1	ARENA_1	0.144	2.30	354.2
	ARENA_2	0.121	1.94	297.7	RELLENO_ZANJA	1.191	19.27	3380.6
	ARENA_3	0.314	5.03	772.8				



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PROYECTO : CIDACOS COMPLETO
EJE : 10: P350 (Tudelilla) - P410 (Villar de Arnedo)

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PROYECTO : CIDACOS COMPLETO
EJE : 10: P350 (Tudelilla) - P410 (Villar de Arnedo)

MEDICIONES DE LOS PERFILES TRANSVERSALES
CAPAS DE FIRME

MEDICIONES DE LOS PERFILES TRANSVERSALES
CAPAS DE FIRME

Table with 9 columns: PERFIL, MATERIAL, AREA PERFIL, VOL. PARCIAL, VOL. ACUMUL., MATERIAL, AREA PERFIL, VOL. PARCIAL, VOL. ACUMUL. It lists data for profiles 2540.000 to 2791.468.

Table with 9 columns: PERFIL, MATERIAL, AREA PERFIL, VOL. PARCIAL, VOL. ACUMUL., MATERIAL, AREA PERFIL, VOL. PARCIAL, VOL. ACUMUL. It lists data for profiles 2800.000 to 3080.000.



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*** MEDICIONES DE LOS PERFILES TRANSVERSALES ***
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PERFIL	MATERIAL	AREA PERFIL	VOL. PARCIAL	VOL. ACUMUL.	MATERIAL	AREA PERFIL	VOL. PARCIAL	VOL. ACUMUL.
3100.000	D TIERRA	3.410	70.93	6294.0	ARENA_1	0.144	2.87	435.2
	ARENA_2	0.121	2.42	365.9	RELLENO_ZANJA	2.749	57.69	4290.3
	ARENA_3	0.314	6.27	949.7				
3120.000	D TIERRA	2.264	56.75	6350.7	ARENA_1	0.144	2.87	438.1
	ARENA_2	0.121	2.42	368.3	RELLENO_ZANJA	1.603	43.51	4333.8
	ARENA_3	0.314	6.27	956.0				
3122.911	D TIERRA	2.299	6.64	6357.4	ARENA_1	0.144	0.42	438.5
	ARENA_2	0.121	0.35	368.6	RELLENO_ZANJA	1.637	4.72	4338.6
	ARENA_3	0.314	0.91	956.9				
3140.000	D TIERRA	2.504	41.04	6398.4	ARENA_1	0.144	2.46	441.0
	ARENA_2	0.121	2.06	370.7	RELLENO_ZANJA	1.842	29.73	4368.3
	ARENA_3	0.314	5.36	962.3				
3150.268	D TIERRA	2.630	26.36	6424.8	ARENA_1	0.144	1.48	442.5
	ARENA_2	0.121	1.24	371.9	RELLENO_ZANJA	1.969	19.57	4387.8
	ARENA_3	0.314	3.22	965.5				
3160.000	D TIERRA	1.854	21.82	6446.6	ARENA_1	0.144	1.40	443.9
	ARENA_2	0.121	1.18	373.1	RELLENO_ZANJA	1.192	15.38	4403.2
	ARENA_3	0.314	3.05	968.5				
3180.000	D TIERRA	1.815	36.69	6483.3	ARENA_1	0.144	2.87	446.7
	ARENA_2	0.121	2.42	375.5	RELLENO_ZANJA	1.154	23.45	4426.7
	ARENA_3	0.314	6.27	974.8				
3189.581	D TIERRA	2.189	19.18	6502.5	ARENA_1	0.144	1.38	448.1
	ARENA_2	0.121	1.16	376.7	RELLENO_ZANJA	1.528	12.84	4439.5
	ARENA_3	0.314	3.01	977.8				
3200.000	D TIERRA	3.019	27.13	6529.6	ARENA_1	0.144	1.50	449.6
	ARENA_2	0.121	1.26	377.9	RELLENO_ZANJA	2.357	20.24	4459.8
	ARENA_3	0.314	3.27	981.1				
3220.000	D TIERRA	2.755	57.73	6587.3	ARENA_1	0.144	2.87	452.5
	ARENA_2	0.121	2.42	380.3	RELLENO_ZANJA	2.093	44.50	4504.3
	ARENA_3	0.314	6.27	987.4				
3240.000	D TIERRA	2.500	52.55	6639.9	ARENA_1	0.144	2.87	455.4
	ARENA_2	0.121	2.42	382.8	RELLENO_ZANJA	1.838	39.31	4543.6
	ARENA_3	0.314	6.27	993.6				
3260.000	D TIERRA	3.492	59.92	6699.8	ARENA_1	0.144	2.87	458.2
	ARENA_2	0.121	2.42	385.2	RELLENO_ZANJA	2.830	46.69	4590.3
	ARENA_3	0.314	6.27	999.9				
3277.675	D TIERRA	1.982	48.38	6748.2	ARENA_1	0.144	2.54	460.8
	ARENA_2	0.121	2.14	387.3	RELLENO_ZANJA	1.320	36.68	4626.9
	ARENA_3	0.314	5.54	1005.5				
3280.000	D TIERRA	1.875	4.48	6752.7	ARENA_1	0.144	0.33	461.1
	ARENA_2	0.121	0.28	387.6	RELLENO_ZANJA	1.213	2.95	4629.9
	ARENA_3	0.314	0.73	1006.2				
3290.781	D TIERRA	1.964	20.69	6773.3	ARENA_1	0.144	1.55	462.7
	ARENA_2	0.121	1.30	388.9	RELLENO_ZANJA	1.302	13.56	4643.4
	ARENA_3	0.314	3.38	1009.6				
3300.000	D TIERRA	2.682	21.42	6794.8	ARENA_1	0.144	1.33	464.0
	ARENA_2	0.121	1.11	390.0	RELLENO_ZANJA	2.020	15.32	4658.8
	ARENA_3	0.314	2.89	1012.5				
3320.000	D TIERRA	3.210	58.92	6853.7	ARENA_1	0.144	2.87	466.9
	ARENA_2	0.121	2.42	392.4	RELLENO_ZANJA	2.548	45.69	4704.4
	ARENA_3	0.314	6.27	1018.7				
3327.277	D TIERRA	3.728	25.24	6878.9	ARENA_1	0.144	1.05	467.9
	ARENA_2	0.121	0.88	393.3	RELLENO_ZANJA	3.066	20.43	4724.9
	ARENA_3	0.314	2.28	1021.0				
3340.000	D TIERRA	2.091	37.02	6915.9	ARENA_1	0.144	1.83	469.7
	ARENA_2	0.121	1.54	394.8	RELLENO_ZANJA	1.429	28.60	4753.5
	ARENA_3	0.314	3.99	1025.0				
3360.000	D TIERRA	1.938	40.29	6956.2	ARENA_1	0.144	2.87	472.6
	ARENA_2	0.121	2.42	397.3	RELLENO_ZANJA	1.276	27.05	4780.5
	ARENA_3	0.313	6.27	1031.3				

PERFIL	MATERIAL	AREA PERFIL	VOL. PARCIAL	VOL. ACUMUL.	MATERIAL	AREA PERFIL	VOL. PARCIAL	VOL. ACUMUL.
3363.866	D TIERRA	1.993	7.60	6963.8	ARENA_1	0.144	0.56	473.2
	ARENA_2	0.121	0.47	397.7	RELLENO_ZANJA	1.332	5.04	4785.6
	ARENA_3	0.314	1.21	1032.5				
3380.000	D TIERRA	1.856	31.05	6994.9	ARENA_1	0.144	2.32	475.5
	ARENA_2	0.121	1.95	399.7	RELLENO_ZANJA	1.194	20.38	4805.9
	ARENA_3	0.314	5.06	1037.5				
3400.000	D TIERRA	2.159	40.15	7035.0	ARENA_1	0.144	2.87	478.4
	ARENA_2	0.121	2.42	402.1	RELLENO_ZANJA	1.497	26.91	4832.9
	ARENA_3	0.314	6.27	1043.8				
3400.808	D TIERRA	2.143	1.74	7036.8	ARENA_1	0.144	0.12	478.5
	ARENA_2	0.121	0.10	402.2	RELLENO_ZANJA	1.481	1.20	4834.1
	ARENA_3	0.314	0.25	1044.1				
3420.000	D TIERRA	1.769	37.54	7074.3	ARENA_1	0.144	2.76	481.2
	ARENA_2	0.121	2.32	404.5	RELLENO_ZANJA	1.107	24.84	4858.9
	ARENA_3	0.314	6.02	1050.1				
3438.227	D TIERRA	2.104	35.30	7109.6	ARENA_1	0.144	2.62	483.9
	ARENA_2	0.121	2.20	406.7	RELLENO_ZANJA	1.442	23.23	4882.1
	ARENA_3	0.314	5.72	1055.8				
3440.000	D TIERRA	2.080	3.71	7113.3	ARENA_1	0.144	0.25	484.1
	ARENA_2	0.121	0.21	406.9	RELLENO_ZANJA	1.418	2.54	4884.7
	ARENA_3	0.314	0.56	1056.4				
3454.191	D TIERRA	1.870	28.02	7141.3	ARENA_1	0.144	2.04	486.2
	ARENA_2	0.121	1.71	408.6	RELLENO_ZANJA	1.208	18.63	4903.3
	ARENA_3	0.314	4.45	1060.8				
3460.000	D TIERRA	2.457	12.57	7153.9	ARENA_1	0.144	0.83	487.0
	ARENA_2	0.121	0.70	409.3	RELLENO_ZANJA	1.795	8.72	4912.0
	ARENA_3	0.314	1.82	1062.6				
3480.000	D TIERRA	1.853	43.10	7197.0	ARENA_1	0.144	2.87	489.9
	ARENA_2	0.121	2.42	411.8	RELLENO_ZANJA	1.191	29.86	4941.9
	ARENA_3	0.314	6.27	1068.9				
3500.000	D TIERRA	1.993	38.46	7235.4	ARENA_1	0.144	2.87	492.7
	ARENA_2	0.121	2.42	414.2	RELLENO_ZANJA	1.331	25.23	4967.1
	ARENA_3	0.314	6.27	1075.2				
3520.000	D TIERRA	2.418	44.11	7279.6	ARENA_1	0.144	2.87	495.6
	ARENA_2	0.121	2.42	416.6	RELLENO_ZANJA	1.756	30.88	4998.0
	ARENA_3	0.314	6.27	1081.5				
3540.000	D TIERRA	2.842	52.60	7332.2	ARENA_1	0.144	2.87	498.5
	ARENA_2	0.121	2.42	419.0	RELLENO_ZANJA	2.180	39.36	5037.4
	ARENA_3	0.314	6.27	1087.7				
3555.043	D TIERRA	1.925	35.85	7368.0	ARENA_1	0.144	2.16	500.7
	ARENA_2	0.121	1.82	420.8	RELLENO_ZANJA	1.264	25.90	5063.3
	ARENA_3	0.314	4.72	1092.5				
3560.000	D TIERRA	2.593	11.20	7379.2	ARENA_1	0.144	0.71	501.4
	ARENA_2	0.121	0.60	421.4	RELLENO_ZANJA	1.931	7.92	5071.2
	ARENA_3	0.314	1.55	1094.0				
3564.353	D TIERRA	1.843	9.65	7388.9	ARENA_1	0.144	0.63	502.0
	ARENA_2	0.121	0.53	422.0	RELLENO_ZANJA	1.181	6.77	5077.9
	ARENA_3	0.314	1.37	1095.4				
3580.000	D TIERRA	2.043	30.40	7419.3	ARENA_1	0.144	2.25	504.2
	ARENA_2	0.121	1.89	423.8	RELLENO_ZANJA	1.381	20.05	5098.0
	ARENA_3	0.314	4.91	1100.3				
3600.000	D TIERRA	2.138	41.81	7461.1	ARENA_1	0.144	2.87	507.1
	ARENA_2	0.121	2.42	426.3	RELLENO_ZANJA	1.476	28.57	5126.6
	ARENA_3	0.314	6.27	1106.6				
3620.000	D TIERRA	2.058	41.96	7503.0	ARENA_1	0.144	2.87	510.0
	ARENA_2	0.121	2.42	428.7	RELLENO_ZANJA	1.396	28.72	5155.3
	ARENA_3	0.314	6.27	1112.8				
3640.000	D TIERRA	2.227	42.85	7545.9	ARENA_1	0.144	2.87	512.9
	ARENA_2	0.121	2.42	431.1	RELLENO_ZANJA	1.565	29.61	5184.9
	ARENA_3	0.314	6.27	1119.1				



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PROYECTO : CIDACOS COMPLETO
EJE : 10: P350 (Tudelilla) - P410 (Villar de Arnedo)

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MEDICIONES DE LOS PERFILES TRANSVERSALES
CAPAS DE FIRME

Table with 9 columns: PERFIL, MATERIAL, AREA PERFIL, VOL. PARCIAL, VOL. ACUMUL., MATERIAL, AREA PERFIL, VOL. PARCIAL, VOL. ACUMUL. Rows include profiles 3660.000 to 3920.000 with materials like TIERRA, ARENA, and RELLENO_ZANJA.

Table with 9 columns: PERFIL, MATERIAL, AREA PERFIL, VOL. PARCIAL, VOL. ACUMUL., MATERIAL, AREA PERFIL, VOL. PARCIAL, VOL. ACUMUL. Rows include profiles 3940.000 to 4180.000 with materials like TIERRA, ARENA, and RELLENO_ZANJA.

Istram 9.04 22/07/20 09:22:26
 PROYECTO : CIDACOS COMPLETO
 EJE : 10: P350 (Tudelilla) - P410 (Villar de Arnedo)

Istram 9.04 22/07/20 09:22:26
 PROYECTO : CIDACOS COMPLETO
 EJE : 10: P350 (Tudelilla) - P410 (Villar de Arnedo)

***** MEDICIONES DE LOS PERFILES TRANSVERSALES* * *
 * * * CAPAS DE FIRME * * *

***** MEDICIONES DE LOS PERFILES TRANSVERSALES* * *
 * * * CAPAS DE FIRME * * *

PERFIL	MATERIAL	AREA PERFIL	VOL. PARCIAL	VOL. ACUMUL.	MATERIAL	AREA PERFIL	VOL. PARCIAL	VOL. ACUMUL.	PERFIL	MATERIAL	AREA PERFIL	VOL. PARCIAL	VOL. ACUMUL.	MATERIAL	AREA PERFIL	VOL. PARCIAL	VOL. ACUMUL.
4180.000	D TIERRA	1.956	0.00	8672.2	ARENA_1	0.144	0.00	585.8	4420.000	D TIERRA	2.128	40.64	9152.9	ARENA_1	0.144	2.87	620.3
	ARENA_2	0.121	0.00	492.4	RELLENO_ZANJA	1.294	0.00	5975.5		ARENA_2	0.121	2.42	521.4	RELLENO_ZANJA	1.466	27.41	6297.4
	ARENA_3	0.314	0.00	1278.2						ARENA_3	0.314	6.27	1353.5				
4200.000	D TIERRA	1.853	38.08	8710.3	ARENA_1	0.144	2.87	588.6	4422.595	D TIERRA	2.159	5.56	9158.5	ARENA_1	0.144	0.37	620.6
	ARENA_2	0.121	2.42	494.8	RELLENO_ZANJA	1.191	24.85	6000.4		ARENA_2	0.121	0.31	521.7	RELLENO_ZANJA	1.497	3.85	6301.3
	ARENA_3	0.314	6.27	1284.5						ARENA_3	0.314	0.81	1354.3				
4220.000	D TIERRA	2.069	39.22	8749.5	ARENA_1	0.144	2.87	591.5	4440.000	D TIERRA	2.165	37.63	9196.1	ARENA_1	0.144	2.50	623.1
	ARENA_2	0.121	2.42	497.2	RELLENO_ZANJA	1.407	25.99	6026.4		ARENA_2	0.121	2.10	523.8	RELLENO_ZANJA	1.504	26.11	6327.4
	ARENA_3	0.314	6.27	1290.8						ARENA_3	0.314	5.46	1359.8				
4230.538	D TIERRA	2.128	22.11	8771.6	ARENA_1	0.144	1.51	593.0	4460.000	D TIERRA	2.197	43.62	9239.7	ARENA_1	0.144	2.87	626.0
	ARENA_2	0.121	1.27	498.5	RELLENO_ZANJA	1.466	15.14	6041.5		ARENA_2	0.121	2.42	526.2	RELLENO_ZANJA	1.535	30.39	6357.8
	ARENA_3	0.314	3.31	1294.1						ARENA_3	0.314	6.27	1366.1				
4240.000	D TIERRA	2.181	20.39	8792.0	ARENA_1	0.144	1.36	594.4	4480.000	D TIERRA	2.250	44.47	9284.2	ARENA_1	0.144	2.87	628.9
	ARENA_2	0.121	1.14	499.6	RELLENO_ZANJA	1.520	14.13	6055.7		ARENA_2	0.121	2.42	528.6	RELLENO_ZANJA	1.588	31.23	6389.0
	ARENA_3	0.314	2.97	1297.1						ARENA_3	0.314	6.27	1372.3				
4247.906	D TIERRA	2.095	16.90	8808.9	ARENA_1	0.144	1.14	595.5	4484.553	D TIERRA	2.270	10.29	9294.5	ARENA_1	0.144	0.65	629.5
	ARENA_2	0.121	0.96	500.6	RELLENO_ZANJA	1.433	11.67	6067.3		ARENA_2	0.121	0.55	529.2	RELLENO_ZANJA	1.609	7.28	6396.3
	ARENA_3	0.314	2.48	1299.5						ARENA_3	0.314	1.43	1373.8				
4260.000	D TIERRA	1.844	23.82	8832.7	ARENA_1	0.144	1.74	597.3	4500.000	D TIERRA	2.680	38.23	9332.7	ARENA_1	0.144	2.22	631.8
	ARENA_2	0.121	1.46	502.0	RELLENO_ZANJA	1.183	15.82	6083.1		ARENA_2	0.121	1.87	531.0	RELLENO_ZANJA	2.018	28.01	6424.3
	ARENA_3	0.314	3.79	1303.3						ARENA_3	0.314	4.85	1378.6				
4261.784	D TIERRA	1.854	3.30	8836.0	ARENA_1	0.144	0.26	597.5	4516.359	D TIERRA	3.873	53.60	9386.3	ARENA_1	0.144	2.35	634.1
	ARENA_2	0.121	0.22	502.3	RELLENO_ZANJA	1.192	2.12	6085.3		ARENA_2	0.121	1.98	533.0	RELLENO_ZANJA	3.211	42.77	6467.1
	ARENA_3	0.314	0.56	1303.9						ARENA_3	0.314	5.13	1383.8				
4274.747	D TIERRA	1.931	24.53	8860.6	ARENA_1	0.144	1.86	599.4	4520.000	D TIERRA	3.786	13.94	9400.2	ARENA_1	0.144	0.52	634.6
	ARENA_2	0.121	1.57	503.8	RELLENO_ZANJA	1.270	15.95	6101.2		ARENA_2	0.121	0.44	533.5	RELLENO_ZANJA	3.125	11.53	6478.6
	ARENA_3	0.314	4.07	1308.0						ARENA_3	0.314	1.14	1384.9				
4280.000	D TIERRA	1.989	10.30	8870.9	ARENA_1	0.144	0.76	600.1	4532.582	D TIERRA	2.533	39.75	9440.0	ARENA_1	0.144	1.81	636.4
	ARENA_2	0.121	0.63	504.5	RELLENO_ZANJA	1.328	6.82	6108.0		ARENA_2	0.121	1.52	535.0	RELLENO_ZANJA	1.871	31.43	6510.0
	ARENA_3	0.314	1.65	1309.6						ARENA_3	0.314	3.95	1388.8				
4300.000	D TIERRA	2.143	41.33	8912.2	ARENA_1	0.144	2.87	603.0	4540.000	D TIERRA	2.056	17.02	9457.0	ARENA_1	0.144	1.07	637.5
	ARENA_2	0.121	2.42	506.9	RELLENO_ZANJA	1.482	28.09	6136.1		ARENA_2	0.121	0.90	535.9	RELLENO_ZANJA	1.394	12.11	6522.1
	ARENA_3	0.314	6.27	1315.9						ARENA_3	0.314	2.33	1391.2				
4320.000	D TIERRA	2.157	43.00	8955.2	ARENA_1	0.144	2.87	605.9	4552.546	D TIERRA	2.111	26.14	9483.1	ARENA_1	0.144	1.80	639.3
	ARENA_2	0.121	2.42	509.3	RELLENO_ZANJA	1.496	29.77	6165.9		ARENA_2	0.121	1.52	537.4	RELLENO_ZANJA	1.450	17.84	6540.0
	ARENA_3	0.314	6.27	1322.2						ARENA_3	0.314	3.94	1395.1				
4331.263	D TIERRA	2.177	24.41	8979.6	ARENA_1	0.144	1.62	607.5	4560.000	D TIERRA	2.150	15.88	9499.0	ARENA_1	0.144	1.07	640.4
	ARENA_2	0.121	1.36	510.7	RELLENO_ZANJA	1.516	16.96	6182.9		ARENA_2	0.121	0.90	538.3	RELLENO_ZANJA	1.488	10.95	6550.9
	ARENA_3	0.314	3.53	1325.7						ARENA_3	0.314	2.34	1397.4				
4340.000	D TIERRA	1.856	17.62	8997.2	ARENA_1	0.144	1.26	608.8	4566.146	D TIERRA	2.171	13.28	9512.3	ARENA_1	0.144	0.88	641.3
	ARENA_2	0.121	1.06	511.7	RELLENO_ZANJA	1.195	11.84	6194.7		ARENA_2	0.121	0.74	539.0	RELLENO_ZANJA	1.509	9.21	6560.1
	ARENA_3	0.314	2.74	1328.4						ARENA_3	0.314	1.93	1399.4				
4356.156	D TIERRA	1.877	30.15	9027.4	ARENA_1	0.144	2.32	611.1	4580.000	D TIERRA	1.978	28.74	9541.0	ARENA_1	0.144	1.99	643.3
	ARENA_2	0.121	1.95	513.7	RELLENO_ZANJA	1.215	19.46	6214.2		ARENA_2	0.121	1.67	540.7	RELLENO_ZANJA	1.316	19.57	6579.7
	ARENA_3	0.314	5.07	1333.5						ARENA_3	0.314	4.35	1403.7				
4360.000	D TIERRA	1.925	7.31	9034.7	ARENA_1	0.144	0.55	611.6	4597.431	D TIERRA	1.853	33.39	9574.4	ARENA_1	0.144	2.51	645.8
	ARENA_2	0.121	0.46	514.1	RELLENO_ZANJA	1.263	4.76	6218.9		ARENA_2	0.121	2.11	542.8	RELLENO_ZANJA	1.191	21.85	6601.6
	ARENA_3	0.314	1.21	1334.7						ARENA_3	0.314	5.47	1409.2				
4370.368	D TIERRA	1.923	19.95	9054.6	ARENA_1	0.144	1.49	613.1	4600.000	D TIERRA	1.834	4.74	9579.2	ARENA_1	0.144	0.37	646.1
	ARENA_2	0.121	1.25	515.4	RELLENO_ZANJA	1.262	13.09	6232.0		ARENA_2	0.121	0.31	543.1	RELLENO_ZANJA	1.173	3.04	6604.6
	ARENA_3	0.314	3.25	1338.0						ARENA_3	0.314	0.81	1410.0				
4380.000	D TIERRA	1.936	18.59	9073.2	ARENA_1	0.144	1.38	614.5	4620.000	D TIERRA	1.850	36.84	9616.0	ARENA_1	0.144	2.87	649.0
	ARENA_2	0.121	1.16	516.5	RELLENO_ZANJA	1.275	12.21	6244.2		ARENA_2	0.121	2.42	545.5	RELLENO_ZANJA	1.188	23.61	6628.2
	ARENA_3	0.314	3.02	1341.0						ARENA_3	0.314	6.27	1416.3				
4399.377	D TIERRA	1.966	37.81	9111.0	ARENA_1	0.144	2.78	617.3	4623.757	D TIERRA	1.853	6.96	9623.0	ARENA_1	0.144	0.54	649.6
	ARENA_2	0.121	2.34	518.9	RELLENO_ZANJA	1.304	24.99	6269.2		ARENA_2	0.121	0.45	546.0	RELLENO_ZANJA	1.191	4.47	6632.7
	ARENA_3	0.314	6.08	1347.1						ARENA_3	0.314	1.18	1417.4				
4400.000	D TIERRA	1.936	1.22	9112.2	ARENA_1	0.144	0.09	617.4	4639.473	D TIERRA	1.873	29.28	9652.2	ARENA_1	0.144	2.26	651.8
	ARENA_2	0.121	0.08	519.0	RELLENO_ZANJA	1.275	0.80	6270.0		ARENA_2	0.121	1.90	547.9	RELLENO_ZANJA	1.211	18.88	6651.6
	ARENA_3	0.314	0.20	1347.3						ARENA_3	0.314	4.93	1422.4				



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PROYECTO : CIDACOS COMPLETO
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PROYECTO : CIDACOS COMPLETO
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*** MEDICIONES DE LOS PERFILES TRANSVERSALES ***
*** CAPAS DE FIRME ***

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PERFIL	MATERIAL	AREA PERFIL	VOL. PARCIAL	VOL. ACUMUL.	MATERIAL	AREA PERFIL	VOL. PARCIAL	VOL. ACUMUL.
4640.000	D TIERRA	1.882	0.99	9653.2	ARENA_1	0.144	0.08	651.9
	ARENA_2	0.121	0.06	548.0	RELLENO_ZANJA	1.220	0.64	6652.2
	ARENA_3	0.314	0.17	1422.5				
4657.347	D TIERRA	2.008	33.74	9687.0	ARENA_1	0.144	2.49	654.4
	ARENA_2	0.121	2.10	550.1	RELLENO_ZANJA	1.347	22.26	6674.5
	ARENA_3	0.314	5.44	1428.0				
4660.000	D TIERRA	2.012	5.33	9692.3	ARENA_1	0.144	0.38	654.8
	ARENA_2	0.121	0.32	550.4	RELLENO_ZANJA	1.350	3.58	6678.0
	ARENA_3	0.314	0.83	1428.8				
4673.636	D TIERRA	2.178	28.57	9720.9	ARENA_1	0.144	1.96	656.7
	ARENA_2	0.121	1.65	552.0	RELLENO_ZANJA	1.517	19.55	6697.6
	ARENA_3	0.314	4.28	1433.1				
4680.000	D TIERRA	2.112	13.65	9734.5	ARENA_1	0.144	0.91	657.6
	ARENA_2	0.121	0.77	552.8	RELLENO_ZANJA	1.450	9.44	6707.0
	ARENA_3	0.314	2.00	1435.1				
4693.210	D TIERRA	1.977	27.01	9761.5	ARENA_1	0.144	1.90	659.5
	ARENA_2	0.121	1.60	554.4	RELLENO_ZANJA	1.315	18.27	6725.3
	ARENA_3	0.314	4.14	1439.2				
4700.000	D TIERRA	2.196	14.17	9775.7	ARENA_1	0.144	0.98	660.5
	ARENA_2	0.121	0.82	555.2	RELLENO_ZANJA	1.534	9.67	6735.0
	ARENA_3	0.314	2.13	1441.4				
4703.934	D TIERRA	2.331	8.90	9784.6	ARENA_1	0.144	0.57	661.1
	ARENA_2	0.121	0.48	555.7	RELLENO_ZANJA	1.669	6.30	6741.3
	ARENA_3	0.314	1.23	1442.6				
4720.000	D TIERRA	2.475	38.61	9823.2	ARENA_1	0.144	2.31	663.4
	ARENA_2	0.121	1.94	557.6	RELLENO_ZANJA	1.814	27.98	6769.2
	ARENA_3	0.314	5.04	1447.6				
4723.679	D TIERRA	2.516	9.18	9832.4	ARENA_1	0.144	0.53	663.9
	ARENA_2	0.121	0.44	558.1	RELLENO_ZANJA	1.855	6.75	6776.0
	ARENA_3	0.314	1.15	1448.8				
4731.898	D TIERRA	2.301	19.80	9852.2	ARENA_1	0.144	1.18	665.1
	ARENA_2	0.121	0.99	559.1	RELLENO_ZANJA	1.639	14.36	6790.4
	ARENA_3	0.314	2.58	1451.4				
4740.000	D TIERRA	1.853	16.83	9869.0	ARENA_1	0.144	1.16	666.3
	ARENA_2	0.121	0.98	560.0	RELLENO_ZANJA	1.191	11.47	6801.8
	ARENA_3	0.314	2.54	1453.9				
4760.000	D TIERRA	1.979	38.31	9907.3	ARENA_1	0.144	2.87	669.1
	ARENA_2	0.121	2.42	562.5	RELLENO_ZANJA	1.317	25.08	6826.9
	ARENA_3	0.314	6.27	1460.2				
4780.000	D TIERRA	1.910	38.89	9946.2	ARENA_1	0.144	2.87	672.0
	ARENA_2	0.121	2.42	564.9	RELLENO_ZANJA	1.249	25.66	6852.6
	ARENA_3	0.314	6.27	1466.5				
4794.324	D TIERRA	1.864	27.03	9973.3	ARENA_1	0.144	2.06	674.1
	ARENA_2	0.121	1.73	566.6	RELLENO_ZANJA	1.202	17.55	6870.1
	ARENA_3	0.314	4.49	1470.9				
4800.000	D TIERRA	1.948	10.82	9984.1	ARENA_1	0.144	0.82	674.9
	ARENA_2	0.121	0.69	567.3	RELLENO_ZANJA	1.286	7.06	6877.2
	ARENA_3	0.314	1.78	1472.7				
4811.089	D TIERRA	1.969	21.72	10005.8	ARENA_1	0.144	1.59	676.5
	ARENA_2	0.121	1.34	568.6	RELLENO_ZANJA	1.307	14.38	6891.5
	ARENA_3	0.314	3.48	1476.2				
4820.000	D TIERRA	2.002	17.69	10023.5	ARENA_1	0.144	1.28	677.8
	ARENA_2	0.121	1.08	569.7	RELLENO_ZANJA	1.341	11.80	6903.3
	ARENA_3	0.314	2.80	1479.0				
4821.357	D TIERRA	1.967	2.69	10026.2	ARENA_1	0.144	0.20	678.0
	ARENA_2	0.121	0.16	569.9	RELLENO_ZANJA	1.305	1.80	6905.1
	ARENA_3	0.314	0.43	1479.4				
4840.000	D TIERRA	1.863	35.69	10061.9	ARENA_1	0.144	2.68	680.6
	ARENA_2	0.121	2.25	572.1	RELLENO_ZANJA	1.201	23.36	6928.5
	ARENA_3	0.314	5.85	1485.3				

PERFIL	MATERIAL	AREA PERFIL	VOL. PARCIAL	VOL. ACUMUL.	MATERIAL	AREA PERFIL	VOL. PARCIAL	VOL. ACUMUL.
4860.000	D TIERRA	2.033	0.00	10061.9	ARENA_1	0.146	0.00	680.6
	ARENA_2	0.127	0.00	572.1	RELLENO_ZANJA	1.339	0.00	6928.5
	ARENA_3	0.338	0.00	1485.3				
4880.000	D TIERRA	2.027	40.61	10102.5	ARENA_1	0.146	2.92	683.5
	ARENA_2	0.127	2.54	574.7	RELLENO_ZANJA	1.333	26.72	6955.2
	ARENA_3	0.338	6.76	1492.0				
4883.049	D TIERRA	2.027	6.18	10108.7	ARENA_1	0.146	0.44	684.0
	ARENA_2	0.127	0.39	575.0	RELLENO_ZANJA	1.333	4.06	6959.3
	ARENA_3	0.338	1.03	1493.1				
4900.000	D TIERRA	2.038	34.45	10143.1	ARENA_1	0.146	2.47	686.5
	ARENA_2	0.127	2.15	577.2	RELLENO_ZANJA	1.344	22.68	6982.0
	ARENA_3	0.338	5.73	1498.8				
4920.000	D TIERRA	2.311	43.48	10186.6	ARENA_1	0.146	2.92	689.4
	ARENA_2	0.127	2.54	579.7	RELLENO_ZANJA	1.616	29.60	7011.6
	ARENA_3	0.338	6.76	1505.6				
4936.598	D TIERRA	2.536	40.22	10226.8	ARENA_1	0.146	2.42	691.8
	ARENA_2	0.127	2.11	581.8	RELLENO_ZANJA	1.842	28.70	7040.3
	ARENA_3	0.338	5.61	1511.2				
4940.000	D TIERRA	2.562	8.67	10235.5	ARENA_1	0.146	0.50	692.3
	ARENA_2	0.127	0.43	582.3	RELLENO_ZANJA	1.868	6.31	7046.6
	ARENA_3	0.338	1.15	1512.3				
4960.000	D TIERRA	2.793	53.55	10289.0	ARENA_1	0.146	2.92	695.2
	ARENA_2	0.127	2.54	584.8	RELLENO_ZANJA	2.098	39.67	7086.2
	ARENA_3	0.338	6.76	1519.1				
4969.058	D TIERRA	2.727	25.00	10314.0	ARENA_1	0.146	1.32	696.5
	ARENA_2	0.127	1.15	586.0	RELLENO_ZANJA	2.033	18.71	7105.0
	ARENA_3	0.338	3.06	1522.1				
4980.000	D TIERRA	2.646	29.40	10343.4	ARENA_1	0.146	1.60	698.1
	ARENA_2	0.127	1.39	587.4	RELLENO_ZANJA	1.952	21.80	7126.8
	ARENA_3	0.338	3.70	1525.8				
5000.000	D TIERRA	2.499	51.45	10394.9	ARENA_1	0.146	2.92	701.0
	ARENA_2	0.127	2.54	589.9	RELLENO_ZANJA	1.805	37.56	7164.3
	ARENA_3	0.338	6.76	1532.6				
5020.000	D TIERRA	2.063	45.61	10440.5	ARENA_1	0.146	2.92	704.0
	ARENA_2	0.127	2.54	592.4	RELLENO_ZANJA	1.368	31.73	7196.0
	ARENA_3	0.338	6.76	1539.4				
5040.000	D TIERRA	2.058	41.20	10481.7	ARENA_1	0.146	2.92	706.9
	ARENA_2	0.127	2.54	595.0	RELLENO_ZANJA	1.363	27.32	7223.4
	ARENA_3	0.338	6.76	1546.1				
5060.000	D TIERRA	2.731	47.89	10529.6	ARENA_1	0.146	2.91	709.8
	ARENA_2	0.127	2.54	597.5	RELLENO_ZANJA	2.037	34.00	7257.4
	ARENA_3	0.338	6.76	1552.9				
5073.344	D TIERRA	2.031	31.77	10561.4	ARENA_1	0.146	1.95	711.7
	ARENA_2	0.127	1.69	599.2	RELLENO_ZANJA	1.336	22.51	7279.9
	ARENA_3	0.338	4.51	1557.4				
5080.000	D TIERRA	2.031	13.52	10574.9	ARENA_1	0.146	0.97	712.7
	ARENA_2	0.127	0.84	600.0	RELLENO_ZANJA	1.337	8.90	7288.8
	ARENA_3	0.338	2.25	1559.7				
5100.000	D TIERRA	2.029	40.60	10615.5	ARENA_1	0.146	2.92	715.6
	ARENA_2	0.127	2.54	602.6	RELLENO_ZANJA	1.335	26.71	7315.5
	ARENA_3	0.338	6.76	1566.4				
5120.000	D TIERRA	2.023	40.52	10656.0	ARENA_1	0.146	2.92	718.5
	ARENA_2	0.127	2.54	605.1	RELLENO_ZANJA	1.329	26.64	7342.1
	ARENA_3	0.338	6.76	1573.2				
5140.000	D TIERRA	2.056	40.80	10696.8	ARENA_1	0.146	2.91	721.4
	ARENA_2	0.127	2.54	607.7	RELLENO_ZANJA	1.362	26.91	7369.0
	ARENA_3	0.338	6.76	1579.9				
5145.903	D TIERRA	2.004	11.98	10708.8	ARENA_1	0.146	0.86	722.3
	ARENA_2	0.127	0.75	608.4	RELLENO_ZANJA	1.310	7.89	7376.9
	ARENA_3	0.338	2.00	1581.9				



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PROYECTO : CIDACOS COMPLETO
EJE : 10: P350 (Tudelilla) - P410 (Villar de Arnedo)

*** MEDICIONES DE LOS PERFILES TRANSVERSALES***
*** CAPAS DE FIRME ***

PERFIL	MATERIAL	AREA PERFIL	VOL. PARCIAL	VOL. ACUMUL.	MATERIAL	AREA PERFIL	VOL. PARCIAL	VOL. ACUMUL.
5160.000	D_TIERRA	2.012	28.31	10737.1	ARENA_1	0.146	2.05	724.4
	ARENA_2	0.127	1.79	610.2	RELLENO_ZANJA	1.318	18.52	7395.4
	ARENA_3	0.338	4.77	1586.7				
5180.000	D_TIERRA	2.031	40.43	10777.5	ARENA_1	0.146	2.92	727.3
	ARENA_2	0.127	2.54	612.7	RELLENO_ZANJA	1.336	26.54	7422.0
	ARENA_3	0.338	6.76	1593.5				
5200.000	D_TIERRA	2.027	40.57	10818.1	ARENA_1	0.146	2.91	730.2
	ARENA_2	0.127	2.54	615.3	RELLENO_ZANJA	1.333	26.69	7448.7
	ARENA_3	0.338	6.76	1600.2				
5200.066	D_TIERRA	2.032	0.13	10818.2	ARENA_1	0.146	0.01	730.2
	ARENA_2	0.127	0.01	615.3	RELLENO_ZANJA	1.337	0.09	7448.8
	ARENA_3	0.338	0.02	1600.2				

*** RESUMEN DE VOLUMENES TOTALES ***

MATERIAL	VOLUMEN
TERRAPLEN	0.0
D_TIERRA	10818.2
ARENA_1	730.2
ARENA_2	615.3
RELLENO_ZANJA	7448.8
ARENA_3	1600.2

11. EJE 11: P410 (VILLAR DE ARNEADO) – P440 (PRADEJÓN)

Istram 9.04 13/04/20 12:33:12
PROYECTO : CIDACOS COMPLETO
EJE : 11: P410 (Villar de Arnedo) - P440 (Pradejón)

*** MEDICIONES DE LOS PERFILES TRANSVERSALES***
*** CAPAS DE FIRME ***

PERFIL	MATERIAL	AREA PERFIL	VOL. PARCIAL	VOL. ACUMUL.	MATERIAL	AREA PERFIL	VOL. PARCIAL	VOL. ACUMUL.
0.000	D_TIERRA	2.004	0.00	0.0	ARENA_1	0.138	0.00	0.0
	ARENA_2	0.104	0.00	0.0	RELLENO_ZANJA	1.406	0.00	0.0
	ARENA_3	0.297	0.00	0.0				
20.000	D_TIERRA	1.896	38.99	39.0	ARENA_1	0.138	2.75	2.8
	ARENA_2	0.104	2.08	2.1	RELLENO_ZANJA	1.298	27.04	27.0
	ARENA_3	0.297	5.93	5.9				
40.000	D_TIERRA	1.886	37.82	76.8	ARENA_1	0.138	2.75	5.5
	ARENA_2	0.104	2.08	4.2	RELLENO_ZANJA	1.289	25.87	52.9
	ARENA_3	0.297	5.93	11.9				
60.000	D_TIERRA	1.914	38.00	114.8	ARENA_1	0.138	2.75	8.3
	ARENA_2	0.104	2.08	6.3	RELLENO_ZANJA	1.316	26.05	79.0
	ARENA_3	0.297	5.93	17.8				
80.000	D_TIERRA	1.946	38.60	153.4	ARENA_1	0.138	2.75	11.0
	ARENA_2	0.104	2.08	8.3	RELLENO_ZANJA	1.349	26.65	105.6
	ARENA_3	0.297	5.93	23.7				
82.653	D_TIERRA	1.966	5.19	158.6	ARENA_1	0.138	0.37	11.4
	ARENA_2	0.104	0.28	8.6	RELLENO_ZANJA	1.368	3.60	109.2
	ARENA_3	0.297	0.79	24.5				
91.658	D_TIERRA	2.134	18.46	177.1	ARENA_1	0.138	1.24	12.6
	ARENA_2	0.104	0.94	9.5	RELLENO_ZANJA	1.537	13.08	122.3
	ARENA_3	0.297	2.67	27.2				
100.000	D_TIERRA	2.205	18.10	195.2	ARENA_1	0.138	1.15	13.8
	ARENA_2	0.104	0.87	10.4	RELLENO_ZANJA	1.607	13.11	135.4
	ARENA_3	0.297	2.48	29.7				
110.059	D_TIERRA	2.211	22.21	217.4	ARENA_1	0.138	1.39	15.2
	ARENA_2	0.104	1.05	11.5	RELLENO_ZANJA	1.614	16.20	151.6
	ARENA_3	0.297	2.98	32.7				
120.000	D_TIERRA	2.172	21.79	239.1	ARENA_1	0.138	1.37	16.5
	ARENA_2	0.104	1.04	12.5	RELLENO_ZANJA	1.574	15.85	167.4
	ARENA_3	0.297	2.95	35.6				
140.000	D_TIERRA	2.065	42.37	281.5	ARENA_1	0.138	2.75	19.3
	ARENA_2	0.104	2.08	14.6	RELLENO_ZANJA	1.467	30.41	197.9
	ARENA_3	0.297	5.93	41.5				
157.644	D_TIERRA	1.904	35.01	316.5	ARENA_1	0.138	2.43	21.7
	ARENA_2	0.104	1.84	16.4	RELLENO_ZANJA	1.306	24.47	222.3
	ARENA_3	0.297	5.24	46.8				
160.000	D_TIERRA	1.900	4.48	321.0	ARENA_1	0.138	0.32	22.0
	ARENA_2	0.104	0.25	16.7	RELLENO_ZANJA	1.303	3.07	225.4
	ARENA_3	0.297	0.70	47.5				
180.000	D_TIERRA	1.880	37.80	358.8	ARENA_1	0.138	2.75	24.8
	ARENA_2	0.104	2.08	18.8	RELLENO_ZANJA	1.283	25.85	251.3
	ARENA_3	0.297	5.93	53.4				
200.000	D_TIERRA	2.060	39.40	398.2	ARENA_1	0.138	2.75	27.5
	ARENA_2	0.104	2.08	20.8	RELLENO_ZANJA	1.462	27.45	278.7
	ARENA_3	0.297	5.93	59.3				
200.465	D_TIERRA	2.067	0.96	399.2	ARENA_1	0.138	0.06	27.6
	ARENA_2	0.104	0.05	20.9	RELLENO_ZANJA	1.470	0.68	279.4
	ARENA_3	0.297	0.14	59.5				
220.000	D_TIERRA	1.951	39.24	438.4	ARENA_1	0.138	2.69	30.3
	ARENA_2	0.104	2.04	22.9	RELLENO_ZANJA	1.353	27.57	307.0
	ARENA_3	0.297	5.80	65.3				
240.000	D_TIERRA	1.970	39.21	477.6	ARENA_1	0.138	2.75	33.0
	ARENA_2	0.104	2.08	25.0	RELLENO_ZANJA	1.373	27.26	334.2
	ARENA_3	0.297	5.93	71.2				
260.000	D_TIERRA	2.064	40.35	518.0	ARENA_1	0.138	2.75	35.8
	ARENA_2	0.104	2.08	27.1	RELLENO_ZANJA	1.467	28.40	362.6
	ARENA_3	0.297	5.93	77.1				

Istram 9.04 13/04/20 12:33:12
 PROYECTO : CIDACOS COMPLETO
 EJE : 11: P410 (Villar de Arnedo) - P440 (Pradejón)

Istram 9.04 13/04/20 12:33:12
 PROYECTO : CIDACOS COMPLETO
 EJE : 11: P410 (Villar de Arnedo) - P440 (Pradejón)

*** MEDICIONES DE LOS PERFILES TRANSVERSALES ***
 *** CAPAS DE FIRME ***

*** MEDICIONES DE LOS PERFILES TRANSVERSALES ***
 *** CAPAS DE FIRME ***

PERFIL	MATERIAL	AREA PERFIL	VOL. PARCIAL	VOL. ACUMUL.	MATERIAL	AREA PERFIL	VOL. PARCIAL	VOL. ACUMUL.	PERFIL	MATERIAL	AREA PERFIL	VOL. PARCIAL	VOL. ACUMUL.	MATERIAL	AREA PERFIL	VOL. PARCIAL	VOL. ACUMUL.
280.000	D TIERRA	2.362	44.26	562.2	ARENA_1	0.138	2.75	38.6	580.000	D TIERRA	1.944	38.56	1174.6	ARENA_1	0.138	2.75	79.9
	ARENA_2	0.104	2.08	29.2	RELLENO_ZANJA	1.765	32.31	394.9		ARENA_2	0.104	2.08	60.4	RELLENO_ZANJA	1.346	26.61	828.0
	ARENA_3	0.297	5.93	83.1						ARENA_3	0.297	5.93	172.1				
285.605	D TIERRA	2.383	13.30	575.5	ARENA_1	0.138	0.77	39.3	600.000	D TIERRA	1.976	39.20	1213.8	ARENA_1	0.138	2.75	82.6
	ARENA_2	0.104	0.58	29.8	RELLENO_ZANJA	1.786	9.95	404.9		ARENA_2	0.104	2.08	62.5	RELLENO_ZANJA	1.378	27.25	855.3
	ARENA_3	0.297	1.66	84.7						ARENA_3	0.297	5.93	178.0				
300.000	D TIERRA	2.284	33.59	609.1	ARENA_1	0.138	1.98	41.3	620.000	D TIERRA	2.008	39.84	1253.6	ARENA_1	0.138	2.75	85.4
	ARENA_2	0.104	1.50	31.3	RELLENO_ZANJA	1.687	24.99	429.9		ARENA_2	0.104	2.08	64.6	RELLENO_ZANJA	1.410	27.89	883.2
	ARENA_3	0.297	4.27	89.0						ARENA_3	0.297	5.93	184.0				
320.000	D TIERRA	2.169	44.53	653.7	ARENA_1	0.138	2.75	44.1	637.008	D TIERRA	1.996	34.05	1287.7	ARENA_1	0.138	2.34	87.7
	ARENA_2	0.104	2.08	33.3	RELLENO_ZANJA	1.571	32.58	462.4		ARENA_2	0.104	1.77	66.4	RELLENO_ZANJA	1.399	23.89	907.1
	ARENA_3	0.297	5.93	94.9						ARENA_3	0.297	5.05	189.0				
322.885	D TIERRA	2.154	6.24	659.9	ARENA_1	0.138	0.40	44.5	640.000	D TIERRA	1.991	5.96	1293.7	ARENA_1	0.138	0.41	88.1
	ARENA_2	0.104	0.30	33.6	RELLENO_ZANJA	1.556	4.51	467.0		ARENA_2	0.104	0.31	66.7	RELLENO_ZANJA	1.393	4.18	911.2
	ARENA_3	0.297	0.86	95.8						ARENA_3	0.297	0.89	189.9				
340.000	D TIERRA	2.013	35.66	695.6	ARENA_1	0.138	2.36	46.8	660.000	D TIERRA	1.960	39.51	1333.2	ARENA_1	0.138	2.75	90.9
	ARENA_2	0.104	1.78	35.4	RELLENO_ZANJA	1.416	25.43	492.4		ARENA_2	0.104	2.08	68.8	RELLENO_ZANJA	1.363	27.56	938.8
	ARENA_3	0.297	5.08	100.9						ARENA_3	0.297	5.93	195.8				
354.998	D TIERRA	1.949	29.71	725.3	ARENA_1	0.138	2.06	48.9	667.461	D TIERRA	1.950	14.59	1347.8	ARENA_1	0.138	1.03	91.9
	ARENA_2	0.104	1.56	37.0	RELLENO_ZANJA	1.352	20.75	513.1		ARENA_2	0.104	0.78	69.5	RELLENO_ZANJA	1.352	10.13	948.9
	ARENA_3	0.297	4.45	105.3						ARENA_3	0.297	2.21	198.0				
360.000	D TIERRA	1.942	9.73	735.0	ARENA_1	0.138	0.69	49.6	680.000	D TIERRA	1.972	24.59	1372.3	ARENA_1	0.138	1.73	93.6
	ARENA_2	0.104	0.52	37.5	RELLENO_ZANJA	1.344	6.74	519.9		ARENA_2	0.104	1.31	70.8	RELLENO_ZANJA	1.375	17.10	966.0
	ARENA_3	0.297	1.48	106.8						ARENA_3	0.297	3.72	201.8				
380.000	D TIERRA	1.911	38.53	773.5	ARENA_1	0.138	2.75	52.3	700.000	D TIERRA	1.956	39.29	1411.6	ARENA_1	0.138	2.75	96.4
	ARENA_2	0.104	2.08	39.6	RELLENO_ZANJA	1.314	26.58	546.5		ARENA_2	0.104	2.08	72.9	RELLENO_ZANJA	1.359	27.34	993.4
	ARENA_3	0.297	5.93	112.8						ARENA_3	0.297	5.93	207.7				
400.000	D TIERRA	1.883	37.94	811.5	ARENA_1	0.138	2.75	55.1	704.655	D TIERRA	1.979	9.16	1420.8	ARENA_1	0.138	0.64	97.0
	ARENA_2	0.104	2.08	41.7	RELLENO_ZANJA	1.285	25.99	572.4		ARENA_2	0.104	0.49	73.4	RELLENO_ZANJA	1.382	6.38	999.7
	ARENA_3	0.297	5.93	118.7						ARENA_3	0.297	1.38	209.1				
420.000	D TIERRA	1.966	38.49	850.0	ARENA_1	0.138	2.75	57.8	720.000	D TIERRA	2.005	30.57	1451.4	ARENA_1	0.138	2.11	99.1
	ARENA_2	0.104	2.08	43.8	RELLENO_ZANJA	1.369	26.54	599.0		ARENA_2	0.104	1.60	75.0	RELLENO_ZANJA	1.407	21.40	1021.1
	ARENA_3	0.297	5.93	124.6						ARENA_3	0.297	4.55	213.6				
440.000	D TIERRA	2.126	40.93	890.9	ARENA_1	0.138	2.75	60.6	740.000	D TIERRA	2.038	40.42	1491.8	ARENA_1	0.138	2.75	101.9
	ARENA_2	0.104	2.08	45.8	RELLENO_ZANJA	1.529	28.98	628.0		ARENA_2	0.104	2.08	77.1	RELLENO_ZANJA	1.440	28.47	1049.6
	ARENA_3	0.297	5.93	130.6						ARENA_3	0.297	5.93	219.6				
445.911	D TIERRA	2.172	12.70	903.6	ARENA_1	0.138	0.81	61.4	760.000	D TIERRA	2.071	41.09	1532.9	ARENA_1	0.138	2.75	104.6
	ARENA_2	0.104	0.62	46.5	RELLENO_ZANJA	1.575	9.17	637.1		ARENA_2	0.104	2.08	79.2	RELLENO_ZANJA	1.474	29.14	1078.7
	ARENA_3	0.297	1.75	132.3						ARENA_3	0.297	5.93	225.5				
460.000	D TIERRA	2.176	30.63	934.2	ARENA_1	0.138	1.94	63.3	780.000	D TIERRA	2.104	41.75	1574.6	ARENA_1	0.138	2.75	107.4
	ARENA_2	0.104	1.47	47.9	RELLENO_ZANJA	1.578	22.21	659.3		ARENA_2	0.104	2.08	81.3	RELLENO_ZANJA	1.506	29.80	1108.5
	ARENA_3	0.297	4.18	136.5						ARENA_3	0.297	5.93	231.4				
480.000	D TIERRA	2.138	43.14	977.3	ARENA_1	0.138	2.75	66.1	793.595	D TIERRA	1.927	27.40	1602.0	ARENA_1	0.138	1.87	109.3
	ARENA_2	0.104	2.08	50.0	RELLENO_ZANJA	1.540	31.19	690.5		ARENA_2	0.104	1.42	82.7	RELLENO_ZANJA	1.330	19.28	1127.8
	ARENA_3	0.297	5.93	142.4						ARENA_3	0.297	4.03	235.5				
481.041	D TIERRA	2.136	2.22	979.6	ARENA_1	0.138	0.14	66.2	800.000	D TIERRA	1.865	12.15	1614.2	ARENA_1	0.138	0.88	110.2
	ARENA_2	0.104	0.11	50.1	RELLENO_ZANJA	1.538	1.60	692.1		ARENA_2	0.104	0.67	83.4	RELLENO_ZANJA	1.268	8.32	1136.1
	ARENA_3	0.297	0.31	142.7						ARENA_3	0.297	1.90	237.4				
500.000	D TIERRA	2.045	39.63	1019.2	ARENA_1	0.138	2.61	68.8	819.991	D TIERRA	1.864	37.28	1651.4	ARENA_1	0.138	2.75	112.9
	ARENA_2	0.104	1.98	52.1	RELLENO_ZANJA	1.447	28.30	720.4		ARENA_2	0.104	2.08	85.4	RELLENO_ZANJA	1.266	25.33	1161.5
	ARENA_3	0.297	5.63	148.4						ARENA_3	0.297	5.93	243.3				
520.000	D TIERRA	1.936	39.81	1059.0	ARENA_1	0.138	2.75	71.6	820.000	D TIERRA	1.864	0.02	1651.5	ARENA_1	0.138	0.00	112.9
	ARENA_2	0.104	2.08	54.2	RELLENO_ZANJA	1.339	27.86	748.3		ARENA_2	0.104	0.00	85.4	RELLENO_ZANJA	1.266	0.01	1161.5
	ARENA_3	0.297	5.93	154.3						ARENA_3	0.297	0.00	243.3				
540.000	D TIERRA	1.928	38.64	1097.7	ARENA_1	0.138	2.75	74.4	840.000	D TIERRA	2.592	44.56	1696.0	ARENA_1	0.138	2.75	115.7
	ARENA_2	0.104	2.08	56.3	RELLENO_ZANJA	1.330	26.69	775.0		ARENA_2	0.104	2.08	87.5	RELLENO_ZANJA	1.995	32.61	1194.1
	ARENA_3	0.297	5.93	160.2						ARENA_3	0.297	5.93	249.2				
560.000	D TIERRA	1.912	38.40	1136.0	ARENA_1	0.138	2.75	77.1	857.621	D TIERRA	2.494	44.81	1740.8	ARENA_1	0.138	2.43	118.1
	ARENA_2	0.104	2.08	58.3	RELLENO_ZANJA	1.315	26.45	801.4		ARENA_2	0.104	1.84	89.4	RELLENO_ZANJA	1.896	34.28	1228.4
	ARENA_3	0.297	5.93	166.2						ARENA_3	0.297	5.23	254.5				



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PROYECTO : CIDACOS COMPLETO
EJE : 11: P410 (Villar de Arnedo) - P440 (Pradejón)

Istram 9.04 13/04/20 12:33:12
PROYECTO : CIDACOS COMPLETO
EJE : 11: P410 (Villar de Arnedo) - P440 (Pradejón)

MEDICIONES DE LOS PERFILES TRANSVERSALES
CAPAS DE FIRME

MEDICIONES DE LOS PERFILES TRANSVERSALES
CAPAS DE FIRME

Table with columns: PERFIL, MATERIAL, AREA PERFIL, VOL. PARCIAL, VOL. ACUMUL., MATERIAL, AREA PERFIL, VOL. PARCIAL, VOL. ACUMUL. It lists data for profiles 860.000 to 1080.000.

Table with columns: PERFIL, MATERIAL, AREA PERFIL, VOL. PARCIAL, VOL. ACUMUL., MATERIAL, AREA PERFIL, VOL. PARCIAL, VOL. ACUMUL. It lists data for profiles 1100.000 to 1380.000.



Istram 9.04 13/04/20 12:33:12
PROYECTO : CIDACOS COMPLETO
EJE : 11: P410 (Villar de Arnedo) - P440 (Pradejón)

Istram 9.04 13/04/20 12:33:12
PROYECTO : CIDACOS COMPLETO
EJE : 11: P410 (Villar de Arnedo) - P440 (Pradejón)

MEDICIONES DE LOS PERFILES TRANSVERSALES
CAPAS DE FIRME

MEDICIONES DE LOS PERFILES TRANSVERSALES
CAPAS DE FIRME

Table with columns: PERFIL, MATERIAL, AREA PERFIL, VOL. PARCIAL, VOL. ACUMUL., MATERIAL, AREA PERFIL, VOL. PARCIAL, VOL. ACUMUL. It lists data for profiles 1397.232 through 1640.000.

Table with columns: PERFIL, MATERIAL, AREA PERFIL, VOL. PARCIAL, VOL. ACUMUL., MATERIAL, AREA PERFIL, VOL. PARCIAL, VOL. ACUMUL. It lists data for profiles 1654.566 through 1931.078.



Istram 9.04 13/04/20 12:33:12
PROYECTO : CIDACOS COMPLETO
EJE : 11: P410 (Villar de Arnedo) - P440 (Pradejón)

Istram 9.04 13/04/20 12:33:12
PROYECTO : CIDACOS COMPLETO
EJE : 11: P410 (Villar de Arnedo) - P440 (Pradejón)

MEDICIONES DE LOS PERFILES TRANSVERSALES
CAPAS DE FIRME

MEDICIONES DE LOS PERFILES TRANSVERSALES
CAPAS DE FIRME

Table with columns: PERFIL, MATERIAL, AREA PERFIL, VOL. PARCIAL, VOL. ACUMUL., MATERIAL, AREA PERFIL, VOL. PARCIAL, VOL. ACUMUL. It lists data for profiles 1940.000 to 2162.877.

Table with columns: PERFIL, MATERIAL, AREA PERFIL, VOL. PARCIAL, VOL. ACUMUL., MATERIAL, AREA PERFIL, VOL. PARCIAL, VOL. ACUMUL. It lists data for profiles 2180.000 to 2440.000.



Istram 9.04 13/04/20 12:33:12
PROYECTO : CIDACOS COMPLETO
EJE : 11: P410 (Villar de Arnedo) - P440 (Pradejón)

Istram 9.04 13/04/20 12:33:12
PROYECTO : CIDACOS COMPLETO
EJE : 11: P410 (Villar de Arnedo) - P440 (Pradejón)

MEDICIONES DE LOS PERFILES TRANSVERSALES
CAPAS DE FIRME

MEDICIONES DE LOS PERFILES TRANSVERSALES
CAPAS DE FIRME

Table with columns: PERFIL, MATERIAL, AREA PERFIL, VOL. PARCIAL, VOL. ACUMUL., MATERIAL, AREA PERFIL, VOL. PARCIAL, VOL. ACUMUL. Rows include profiles 2460.000 to 2702.031.

Table with columns: PERFIL, MATERIAL, AREA PERFIL, VOL. PARCIAL, VOL. ACUMUL., MATERIAL, AREA PERFIL, VOL. PARCIAL, VOL. ACUMUL. Rows include profiles 2720.000 to 2960.000.



Istram 9.04 13/04/20 12:33:12

PROYECTO : CIDACOS COMPLETO
EJE : 11: P410 (Villar de Arnedo) - P440 (Pradejón)

Istram 9.04 13/04/20 12:33:12

PROYECTO : CIDACOS COMPLETO
EJE : 11: P410 (Villar de Arnedo) - P440 (Pradejón)

*** MEDICIONES DE LOS PERFILES TRANSVERSALES***
*** CAPAS DE FIRME ***

*** RESUMEN DE VOLUMENES TOTALES ***

PERFIL	MATERIAL	AREA PERFIL	VOL. PARCIAL	VOL. ACUMUL.	MATERIAL	AREA PERFIL	VOL. PARCIAL	VOL. ACUMUL.
2980.000	D TIERRA	2.016	39.38	5345.6	ARENA_1	0.138	2.75	395.3
	ARENA_2	0.104	2.08	289.5	RELLENO_ZANJA	1.418	27.43	3684.4
	ARENA_3	0.297	5.93	804.7				
3000.000	D TIERRA	1.881	38.97	5384.6	ARENA_1	0.138	2.75	398.0
	ARENA_2	0.104	2.08	291.6	RELLENO_ZANJA	1.284	27.02	3711.4
	ARENA_3	0.297	5.93	810.6				
3001.058	D TIERRA	1.866	1.98	5386.6	ARENA_1	0.138	0.15	398.2
	ARENA_2	0.104	0.11	291.7	RELLENO_ZANJA	1.268	1.35	3712.8
	ARENA_3	0.297	0.31	810.9				
3014.416	D TIERRA	1.858	24.87	5411.5	ARENA_1	0.138	1.84	400.0
	ARENA_2	0.104	1.39	293.1	RELLENO_ZANJA	1.260	16.89	3729.6
	ARENA_3	0.296	3.96	814.9				
3020.000	D TIERRA	1.868	10.40	5421.9	ARENA_1	0.138	0.77	400.8
	ARENA_2	0.104	0.58	293.7	RELLENO_ZANJA	1.270	7.06	3736.7
	ARENA_3	0.297	1.66	816.6				
3022.528	D TIERRA	1.867	4.72	5426.6	ARENA_1	0.138	0.35	401.1
	ARENA_2	0.104	0.26	293.9	RELLENO_ZANJA	1.270	3.21	3739.9
	ARENA_3	0.297	0.75	817.3				
3040.000	D TIERRA	1.867	32.62	5459.2	ARENA_1	0.138	2.41	403.5
	ARENA_2	0.104	1.82	295.7	RELLENO_ZANJA	1.270	22.18	3762.1
	ARENA_3	0.297	5.18	822.5				
3058.422	D TIERRA	1.851	34.25	5493.5	ARENA_1	0.138	2.54	406.1
	ARENA_2	0.104	1.92	297.7	RELLENO_ZANJA	1.254	23.24	3785.4
	ARENA_3	0.297	5.46	828.0				
3060.000	D TIERRA	1.863	2.93	5496.4	ARENA_1	0.138	0.22	406.3
	ARENA_2	0.104	0.16	297.8	RELLENO_ZANJA	1.266	1.99	3787.3
	ARENA_3	0.297	0.47	828.4				
3080.000	D TIERRA	1.877	37.41	5533.8	ARENA_1	0.138	2.75	409.0
	ARENA_2	0.104	2.08	299.9	RELLENO_ZANJA	1.280	25.46	3812.8
	ARENA_3	0.297	5.93	834.4				
3100.000	D TIERRA	1.878	37.55	5571.4	ARENA_1	0.138	2.75	411.8
	ARENA_2	0.104	2.08	302.0	RELLENO_ZANJA	1.281	25.60	3838.4
	ARENA_3	0.296	5.93	840.3				
3115.908	D TIERRA	1.924	30.25	5601.6	ARENA_1	0.138	2.19	414.0
	ARENA_2	0.104	1.66	303.7	RELLENO_ZANJA	1.327	20.74	3859.1
	ARENA_3	0.296	4.71	845.0				
3120.000	D TIERRA	1.847	7.72	5609.3	ARENA_1	0.138	0.56	414.6
	ARENA_2	0.104	0.43	304.1	RELLENO_ZANJA	1.249	5.27	3864.4
	ARENA_3	0.296	1.21	846.2				
3140.000	D TIERRA	1.961	38.07	5647.4	ARENA_1	0.138	2.75	417.3
	ARENA_2	0.104	2.09	306.2	RELLENO_ZANJA	1.363	26.12	3890.5
	ARENA_3	0.296	5.92	852.1				
3160.000	D TIERRA	1.683	36.44	5683.8	ARENA_1	0.138	2.75	420.1
	ARENA_2	0.104	2.09	308.3	RELLENO_ZANJA	1.086	24.49	3915.0
	ARENA_3	0.296	5.92	858.1				
3160.261	D TIERRA	1.680	0.44	5684.3	ARENA_1	0.137	0.04	420.1
	ARENA_2	0.104	0.03	308.3	RELLENO_ZANJA	1.082	0.28	3915.3
	ARENA_3	0.295	0.08	858.1				
3180.000	D TIERRA	1.857	34.90	5719.2	ARENA_1	0.137	2.71	422.8
	ARENA_2	0.104	2.06	310.3	RELLENO_ZANJA	1.259	23.11	3938.4
	ARENA_3	0.295	5.83	864.0				
3200.000	D TIERRA	1.830	36.87	5756.0	ARENA_1	0.137	2.75	425.6
	ARENA_2	0.105	2.09	312.4	RELLENO_ZANJA	1.232	24.92	3963.3
	ARENA_3	0.294	5.90	869.9				
3219.348	D TIERRA	1.890	35.99	5792.0	ARENA_1	0.138	2.66	428.2
	ARENA_2	0.104	2.02	314.5	RELLENO_ZANJA	1.293	24.43	3987.8
	ARENA_3	0.295	5.71	875.6				

MATERIAL	VOLUMEN
TERRAPLEN	0.0
D TIERRA	5792.0
ARENA_1	428.2
ARENA_2	314.5
RELLENO_ZANJA	3987.8
ARENA_3	875.6



12. EJE 12: P430 (PRADEJÓN) – P450 (ALCANADRE)

Istram 9.04 13/04/20 10:22:38
 PROYECTO : CIDACOS COMPLETO
 EJE : 12: P430 (Pradejón) - P450 (Alcanadre)

Istram 9.04 13/04/20 10:22:38
 PROYECTO : CIDACOS COMPLETO
 EJE : 12: P430 (Pradejón) - P450 (Alcanadre)

*** MEDICIONES DE LOS PERFILES TRANSVERSALES***
 *** CAPAS DE FIRME ***

*** MEDICIONES DE LOS PERFILES TRANSVERSALES***
 *** CAPAS DE FIRME ***

PERFIL	MATERIAL	AREA PERFIL	VOL. PARCIAL	VOL. ACUMUL.	MATERIAL	AREA PERFIL	VOL. PARCIAL	VOL. ACUMUL.
0.000	D TIERRA	2.291	0.00	0.0	ARENA_1	0.118	0.00	0.0
	ARENA_2	0.051	0.00	0.0	RELLENO_ZANJA	1.903	0.00	0.0
	ARENA_3	0.202	0.00	0.0				
20.000	D TIERRA	1.975	42.66	42.7	ARENA_1	0.118	2.37	2.4
	ARENA_2	0.051	1.02	1.0	RELLENO_ZANJA	1.587	34.90	34.9
	ARENA_3	0.202	4.04	4.0				
40.000	D TIERRA	1.673	36.48	79.1	ARENA_1	0.118	2.37	4.7
	ARENA_2	0.051	1.02	2.0	RELLENO_ZANJA	1.285	28.72	63.6
	ARENA_3	0.202	4.04	8.1				
41.040	D TIERRA	1.687	1.75	80.9	ARENA_1	0.118	0.12	4.9
	ARENA_2	0.051	0.05	2.1	RELLENO_ZANJA	1.299	1.34	65.0
	ARENA_3	0.202	0.21	8.3				
60.000	D TIERRA	2.451	39.22	120.1	ARENA_1	0.118	2.25	7.1
	ARENA_2	0.051	0.97	3.1	RELLENO_ZANJA	2.063	31.87	96.8
	ARENA_3	0.202	3.83	12.1				
80.000	D TIERRA	3.355	58.06	178.2	ARENA_1	0.118	2.37	9.5
	ARENA_2	0.051	1.02	4.1	RELLENO_ZANJA	2.967	50.30	147.1
	ARENA_3	0.202	4.05	16.2				
100.000	D TIERRA	3.779	71.34	249.5	ARENA_1	0.118	2.37	11.8
	ARENA_2	0.051	1.02	5.1	RELLENO_ZANJA	3.391	63.58	210.7
	ARENA_3	0.202	4.05	20.2				
103.035	D TIERRA	3.707	11.36	260.9	ARENA_1	0.118	0.36	12.2
	ARENA_2	0.051	0.16	5.3	RELLENO_ZANJA	3.319	10.18	220.9
	ARENA_3	0.202	0.61	20.8				
120.000	D TIERRA	4.360	68.43	329.3	ARENA_1	0.118	2.01	14.2
	ARENA_2	0.051	0.87	6.1	RELLENO_ZANJA	3.972	61.84	282.7
	ARENA_3	0.202	3.43	24.3				
140.000	D TIERRA	3.577	79.37	408.7	ARENA_1	0.118	2.37	16.6
	ARENA_2	0.051	1.02	7.2	RELLENO_ZANJA	3.189	71.61	354.3
	ARENA_3	0.202	4.05	28.3				
159.943	D TIERRA	2.432	59.92	468.6	ARENA_1	0.118	2.36	18.9
	ARENA_2	0.051	1.02	8.2	RELLENO_ZANJA	2.044	52.18	406.5
	ARENA_3	0.202	4.03	32.3				
160.000	D TIERRA	2.430	0.14	468.7	ARENA_1	0.118	0.01	19.0
	ARENA_2	0.051	0.00	8.2	RELLENO_ZANJA	2.042	0.12	406.6
	ARENA_3	0.202	0.01	32.4				
180.000	D TIERRA	1.849	42.79	511.5	ARENA_1	0.118	2.37	21.3
	ARENA_2	0.051	1.02	9.2	RELLENO_ZANJA	1.461	35.03	441.7
	ARENA_3	0.202	4.05	36.4				
185.252	D TIERRA	1.686	9.28	520.8	ARENA_1	0.118	0.62	21.9
	ARENA_2	0.051	0.27	9.5	RELLENO_ZANJA	1.298	7.25	448.9
	ARENA_3	0.202	1.06	37.5				
191.528	D TIERRA	1.710	10.66	531.5	ARENA_1	0.118	0.74	22.7
	ARENA_2	0.051	0.32	9.8	RELLENO_ZANJA	1.322	8.22	457.1
	ARENA_3	0.202	1.27	38.7				
200.000	D TIERRA	1.740	14.61	546.1	ARENA_1	0.118	1.00	23.7
	ARENA_2	0.051	0.43	10.2	RELLENO_ZANJA	1.352	11.33	468.5
	ARENA_3	0.202	1.71	40.5				
200.159	D TIERRA	1.740	0.28	546.3	ARENA_1	0.118	0.02	23.7
	ARENA_2	0.051	0.01	10.2	RELLENO_ZANJA	1.352	0.21	468.7
	ARENA_3	0.202	0.03	40.5				
220.000	D TIERRA	1.665	33.78	580.1	ARENA_1	0.118	2.35	26.1
	ARENA_2	0.051	1.01	11.2	RELLENO_ZANJA	1.277	26.08	494.8
	ARENA_3	0.202	4.01	44.5				
225.667	D TIERRA	1.701	9.54	589.7	ARENA_1	0.118	0.67	26.7
	ARENA_2	0.051	0.29	11.5	RELLENO_ZANJA	1.313	7.34	502.1
	ARENA_3	0.202	1.15	45.6				

PERFIL	MATERIAL	AREA PERFIL	VOL. PARCIAL	VOL. ACUMUL.	MATERIAL	AREA PERFIL	VOL. PARCIAL	VOL. ACUMUL.
240.000	D TIERRA	1.699	24.37	614.0	ARENA_1	0.118	1.70	28.4
	ARENA_2	0.051	0.73	12.3	RELLENO_ZANJA	1.311	18.81	520.9
	ARENA_3	0.202	2.90	48.5				
260.000	D TIERRA	1.716	34.16	648.2	ARENA_1	0.118	2.37	30.8
	ARENA_2	0.051	1.02	13.3	RELLENO_ZANJA	1.328	26.40	547.3
	ARENA_3	0.202	4.05	52.6				
280.000	D TIERRA	1.733	34.50	682.7	ARENA_1	0.118	2.37	33.2
	ARENA_2	0.051	1.02	14.3	RELLENO_ZANJA	1.345	26.73	574.0
	ARENA_3	0.202	4.05	56.6				
290.185	D TIERRA	1.744	17.71	700.4	ARENA_1	0.118	1.21	34.4
	ARENA_2	0.051	0.52	14.8	RELLENO_ZANJA	1.356	13.76	587.8
	ARENA_3	0.202	2.06	58.7				
300.000	D TIERRA	1.695	16.88	717.3	ARENA_1	0.118	1.16	35.5
	ARENA_2	0.051	0.50	15.3	RELLENO_ZANJA	1.307	13.07	600.9
	ARENA_3	0.202	1.99	60.7				
320.000	D TIERRA	1.697	33.92	751.2	ARENA_1	0.118	2.37	37.9
	ARENA_2	0.051	1.02	16.3	RELLENO_ZANJA	1.309	26.16	627.0
	ARENA_3	0.202	4.04	64.7				
340.000	D TIERRA	1.698	33.94	785.1	ARENA_1	0.118	2.37	40.3
	ARENA_2	0.051	1.02	17.4	RELLENO_ZANJA	1.310	26.18	653.2
	ARENA_3	0.202	4.04	68.8				
360.000	D TIERRA	2.082	37.80	822.9	ARENA_1	0.118	2.37	42.6
	ARENA_2	0.051	1.02	18.4	RELLENO_ZANJA	1.694	30.04	683.2
	ARENA_3	0.202	4.05	72.8				
361.990	D TIERRA	2.103	4.16	827.1	ARENA_1	0.118	0.24	42.9
	ARENA_2	0.051	0.10	18.5	RELLENO_ZANJA	1.715	3.39	686.6
	ARENA_3	0.202	0.40	73.2				
370.166	D TIERRA	2.044	16.95	844.1	ARENA_1	0.118	0.97	43.8
	ARENA_2	0.051	0.42	18.9	RELLENO_ZANJA	1.656	13.78	700.4
	ARENA_3	0.202	1.65	74.9				
380.000	D TIERRA	1.946	19.62	863.7	ARENA_1	0.118	1.16	45.0
	ARENA_2	0.051	0.50	19.4	RELLENO_ZANJA	1.558	15.80	716.2
	ARENA_3	0.202	1.99	76.9				
400.000	D TIERRA	1.791	37.37	901.1	ARENA_1	0.118	2.37	47.4
	ARENA_2	0.051	1.02	20.4	RELLENO_ZANJA	1.403	29.61	745.8
	ARENA_3	0.202	4.05	80.9				
420.000	D TIERRA	1.682	34.73	935.8	ARENA_1	0.118	2.37	49.7
	ARENA_2	0.051	1.02	21.5	RELLENO_ZANJA	1.294	26.97	772.8
	ARENA_3	0.202	4.05	84.9				
436.528	D TIERRA	1.792	28.71	964.5	ARENA_1	0.118	1.96	51.7
	ARENA_2	0.051	0.84	22.3	RELLENO_ZANJA	1.404	22.30	795.1
	ARENA_3	0.202	3.34	88.3				
440.000	D TIERRA	1.779	6.20	970.7	ARENA_1	0.118	0.41	52.1
	ARENA_2	0.051	0.18	22.5	RELLENO_ZANJA	1.391	4.85	800.0
	ARENA_3	0.202	0.70	89.0				
460.000	D TIERRA	1.734	35.13	1005.8	ARENA_1	0.118	2.37	54.5
	ARENA_2	0.051	1.02	23.5	RELLENO_ZANJA	1.346	27.37	827.3
	ARENA_3	0.202	4.05	93.0				
476.990	D TIERRA	1.807	30.08	1035.9	ARENA_1	0.118	2.01	56.5
	ARENA_2	0.051	0.87	24.4	RELLENO_ZANJA	1.419	23.49	850.8
	ARENA_3	0.202	3.44	96.5				
480.000	D TIERRA	1.792	5.42	1041.3	ARENA_1	0.118	0.36	56.9
	ARENA_2	0.051	0.15	24.5	RELLENO_ZANJA	1.404	4.25	855.1
	ARENA_3	0.202	0.61	97.1				
500.000	D TIERRA	1.781	35.73	1077.1	ARENA_1	0.118	2.37	59.2
	ARENA_2	0.051	1.02	25.5	RELLENO_ZANJA	1.393	27.97	883.0
	ARENA_3	0.202	4.05	101.1				
504.270	D TIERRA	1.784	7.61	1084.7	ARENA_1	0.118	0.51	59.7
	ARENA_2	0.051	0.22	25.8	RELLENO_ZANJA	1.396	5.95	889.0
	ARENA_3	0.202	0.86	102.0				



Istram 9.04 13/04/20 10:22:38

PROYECTO : CIDACOS COMPLETO
EJE : 12: P430 (Pradejón) - P450 (Alcanadre)

Istram 9.04 13/04/20 10:22:38

PROYECTO : CIDACOS COMPLETO
EJE : 12: P430 (Pradejón) - P450 (Alcanadre)

*** MEDICIONES DE LOS PERFILES TRANSVERSALES ***
*** CAPAS DE FIRME ***

*** MEDICIONES DE LOS PERFILES TRANSVERSALES ***
*** CAPAS DE FIRME ***

PERFIL	MATERIAL	AREA PERFIL	VOL. PARCIAL	VOL. ACUMUL.	MATERIAL	AREA PERFIL	VOL. PARCIAL	VOL. ACUMUL.
520.000	D TIERRA	1.697	27.38	1112.1	ARENA_1	0.118	1.86	61.6
	ARENA_2	0.051	0.80	26.6	RELLENO_ZANJA	1.309	21.28	910.3
	ARENA_3	0.202	3.18	105.2				
534.508	D TIERRA	1.687	24.55	1136.6	ARENA_1	0.118	1.72	63.3
	ARENA_2	0.051	0.74	27.3	RELLENO_ZANJA	1.299	18.92	929.2
	ARENA_3	0.202	2.93	108.1				
540.000	D TIERRA	1.848	9.71	1146.3	ARENA_1	0.118	0.65	64.0
	ARENA_2	0.051	0.28	27.6	RELLENO_ZANJA	1.460	7.57	936.8
	ARENA_3	0.202	1.11	109.2				
548.023	D TIERRA	2.034	15.57	1161.9	ARENA_1	0.118	0.95	64.9
	ARENA_2	0.051	0.41	28.0	RELLENO_ZANJA	1.646	12.46	949.2
	ARENA_3	0.202	1.62	110.8				
554.128	D TIERRA	2.023	12.39	1174.3	ARENA_1	0.118	0.72	65.6
	ARENA_2	0.051	0.31	28.3	RELLENO_ZANJA	1.635	10.02	959.2
	ARENA_3	0.202	1.23	112.1				
560.000	D TIERRA	1.923	11.59	1185.8	ARENA_1	0.118	0.70	66.3
	ARENA_2	0.051	0.30	28.6	RELLENO_ZANJA	1.535	9.31	968.5
	ARENA_3	0.202	1.19	113.3				
573.270	D TIERRA	1.687	23.96	1209.8	ARENA_1	0.118	1.57	67.9
	ARENA_2	0.051	0.68	29.3	RELLENO_ZANJA	1.299	18.81	987.3
	ARENA_3	0.202	2.68	115.9				
580.000	D TIERRA	1.690	11.36	1221.2	ARENA_1	0.118	0.80	68.7
	ARENA_2	0.051	0.34	29.6	RELLENO_ZANJA	1.302	8.75	996.1
	ARENA_3	0.202	1.36	117.3				
581.660	D TIERRA	1.694	2.81	1224.0	ARENA_1	0.118	0.20	68.9
	ARENA_2	0.051	0.08	29.7	RELLENO_ZANJA	1.306	2.16	998.3
	ARENA_3	0.202	0.34	117.6				
600.000	D TIERRA	1.686	31.00	1255.0	ARENA_1	0.118	2.17	71.1
	ARENA_2	0.051	0.94	30.6	RELLENO_ZANJA	1.298	23.88	1022.1
	ARENA_3	0.202	3.71	121.4				
618.128	D TIERRA	1.697	30.67	1285.6	ARENA_1	0.118	2.15	73.2
	ARENA_2	0.051	0.93	31.6	RELLENO_ZANJA	1.309	23.63	1045.8
	ARENA_3	0.202	3.67	125.0				
620.000	D TIERRA	1.696	3.18	1288.8	ARENA_1	0.118	0.22	73.4
	ARENA_2	0.051	0.10	31.7	RELLENO_ZANJA	1.308	2.45	1048.2
	ARENA_3	0.202	0.38	125.4				
640.000	D TIERRA	1.686	33.82	1322.6	ARENA_1	0.118	2.37	75.8
	ARENA_2	0.051	1.02	32.7	RELLENO_ZANJA	1.298	26.06	1074.3
	ARENA_3	0.202	4.05	129.4				
660.000	D TIERRA	1.689	33.76	1356.4	ARENA_1	0.118	2.37	78.2
	ARENA_2	0.051	1.02	33.7	RELLENO_ZANJA	1.301	26.00	1100.3
	ARENA_3	0.202	4.04	133.5				
680.000	D TIERRA	1.685	33.74	1390.1	ARENA_1	0.118	2.37	80.5
	ARENA_2	0.051	1.02	34.7	RELLENO_ZANJA	1.297	25.98	1126.3
	ARENA_3	0.202	4.04	137.5				
698.333	D TIERRA	1.682	30.86	1421.0	ARENA_1	0.118	2.17	82.7
	ARENA_2	0.051	0.94	35.7	RELLENO_ZANJA	1.294	23.74	1150.0
	ARENA_3	0.202	3.71	141.2				
700.000	D TIERRA	1.677	2.80	1423.8	ARENA_1	0.118	0.20	82.9
	ARENA_2	0.051	0.09	35.8	RELLENO_ZANJA	1.289	2.15	1152.2
	ARENA_3	0.202	0.34	141.6				
710.986	D TIERRA	1.656	18.31	1442.1	ARENA_1	0.118	1.30	84.2
	ARENA_2	0.051	0.56	36.3	RELLENO_ZANJA	1.268	14.05	1166.2
	ARENA_3	0.202	2.22	143.8				
720.000	D TIERRA	1.652	14.91	1457.0	ARENA_1	0.118	1.07	85.3
	ARENA_2	0.051	0.46	36.8	RELLENO_ZANJA	1.264	11.41	1177.6
	ARENA_3	0.202	1.82	145.6				
736.255	D TIERRA	1.676	27.05	1484.1	ARENA_1	0.118	1.93	87.2
	ARENA_2	0.051	0.83	37.6	RELLENO_ZANJA	1.288	20.74	1198.4
	ARENA_3	0.202	3.29	148.9				

PERFIL	MATERIAL	AREA PERFIL	VOL. PARCIAL	VOL. ACUMUL.	MATERIAL	AREA PERFIL	VOL. PARCIAL	VOL. ACUMUL.
740.000	D TIERRA	1.725	6.37	1490.4	ARENA_1	0.118	0.44	87.7
	ARENA_2	0.051	0.19	37.8	RELLENO_ZANJA	1.337	4.92	1203.3
	ARENA_3	0.202	0.76	149.7				
755.882	D TIERRA	1.701	27.21	1517.6	ARENA_1	0.118	1.88	89.5
	ARENA_2	0.051	0.81	38.6	RELLENO_ZANJA	1.313	21.05	1224.3
	ARENA_3	0.202	3.21	152.9				
760.000	D TIERRA	1.777	7.16	1524.8	ARENA_1	0.118	0.49	90.0
	ARENA_2	0.051	0.21	38.8	RELLENO_ZANJA	1.389	5.56	1229.9
	ARENA_3	0.202	0.83	153.7				
780.000	D TIERRA	1.926	37.04	1561.9	ARENA_1	0.118	2.37	92.4
	ARENA_2	0.051	1.02	39.8	RELLENO_ZANJA	1.538	29.28	1259.2
	ARENA_3	0.202	4.04	157.8				
791.696	D TIERRA	1.920	22.50	1584.3	ARENA_1	0.118	1.39	93.8
	ARENA_2	0.051	0.60	40.4	RELLENO_ZANJA	1.532	17.96	1277.1
	ARENA_3	0.202	2.37	160.1				
800.000	D TIERRA	1.877	15.77	1600.1	ARENA_1	0.118	0.98	94.8
	ARENA_2	0.051	0.42	40.9	RELLENO_ZANJA	1.489	12.54	1289.7
	ARENA_3	0.202	1.68	161.8				
819.795	D TIERRA	1.768	36.07	1636.2	ARENA_1	0.118	2.34	97.1
	ARENA_2	0.051	1.01	41.9	RELLENO_ZANJA	1.380	28.39	1318.1
	ARENA_3	0.202	4.00	165.8				
820.000	D TIERRA	1.767	0.36	1636.5	ARENA_1	0.118	0.02	97.1
	ARENA_2	0.051	0.01	41.9	RELLENO_ZANJA	1.379	0.28	1318.3
	ARENA_3	0.202	0.04	165.8				
840.000	D TIERRA	1.727	34.94	1671.5	ARENA_1	0.118	2.37	99.5
	ARENA_2	0.051	1.02	42.9	RELLENO_ZANJA	1.339	27.18	1345.5
	ARENA_3	0.202	4.04	169.9				
860.000	D TIERRA	1.684	34.11	1705.6	ARENA_1	0.118	2.37	101.9
	ARENA_2	0.051	1.02	43.9	RELLENO_ZANJA	1.296	26.35	1371.9
	ARENA_3	0.202	4.04	173.9				
880.000	D TIERRA	1.831	35.16	1740.7	ARENA_1	0.118	2.37	104.2
	ARENA_2	0.051	1.02	45.0	RELLENO_ZANJA	1.443	27.39	1399.3
	ARENA_3	0.202	4.04	178.0				
882.584	D TIERRA	1.781	4.67	1745.4	ARENA_1	0.118	0.31	104.5
	ARENA_2	0.051	0.13	45.1	RELLENO_ZANJA	1.393	3.66	1402.9
	ARENA_3	0.202	0.52	178.5				
900.000	D TIERRA	1.690	30.22	1775.6	ARENA_1	0.118	2.06	106.6
	ARENA_2	0.051	0.89	46.0	RELLENO_ZANJA	1.302	23.46	1426.4
	ARENA_3	0.202	3.52	182.0				
920.000	D TIERRA	1.699	33.88	1809.5	ARENA_1	0.118	2.37	109.0
	ARENA_2	0.051	1.02	47.0	RELLENO_ZANJA	1.311	26.12	1452.5
	ARENA_3	0.202	4.04	186.1				
940.000	D TIERRA	1.671	33.70	1843.2	ARENA_1	0.118	2.37	111.3
	ARENA_2	0.051	1.02	48.0	RELLENO_ZANJA	1.283	25.94	1478.4
	ARENA_3	0.202	4.05	190.1				
954.739	D TIERRA	1.660	24.55	1867.8	ARENA_1	0.118	1.75	113.1
	ARENA_2	0.051	0.75	48.8	RELLENO_ZANJA	1.272	18.83	1497.3
	ARENA_3	0.202	2.98	193.1				
960.000	D TIERRA	1.684	8.80	1876.6	ARENA_1	0.118	0.62	113.7
	ARENA_2	0.051	0.27	49.0	RELLENO_ZANJA	1.296	6.75	1504.0
	ARENA_3	0.202	1.06	194.2				
970.560	D TIERRA	1.775	18.26	1894.8	ARENA_1	0.118	1.25	115.0
	ARENA_2	0.051	0.54	49.6	RELLENO_ZANJA	1.387	14.17	1518.2
	ARENA_3	0.202	2.14	196.3				
980.000	D TIERRA	1.714	16.47	1911.3	ARENA_1	0.118	1.12	116.1
	ARENA_2	0.051	0.48	50.1	RELLENO_ZANJA	1.326	12.81	1531.0
	ARENA_3	0.202	1.91	198.2				
985.579	D TIERRA	1.841	9.92	1921.2	ARENA_1	0.118	0.66	116.7
	ARENA_2	0.051	0.29	50.3	RELLENO_ZANJA	1.453	7.75	1538.7
	ARENA_3	0.202	1.13	199.3				



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PROYECTO : CIDACOS COMPLETO
EJE : 12: P430 (Pradejón) - P450 (Alcanadre)

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PROYECTO : CIDACOS COMPLETO
EJE : 12: P430 (Pradejón) - P450 (Alcanadre)

*** MEDICIONES DE LOS PERFILES TRANSVERSALES ***
*** CAPAS DE FIRME ***

PERFIL	MATERIAL	AREA PERFIL	VOL. PARCIAL	VOL. ACUMUL.	MATERIAL	AREA PERFIL	VOL. PARCIAL	VOL. ACUMUL.
998.961	D TIERRA	2.525	29.21	1950.4	ARENA_1	0.118	1.59	118.3
	ARENA_2	0.051	0.68	51.0	RELLENO_ZANJA	2.137	24.02	1562.8
	ARENA_3	0.202	2.71	202.0				
1000.000	D TIERRA	2.521	2.62	1953.0	ARENA_1	0.118	0.12	118.4
	ARENA_2	0.051	0.05	51.1	RELLENO_ZANJA	2.133	2.22	1565.0
	ARENA_3	0.202	0.21	202.2				
1020.000	D TIERRA	2.137	46.57	1999.6	ARENA_1	0.118	2.37	120.8
	ARENA_2	0.051	1.02	52.1	RELLENO_ZANJA	1.749	38.81	1603.8
	ARENA_3	0.202	4.05	206.3				
1025.961	D TIERRA	1.771	11.65	2011.3	ARENA_1	0.118	0.71	121.5
	ARENA_2	0.051	0.30	52.4	RELLENO_ZANJA	1.383	9.33	1613.1
	ARENA_3	0.202	1.21	207.5				
1040.000	D TIERRA	1.874	25.58	2036.8	ARENA_1	0.118	1.66	123.2
	ARENA_2	0.051	0.72	53.1	RELLENO_ZANJA	1.486	20.14	1633.3
	ARENA_3	0.202	2.84	210.3				
1042.005	D TIERRA	1.751	3.63	2040.5	ARENA_1	0.118	0.24	123.4
	ARENA_2	0.051	0.10	53.2	RELLENO_ZANJA	1.363	2.86	1636.1
	ARENA_3	0.202	0.41	210.7				
1060.000	D TIERRA	2.165	35.23	2075.7	ARENA_1	0.118	2.13	125.6
	ARENA_2	0.051	0.92	54.1	RELLENO_ZANJA	1.776	28.24	1664.4
	ARENA_3	0.202	3.64	214.4				
1078.432	D TIERRA	1.680	35.43	2111.1	ARENA_1	0.118	2.18	127.7
	ARENA_2	0.051	0.94	55.1	RELLENO_ZANJA	1.292	28.28	1692.6
	ARENA_3	0.202	3.73	218.1				
1080.000	D TIERRA	1.691	2.64	2113.8	ARENA_1	0.118	0.19	127.9
	ARENA_2	0.051	0.08	55.2	RELLENO_ZANJA	1.303	2.03	1694.7
	ARENA_3	0.202	0.32	218.4				
1100.000	D TIERRA	1.782	34.73	2148.5	ARENA_1	0.118	2.37	130.3
	ARENA_2	0.051	1.02	56.2	RELLENO_ZANJA	1.394	26.97	1721.7
	ARENA_3	0.202	4.04	222.5				
1120.000	D TIERRA	1.816	35.98	2184.5	ARENA_1	0.118	2.37	132.7
	ARENA_2	0.051	1.02	57.2	RELLENO_ZANJA	1.428	28.22	1749.9
	ARENA_3	0.202	4.04	226.5				
1125.949	D TIERRA	1.875	10.98	2195.5	ARENA_1	0.118	0.70	133.4
	ARENA_2	0.051	0.30	57.5	RELLENO_ZANJA	1.487	8.67	1758.5
	ARENA_3	0.202	1.20	227.7				
1140.000	D TIERRA	1.688	25.03	2220.5	ARENA_1	0.118	1.66	135.0
	ARENA_2	0.051	0.72	58.2	RELLENO_ZANJA	1.300	19.58	1778.1
	ARENA_3	0.202	2.84	230.6				
1160.000	D TIERRA	1.739	34.27	2254.8	ARENA_1	0.118	2.37	137.4
	ARENA_2	0.051	1.02	59.3	RELLENO_ZANJA	1.351	26.51	1804.6
	ARENA_3	0.202	4.05	234.6				
1180.000	D TIERRA	1.791	35.30	2290.1	ARENA_1	0.118	2.37	139.8
	ARENA_2	0.051	1.02	60.3	RELLENO_ZANJA	1.403	27.54	1832.2
	ARENA_3	0.202	4.05	238.7				
1200.000	D TIERRA	1.843	36.34	2326.4	ARENA_1	0.118	2.37	142.1
	ARENA_2	0.051	1.02	61.3	RELLENO_ZANJA	1.455	28.58	1860.7
	ARENA_3	0.202	4.05	242.7				
1220.000	D TIERRA	2.156	39.99	2366.4	ARENA_1	0.118	2.37	144.5
	ARENA_2	0.051	1.02	62.3	RELLENO_ZANJA	1.768	32.23	1893.0
	ARENA_3	0.202	4.05	246.7				
1240.000	D TIERRA	1.938	40.93	2407.3	ARENA_1	0.118	2.37	146.9
	ARENA_2	0.051	1.02	63.3	RELLENO_ZANJA	1.549	33.17	1926.1
	ARENA_3	0.202	4.05	250.8				
1246.105	D TIERRA	1.849	11.56	2418.9	ARENA_1	0.118	0.72	147.6
	ARENA_2	0.051	0.31	63.7	RELLENO_ZANJA	1.461	9.19	1935.3
	ARENA_3	0.202	1.23	252.0				
1260.000	D TIERRA	1.772	25.16	2444.0	ARENA_1	0.118	1.65	149.2
	ARENA_2	0.051	0.71	64.4	RELLENO_ZANJA	1.384	19.77	1955.1
	ARENA_3	0.202	2.81	254.8				

*** MEDICIONES DE LOS PERFILES TRANSVERSALES ***
*** CAPAS DE FIRME ***

PERFIL	MATERIAL	AREA PERFIL	VOL. PARCIAL	VOL. ACUMUL.	MATERIAL	AREA PERFIL	VOL. PARCIAL	VOL. ACUMUL.
1275.483	D TIERRA	1.690	26.80	2470.8	ARENA_1	0.118	1.83	151.1
	ARENA_2	0.051	0.79	65.2	RELLENO_ZANJA	1.302	20.79	1975.9
	ARENA_3	0.202	3.13	258.0				
1280.000	D TIERRA	1.822	7.93	2478.8	ARENA_1	0.118	0.54	151.6
	ARENA_2	0.051	0.23	65.4	RELLENO_ZANJA	1.434	6.18	1982.1
	ARENA_3	0.202	0.91	258.9				
1300.000	D TIERRA	2.566	43.88	2522.7	ARENA_1	0.118	2.37	154.0
	ARENA_2	0.051	1.02	66.4	RELLENO_ZANJA	2.178	36.12	2018.2
	ARENA_3	0.202	4.05	262.9				
1320.000	D TIERRA	3.531	60.97	2583.6	ARENA_1	0.118	2.37	156.3
	ARENA_2	0.051	1.02	67.4	RELLENO_ZANJA	3.143	53.21	2071.4
	ARENA_3	0.202	4.05	267.0				
1338.928	D TIERRA	3.940	70.70	2654.3	ARENA_1	0.118	2.24	158.6
	ARENA_2	0.051	0.97	68.4	RELLENO_ZANJA	3.552	63.36	2134.7
	ARENA_3	0.202	3.83	270.8				
1340.000	D TIERRA	3.944	4.23	2658.6	ARENA_1	0.118	0.13	158.7
	ARENA_2	0.051	0.05	68.4	RELLENO_ZANJA	3.556	3.81	2138.6
	ARENA_3	0.202	0.22	271.0				
1360.000	D TIERRA	4.289	82.33	2740.9	ARENA_1	0.118	2.37	161.1
	ARENA_2	0.051	1.02	69.5	RELLENO_ZANJA	3.901	74.57	2213.1
	ARENA_3	0.202	4.05	275.1				
1365.020	D TIERRA	4.366	21.72	2762.6	ARENA_1	0.118	0.59	161.7
	ARENA_2	0.051	0.26	69.7	RELLENO_ZANJA	3.978	19.78	2232.9
	ARENA_3	0.202	1.02	276.1				
1380.000	D TIERRA	4.239	64.45	2827.1	ARENA_1	0.118	1.77	163.5
	ARENA_2	0.051	0.77	70.5	RELLENO_ZANJA	3.850	58.64	2291.5
	ARENA_3	0.202	3.03	279.1				
1400.000	D TIERRA	3.769	80.07	2907.1	ARENA_1	0.118	2.37	165.8
	ARENA_2	0.051	1.02	71.5	RELLENO_ZANJA	3.381	72.31	2363.9
	ARENA_3	0.202	4.05	283.1				
1420.000	D TIERRA	2.943	67.11	2974.2	ARENA_1	0.118	2.37	168.2
	ARENA_2	0.051	1.02	72.5	RELLENO_ZANJA	2.554	59.35	2423.2
	ARENA_3	0.202	4.05	287.2				
1440.000	D TIERRA	2.103	50.46	3024.7	ARENA_1	0.118	2.37	170.6
	ARENA_2	0.051	1.02	73.6	RELLENO_ZANJA	1.715	42.70	2465.9
	ARENA_3	0.202	4.05	291.2				
1443.534	D TIERRA	1.968	7.19	3031.9	ARENA_1	0.118	0.42	171.0
	ARENA_2	0.051	0.18	73.7	RELLENO_ZANJA	1.580	5.82	2471.7
	ARENA_3	0.202	0.71	292.0				
1460.000	D TIERRA	1.750	30.61	3062.5	ARENA_1	0.118	1.95	172.9
	ARENA_2	0.051	0.84	74.6	RELLENO_ZANJA	1.362	24.22	2495.9
	ARENA_3	0.202	3.33	295.3				
1480.000	D TIERRA	1.705	34.55	3097.1	ARENA_1	0.118	2.37	175.3
	ARENA_2	0.051	1.02	75.6	RELLENO_ZANJA	1.317	26.79	2522.7
	ARENA_3	0.202	4.04	299.3				
1500.000	D TIERRA	1.792	34.96	3132.0	ARENA_1	0.118	2.37	177.7
	ARENA_2	0.051	1.02	76.6	RELLENO_ZANJA	1.404	27.20	2549.9
	ARENA_3	0.202	4.04	303.4				
1520.000	D TIERRA	1.842	36.33	3168.4	ARENA_1	0.118	2.37	180.0
	ARENA_2	0.051	1.02	77.6	RELLENO_ZANJA	1.454	28.57	2578.5
	ARENA_3	0.202	4.05	307.4				
1528.055	D TIERRA	1.790	14.63	3183.0	ARENA_1	0.118	0.95	181.0
	ARENA_2	0.051	0.41	78.1	RELLENO_ZANJA	1.402	11.50	2590.0
	ARENA_3	0.202	1.63	309.0				
1537.711	D TIERRA	1.726	16.97	3200.0	ARENA_1	0.118	1.14	182.1
	ARENA_2	0.051	0.49	78.5	RELLENO_ZANJA	1.338	13.23	2603.2
	ARENA_3	0.202	1.95	311.0				
1540.000	D TIERRA	1.712	3.93	3203.9	ARENA_1	0.118	0.27	182.4
	ARENA_2	0.051	0.12	78.7	RELLENO_ZANJA	1.323	3.05	2606.3
	ARENA_3	0.202	0.46	311.5				



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PROYECTO : CIDACOS COMPLETO
EJE : 12: P430 (Pradejón) - P450 (Alcanadre)

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PROYECTO : CIDACOS COMPLETO
EJE : 12: P430 (Pradejón) - P450 (Alcanadre)

*** MEDICIONES DE LOS PERFILES TRANSVERSALES ***
*** CAPAS DE FIRME ***

*** MEDICIONES DE LOS PERFILES TRANSVERSALES ***
*** CAPAS DE FIRME ***

PERFIL	MATERIAL	AREA PERFIL	VOL. PARCIAL	VOL. ACUMUL.	MATERIAL	AREA PERFIL	VOL. PARCIAL	VOL. ACUMUL.
1560.000	D TIERRA	1.686	33.98	3237.9	ARENA_1	0.118	2.37	184.8
	ARENA_2	0.051	1.02	79.7	RELLENO_ZANJA	1.298	26.21	2632.5
	ARENA_3	0.202	4.05	315.5				
1578.568	D TIERRA	1.678	31.23	3269.1	ARENA_1	0.118	2.20	187.0
	ARENA_2	0.051	0.95	80.6	RELLENO_ZANJA	1.290	24.02	2656.5
	ARENA_3	0.202	3.76	319.3				
1580.000	D TIERRA	1.677	2.40	3271.5	ARENA_1	0.118	0.17	187.1
	ARENA_2	0.051	0.07	80.7	RELLENO_ZANJA	1.289	1.85	2658.4
	ARENA_3	0.202	0.29	319.6				
1600.000	D TIERRA	1.668	33.45	3305.0	ARENA_1	0.118	2.37	189.5
	ARENA_2	0.051	1.02	81.7	RELLENO_ZANJA	1.280	25.69	2684.1
	ARENA_3	0.202	4.05	323.6				
1620.000	D TIERRA	1.659	33.27	3338.2	ARENA_1	0.118	2.37	191.9
	ARENA_2	0.051	1.02	82.8	RELLENO_ZANJA	1.271	25.50	2709.6
	ARENA_3	0.202	4.05	327.6				
1640.000	D TIERRA	1.650	33.08	3371.3	ARENA_1	0.118	2.37	194.2
	ARENA_2	0.051	1.02	83.8	RELLENO_ZANJA	1.261	25.32	2734.9
	ARENA_3	0.202	4.05	331.7				
1652.185	D TIERRA	1.644	20.07	3391.4	ARENA_1	0.118	1.44	195.7
	ARENA_2	0.051	0.62	84.4	RELLENO_ZANJA	1.256	15.34	2750.2
	ARENA_3	0.202	2.46	334.2				
1660.000	D TIERRA	1.640	12.83	3404.2	ARENA_1	0.118	0.93	196.6
	ARENA_2	0.051	0.40	84.8	RELLENO_ZANJA	1.252	9.80	2760.0
	ARENA_3	0.202	1.58	335.7				
1680.000	D TIERRA	1.759	34.00	3438.2	ARENA_1	0.118	2.37	199.0
	ARENA_2	0.051	1.02	85.8	RELLENO_ZANJA	1.371	26.24	2786.3
	ARENA_3	0.202	4.05	339.8				
1700.000	D TIERRA	1.737	34.96	3473.2	ARENA_1	0.118	2.37	201.4
	ARENA_2	0.051	1.02	86.8	RELLENO_ZANJA	1.349	27.20	2813.5
	ARENA_3	0.202	4.05	343.8				
1712.391	D TIERRA	1.723	21.43	3494.6	ARENA_1	0.118	1.47	202.8
	ARENA_2	0.051	0.63	87.5	RELLENO_ZANJA	1.335	16.62	2830.1
	ARENA_3	0.202	2.51	346.3				
1720.000	D TIERRA	1.714	13.08	3507.7	ARENA_1	0.118	0.90	203.7
	ARENA_2	0.051	0.39	87.9	RELLENO_ZANJA	1.326	10.12	2840.2
	ARENA_3	0.202	1.54	347.9				
1740.000	D TIERRA	1.692	34.06	3541.7	ARENA_1	0.118	2.37	206.1
	ARENA_2	0.051	1.02	88.9	RELLENO_ZANJA	1.304	26.30	2866.5
	ARENA_3	0.202	4.05	351.9				
1745.163	D TIERRA	1.686	8.72	3550.4	ARENA_1	0.118	0.61	206.7
	ARENA_2	0.051	0.26	89.1	RELLENO_ZANJA	1.298	6.72	2873.2
	ARENA_3	0.202	1.04	353.0				
1760.000	D TIERRA	1.648	24.74	3575.2	ARENA_1	0.118	1.76	208.5
	ARENA_2	0.051	0.76	89.9	RELLENO_ZANJA	1.260	18.98	2892.2
	ARENA_3	0.202	3.00	356.0				
1780.000	D TIERRA	1.704	33.52	3608.7	ARENA_1	0.118	2.37	210.8
	ARENA_2	0.051	1.02	90.9	RELLENO_ZANJA	1.316	25.76	2918.0
	ARENA_3	0.202	4.05	360.0				
1794.524	D TIERRA	1.791	25.38	3634.1	ARENA_1	0.118	1.72	212.6
	ARENA_2	0.051	0.74	91.7	RELLENO_ZANJA	1.403	19.74	2937.7
	ARENA_3	0.202	2.94	362.9				
1800.000	D TIERRA	1.768	9.74	3643.8	ARENA_1	0.118	0.65	213.2
	ARENA_2	0.051	0.28	91.9	RELLENO_ZANJA	1.380	7.62	2945.3
	ARENA_3	0.202	1.11	364.0				
1820.000	D TIERRA	1.686	34.54	3678.4	ARENA_1	0.118	2.37	215.6
	ARENA_2	0.051	1.02	93.0	RELLENO_ZANJA	1.298	26.78	2972.1
	ARENA_3	0.202	4.05	368.1				
1826.172	D TIERRA	1.718	10.50	3688.9	ARENA_1	0.118	0.73	216.3
	ARENA_2	0.051	0.32	93.3	RELLENO_ZANJA	1.330	8.11	2980.2
	ARENA_3	0.202	1.25	369.3				

PERFIL	MATERIAL	AREA PERFIL	VOL. PARCIAL	VOL. ACUMUL.	MATERIAL	AREA PERFIL	VOL. PARCIAL	VOL. ACUMUL.
1840.000	D TIERRA	1.716	23.74	3712.6	ARENA_1	0.118	1.64	217.9
	ARENA_2	0.051	0.71	94.0	RELLENO_ZANJA	1.328	18.37	2998.6
	ARENA_3	0.202	2.80	372.1				
1852.640	D TIERRA	1.675	21.43	3734.0	ARENA_1	0.118	1.50	219.4
	ARENA_2	0.051	0.65	94.6	RELLENO_ZANJA	1.287	16.52	3015.1
	ARENA_3	0.202	2.56	374.7				
1860.000	D TIERRA	1.688	12.37	3746.4	ARENA_1	0.118	0.87	220.3
	ARENA_2	0.051	0.38	95.0	RELLENO_ZANJA	1.300	9.52	3024.6
	ARENA_3	0.202	1.49	376.2				
1864.299	D TIERRA	1.748	7.39	3753.8	ARENA_1	0.118	0.51	220.8
	ARENA_2	0.051	0.22	95.2	RELLENO_ZANJA	1.360	5.72	3030.4
	ARENA_3	0.202	0.87	377.1				
1880.000	D TIERRA	1.983	29.30	3783.1	ARENA_1	0.118	1.86	222.7
	ARENA_2	0.051	0.80	96.0	RELLENO_ZANJA	1.595	23.20	3053.6
	ARENA_3	0.202	3.18	380.2				
1900.000	D TIERRA	2.344	43.28	3826.4	ARENA_1	0.118	2.37	225.0
	ARENA_2	0.051	1.02	97.1	RELLENO_ZANJA	1.956	35.52	3089.1
	ARENA_3	0.202	4.05	384.3				
1904.974	D TIERRA	2.471	11.98	3838.4	ARENA_1	0.118	0.59	225.6
	ARENA_2	0.051	0.25	97.3	RELLENO_ZANJA	2.083	10.05	3099.1
	ARENA_3	0.202	1.01	385.3				
1918.816	D TIERRA	2.578	34.95	3873.3	ARENA_1	0.118	1.64	227.3
	ARENA_2	0.051	0.71	98.0	RELLENO_ZANJA	2.190	29.57	3128.7
	ARENA_3	0.202	2.80	388.1				
1920.000	D TIERRA	2.553	3.04	3876.3	ARENA_1	0.118	0.14	227.4
	ARENA_2	0.051	0.06	98.1	RELLENO_ZANJA	2.165	2.58	3131.3
	ARENA_3	0.202	0.24	388.3				
1932.926	D TIERRA	2.284	31.26	3907.6	ARENA_1	0.118	1.53	228.9
	ARENA_2	0.051	0.66	98.7	RELLENO_ZANJA	1.895	26.24	3157.5
	ARENA_3	0.202	2.61	390.9				
1940.000	D TIERRA	2.141	15.65	3923.2	ARENA_1	0.118	0.84	229.8
	ARENA_2	0.051	0.36	99.1	RELLENO_ZANJA	1.753	12.91	3170.4
	ARENA_3	0.202	1.43	392.4				
1941.122	D TIERRA	2.119	2.39	3925.6	ARENA_1	0.118	0.13	229.9
	ARENA_2	0.051	0.06	99.2	RELLENO_ZANJA	1.731	1.95	3172.4
	ARENA_3	0.202	0.23	392.6				
1948.652	D TIERRA	1.973	15.41	3941.0	ARENA_1	0.118	0.89	230.8
	ARENA_2	0.051	0.38	99.5	RELLENO_ZANJA	1.585	12.48	3184.9
	ARENA_3	0.202	1.52	394.1				
1958.254	D TIERRA	1.915	18.67	3959.7	ARENA_1	0.118	1.14	231.9
	ARENA_2	0.051	0.49	100.0	RELLENO_ZANJA	1.527	14.94	3199.8
	ARENA_3	0.202	1.94	396.1				
1960.000	D TIERRA	1.912	3.34	3963.1	ARENA_1	0.118	0.21	232.2
	ARENA_2	0.051	0.09	100.1	RELLENO_ZANJA	1.524	2.66	3202.5
	ARENA_3	0.202	0.35	396.4				
1980.000	D TIERRA	1.879	37.91	4001.0	ARENA_1	0.118	2.37	234.5
	ARENA_2	0.051	1.02	101.1	RELLENO_ZANJA	1.491	30.15	3232.6
	ARENA_3	0.202	4.05	400.5				
1993.469	D TIERRA	1.857	25.16	4026.1	ARENA_1	0.118	1.60	236.1
	ARENA_2	0.051	0.69	101.8	RELLENO_ZANJA	1.469	19.93	3252.5
	ARENA_3	0.202	2.72	403.2				
2000.000	D TIERRA	1.846	12.09	4038.2	ARENA_1	0.118	0.77	236.9
	ARENA_2	0.051	0.33	102.2	RELLENO_ZANJA	1.458	9.56	3262.1
	ARENA_3	0.202	1.32	404.5				
2020.000	D TIERRA	1.809	36.55	4074.8	ARENA_1	0.118	2.37	239.3
	ARENA_2	0.051	1.02	103.2	RELLENO_ZANJA	1.421	28.79	3290.9
	ARENA_3	0.202	4.05	408.5				
2038.262	D TIERRA	1.766	32.64	4107.4	ARENA_1	0.118	2.16	241.4
	ARENA_2	0.051	0.93	104.1	RELLENO_ZANJA	1.378	25.56	3316.4
	ARENA_3	0.202	3.69	412.2				



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PROYECTO : CIDACOS COMPLETO
EJE : 12: P430 (Pradejón) - P450 (Alcanadre)

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PROYECTO : CIDACOS COMPLETO
EJE : 12: P430 (Pradejón) - P450 (Alcanadre)

MEDICIONES DE LOS PERFILES TRANSVERSALES
CAPAS DE FIRME

MEDICIONES DE LOS PERFILES TRANSVERSALES
CAPAS DE FIRME

Table with columns: PERFIL, MATERIAL, AREA PERFIL, VOL. PARCIAL, VOL. ACUMUL., MATERIAL, AREA PERFIL, VOL. PARCIAL, VOL. ACUMUL. containing data for profiles 2040.000 to 2260.000.

Table with columns: PERFIL, MATERIAL, AREA PERFIL, VOL. PARCIAL, VOL. ACUMUL., MATERIAL, AREA PERFIL, VOL. PARCIAL, VOL. ACUMUL. containing data for profiles 2267.753 to 2500.000.



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EJE : 12: P430 (Pradejón) - P450 (Alcanadre)

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PROYECTO : CIDACOS COMPLETO
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*** MEDICIONES DE LOS PERFILES TRANSVERSALES ***
*** CAPAS DE FIRME ***

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PERFIL	MATERIAL	AREA PERFIL	VOL. PARCIAL	VOL. ACUMUL.	MATERIAL	AREA PERFIL	VOL. PARCIAL	VOL. ACUMUL.
2507.155	D TIERRA	1.767	12.33	4914.7	ARENA_1	0.118	0.85	297.0
	ARENA_2	0.051	0.37	128.1	RELLENO_ZANJA	1.379	9.56	3941.8
	ARENA_3	0.202	1.45	507.1				
2520.000	D TIERRA	1.886	23.47	4938.2	ARENA_1	0.118	1.52	298.5
	ARENA_2	0.051	0.66	128.7	RELLENO_ZANJA	1.498	18.48	3960.3
	ARENA_3	0.202	2.60	509.7				
2540.000	D TIERRA	1.954	38.40	4976.6	ARENA_1	0.118	2.37	300.9
	ARENA_2	0.051	1.02	129.7	RELLENO_ZANJA	1.566	30.64	3990.9
	ARENA_3	0.202	4.05	513.7				
2560.000	D TIERRA	2.013	39.67	5016.3	ARENA_1	0.118	2.37	303.2
	ARENA_2	0.051	1.02	130.8	RELLENO_ZANJA	1.625	31.91	4022.9
	ARENA_3	0.202	4.05	517.8				
2574.294	D TIERRA	2.054	29.06	5045.3	ARENA_1	0.118	1.69	304.9
	ARENA_2	0.051	0.73	131.5	RELLENO_ZANJA	1.665	23.52	4046.4
	ARENA_3	0.202	2.89	520.7				
2580.000	D TIERRA	2.079	11.79	5057.1	ARENA_1	0.118	0.68	305.6
	ARENA_2	0.051	0.29	131.8	RELLENO_ZANJA	1.691	9.58	4055.9
	ARENA_3	0.202	1.15	521.8				
2590.821	D TIERRA	2.126	22.75	5079.9	ARENA_1	0.118	1.28	306.9
	ARENA_2	0.051	0.55	132.3	RELLENO_ZANJA	1.738	18.55	4074.5
	ARENA_3	0.202	2.19	524.0				
2600.000	D TIERRA	2.114	19.46	5099.4	ARENA_1	0.118	1.09	308.0
	ARENA_2	0.051	0.47	132.8	RELLENO_ZANJA	1.726	15.90	4090.4
	ARENA_3	0.202	1.86	525.9				
2620.000	D TIERRA	2.087	42.01	5141.4	ARENA_1	0.118	2.37	310.3
	ARENA_2	0.051	1.02	133.8	RELLENO_ZANJA	1.699	34.25	4124.6
	ARENA_3	0.202	4.05	529.9				
2624.499	D TIERRA	2.080	9.37	5150.7	ARENA_1	0.118	0.53	310.9
	ARENA_2	0.051	0.23	134.1	RELLENO_ZANJA	1.692	7.63	4132.3
	ARENA_3	0.202	0.91	530.8				
2640.000	D TIERRA	2.087	32.30	5183.0	ARENA_1	0.118	1.84	312.7
	ARENA_2	0.051	0.79	134.9	RELLENO_ZANJA	1.699	26.28	4158.6
	ARENA_3	0.202	3.14	533.9				
2660.000	D TIERRA	2.077	41.65	5224.7	ARENA_1	0.118	2.37	315.1
	ARENA_2	0.051	1.02	135.9	RELLENO_ZANJA	1.689	33.89	4192.4
	ARENA_3	0.202	4.05	538.0				
2663.009	D TIERRA	2.076	6.25	5230.9	ARENA_1	0.118	0.36	315.4
	ARENA_2	0.051	0.15	136.0	RELLENO_ZANJA	1.688	5.08	4197.5
	ARENA_3	0.202	0.61	538.6				
2680.000	D TIERRA	2.033	34.91	5265.8	ARENA_1	0.118	2.01	317.4
	ARENA_2	0.051	0.87	136.9	RELLENO_ZANJA	1.645	28.32	4225.8
	ARENA_3	0.202	3.44	542.0				
2700.000	D TIERRA	1.942	39.75	5305.6	ARENA_1	0.118	2.37	319.8
	ARENA_2	0.051	1.02	137.9	RELLENO_ZANJA	1.554	31.99	4257.8
	ARENA_3	0.202	4.05	546.1				
2710.675	D TIERRA	1.784	19.89	5325.5	ARENA_1	0.118	1.26	321.1
	ARENA_2	0.051	0.55	138.5	RELLENO_ZANJA	1.396	15.74	4273.6
	ARENA_3	0.202	2.16	548.2				
2720.000	D TIERRA	1.835	16.87	5342.3	ARENA_1	0.118	1.10	322.2
	ARENA_2	0.051	0.48	138.9	RELLENO_ZANJA	1.447	13.25	4286.8
	ARENA_3	0.202	1.89	550.1				
2737.434	D TIERRA	1.948	32.98	5375.3	ARENA_1	0.118	2.07	324.2
	ARENA_2	0.051	0.89	139.8	RELLENO_ZANJA	1.560	26.21	4313.0
	ARENA_3	0.202	3.53	553.6				
2740.000	D TIERRA	1.970	5.03	5380.4	ARENA_1	0.118	0.30	324.5
	ARENA_2	0.051	0.13	140.0	RELLENO_ZANJA	1.582	4.03	4317.1
	ARENA_3	0.202	0.52	554.2				
2760.000	D TIERRA	2.126	40.96	5421.3	ARENA_1	0.118	2.37	326.9
	ARENA_2	0.051	1.02	141.0	RELLENO_ZANJA	1.738	33.20	4350.3
	ARENA_3	0.202	4.05	558.2				

PERFIL	MATERIAL	AREA PERFIL	VOL. PARCIAL	VOL. ACUMUL.	MATERIAL	AREA PERFIL	VOL. PARCIAL	VOL. ACUMUL.
2780.000	D TIERRA	2.190	43.16	5464.5	ARENA_1	0.118	2.37	329.3
	ARENA_2	0.051	1.02	142.0	RELLENO_ZANJA	1.802	35.40	4385.7
	ARENA_3	0.202	4.05	562.3				
2785.033	D TIERRA	2.207	11.07	5475.5	ARENA_1	0.118	0.60	329.9
	ARENA_2	0.051	0.26	142.3	RELLENO_ZANJA	1.819	9.11	4394.8
	ARENA_3	0.202	1.02	563.3				
2800.000	D TIERRA	2.216	33.10	5508.6	ARENA_1	0.118	1.77	331.6
	ARENA_2	0.051	0.76	143.0	RELLENO_ZANJA	1.828	27.29	4422.1
	ARENA_3	0.202	3.03	566.3				
2812.180	D TIERRA	2.162	26.66	5535.3	ARENA_1	0.118	1.44	333.1
	ARENA_2	0.051	0.62	143.6	RELLENO_ZANJA	1.774	21.94	4444.0
	ARENA_3	0.202	2.46	568.8				
2820.000	D TIERRA	2.101	16.67	5552.0	ARENA_1	0.118	0.93	334.0
	ARENA_2	0.051	0.40	144.0	RELLENO_ZANJA	1.713	13.64	4457.7
	ARENA_3	0.202	1.58	570.3				
2840.000	D TIERRA	1.947	40.48	5592.5	ARENA_1	0.118	2.37	336.4
	ARENA_2	0.051	1.02	145.1	RELLENO_ZANJA	1.559	32.72	4490.4
	ARENA_3	0.202	4.05	574.4				
2860.000	D TIERRA	1.836	37.83	5630.3	ARENA_1	0.118	2.37	338.8
	ARENA_2	0.051	1.02	146.1	RELLENO_ZANJA	1.448	30.07	4520.4
	ARENA_3	0.202	4.05	578.4				
2880.000	D TIERRA	2.107	39.43	5669.7	ARENA_1	0.118	2.37	341.1
	ARENA_2	0.051	1.02	147.1	RELLENO_ZANJA	1.719	31.67	4552.1
	ARENA_3	0.202	4.05	582.5				
2885.344	D TIERRA	2.123	11.30	5681.0	ARENA_1	0.118	0.63	341.8
	ARENA_2	0.051	0.27	147.4	RELLENO_ZANJA	1.735	9.23	4561.3
	ARENA_3	0.202	1.08	583.6				
2900.000	D TIERRA	1.852	29.13	5710.2	ARENA_1	0.118	1.74	343.5
	ARENA_2	0.051	0.75	148.1	RELLENO_ZANJA	1.464	23.44	4584.8
	ARENA_3	0.202	2.96	586.5				
2904.787	D TIERRA	1.676	8.44	5718.6	ARENA_1	0.118	0.57	344.1
	ARENA_2	0.051	0.24	148.4	RELLENO_ZANJA	1.288	6.59	4591.4
	ARENA_3	0.202	0.97	587.5				
2920.000	D TIERRA	0.000	0.00	5718.6	ARENA_1	0.000	0.00	344.1
	ARENA_2	0.000	0.00	148.4	RELLENO_ZANJA	0.000	0.00	4591.4
	ARENA_3	0.000	0.00	587.5				
2930.086	D TIERRA	1.981	0.00	5718.6	ARENA_1	0.122	0.00	344.1
	ARENA_2	0.055	0.00	148.4	RELLENO_ZANJA	1.560	0.00	4591.4
	ARENA_3	0.227	0.00	587.5				
2940.000	D TIERRA	2.027	19.87	5738.5	ARENA_1	0.122	1.21	345.3
	ARENA_2	0.055	0.55	148.9	RELLENO_ZANJA	1.606	15.70	4607.1
	ARENA_3	0.227	2.25	589.7				
2942.994	D TIERRA	2.111	6.19	5744.7	ARENA_1	0.122	0.37	345.6
	ARENA_2	0.055	0.17	149.1	RELLENO_ZANJA	1.690	4.93	4612.0
	ARENA_3	0.227	0.68	590.4				
2960.000	D TIERRA	2.042	35.31	5780.0	ARENA_1	0.122	2.08	347.7
	ARENA_2	0.055	0.94	150.0	RELLENO_ZANJA	1.621	28.15	4640.2
	ARENA_3	0.227	3.86	594.3				
2980.000	D TIERRA	2.011	40.54	5820.5	ARENA_1	0.122	2.45	350.2
	ARENA_2	0.055	1.11	151.1	RELLENO_ZANJA	1.590	32.12	4672.3
	ARENA_3	0.227	4.54	598.8				
3000.000	D TIERRA	2.019	40.30	5860.8	ARENA_1	0.122	2.45	352.6
	ARENA_2	0.055	1.11	152.2	RELLENO_ZANJA	1.598	31.88	4704.2
	ARENA_3	0.227	4.54	603.4				
3014.340	D TIERRA	1.952	28.47	5889.3	ARENA_1	0.122	1.76	354.4
	ARENA_2	0.055	0.79	153.0	RELLENO_ZANJA	1.531	22.43	4726.6
	ARENA_3	0.227	3.25	606.6				
3020.000	D TIERRA	1.985	11.14	5900.4	ARENA_1	0.122	0.69	355.1
	ARENA_2	0.055	0.31	153.4	RELLENO_ZANJA	1.564	8.76	4735.4
	ARENA_3	0.227	1.28	607.9				



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PROYECTO : CIDACOS COMPLETO
EJE : 12: P430 (Pradejón) - P450 (Alcanadre)

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PROYECTO : CIDACOS COMPLETO
EJE : 12: P430 (Pradejón) - P450 (Alcanadre)

*** MEDICIONES DE LOS PERFILES TRANSVERSALES ***
*** CAPAS DE FIRME ***

*** MEDICIONES DE LOS PERFILES TRANSVERSALES ***
*** CAPAS DE FIRME ***

PERFIL	MATERIAL	AREA PERFIL	VOL. PARCIAL	VOL. ACUMUL.	MATERIAL	AREA PERFIL	VOL. PARCIAL	VOL. ACUMUL.
3040.000	D TIERRA	2.105	40.90	5941.3	ARENA_1	0.122	2.45	357.5
	ARENA_2	0.055	1.11	154.5	RELLENO_ZANJA	1.684	32.48	4767.8
	ARENA_3	0.227	4.54	612.4				
3060.000	D TIERRA	2.018	41.23	5982.5	ARENA_1	0.122	2.45	360.0
	ARENA_2	0.055	1.11	155.6	RELLENO_ZANJA	1.597	32.81	4800.6
	ARENA_3	0.227	4.54	617.0				
3080.000	D TIERRA	2.029	40.47	6023.0	ARENA_1	0.122	2.45	362.4
	ARENA_2	0.055	1.11	156.7	RELLENO_ZANJA	1.608	32.05	4832.7
	ARENA_3	0.227	4.54	621.5				
3100.000	D TIERRA	2.024	40.53	6063.5	ARENA_1	0.122	2.45	364.9
	ARENA_2	0.055	1.11	157.8	RELLENO_ZANJA	1.603	32.11	4864.8
	ARENA_3	0.227	4.54	626.0				
3120.000	D TIERRA	2.029	40.53	6104.1	ARENA_1	0.122	2.45	367.3
	ARENA_2	0.055	1.11	158.9	RELLENO_ZANJA	1.608	32.11	4896.9
	ARENA_3	0.227	4.54	630.6				
3140.000	D TIERRA	2.168	41.97	6146.0	ARENA_1	0.122	2.45	369.8
	ARENA_2	0.055	1.11	160.0	RELLENO_ZANJA	1.747	33.55	4930.5
	ARENA_3	0.227	4.54	635.1				
3160.000	D TIERRA	2.000	41.69	6187.7	ARENA_1	0.122	2.45	372.2
	ARENA_2	0.055	1.11	161.1	RELLENO_ZANJA	1.580	33.27	4963.7
	ARENA_3	0.227	4.54	639.7				
3180.000	D TIERRA	2.176	41.76	6229.5	ARENA_1	0.122	2.45	374.7
	ARENA_2	0.055	1.11	162.2	RELLENO_ZANJA	1.755	33.35	4997.1
	ARENA_3	0.227	4.54	644.2				
3188.767	D TIERRA	2.078	18.65	6248.1	ARENA_1	0.122	1.07	375.7
	ARENA_2	0.055	0.48	162.7	RELLENO_ZANJA	1.657	14.96	5012.0
	ARENA_3	0.227	1.99	646.2				
3200.000	D TIERRA	2.034	23.09	6271.2	ARENA_1	0.122	1.38	377.1
	ARENA_2	0.055	0.62	163.3	RELLENO_ZANJA	1.613	18.37	5030.4
	ARENA_3	0.227	2.55	648.7				
3220.000	D TIERRA	2.090	41.24	6312.5	ARENA_1	0.122	2.45	379.6
	ARENA_2	0.055	1.11	164.4	RELLENO_ZANJA	1.669	32.82	5063.2
	ARENA_3	0.227	4.54	653.3				
3223.301	D TIERRA	2.470	7.53	6320.0	ARENA_1	0.122	0.40	380.0
	ARENA_2	0.055	0.18	164.6	RELLENO_ZANJA	2.050	6.14	5069.4
	ARENA_3	0.227	0.75	654.0				
3240.000	D TIERRA	2.139	38.48	6358.5	ARENA_1	0.122	2.04	382.0
	ARENA_2	0.055	0.92	165.5	RELLENO_ZANJA	1.718	31.45	5100.8
	ARENA_3	0.227	3.79	657.8				
3260.000	D TIERRA	2.027	41.66	6400.1	ARENA_1	0.122	2.45	384.4
	ARENA_2	0.055	1.11	166.6	RELLENO_ZANJA	1.606	33.24	5134.0
	ARENA_3	0.227	4.54	662.3				
3280.000	D TIERRA	2.043	40.70	6440.8	ARENA_1	0.122	2.45	386.9
	ARENA_2	0.055	1.11	167.7	RELLENO_ZANJA	1.622	32.28	5166.3
	ARENA_3	0.227	4.54	666.9				
3300.000	D TIERRA	2.048	40.91	6481.8	ARENA_1	0.122	2.45	389.3
	ARENA_2	0.055	1.11	168.8	RELLENO_ZANJA	1.627	32.49	5198.8
	ARENA_3	0.227	4.54	671.4				
3320.000	D TIERRA	2.273	43.21	6525.0	ARENA_1	0.122	2.45	391.8
	ARENA_2	0.055	1.11	169.9	RELLENO_ZANJA	1.852	34.79	5233.6
	ARENA_3	0.227	4.54	676.0				
3328.721	D TIERRA	2.263	19.78	6544.7	ARENA_1	0.122	1.07	392.9
	ARENA_2	0.055	0.48	170.4	RELLENO_ZANJA	1.842	16.11	5249.7
	ARENA_3	0.227	1.98	677.9				
3340.000	D TIERRA	2.018	24.14	6568.9	ARENA_1	0.122	1.38	394.2
	ARENA_2	0.055	0.62	171.1	RELLENO_ZANJA	1.598	19.40	5269.1
	ARENA_3	0.227	2.56	680.5				
3358.616	D TIERRA	1.996	37.36	6606.2	ARENA_1	0.122	2.28	396.5
	ARENA_2	0.055	1.03	172.1	RELLENO_ZANJA	1.575	29.53	5298.7
	ARENA_3	0.227	4.22	684.7				

PERFIL	MATERIAL	AREA PERFIL	VOL. PARCIAL	VOL. ACUMUL.	MATERIAL	AREA PERFIL	VOL. PARCIAL	VOL. ACUMUL.
3360.000	D TIERRA	2.020	2.78	6609.0	ARENA_1	0.122	0.17	396.7
	ARENA_2	0.055	0.08	172.2	RELLENO_ZANJA	1.599	2.20	5300.8
	ARENA_3	0.227	0.31	685.0				
3379.229	D TIERRA	2.033	38.97	6648.0	ARENA_1	0.122	2.35	399.0
	ARENA_2	0.055	1.06	173.2	RELLENO_ZANJA	1.613	30.88	5331.7
	ARENA_3	0.227	4.36	689.4				
3380.000	D TIERRA	2.054	1.58	6649.6	ARENA_1	0.122	0.09	399.1
	ARENA_2	0.055	0.04	173.3	RELLENO_ZANJA	1.633	1.25	5333.0
	ARENA_3	0.227	0.17	689.6				
3400.000	D TIERRA	2.309	43.63	6693.2	ARENA_1	0.122	2.45	401.6
	ARENA_2	0.055	1.11	174.4	RELLENO_ZANJA	1.888	35.21	5368.2
	ARENA_3	0.227	4.54	694.1				
3405.653	D TIERRA	2.040	12.29	6705.5	ARENA_1	0.122	0.69	402.3
	ARENA_2	0.055	0.31	174.7	RELLENO_ZANJA	1.619	9.91	5378.1
	ARENA_3	0.227	1.28	695.4				
3420.000	D TIERRA	2.052	29.35	6734.8	ARENA_1	0.122	1.76	404.0
	ARENA_2	0.055	0.79	175.5	RELLENO_ZANJA	1.631	23.31	5401.4
	ARENA_3	0.227	3.26	698.7				
3440.000	D TIERRA	2.030	40.82	6775.7	ARENA_1	0.122	2.45	406.5
	ARENA_2	0.055	1.11	176.6	RELLENO_ZANJA	1.609	32.41	5433.8
	ARENA_3	0.227	4.54	703.2				
3460.000	D TIERRA	2.017	40.48	6816.1	ARENA_1	0.122	2.45	408.9
	ARENA_2	0.055	1.11	177.7	RELLENO_ZANJA	1.596	32.06	5465.9
	ARENA_3	0.227	4.54	707.7				
3478.064	D TIERRA	2.140	37.55	6853.7	ARENA_1	0.122	2.21	411.1
	ARENA_2	0.055	1.00	178.7	RELLENO_ZANJA	1.719	29.94	5495.8
	ARENA_3	0.227	4.10	711.8				
3480.000	D TIERRA	2.073	4.08	6857.8	ARENA_1	0.122	0.24	411.4
	ARENA_2	0.055	0.11	178.8	RELLENO_ZANJA	1.652	3.26	5499.1
	ARENA_3	0.227	0.44	712.3				
3500.000	D TIERRA	2.014	40.87	6898.6	ARENA_1	0.122	2.45	413.8
	ARENA_2	0.055	1.11	179.9	RELLENO_ZANJA	1.593	32.46	5531.5
	ARENA_3	0.227	4.54	716.8				
3520.000	D TIERRA	2.040	40.54	6939.2	ARENA_1	0.122	2.45	416.3
	ARENA_2	0.055	1.11	181.0	RELLENO_ZANJA	1.619	32.12	5563.7
	ARENA_3	0.227	4.54	721.3				
3540.000	D TIERRA	1.961	40.01	6979.2	ARENA_1	0.122	2.45	418.7
	ARENA_2	0.055	1.11	182.1	RELLENO_ZANJA	1.540	31.59	5595.3
	ARENA_3	0.227	4.54	725.9				
3551.101	D TIERRA	2.010	22.04	7001.2	ARENA_1	0.122	1.36	420.1
	ARENA_2	0.055	0.61	182.7	RELLENO_ZANJA	1.589	17.37	5612.6
	ARENA_3	0.227	2.52	728.4				
3560.000	D TIERRA	1.967	17.70	7018.9	ARENA_1	0.122	1.09	421.2
	ARENA_2	0.055	0.49	183.2	RELLENO_ZANJA	1.547	13.95	5626.6
	ARENA_3	0.227	2.02	730.4				
3580.000	D TIERRA	2.083	40.50	7059.4	ARENA_1	0.122	2.45	423.6
	ARENA_2	0.055	1.11	184.3	RELLENO_ZANJA	1.662	32.08	5658.7
	ARENA_3	0.227	4.54	735.0				
3580.876	D TIERRA	2.118	1.84	7061.3	ARENA_1	0.122	0.11	423.7
	ARENA_2	0.055	0.05	184.4	RELLENO_ZANJA	1.697	1.47	5660.1
	ARENA_3	0.227	0.20	735.2				
3600.000	D TIERRA	2.271	41.97	7103.2	ARENA_1	0.122	2.34	426.1
	ARENA_2	0.055	1.06	185.4	RELLENO_ZANJA	1.850	33.92	5694.0
	ARENA_3	0.227	4.34	739.5				
3620.000	D TIERRA	1.979	42.50	7145.7	ARENA_1	0.122	2.45	428.5
	ARENA_2	0.055	1.11	186.5	RELLENO_ZANJA	1.558	34.08	5728.1
	ARENA_3	0.227	4.54	744.0				
3640.000	D TIERRA	2.156	41.35	7187.1	ARENA_1	0.122	2.45	431.0
	ARENA_2	0.055	1.11	187.6	RELLENO_ZANJA	1.735	32.93	5761.1
	ARENA_3	0.227	4.54	748.6				



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*** CAPAS DE FIRME ***

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Table with columns: PERFIL, MATERIAL, AREA PERFIL, VOL. PARCIAL, VOL. ACUMUL., MATERIAL, AREA PERFIL, VOL. PARCIAL, VOL. ACUMUL. It lists data for various profiles from 3660.000 to 3938.266.

Table with columns: PERFIL, MATERIAL, AREA PERFIL, VOL. PARCIAL, VOL. ACUMUL., MATERIAL, AREA PERFIL, VOL. PARCIAL, VOL. ACUMUL. It lists data for various profiles from 3940.000 to 4219.413.



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*** CAPAS DE FIRME ***

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PERFIL	MATERIAL	AREA PERFIL	VOL. PARCIAL	VOL. ACUMUL.	MATERIAL	AREA PERFIL	VOL. PARCIAL	VOL. ACUMUL.
4220.000	D TIERRA	1.771	1.02	8407.8	ARENA_1	0.122	0.07	502.0
	ARENA_2	0.055	0.03	219.7	RELLENO_ZANJA	1.350	0.77	6737.7
	ARENA_3	0.227	0.13	880.2				
4240.000	D TIERRA	2.007	37.77	8445.6	ARENA_1	0.122	2.45	504.4
	ARENA_2	0.055	1.11	220.8	RELLENO_ZANJA	1.586	29.36	6767.0
	ARENA_3	0.227	4.54	884.7				
4260.000	D TIERRA	2.113	41.19	8486.8	ARENA_1	0.122	2.45	506.9
	ARENA_2	0.055	1.11	221.9	RELLENO_ZANJA	1.692	32.77	6799.8
	ARENA_3	0.227	4.54	889.2				
4280.000	D TIERRA	2.020	41.33	8528.1	ARENA_1	0.122	2.45	509.3
	ARENA_2	0.055	1.11	223.1	RELLENO_ZANJA	1.599	32.91	6832.7
	ARENA_3	0.227	4.54	893.8				
4290.802	D TIERRA	2.261	23.12	8551.2	ARENA_1	0.122	1.32	510.6
	ARENA_2	0.055	0.60	223.7	RELLENO_ZANJA	1.840	18.57	6851.3
	ARENA_3	0.227	2.45	896.2				
4300.000	D TIERRA	2.024	19.71	8570.9	ARENA_1	0.122	1.13	511.8
	ARENA_2	0.055	0.51	224.2	RELLENO_ZANJA	1.603	15.84	6867.1
	ARENA_3	0.227	2.09	898.3				
4320.000	D TIERRA	2.116	41.40	8612.3	ARENA_1	0.122	2.45	514.2
	ARENA_2	0.055	1.11	225.3	RELLENO_ZANJA	1.695	32.98	6900.1
	ARENA_3	0.227	4.54	902.8				
4322.827	D TIERRA	2.054	5.89	8618.2	ARENA_1	0.122	0.35	514.6
	ARENA_2	0.055	0.16	225.4	RELLENO_ZANJA	1.634	4.70	6904.8
	ARENA_3	0.227	0.64	903.5				
4340.000	D TIERRA	2.054	35.27	8653.5	ARENA_1	0.122	2.10	516.7
	ARENA_2	0.055	0.95	226.4	RELLENO_ZANJA	1.633	28.05	6932.8
	ARENA_3	0.227	3.90	907.4				
4360.000	D TIERRA	2.140	41.94	8695.4	ARENA_1	0.122	2.45	519.1
	ARENA_2	0.055	1.11	227.5	RELLENO_ZANJA	1.719	33.52	6966.4
	ARENA_3	0.227	4.54	911.9				
4380.000	D TIERRA	2.237	43.77	8739.2	ARENA_1	0.122	2.45	521.6
	ARENA_2	0.055	1.11	228.6	RELLENO_ZANJA	1.816	35.35	7001.7
	ARENA_3	0.227	4.54	916.5				
4393.040	D TIERRA	4.125	41.48	8780.7	ARENA_1	0.122	1.60	523.2
	ARENA_2	0.055	0.72	229.3	RELLENO_ZANJA	3.704	35.99	7037.7
	ARENA_3	0.227	2.96	919.4				
4400.000	D TIERRA	4.985	31.70	8812.4	ARENA_1	0.122	0.85	524.0
	ARENA_2	0.055	0.38	229.7	RELLENO_ZANJA	4.564	28.77	7066.5
	ARENA_3	0.227	1.58	921.0				
4409.472	D TIERRA	6.233	53.12	8865.5	ARENA_1	0.122	1.16	525.2
	ARENA_2	0.055	0.52	230.2	RELLENO_ZANJA	5.812	49.14	7115.6
	ARENA_3	0.227	2.15	923.1				
4420.000	D TIERRA	6.975	69.52	8935.1	ARENA_1	0.122	1.29	526.5
	ARENA_2	0.055	0.58	230.8	RELLENO_ZANJA	6.554	65.09	7180.7
	ARENA_3	0.227	2.39	925.5				
4420.114	D TIERRA	6.962	0.79	8935.8	ARENA_1	0.122	0.01	526.5
	ARENA_2	0.055	0.01	230.8	RELLENO_ZANJA	6.541	0.75	7181.5
	ARENA_3	0.227	0.03	925.6				
4430.171	D TIERRA	5.736	63.85	8999.7	ARENA_1	0.122	1.23	527.7
	ARENA_2	0.055	0.56	231.4	RELLENO_ZANJA	5.315	59.62	7241.1
	ARENA_3	0.227	2.28	927.8				
4440.000	D TIERRA	4.728	51.42	9051.1	ARENA_1	0.122	1.20	528.9
	ARENA_2	0.055	0.54	231.9	RELLENO_ZANJA	4.307	47.29	7288.4
	ARENA_3	0.227	2.23	930.1				
4448.279	D TIERRA	3.411	33.69	9084.8	ARENA_1	0.122	1.01	529.9
	ARENA_2	0.055	0.46	232.4	RELLENO_ZANJA	2.990	30.21	7318.6
	ARENA_3	0.227	1.88	932.0				
4460.000	D TIERRA	2.189	32.82	9117.6	ARENA_1	0.122	1.44	531.4
	ARENA_2	0.055	0.65	233.0	RELLENO_ZANJA	1.768	27.89	7346.5
	ARENA_3	0.227	2.66	934.6				

PERFIL	MATERIAL	AREA PERFIL	VOL. PARCIAL	VOL. ACUMUL.	MATERIAL	AREA PERFIL	VOL. PARCIAL	VOL. ACUMUL.
4480.000	D TIERRA	2.198	43.86	9161.5	ARENA_1	0.122	2.45	533.8
	ARENA_2	0.055	1.11	234.1	RELLENO_ZANJA	1.777	35.44	7381.9
	ARENA_3	0.227	4.54	939.1				
4500.000	D TIERRA	2.032	42.29	9203.8	ARENA_1	0.122	2.45	536.3
	ARENA_2	0.055	1.11	235.2	RELLENO_ZANJA	1.611	33.87	7415.8
	ARENA_3	0.227	4.54	943.7				
4520.000	D TIERRA	2.020	40.52	9244.3	ARENA_1	0.122	2.45	538.7
	ARENA_2	0.055	1.11	236.3	RELLENO_ZANJA	1.599	32.10	7447.9
	ARENA_3	0.227	4.54	948.2				
4536.867	D TIERRA	2.029	34.15	9278.5	ARENA_1	0.122	2.06	540.8
	ARENA_2	0.055	0.93	237.3	RELLENO_ZANJA	1.608	27.05	7474.9
	ARENA_3	0.227	3.83	952.1				
4540.000	D TIERRA	2.028	6.35	9284.8	ARENA_1	0.122	0.38	541.1
	ARENA_2	0.055	0.17	237.4	RELLENO_ZANJA	1.607	5.04	7480.0
	ARENA_3	0.227	0.71	952.8				
4560.000	D TIERRA	2.020	40.48	9325.3	ARENA_1	0.122	2.45	543.6
	ARENA_2	0.055	1.11	238.5	RELLENO_ZANJA	1.599	32.06	7512.0
	ARENA_3	0.227	4.54	957.3				
4580.000	D TIERRA	2.036	40.56	9365.9	ARENA_1	0.122	2.45	546.0
	ARENA_2	0.055	1.11	239.7	RELLENO_ZANJA	1.615	32.14	7544.2
	ARENA_3	0.227	4.54	961.8				
4600.000	D TIERRA	2.291	43.28	9409.1	ARENA_1	0.122	2.45	548.5
	ARENA_2	0.055	1.11	240.8	RELLENO_ZANJA	1.870	34.86	7579.0
	ARENA_3	0.227	4.54	966.4				
4620.000	D TIERRA	2.031	43.23	9452.4	ARENA_1	0.122	2.45	550.9
	ARENA_2	0.055	1.11	241.9	RELLENO_ZANJA	1.610	34.81	7613.8
	ARENA_3	0.227	4.54	970.9				
4640.000	D TIERRA	2.090	41.21	9493.6	ARENA_1	0.122	2.45	553.4
	ARENA_2	0.055	1.11	243.0	RELLENO_ZANJA	1.669	32.80	7646.6
	ARENA_3	0.227	4.54	975.4				
4660.000	D TIERRA	2.239	43.29	9536.9	ARENA_1	0.122	2.45	555.8
	ARENA_2	0.055	1.11	244.1	RELLENO_ZANJA	1.818	34.87	7681.5
	ARENA_3	0.227	4.54	980.0				
4680.000	D TIERRA	2.208	44.47	9581.3	ARENA_1	0.122	2.45	558.3
	ARENA_2	0.055	1.11	245.2	RELLENO_ZANJA	1.787	36.05	7717.5
	ARENA_3	0.227	4.54	984.5				
4700.000	D TIERRA	2.283	44.91	9626.2	ARENA_1	0.122	2.45	560.7
	ARENA_2	0.055	1.11	246.3	RELLENO_ZANJA	1.862	36.49	7754.0
	ARENA_3	0.227	4.54	989.1				
4708.995	D TIERRA	2.349	20.83	9647.1	ARENA_1	0.122	1.10	561.8
	ARENA_2	0.055	0.50	246.8	RELLENO_ZANJA	1.928	17.04	7771.1
	ARENA_3	0.227	2.04	991.1				
4720.000	D TIERRA	2.060	24.26	9671.3	ARENA_1	0.122	1.35	563.2
	ARENA_2	0.055	0.61	247.4	RELLENO_ZANJA	1.639	19.63	7790.7
	ARENA_3	0.227	2.50	993.6				
4726.135	D TIERRA	2.025	12.53	9683.9	ARENA_1	0.122	0.75	563.9
	ARENA_2	0.055	0.34	247.7	RELLENO_ZANJA	1.604	9.95	7800.7
	ARENA_3	0.227	1.39	995.0				
4740.000	D TIERRA	2.018	28.03	9711.9	ARENA_1	0.122	1.70	565.6
	ARENA_2	0.055	0.77	248.5	RELLENO_ZANJA	1.597	22.19	7822.8
	ARENA_3	0.227	3.15	998.1				
4760.000	D TIERRA	2.062	40.80	9752.7	ARENA_1	0.122	2.45	568.1
	ARENA_2	0.055	1.11	249.6	RELLENO_ZANJA	1.641	32.38	7855.2
	ARENA_3	0.227	4.54	1002.7				
4780.000	D TIERRA	2.082	41.44	9794.1	ARENA_1	0.122	2.45	570.5
	ARENA_2	0.055	1.11	250.7	RELLENO_ZANJA	1.661	33.03	7888.3
	ARENA_3	0.227	4.54	1007.2				
4781.521	D TIERRA	2.019	3.12	9797.2	ARENA_1	0.122	0.19	570.7
	ARENA_2	0.055	0.08	250.8	RELLENO_ZANJA	1.598	2.48	7890.7
	ARENA_3	0.227	0.35	1007.6				



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PROYECTO : CIDACOS COMPLETO
EJE : 12: P430 (Pradejón) - P450 (Alcanadre)

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PROYECTO : CIDACOS COMPLETO
EJE : 12: P430 (Pradejón) - P450 (Alcanadre)

*** MEDICIONES DE LOS PERFILES TRANSVERSALES ***
*** CAPAS DE FIRME ***

*** MEDICIONES DE LOS PERFILES TRANSVERSALES ***
*** CAPAS DE FIRME ***

PERFIL	MATERIAL	AREA PERFIL	VOL. PARCIAL	VOL. ACUMUL.	MATERIAL	AREA PERFIL	VOL. PARCIAL	VOL. ACUMUL.
4800.000	D TIERRA	2.028	37.39	9834.6	ARENA_1	0.122	2.26	573.0
	ARENA_2	0.055	1.02	251.8	RELLENO_ZANJA	1.608	29.61	7920.3
	ARENA_3	0.227	4.19	1011.7				
4820.000	D TIERRA	2.116	41.44	9876.1	ARENA_1	0.122	2.45	575.4
	ARENA_2	0.055	1.11	252.9	RELLENO_ZANJA	1.695	33.02	7953.4
	ARENA_3	0.227	4.54	1016.3				
4834.487	D TIERRA	2.163	30.99	9907.1	ARENA_1	0.122	1.77	577.2
	ARENA_2	0.055	0.80	253.7	RELLENO_ZANJA	1.742	24.90	7978.3
	ARENA_3	0.227	3.29	1019.6				
4840.000	D TIERRA	2.133	11.84	9918.9	ARENA_1	0.122	0.67	577.9
	ARENA_2	0.055	0.31	254.0	RELLENO_ZANJA	1.712	9.52	7987.8
	ARENA_3	0.227	1.25	1020.8				
4850.642	D TIERRA	2.070	22.36	9941.3	ARENA_1	0.122	1.30	579.2
	ARENA_2	0.055	0.59	254.6	RELLENO_ZANJA	1.649	17.88	8005.7
	ARENA_3	0.227	2.41	1023.2				
4860.000	D TIERRA	2.018	19.13	9960.4	ARENA_1	0.122	1.15	580.3
	ARENA_2	0.055	0.52	255.1	RELLENO_ZANJA	1.597	15.19	8020.9
	ARENA_3	0.227	2.12	1025.4				
4874.928	D TIERRA	2.010	30.06	9990.5	ARENA_1	0.122	1.83	582.1
	ARENA_2	0.055	0.83	256.0	RELLENO_ZANJA	1.589	23.78	8044.6
	ARENA_3	0.227	3.39	1028.8				
4880.000	D TIERRA	2.002	10.17	10000.6	ARENA_1	0.122	0.62	582.8
	ARENA_2	0.055	0.28	256.3	RELLENO_ZANJA	1.581	8.04	8052.7
	ARENA_3	0.227	1.15	1029.9				
4900.000	D TIERRA	2.018	40.20	10040.8	ARENA_1	0.122	2.45	585.2
	ARENA_2	0.055	1.11	257.4	RELLENO_ZANJA	1.597	31.78	8084.5
	ARENA_3	0.227	4.54	1034.4				
4917.711	D TIERRA	2.259	37.88	10078.7	ARENA_1	0.122	2.17	587.4
	ARENA_2	0.055	0.98	258.3	RELLENO_ZANJA	1.839	30.42	8114.9
	ARENA_3	0.227	4.02	1038.5				
4920.000	D TIERRA	2.292	5.21	10083.9	ARENA_1	0.122	0.28	587.7
	ARENA_2	0.055	0.13	258.5	RELLENO_ZANJA	1.871	4.25	8119.1
	ARENA_3	0.227	0.52	1039.0				
4940.000	D TIERRA	2.491	47.83	10131.8	ARENA_1	0.122	2.45	590.1
	ARENA_2	0.055	1.11	259.6	RELLENO_ZANJA	2.071	39.41	8158.5
	ARENA_3	0.227	4.54	1043.5				
4960.000	D TIERRA	2.463	49.55	10181.3	ARENA_1	0.122	2.45	592.6
	ARENA_2	0.055	1.11	260.7	RELLENO_ZANJA	2.042	41.13	8199.7
	ARENA_3	0.227	4.54	1048.1				
4964.445	D TIERRA	2.457	10.94	10192.2	ARENA_1	0.122	0.54	593.1
	ARENA_2	0.055	0.25	260.9	RELLENO_ZANJA	2.036	9.07	8208.7
	ARENA_3	0.227	1.01	1049.1				
4980.000	D TIERRA	2.444	38.12	10230.4	ARENA_1	0.122	1.90	595.0
	ARENA_2	0.055	0.86	261.8	RELLENO_ZANJA	2.023	31.57	8240.3
	ARENA_3	0.227	3.53	1052.6				
4980.077	D TIERRA	2.444	0.19	10230.5	ARENA_1	0.122	0.01	595.0
	ARENA_2	0.055	0.00	261.8	RELLENO_ZANJA	2.023	0.16	8240.5
	ARENA_3	0.227	0.02	1052.6				
4992.165	D TIERRA	2.427	29.44	10260.0	ARENA_1	0.122	1.48	596.5
	ARENA_2	0.055	0.67	262.5	RELLENO_ZANJA	2.006	24.35	8264.8
	ARENA_3	0.227	2.74	1055.4				
5000.000	D TIERRA	2.416	18.97	10279.0	ARENA_1	0.122	0.96	597.5
	ARENA_2	0.055	0.43	262.9	RELLENO_ZANJA	1.995	15.67	8280.5
	ARENA_3	0.227	1.78	1057.1				
5017.785	D TIERRA	2.293	41.87	10320.8	ARENA_1	0.122	2.18	599.6
	ARENA_2	0.055	0.98	263.9	RELLENO_ZANJA	1.872	34.38	8314.9
	ARENA_3	0.227	4.04	1061.2				
5020.000	D TIERRA	2.265	5.05	10325.9	ARENA_1	0.122	0.27	599.9
	ARENA_2	0.055	0.12	264.0	RELLENO_ZANJA	1.844	4.12	8319.0
	ARENA_3	0.227	0.50	1061.7				

PERFIL	MATERIAL	AREA PERFIL	VOL. PARCIAL	VOL. ACUMUL.	MATERIAL	AREA PERFIL	VOL. PARCIAL	VOL. ACUMUL.
5040.000	D TIERRA	2.018	42.83	10368.7	ARENA_1	0.122	2.45	602.4
	ARENA_2	0.055	1.11	265.1	RELLENO_ZANJA	1.597	34.41	8353.4
	ARENA_3	0.227	4.54	1066.2				
5060.000	D TIERRA	2.427	44.45	10413.2	ARENA_1	0.122	2.45	604.8
	ARENA_2	0.055	1.11	266.2	RELLENO_ZANJA	2.006	36.03	8389.4
	ARENA_3	0.227	4.54	1070.7				
5078.283	D TIERRA	2.210	42.39	10455.5	ARENA_1	0.122	2.24	607.0
	ARENA_2	0.055	1.01	267.2	RELLENO_ZANJA	1.789	34.70	8424.1
	ARENA_3	0.227	4.15	1074.9				
5080.000	D TIERRA	2.105	3.70	10459.3	ARENA_1	0.122	0.21	607.3
	ARENA_2	0.055	0.09	267.3	RELLENO_ZANJA	1.684	2.98	8427.1
	ARENA_3	0.227	0.39	1075.3				
5100.000	D TIERRA	1.966	40.71	10500.0	ARENA_1	0.122	2.45	609.7
	ARENA_2	0.055	1.11	268.4	RELLENO_ZANJA	1.545	32.29	8459.4
	ARENA_3	0.227	4.54	1079.8				
5119.404	D TIERRA	2.021	38.69	10538.7	ARENA_1	0.122	2.38	612.1
	ARENA_2	0.055	1.07	269.5	RELLENO_ZANJA	1.600	30.52	8489.9
	ARENA_3	0.227	4.40	1084.2				
5120.000	D TIERRA	2.067	1.22	10539.9	ARENA_1	0.122	0.07	612.2
	ARENA_2	0.055	0.03	269.5	RELLENO_ZANJA	1.646	0.97	8490.9
	ARENA_3	0.227	0.14	1084.4				
5140.000	D TIERRA	2.538	46.05	10585.9	ARENA_1	0.122	2.45	614.6
	ARENA_2	0.055	1.11	270.6	RELLENO_ZANJA	2.117	37.63	8528.5
	ARENA_3	0.227	4.54	1088.9				
5146.747	D TIERRA	2.018	15.37	10601.3	ARENA_1	0.122	0.83	615.4
	ARENA_2	0.055	0.37	271.0	RELLENO_ZANJA	1.597	12.53	8541.0
	ARENA_3	0.227	1.53	1090.4				
5160.000	D TIERRA	2.003	26.65	10627.9	ARENA_1	0.122	1.62	617.0
	ARENA_2	0.055	0.73	271.7	RELLENO_ZANJA	1.582	21.07	8562.1
	ARENA_3	0.227	3.01	1093.4				
5180.000	D TIERRA	2.018	40.21	10668.1	ARENA_1	0.122	2.45	619.5
	ARENA_2	0.055	1.11	272.8	RELLENO_ZANJA	1.597	31.79	8593.9
	ARENA_3	0.227	4.54	1098.0				
5187.313	D TIERRA	2.019	14.76	10682.9	ARENA_1	0.122	0.90	620.4
	ARENA_2	0.055	0.40	273.3	RELLENO_ZANJA	1.598	11.68	8605.6
	ARENA_3	0.227	1.66	1099.6				
5200.000	D TIERRA	2.018	25.61	10708.5	ARENA_1	0.122	1.55	621.9
	ARENA_2	0.055	0.70	274.0	RELLENO_ZANJA	1.597	20.27	8625.9
	ARENA_3	0.227	2.88	1102.5				
5220.000	D TIERRA	2.018	40.36	10748.9	ARENA_1	0.122	2.45	624.4
	ARENA_2	0.055	1.11	275.1	RELLENO_ZANJA	1.597	31.94	8657.8
	ARENA_3	0.227	4.54	1107.0				
5240.000	D TIERRA	2.018	40.36	10789.2	ARENA_1	0.122	2.45	626.8
	ARENA_2	0.055	1.11	276.2	RELLENO_ZANJA	1.597	31.94	8689.7
	ARENA_3	0.227	4.54	1111.6				
5260.000	D TIERRA	2.018	40.35	10829.6	ARENA_1	0.122	2.45	629.3
	ARENA_2	0.055	1.11	277.3	RELLENO_ZANJA	1.597	31.93	8721.7
	ARENA_3	0.227	4.54	1116.1				
5280.000	D TIERRA	2.297	43.14	10872.7	ARENA_1	0.122	2.45	631.7
	ARENA_2	0.055	1.11	278.4	RELLENO_ZANJA	1.876	34.72	8756.4
	ARENA_3	0.227	4.54	1120.7				
5300.000	D TIERRA	2.592	48.88	10921.6	ARENA_1	0.122	2.45	634.2
	ARENA_2	0.055	1.11	279.5	RELLENO_ZANJA	2.171	40.46	8796.9
	ARENA_3	0.227	4.54	1125.2				
5320.000	D TIERRA	2.903	54.94	10976.6	ARENA_1	0.122	2.45	636.6
	ARENA_2	0.055	1.11	280.6	RELLENO_ZANJA	2.482	46.53	8843.4
	ARENA_3	0.227	4.54	1129.7				
5340.000	D TIERRA	3.114	60.16	11036.7	ARENA_1	0.122	2.45	639.1
	ARENA_2	0.055	1.11	281.7	RELLENO_ZANJA	2.693	51.74	8895.1
	ARENA_3	0.227	4.54	1134.3				

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 PROYECTO : CIDACOS COMPLETO
 EJE : 12: P430 (Pradejón) - P450 (Alcanadre)

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 PROYECTO : CIDACOS COMPLETO
 EJE : 12: P430 (Pradejón) - P450 (Alcanadre)

 * * * MEDICIONES DE LOS PERFILES TRANSVERSALES* * *
 * * * CAPAS DE FIRME * * *

 * * * MEDICIONES DE LOS PERFILES TRANSVERSALES* * *
 * * * CAPAS DE FIRME * * *

PERFIL	MATERIAL	AREA PERFIL	VOL. PARCIAL	VOL. ACUMUL.	MATERIAL	AREA PERFIL	VOL. PARCIAL	VOL. ACUMUL.	PERFIL	MATERIAL	AREA PERFIL	VOL. PARCIAL	VOL. ACUMUL.	MATERIAL	AREA PERFIL	VOL. PARCIAL	VOL. ACUMUL.
5360.000	D TIERRA	3.306	64.20	11100.9	ARENA_1	0.122	2.45	641.5	5600.000	D TIERRA	1.719	3.51	11653.1	ARENA_1	0.118	0.24	670.5
	ARENA_2	0.055	1.11	282.8	RELLENO_ZANJA	2.885	55.78	8950.9		ARENA_2	0.051	0.10	295.7	RELLENO_ZANJA	1.331	2.73	9405.4
	ARENA_3	0.227	4.54	1138.8						ARENA_3	0.202	0.41	1190.8				
5380.000	D TIERRA	2.505	58.11	11159.0	ARENA_1	0.122	2.45	644.0	5606.795	D TIERRA	1.748	11.78	11664.9	ARENA_1	0.118	0.80	671.3
	ARENA_2	0.055	1.11	283.9	RELLENO_ZANJA	2.084	49.69	9000.6		ARENA_2	0.051	0.35	296.0	RELLENO_ZANJA	1.359	9.14	9414.5
	ARENA_3	0.227	4.54	1143.3						ARENA_3	0.202	1.37	1192.2				
5400.000	D TIERRA	2.212	47.16	11206.2	ARENA_1	0.122	2.45	646.4	5620.000	D TIERRA	1.772	23.24	11688.2	ARENA_1	0.118	1.56	672.9
	ARENA_2	0.055	1.11	285.0	RELLENO_ZANJA	1.791	38.74	9039.3		ARENA_2	0.051	0.67	296.7	RELLENO_ZANJA	1.384	18.12	9432.7
	ARENA_3	0.227	4.54	1147.9						ARENA_3	0.202	2.67	1194.8				
5405.025	D TIERRA	2.163	10.99	11217.2	ARENA_1	0.122	0.62	647.0	5625.943	D TIERRA	1.784	10.57	11698.7	ARENA_1	0.118	0.70	673.6
	ARENA_2	0.055	0.28	285.3	RELLENO_ZANJA	1.742	8.88	9048.2		ARENA_2	0.051	0.30	297.0	RELLENO_ZANJA	1.396	8.26	9440.9
	ARENA_3	0.227	1.14	1149.0						ARENA_3	0.202	1.20	1196.0				
5420.000	D TIERRA	2.018	31.30	11248.5	ARENA_1	0.122	1.83	648.9	5640.000	D TIERRA	1.778	25.03	11723.8	ARENA_1	0.118	1.67	675.3
	ARENA_2	0.055	0.83	286.1	RELLENO_ZANJA	1.597	25.00	9073.2		ARENA_2	0.051	0.72	297.7	RELLENO_ZANJA	1.390	19.58	9460.5
	ARENA_3	0.227	3.40	1152.4						ARENA_3	0.202	2.84	1198.9				
5440.000	D TIERRA	2.018	40.35	11288.8	ARENA_1	0.122	2.45	651.3	5660.000	D TIERRA	1.770	35.48	11759.2	ARENA_1	0.118	2.37	677.6
	ARENA_2	0.055	1.11	287.2	RELLENO_ZANJA	1.597	31.94	9105.2		ARENA_2	0.051	1.02	298.7	RELLENO_ZANJA	1.382	27.72	9488.2
	ARENA_3	0.227	4.54	1157.0						ARENA_3	0.202	4.04	1202.9				
5460.000	D TIERRA	2.294	43.12	11332.0	ARENA_1	0.122	2.45	653.8	5665.550	D TIERRA	1.768	9.82	11769.1	ARENA_1	0.118	0.66	678.3
	ARENA_2	0.055	1.11	288.3	RELLENO_ZANJA	1.874	34.70	9139.9		ARENA_2	0.051	0.28	299.0	RELLENO_ZANJA	1.380	7.66	9495.9
	ARENA_3	0.227	4.54	1161.5						ARENA_3	0.202	1.12	1204.1				
5465.296	D TIERRA	2.370	12.35	11344.3	ARENA_1	0.122	0.65	654.4	5680.000	D TIERRA	1.807	25.83	11794.9	ARENA_1	0.118	1.71	680.0
	ARENA_2	0.055	0.29	288.6	RELLENO_ZANJA	1.949	10.12	9150.0		ARENA_2	0.051	0.74	299.7	RELLENO_ZANJA	1.419	20.23	9516.1
	ARENA_3	0.227	1.20	1162.7						ARENA_3	0.202	2.92	1207.0				
5480.000	D TIERRA	2.587	36.44	11380.7	ARENA_1	0.122	1.80	656.2	5694.703	D TIERRA	1.686	25.68	11820.6	ARENA_1	0.118	1.74	681.7
	ARENA_2	0.055	0.81	289.4	RELLENO_ZANJA	2.166	30.26	9180.2		ARENA_2	0.051	0.75	300.5	RELLENO_ZANJA	1.298	19.98	9536.1
	ARENA_3	0.227	3.34	1166.0						ARENA_3	0.202	2.97	1210.0				
5500.000	D TIERRA	2.895	54.82	11435.6	ARENA_1	0.122	2.45	658.7	5700.000	D TIERRA	1.855	9.38	11830.0	ARENA_1	0.118	0.63	682.4
	ARENA_2	0.055	1.11	290.5	RELLENO_ZANJA	2.474	46.40	9226.6		ARENA_2	0.051	0.27	300.8	RELLENO_ZANJA	1.467	7.32	9543.4
	ARENA_3	0.227	4.54	1170.6						ARENA_3	0.202	1.07	1211.0				
5500.000	D TIERRA	2.362	0.00	11435.6	ARENA_1	0.118	0.00	658.7	5720.000	D TIERRA	1.682	35.36	11865.3	ARENA_1	0.118	2.37	684.7
	ARENA_2	0.051	0.00	290.5	RELLENO_ZANJA	1.974	0.00	9226.6		ARENA_2	0.051	1.02	301.8	RELLENO_ZANJA	1.294	27.60	9571.0
	ARENA_3	0.202	0.00	1170.6						ARENA_3	0.202	4.05	1215.1				
5507.710	D TIERRA	2.456	18.57	11454.1	ARENA_1	0.118	0.91	659.6	5740.000	D TIERRA	1.660	33.42	11898.7	ARENA_1	0.118	2.37	687.1
	ARENA_2	0.051	0.39	290.9	RELLENO_ZANJA	2.068	15.58	9242.2		ARENA_2	0.051	1.02	302.8	RELLENO_ZANJA	1.272	25.66	9596.7
	ARENA_3	0.202	1.56	1172.1						ARENA_3	0.202	4.05	1219.1				
5520.000	D TIERRA	2.608	31.12	11485.3	ARENA_1	0.118	1.46	661.0	5760.000	D TIERRA	1.635	32.95	11931.7	ARENA_1	0.118	2.37	689.5
	ARENA_2	0.051	0.63	291.6	RELLENO_ZANJA	2.220	26.35	9268.6		ARENA_2	0.051	1.02	303.8	RELLENO_ZANJA	1.247	25.19	9621.9
	ARENA_3	0.202	2.49	1174.6						ARENA_3	0.202	4.05	1223.2				
5540.000	D TIERRA	2.289	48.97	11534.2	ARENA_1	0.118	2.37	663.4	5780.000	D TIERRA	1.604	32.38	11964.1	ARENA_1	0.118	2.37	691.8
	ARENA_2	0.051	1.02	292.6	RELLENO_ZANJA	1.901	41.21	9309.8		ARENA_2	0.051	1.02	304.9	RELLENO_ZANJA	1.216	24.62	9646.5
	ARENA_3	0.202	4.05	1178.7						ARENA_3	0.202	4.04	1227.2				
5542.158	D TIERRA	2.260	4.91	11539.1	ARENA_1	0.118	0.26	663.7	5796.565	D TIERRA	1.641	26.88	11990.9	ARENA_1	0.118	1.96	693.8
	ARENA_2	0.051	0.11	292.7	RELLENO_ZANJA	1.872	4.07	9313.9		ARENA_2	0.051	0.85	305.7	RELLENO_ZANJA	1.253	20.45	9666.9
	ARENA_3	0.202	0.44	1179.1						ARENA_3	0.202	3.35	1230.6				
5560.000	D TIERRA	2.041	38.37	11577.5	ARENA_1	0.118	2.11	665.8	5800.000	D TIERRA	1.651	5.65	11996.6	ARENA_1	0.118	0.41	694.2
	ARENA_2	0.051	0.91	293.6	RELLENO_ZANJA	1.653	31.45	9345.3		ARENA_2	0.051	0.18	305.9	RELLENO_ZANJA	1.263	4.32	9671.3
	ARENA_3	0.202	3.61	1182.7						ARENA_3	0.202	0.69	1231.2				
5560.684	D TIERRA	2.036	1.39	11578.9	ARENA_1	0.118	0.08	665.9	5820.000	D TIERRA	1.686	33.37	12030.0	ARENA_1	0.118	2.37	696.6
	ARENA_2	0.051	0.03	293.6	RELLENO_ZANJA	1.648	1.13	9346.4		ARENA_2	0.051	1.02	306.9	RELLENO_ZANJA	1.298	25.61	9696.9
	ARENA_3	0.202	0.14	1182.8						ARENA_3	0.202	4.04	1235.3				
5580.000	D TIERRA	1.894	37.95	11616.9	ARENA_1	0.118	2.29	668.1	5840.000	D TIERRA	1.664	33.50	12063.5	ARENA_1	0.118	2.37	698.9
	ARENA_2	0.051	0.99	294.6	RELLENO_ZANJA	1.506	30.46	9376.9		ARENA_2	0.051	1.02	307.9	RELLENO_ZANJA	1.276	25.74	9722.6
	ARENA_3	0.202	3.91	1186.8						ARENA_3	0.202	4.04	1239.3				
5588.014	D TIERRA	1.837	14.95	11631.8	ARENA_1	0.118	0.95	669.1	5860.000	D TIERRA	1.748	34.12	12097.6	ARENA_1	0.118	2.37	701.3
	ARENA_2	0.051	0.41	295.0	RELLENO_ZANJA	1.449	11.84	9388.7		ARENA_2	0.051	1.02	308.9	RELLENO_ZANJA	1.360	26.36	9749.0
	ARENA_3	0.202	1.62	1188.4						ARENA_3	0.202	4.05	1243.4				
5597.971	D TIERRA	1.743	17.82	11649.6	ARENA_1	0.118	1.18	670.3	5880.000	D TIERRA	1.834	35.82	12133.4	ARENA_1	0.118	2.37	703.7
	ARENA_2	0.051	0.51	295.6	RELLENO_ZANJA	1.355	13.96	9402.7		ARENA_2	0.051	1.02	310.0	RELLENO_ZANJA	1.446	28.06	9777.0
	ARENA_3	0.202	2.01	1190.4						ARENA_3	0.202	4.05	1247.4				



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PROYECTO : CIDACOS COMPLETO
EJE : 12: P430 (Pradejón) - P450 (Alcanadre)

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PROYECTO : CIDACOS COMPLETO
EJE : 12: P430 (Pradejón) - P450 (Alcanadre)

MEDICIONES DE LOS PERFILES TRANSVERSALES
CAPAS DE FIRME

MEDICIONES DE LOS PERFILES TRANSVERSALES
CAPAS DE FIRME

Table with 9 columns: PERFIL, MATERIAL, AREA PERFIL, VOL. PARCIAL, VOL. ACUMUL., MATERIAL, AREA PERFIL, VOL. PARCIAL, VOL. ACUMUL. It lists data for profiles 5894.404 through 6180.000.

Table with 9 columns: PERFIL, MATERIAL, AREA PERFIL, VOL. PARCIAL, VOL. ACUMUL., MATERIAL, AREA PERFIL, VOL. PARCIAL, VOL. ACUMUL. It lists data for profiles 6200.000 through 6520.000.



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PROYECTO : CIDACOS COMPLETO
EJE : 12: P430 (Pradejón) - P450 (Alcanadre)

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PROYECTO : CIDACOS COMPLETO
EJE : 12: P430 (Pradejón) - P450 (Alcanadre)

*** MEDICIONES DE LOS PERFILES TRANSVERSALES***
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PERFIL	MATERIAL	AREA PERFIL	VOL. PARCIAL	VOL. ACUMUL.	MATERIAL	AREA PERFIL	VOL. PARCIAL	VOL. ACUMUL.
6535.743	D TIERRA	1.686	26.86	13238.6	ARENA_1	0.118	1.86	781.3
	ARENA_2	0.051	0.80	343.5	RELLENO_ZANJA	1.298	20.75	10627.7
	ARENA_3	0.202	3.18	1380.1				
6540.000	D TIERRA	1.668	7.14	13245.7	ARENA_1	0.118	0.50	781.9
	ARENA_2	0.051	0.22	343.7	RELLENO_ZANJA	1.280	5.49	10633.2
	ARENA_3	0.202	0.86	1380.9				
6560.000	D TIERRA	1.714	33.82	13279.6	ARENA_1	0.118	2.37	784.2
	ARENA_2	0.051	1.02	344.7	RELLENO_ZANJA	1.326	26.06	10659.3
	ARENA_3	0.202	4.04	1385.0				
6580.000	D TIERRA	1.761	34.75	13314.3	ARENA_1	0.118	2.37	786.6
	ARENA_2	0.051	1.02	345.7	RELLENO_ZANJA	1.373	26.99	10686.3
	ARENA_3	0.202	4.04	1389.0				
6584.347	D TIERRA	1.771	7.68	13322.0	ARENA_1	0.118	0.51	787.1
	ARENA_2	0.051	0.22	345.9	RELLENO_ZANJA	1.383	5.99	10692.3
	ARENA_3	0.202	0.88	1389.9				
6600.000	D TIERRA	1.686	27.06	13349.1	ARENA_1	0.118	1.85	789.0
	ARENA_2	0.051	0.80	346.7	RELLENO_ZANJA	1.298	20.98	10713.3
	ARENA_3	0.202	3.17	1393.1				
6617.805	D TIERRA	1.685	30.01	13379.1	ARENA_1	0.118	2.11	791.1
	ARENA_2	0.051	0.91	347.7	RELLENO_ZANJA	1.297	23.10	10736.4
	ARENA_3	0.202	3.60	1396.7				
6620.000	D TIERRA	1.685	3.70	13382.8	ARENA_1	0.118	0.26	791.3
	ARENA_2	0.051	0.11	347.8	RELLENO_ZANJA	1.297	2.85	10739.2
	ARENA_3	0.202	0.44	1397.1				
6640.000	D TIERRA	1.684	33.69	13416.5	ARENA_1	0.118	2.37	793.7
	ARENA_2	0.051	1.02	348.8	RELLENO_ZANJA	1.296	25.93	10765.1
	ARENA_3	0.202	4.04	1401.1				
6660.000	D TIERRA	1.686	33.70	13450.2	ARENA_1	0.118	2.37	796.1
	ARENA_2	0.051	1.02	349.8	RELLENO_ZANJA	1.298	25.94	10791.1
	ARENA_3	0.202	4.04	1405.2				
6680.000	D TIERRA	1.651	33.37	13483.5	ARENA_1	0.118	2.37	798.4
	ARENA_2	0.051	1.02	350.8	RELLENO_ZANJA	1.263	25.61	10816.7
	ARENA_3	0.202	4.04	1409.2				
6683.005	D TIERRA	1.609	4.90	13488.4	ARENA_1	0.118	0.36	798.8
	ARENA_2	0.051	0.15	351.0	RELLENO_ZANJA	1.221	3.73	10820.4
	ARENA_3	0.202	0.61	1409.8				
6700.000	D TIERRA	1.588	27.16	13515.6	ARENA_1	0.118	2.01	800.8
	ARENA_2	0.051	0.87	351.8	RELLENO_ZANJA	1.200	20.57	10841.0
	ARENA_3	0.202	3.44	1413.3				
6720.000	D TIERRA	1.705	32.93	13548.5	ARENA_1	0.118	2.37	803.2
	ARENA_2	0.051	1.02	352.9	RELLENO_ZANJA	1.317	25.17	10866.2
	ARENA_3	0.202	4.04	1417.3				
6740.000	D TIERRA	2.055	37.59	13586.1	ARENA_1	0.118	2.37	805.5
	ARENA_2	0.051	1.02	353.9	RELLENO_ZANJA	1.667	29.83	10896.0
	ARENA_3	0.202	4.04	1421.4				
6760.000	D TIERRA	1.803	38.57	13624.7	ARENA_1	0.118	2.37	807.9
	ARENA_2	0.051	1.02	354.9	RELLENO_ZANJA	1.415	30.81	10926.8
	ARENA_3	0.202	4.05	1425.4				
6780.000	D TIERRA	1.738	35.40	13660.1	ARENA_1	0.118	2.37	810.3
	ARENA_2	0.051	1.02	355.9	RELLENO_ZANJA	1.350	27.64	10954.4
	ARENA_3	0.202	4.05	1429.5				
6791.071	D TIERRA	1.686	18.95	13679.0	ARENA_1	0.118	1.31	811.6
	ARENA_2	0.051	0.57	356.5	RELLENO_ZANJA	1.298	14.66	10969.1
	ARENA_3	0.202	2.24	1431.7				
6800.000	D TIERRA	1.674	15.00	13694.0	ARENA_1	0.118	1.06	812.6
	ARENA_2	0.051	0.46	357.0	RELLENO_ZANJA	1.286	11.54	10980.6
	ARENA_3	0.202	1.81	1433.5				
6820.000	D TIERRA	1.671	33.45	13727.5	ARENA_1	0.118	2.37	815.0
	ARENA_2	0.051	1.02	358.0	RELLENO_ZANJA	1.283	25.69	11006.3
	ARENA_3	0.202	4.05	1437.5				

PERFIL	MATERIAL	AREA PERFIL	VOL. PARCIAL	VOL. ACUMUL.	MATERIAL	AREA PERFIL	VOL. PARCIAL	VOL. ACUMUL.
6840.000	D TIERRA	1.841	35.12	13762.6	ARENA_1	0.118	2.37	817.4
	ARENA_2	0.051	1.02	359.0	RELLENO_ZANJA	1.453	27.36	11033.7
	ARENA_3	0.202	4.05	1441.6				
6860.000	D TIERRA	2.363	42.04	13804.7	ARENA_1	0.118	2.37	819.8
	ARENA_2	0.051	1.02	360.0	RELLENO_ZANJA	1.975	34.28	11068.0
	ARENA_3	0.202	4.05	1445.6				
6866.819	D TIERRA	2.547	16.74	13821.4	ARENA_1	0.118	0.81	820.6
	ARENA_2	0.051	0.35	360.4	RELLENO_ZANJA	2.159	14.09	11082.1
	ARENA_3	0.202	1.38	1447.0				
6875.573	D TIERRA	2.515	22.16	13843.6	ARENA_1	0.118	1.04	821.6
	ARENA_2	0.051	0.45	360.8	RELLENO_ZANJA	2.127	18.76	11100.8
	ARENA_3	0.202	1.77	1448.8				
6880.000	D TIERRA	2.345	10.76	13854.3	ARENA_1	0.118	0.52	822.1
	ARENA_2	0.051	0.23	361.0	RELLENO_ZANJA	1.957	9.04	11109.9
	ARENA_3	0.202	0.90	1449.7				
6900.000	D TIERRA	1.973	43.18	13897.5	ARENA_1	0.118	2.37	824.5
	ARENA_2	0.051	1.02	362.1	RELLENO_ZANJA	1.585	35.41	11145.3
	ARENA_3	0.202	4.05	1453.7				
6920.000	D TIERRA	1.961	39.34	13936.8	ARENA_1	0.118	2.37	826.9
	ARENA_2	0.051	1.02	363.1	RELLENO_ZANJA	1.573	31.58	11176.9
	ARENA_3	0.202	4.05	1457.8				
6940.000	D TIERRA	1.920	38.81	13975.6	ARENA_1	0.118	2.37	829.2
	ARENA_2	0.051	1.02	364.1	RELLENO_ZANJA	1.532	31.05	11207.9
	ARENA_3	0.202	4.05	1461.8				
6944.597	D TIERRA	1.913	8.81	13984.4	ARENA_1	0.118	0.54	829.8
	ARENA_2	0.051	0.23	364.3	RELLENO_ZANJA	1.525	7.03	11214.9
	ARENA_3	0.202	0.93	1462.7				
6960.000	D TIERRA	1.895	29.33	14013.8	ARENA_1	0.118	1.82	831.6
	ARENA_2	0.051	0.79	365.1	RELLENO_ZANJA	1.507	23.35	11238.3
	ARENA_3	0.202	3.12	1465.9				
6976.026	D TIERRA	1.839	29.92	14043.7	ARENA_1	0.118	1.90	833.5
	ARENA_2	0.051	0.82	365.9	RELLENO_ZANJA	1.451	23.70	11262.0
	ARENA_3	0.202	3.24	1469.1				
6980.000	D TIERRA	1.838	7.31	14051.0	ARENA_1	0.118	0.47	834.0
	ARENA_2	0.051	0.20	366.2	RELLENO_ZANJA	1.450	5.77	11267.7
	ARENA_3	0.202	0.80	1469.9				
7000.000	D TIERRA	1.831	36.70	14087.7	ARENA_1	0.118	2.37	836.3
	ARENA_2	0.051	1.02	367.2	RELLENO_ZANJA	1.443	28.94	11296.7
	ARENA_3	0.202	4.05	1474.0				
7020.000	D TIERRA	1.831	36.63	14124.3	ARENA_1	0.118	2.37	838.7
	ARENA_2	0.051	1.02	368.2	RELLENO_ZANJA	1.443	28.86	11325.5
	ARENA_3	0.202	4.05	1478.0				
7028.426	D TIERRA	1.876	15.62	14139.9	ARENA_1	0.118	1.00	839.7
	ARENA_2	0.051	0.43	368.6	RELLENO_ZANJA	1.488	12.35	11337.9
	ARENA_3	0.202	1.70	1479.7				
7040.000	D TIERRA	1.731	20.88	14160.8	ARENA_1	0.118	1.37	841.1
	ARENA_2	0.051	0.59	369.2	RELLENO_ZANJA	1.343	16.38	11354.3
	ARENA_3	0.202	2.34	1482.0				
7040.857	D TIERRA	1.715	1.48	14162.3	ARENA_1	0.118	0.10	841.2
	ARENA_2	0.051	0.04	369.3	RELLENO_ZANJA	1.327	1.14	11355.4
	ARENA_3	0.202	0.17	1482.2				
7051.616	D TIERRA	1.694	18.34	14180.6	ARENA_1	0.118	1.27	842.4
	ARENA_2	0.051	0.55	369.8	RELLENO_ZANJA	1.306	14.17	11369.6
	ARENA_3	0.202	2.18	1484.4				
7060.000	D TIERRA	1.696	14.21	14194.9	ARENA_1	0.118	0.99	843.4
	ARENA_2	0.051	0.43	370.2	RELLENO_ZANJA	1.308	10.96	11380.6
	ARENA_3	0.202	1.70	1486.1				
7080.000	D TIERRA	1.700	33.95	14228.8	ARENA_1	0.118	2.37	845.8
	ARENA_2	0.051	1.02	371.3	RELLENO_ZANJA	1.312	26.19	11406.7
	ARENA_3	0.202	4.05	1490.1				



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PROYECTO : CIDACOS COMPLETO
EJE : 12: P430 (Pradejón) - P450 (Alcanadre)

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PROYECTO : CIDACOS COMPLETO
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*** CAPAS DE FIRME ***

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PERFIL	MATERIAL	AREA PERFIL	VOL. PARCIAL	VOL. ACUMUL.	MATERIAL	AREA PERFIL	VOL. PARCIAL	VOL. ACUMUL.	PERFIL	MATERIAL	AREA PERFIL	VOL. PARCIAL	VOL. ACUMUL.	MATERIAL	AREA PERFIL	VOL. PARCIAL	VOL. ACUMUL.
7090.713	D TIERRA	1.702	18.22	14247.0	ARENA_1	0.118	1.27	847.1	7384.908	D TIERRA	0.000	0.00	14746.4	ARENA_1	0.000	0.00	881.9
	ARENA_2	0.051	0.55	371.8	RELLENO_ZANJA	1.314	14.06	11420.8		ARENA_2	0.000	0.00	386.8	RELLENO_ZANJA	0.000	0.00	11806.0
	ARENA_3	0.202	2.17	1492.3						ARENA_3	0.000	0.00	1551.8				
7100.000	D TIERRA	1.756	16.06	14263.1	ARENA_1	0.118	1.10	848.2	7400.000	D TIERRA	0.000	0.00	14746.4	ARENA_1	0.000	0.00	881.9
	ARENA_2	0.051	0.47	372.3	RELLENO_ZANJA	1.368	12.45	11433.3		ARENA_2	0.000	0.00	386.8	RELLENO_ZANJA	0.000	0.00	11806.0
	ARENA_3	0.202	1.88	1494.2						ARENA_3	0.000	0.00	1551.8				
7120.000	D TIERRA	1.686	34.42	14297.5	ARENA_1	0.118	2.37	850.5	7420.000	D TIERRA	0.000	0.00	14746.4	ARENA_1	0.000	0.00	881.9
	ARENA_2	0.051	1.02	373.3	RELLENO_ZANJA	1.298	26.66	11459.9		ARENA_2	0.000	0.00	386.8	RELLENO_ZANJA	0.000	0.00	11806.0
	ARENA_3	0.202	4.05	1498.2						ARENA_3	0.000	0.00	1551.8				
7140.000	D TIERRA	1.686	33.72	14331.2	ARENA_1	0.118	2.37	852.9	7440.000	D TIERRA	0.000	0.00	14746.4	ARENA_1	0.000	0.00	881.9
	ARENA_2	0.051	1.02	374.3	RELLENO_ZANJA	1.298	25.96	11485.9		ARENA_2	0.000	0.00	386.8	RELLENO_ZANJA	0.000	0.00	11806.0
	ARENA_3	0.202	4.05	1502.3						ARENA_3	0.000	0.00	1551.8				
7151.297	D TIERRA	1.686	19.05	14350.3	ARENA_1	0.118	1.34	854.3	7454.996	D TIERRA	0.000	0.00	14746.4	ARENA_1	0.000	0.00	881.9
	ARENA_2	0.051	0.58	374.9	RELLENO_ZANJA	1.298	14.67	11500.5		ARENA_2	0.000	0.00	386.8	RELLENO_ZANJA	0.000	0.00	11806.0
	ARENA_3	0.202	2.28	1504.6						ARENA_3	0.000	0.00	1551.8				
7160.000	D TIERRA	1.684	14.67	14364.9	ARENA_1	0.118	1.03	855.3	7454.996	D TIERRA	1.633	0.00	14746.4	ARENA_1	0.118	0.00	881.9
	ARENA_2	0.051	0.44	375.3	RELLENO_ZANJA	1.296	11.29	11511.8		ARENA_2	0.051	0.00	386.8	RELLENO_ZANJA	1.245	0.00	11806.0
	ARENA_3	0.202	1.76	1506.3						ARENA_3	0.202	0.00	1551.8				
7180.000	D TIERRA	1.679	33.63	14398.6	ARENA_1	0.118	2.37	857.7	7460.000	D TIERRA	1.834	8.67	14755.1	ARENA_1	0.118	0.59	882.5
	ARENA_2	0.051	1.02	376.4	RELLENO_ZANJA	1.291	25.87	11537.7		ARENA_2	0.051	0.26	387.1	RELLENO_ZANJA	1.446	6.73	11812.8
	ARENA_3	0.202	4.05	1510.4						ARENA_3	0.202	1.01	1552.8				
7200.000	D TIERRA	1.680	33.59	14432.2	ARENA_1	0.118	2.37	860.0	7469.745	D TIERRA	1.686	17.15	14772.2	ARENA_1	0.118	1.15	883.7
	ARENA_2	0.051	1.02	377.4	RELLENO_ZANJA	1.292	25.83	11563.5		ARENA_2	0.051	0.50	387.6	RELLENO_ZANJA	1.298	13.37	11826.1
	ARENA_3	0.202	4.05	1514.4						ARENA_3	0.202	1.97	1554.8				
7220.000	D TIERRA	1.681	33.61	14465.8	ARENA_1	0.118	2.37	862.4	7480.000	D TIERRA	1.686	17.29	14789.5	ARENA_1	0.118	1.21	884.9
	ARENA_2	0.051	1.02	378.4	RELLENO_ZANJA	1.293	25.85	11589.4		ARENA_2	0.051	0.52	388.1	RELLENO_ZANJA	1.298	13.31	11839.4
	ARENA_3	0.202	4.05	1518.4						ARENA_3	0.202	2.07	1556.9				
7238.594	D TIERRA	1.686	31.31	14497.1	ARENA_1	0.118	2.20	864.6	7500.000	D TIERRA	1.685	33.71	14823.2	ARENA_1	0.118	2.37	887.3
	ARENA_2	0.051	0.95	379.4	RELLENO_ZANJA	1.298	24.09	11613.5		ARENA_2	0.051	1.02	389.1	RELLENO_ZANJA	1.297	25.95	11865.4
	ARENA_3	0.202	3.76	1522.2						ARENA_3	0.202	4.05	1560.9				
7240.000	D TIERRA	1.709	2.39	14499.5	ARENA_1	0.118	0.17	864.8	7520.000	D TIERRA	1.685	33.70	14856.9	ARENA_1	0.118	2.37	889.6
	ARENA_2	0.051	0.07	379.4	RELLENO_ZANJA	1.321	1.84	11615.3		ARENA_2	0.051	1.02	390.2	RELLENO_ZANJA	1.297	25.94	11891.3
	ARENA_3	0.202	0.28	1522.5						ARENA_3	0.202	4.04	1564.9				
7260.000	D TIERRA	1.686	33.95	14533.4	ARENA_1	0.118	2.37	867.1	7530.927	D TIERRA	1.685	18.41	14875.3	ARENA_1	0.118	1.29	890.9
	ARENA_2	0.051	1.02	380.5	RELLENO_ZANJA	1.298	26.19	11641.5		ARENA_2	0.051	0.56	390.7	RELLENO_ZANJA	1.297	14.17	11905.5
	ARENA_3	0.202	4.04	1526.5						ARENA_3	0.202	2.21	1567.2				
7280.000	D TIERRA	1.670	33.56	14567.0	ARENA_1	0.118	2.37	869.5	7540.000	D TIERRA	1.685	15.29	14890.6	ARENA_1	0.118	1.07	892.0
	ARENA_2	0.051	1.02	381.5	RELLENO_ZANJA	1.282	25.80	11667.3		ARENA_2	0.051	0.46	391.2	RELLENO_ZANJA	1.297	11.77	11917.3
	ARENA_3	0.202	4.04	1530.6						ARENA_3	0.202	1.84	1569.0				
7300.000	D TIERRA	1.687	33.57	14600.5	ARENA_1	0.118	2.37	871.9	7560.000	D TIERRA	1.686	33.71	14924.3	ARENA_1	0.118	2.37	894.4
	ARENA_2	0.051	1.02	382.5	RELLENO_ZANJA	1.298	25.81	11693.1		ARENA_2	0.051	1.02	392.2	RELLENO_ZANJA	1.298	25.95	11943.2
	ARENA_3	0.202	4.05	1534.6						ARENA_3	0.202	4.05	1573.0				
7320.000	D TIERRA	1.641	33.27	14633.8	ARENA_1	0.118	2.37	874.2	7580.000	D TIERRA	1.709	33.95	14958.3	ARENA_1	0.118	2.37	896.7
	ARENA_2	0.051	1.02	383.5	RELLENO_ZANJA	1.253	25.51	11718.6		ARENA_2	0.051	1.02	393.2	RELLENO_ZANJA	1.321	26.19	11969.4
	ARENA_3	0.202	4.05	1538.7						ARENA_3	0.202	4.05	1577.1				
7340.000	D TIERRA	1.669	33.10	14666.9	ARENA_1	0.118	2.37	876.6	7600.000	D TIERRA	1.687	33.96	14992.3	ARENA_1	0.118	2.37	899.1
	ARENA_2	0.051	1.02	384.5	RELLENO_ZANJA	1.281	25.34	11744.0		ARENA_2	0.051	1.02	394.2	RELLENO_ZANJA	1.299	26.20	11995.6
	ARENA_3	0.202	4.05	1542.7						ARENA_3	0.202	4.05	1581.1				
7360.000	D TIERRA	1.687	33.56	14700.5	ARENA_1	0.118	2.37	879.0	7620.000	D TIERRA	1.657	33.44	15025.7	ARENA_1	0.118	2.37	901.5
	ARENA_2	0.051	1.02	385.6	RELLENO_ZANJA	1.299	25.80	11769.8		ARENA_2	0.051	1.02	395.3	RELLENO_ZANJA	1.269	25.68	12021.3
	ARENA_3	0.202	4.05	1546.8						ARENA_3	0.202	4.05	1585.2				
7367.642	D TIERRA	1.782	13.26	14713.7	ARENA_1	0.118	0.91	879.9	7640.000	D TIERRA	1.686	33.43	15059.1	ARENA_1	0.118	2.37	903.8
	ARENA_2	0.051	0.39	386.0	RELLENO_ZANJA	1.394	10.29	11780.1		ARENA_2	0.051	1.02	396.3	RELLENO_ZANJA	1.298	25.67	12047.0
	ARENA_3	0.202	1.55	1548.3						ARENA_3	0.202	4.05	1589.2				
7380.000	D TIERRA	1.686	21.43	14735.2	ARENA_1	0.118	1.46	881.3	7645.821	D TIERRA	1.692	9.83	15069.0	ARENA_1	0.118	0.69	904.5
	ARENA_2	0.051	0.63	386.6	RELLENO_ZANJA	1.298	16.63	11796.7		ARENA_2	0.051	0.30	396.6	RELLENO_ZANJA	1.304	7.57	12054.5
	ARENA_3	0.202	2.50	1550.8						ARENA_3	0.202	1.18	1590.4				
7384.908	D TIERRA	2.897	11.25	14746.4	ARENA_1	0.118	0.58	881.9	7660.000	D TIERRA	1.704	24.07	15093.0	ARENA_1	0.118	1.68	906.2
	ARENA_2	0.051	0.25	386.8	RELLENO_ZANJA	2.509	9.34	11806.0		ARENA_2	0.051	0.72	397.3	RELLENO_ZANJA	1.316	18.57	12073.1
	ARENA_3	0.202	0.99	1551.8						ARENA_3	0.202	2.87	1593.3				

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 PROYECTO : CIDACOS COMPLETO
 EJE : 12: P430 (Pradejón) - P450 (Alcanadre)

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 PROYECTO : CIDACOS COMPLETO
 EJE : 12: P430 (Pradejón) - P450 (Alcanadre)

 * * * MEDICIONES DE LOS PERFILES TRANSVERSALES* * *
 * * * CAPAS DE FIRME * * *

 * * * MEDICIONES DE LOS PERFILES TRANSVERSALES* * *
 * * * CAPAS DE FIRME * * *

PERFIL	MATERIAL	AREA PERFIL	VOL. PARCIAL	VOL. ACUMUL.	MATERIAL	AREA PERFIL	VOL. PARCIAL	VOL. ACUMUL.	PERFIL	MATERIAL	AREA PERFIL	VOL. PARCIAL	VOL. ACUMUL.	MATERIAL	AREA PERFIL	VOL. PARCIAL	VOL. ACUMUL.
7669.824	D TIERRA	1.712	16.78	15109.8	ARENA_1	0.118	1.16	907.4	8000.000	D TIERRA	1.726	34.28	15667.4	ARENA_1	0.118	2.37	946.5
	ARENA_2	0.051	0.50	397.8	RELLENO_ZANJA	1.324	12.97	12086.1		ARENA_2	0.051	1.02	414.7	RELLENO_ZANJA	1.338	26.52	12515.5
	ARENA_3	0.202	1.99	1595.2						ARENA_3	0.202	4.05	1662.0				
7680.000	D TIERRA	1.722	17.47	15127.3	ARENA_1	0.118	1.21	908.6	8020.000	D TIERRA	1.702	34.27	15701.6	ARENA_1	0.118	2.37	948.8
	ARENA_2	0.051	0.52	398.3	RELLENO_ZANJA	1.334	13.52	12099.6		ARENA_2	0.051	1.02	415.7	RELLENO_ZANJA	1.314	26.51	12542.0
	ARENA_3	0.202	2.06	1597.3						ARENA_3	0.202	4.05	1666.1				
7682.286	D TIERRA	1.724	3.94	15131.2	ARENA_1	0.118	0.27	908.8	8040.000	D TIERRA	1.662	33.64	15735.3	ARENA_1	0.118	2.37	951.2
	ARENA_2	0.051	0.12	398.4	RELLENO_ZANJA	1.336	3.05	12102.6		ARENA_2	0.051	1.02	416.7	RELLENO_ZANJA	1.274	25.87	12567.9
	ARENA_3	0.202	0.46	1597.8						ARENA_3	0.202	4.05	1670.1				
7700.000	D TIERRA	1.742	30.70	15161.9	ARENA_1	0.118	2.10	910.9	8060.000	D TIERRA	1.632	32.93	15768.2	ARENA_1	0.118	2.37	953.6
	ARENA_2	0.051	0.90	399.4	RELLENO_ZANJA	1.354	23.82	12126.5		ARENA_2	0.051	1.02	417.7	RELLENO_ZANJA	1.244	25.17	12593.0
	ARENA_3	0.202	3.58	1601.3						ARENA_3	0.202	4.05	1674.2				
7720.000	D TIERRA	1.686	34.28	15196.2	ARENA_1	0.118	2.37	913.3	8080.000	D TIERRA	1.648	32.80	15801.0	ARENA_1	0.118	2.37	956.0
	ARENA_2	0.051	1.02	400.4	RELLENO_ZANJA	1.298	26.52	12153.0		ARENA_2	0.051	1.02	418.8	RELLENO_ZANJA	1.260	25.04	12618.1
	ARENA_3	0.202	4.04	1605.4						ARENA_3	0.202	4.05	1678.2				
7740.000	D TIERRA	1.665	33.51	15229.7	ARENA_1	0.118	2.37	915.7	8100.000	D TIERRA	1.672	33.20	15834.2	ARENA_1	0.118	2.37	958.3
	ARENA_2	0.051	1.02	401.4	RELLENO_ZANJA	1.277	25.75	12178.7		ARENA_2	0.051	1.02	419.8	RELLENO_ZANJA	1.284	25.43	12643.5
	ARENA_3	0.202	4.04	1609.4						ARENA_3	0.202	4.05	1682.3				
7760.000	D TIERRA	1.644	33.10	15262.8	ARENA_1	0.118	2.37	918.1	8120.000	D TIERRA	1.686	33.58	15867.8	ARENA_1	0.118	2.37	960.7
	ARENA_2	0.051	1.02	402.4	RELLENO_ZANJA	1.256	25.33	12204.1		ARENA_2	0.051	1.02	420.8	RELLENO_ZANJA	1.298	25.81	12669.3
	ARENA_3	0.202	4.04	1613.5						ARENA_3	0.202	4.05	1686.3				
7780.000	D TIERRA	1.624	32.68	15295.5	ARENA_1	0.118	2.37	920.4	8140.000	D TIERRA	1.729	34.15	15901.9	ARENA_1	0.118	2.37	963.1
	ARENA_2	0.051	1.02	403.4	RELLENO_ZANJA	1.236	24.92	12229.0		ARENA_2	0.051	1.02	421.8	RELLENO_ZANJA	1.341	26.39	12695.7
	ARENA_3	0.202	4.04	1617.5						ARENA_3	0.202	4.05	1690.3				
7800.000	D TIERRA	1.603	32.27	15327.8	ARENA_1	0.118	2.37	922.8	8160.000	D TIERRA	1.686	34.15	15936.1	ARENA_1	0.118	2.37	965.4
	ARENA_2	0.051	1.02	404.5	RELLENO_ZANJA	1.215	24.51	12253.5		ARENA_2	0.051	1.02	422.9	RELLENO_ZANJA	1.298	26.39	12722.1
	ARENA_3	0.202	4.04	1621.6						ARENA_3	0.202	4.05	1694.4				
7820.000	D TIERRA	1.632	32.36	15360.1	ARENA_1	0.118	2.37	925.2	8180.000	D TIERRA	1.674	33.60	15969.7	ARENA_1	0.118	2.37	967.8
	ARENA_2	0.051	1.02	405.5	RELLENO_ZANJA	1.244	24.59	12278.1		ARENA_2	0.051	1.02	423.9	RELLENO_ZANJA	1.286	25.84	12748.0
	ARENA_3	0.202	4.04	1625.6						ARENA_3	0.202	4.04	1698.4				
7840.000	D TIERRA	1.690	33.22	15393.3	ARENA_1	0.118	2.37	927.5	8193.335	D TIERRA	1.682	22.37	15992.1	ARENA_1	0.118	1.58	969.4
	ARENA_2	0.051	1.02	406.5	RELLENO_ZANJA	1.302	25.46	12303.6		ARENA_2	0.051	0.68	424.6	RELLENO_ZANJA	1.294	17.20	12765.2
	ARENA_3	0.202	4.05	1629.7						ARENA_3	0.202	2.70	1701.1				
7860.000	D TIERRA	1.748	34.38	15427.7	ARENA_1	0.118	2.37	929.9	8200.000	D TIERRA	1.686	11.22	16003.3	ARENA_1	0.118	0.79	970.2
	ARENA_2	0.051	1.02	407.5	RELLENO_ZANJA	1.360	26.62	12330.2		ARENA_2	0.051	0.34	424.9	RELLENO_ZANJA	1.298	8.64	12773.8
	ARENA_3	0.202	4.04	1633.7						ARENA_3	0.202	1.35	1702.5				
7880.000	D TIERRA	1.793	35.41	15463.1	ARENA_1	0.118	2.37	932.3	8220.000	D TIERRA	1.869	35.55	16038.8	ARENA_1	0.118	2.37	972.5
	ARENA_2	0.051	1.02	408.5	RELLENO_ZANJA	1.405	27.65	12357.8		ARENA_2	0.051	1.02	425.9	RELLENO_ZANJA	1.481	27.79	12801.6
	ARENA_3	0.202	4.04	1637.8						ARENA_3	0.202	4.04	1706.5				
7900.000	D TIERRA	1.686	34.80	15497.9	ARENA_1	0.118	2.37	934.6	8240.000	D TIERRA	1.846	37.15	16076.0	ARENA_1	0.118	2.37	974.9
	ARENA_2	0.051	1.02	409.6	RELLENO_ZANJA	1.298	27.03	12384.9		ARENA_2	0.051	1.02	426.9	RELLENO_ZANJA	1.458	29.39	12831.0
	ARENA_3	0.202	4.05	1641.8						ARENA_3	0.202	4.05	1710.6				
7917.869	D TIERRA	1.716	30.40	15528.3	ARENA_1	0.118	2.12	936.7	8260.000	D TIERRA	1.801	36.47	16112.5	ARENA_1	0.118	2.37	977.3
	ARENA_2	0.051	0.91	410.5	RELLENO_ZANJA	1.328	23.46	12408.3		ARENA_2	0.051	1.02	428.0	RELLENO_ZANJA	1.413	28.71	12859.7
	ARENA_3	0.202	3.61	1645.4						ARENA_3	0.202	4.05	1714.6				
7920.000	D TIERRA	1.686	3.62	15532.0	ARENA_1	0.118	0.25	937.0	8280.000	D TIERRA	1.686	34.87	16147.3	ARENA_1	0.118	2.37	979.6
	ARENA_2	0.051	0.11	410.6	RELLENO_ZANJA	1.298	2.80	12411.1		ARENA_2	0.051	1.02	429.0	RELLENO_ZANJA	1.298	27.11	12886.8
	ARENA_3	0.202	0.43	1645.8						ARENA_3	0.202	4.05	1718.7				
7940.000	D TIERRA	1.678	33.64	15565.6	ARENA_1	0.118	2.37	939.4	8300.000	D TIERRA	1.856	35.42	16182.7	ARENA_1	0.118	2.37	982.0
	ARENA_2	0.051	1.02	411.6	RELLENO_ZANJA	1.290	25.88	12437.0		ARENA_2	0.051	1.02	430.0	RELLENO_ZANJA	1.468	27.66	12914.5
	ARENA_3	0.202	4.05	1649.9						ARENA_3	0.202	4.05	1722.7				
7944.697	D TIERRA	1.678	7.88	15573.5	ARENA_1	0.118	0.56	939.9	8320.000	D TIERRA	1.686	35.42	16218.2	ARENA_1	0.118	2.37	984.4
	ARENA_2	0.051	0.24	411.9	RELLENO_ZANJA	1.290	6.06	12443.1		ARENA_2	0.051	1.02	431.0	RELLENO_ZANJA	1.298	27.66	12942.1
	ARENA_3	0.202	0.95	1650.8						ARENA_3	0.202	4.05	1726.7				
7960.000	D TIERRA	1.686	25.74	15599.2	ARENA_1	0.118	1.81	941.7	8340.000	D TIERRA	1.719	34.05	16252.2	ARENA_1	0.118	2.37	986.7
	ARENA_2	0.051	0.78	412.6	RELLENO_ZANJA	1.298	19.80	12462.9		ARENA_2	0.051	1.02	432.0	RELLENO_ZANJA	1.331	26.29	12968.4
	ARENA_3	0.202	3.10	1653.9						ARENA_3	0.202	4.05	1730.8				
7980.000	D TIERRA	1.702	33.88	15633.1	ARENA_1	0.118	2.37	944.1	8360.000	D TIERRA	1.752	34.70	16286.9	ARENA_1	0.118	2.37	989.1
	ARENA_2	0.051	1.02	413.7	RELLENO_ZANJA	1.314	26.12	12489.0		ARENA_2	0.051	1.02	433.1	RELLENO_ZANJA	1.364	26.94	12995.3
	ARENA_3	0.202	4.05	1658.0						ARENA_3	0.202	4.05	1734.8				

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 PROYECTO : CIDACOS COMPLETO
 EJE : 12: P430 (Pradejón) - P450 (Alcanadre)

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 PROYECTO : CIDACOS COMPLETO
 EJE : 12: P430 (Pradejón) - P450 (Alcanadre)

 * * * MEDICIONES DE LOS PERFILES TRANSVERSALES * * *
 * * * CAPAS DE FIRME * * *

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 * * * CAPAS DE FIRME * * *

PERFIL	MATERIAL	AREA PERFIL	VOL. PARCIAL	VOL. ACUMUL.	MATERIAL	AREA PERFIL	VOL. PARCIAL	VOL. ACUMUL.
8380.000	D TIERRA	1.749	35.01	16321.9	ARENA_1	0.118	2.37	991.5
	ARENA_2	0.051	1.02	434.1	RELLENO_ZANJA	1.361	27.24	13022.6
	ARENA_3	0.202	4.05	1738.9				
8400.000	D TIERRA	1.686	34.35	16356.3	ARENA_1	0.118	2.37	993.9
	ARENA_2	0.051	1.02	435.1	RELLENO_ZANJA	1.298	26.59	13049.2
	ARENA_3	0.202	4.05	1742.9				
8420.000	D TIERRA	1.686	33.72	16390.0	ARENA_1	0.118	2.37	996.2
	ARENA_2	0.051	1.02	436.1	RELLENO_ZANJA	1.298	25.96	13075.1
	ARENA_3	0.202	4.04	1747.0				
8440.000	D TIERRA	2.550	42.36	16432.4	ARENA_1	0.118	2.37	998.6
	ARENA_2	0.051	1.02	437.2	RELLENO_ZANJA	2.162	34.60	13109.7
	ARENA_3	0.202	4.04	1751.0				
8460.000	D TIERRA	1.686	42.36	16474.7	ARENA_1	0.118	2.37	1001.0
	ARENA_2	0.051	1.02	438.2	RELLENO_ZANJA	1.298	34.60	13144.3
	ARENA_3	0.202	4.05	1755.1				
8477.489	D TIERRA	1.980	32.05	16506.8	ARENA_1	0.118	2.07	1003.0
	ARENA_2	0.051	0.89	439.1	RELLENO_ZANJA	1.592	25.27	13169.6
	ARENA_3	0.202	3.54	1758.6				
8480.000	D TIERRA	2.380	5.47	16512.2	ARENA_1	0.118	0.30	1003.3
	ARENA_2	0.051	0.13	439.2	RELLENO_ZANJA	1.992	4.50	13174.1
	ARENA_3	0.202	0.51	1759.1				
8500.000	D TIERRA	1.686	40.66	16552.9	ARENA_1	0.118	2.37	1005.7
	ARENA_2	0.051	1.02	440.2	RELLENO_ZANJA	1.298	32.90	13207.0
	ARENA_3	0.202	4.05	1763.2				
8520.000	D TIERRA	1.874	35.60	16588.5	ARENA_1	0.118	2.37	1008.1
	ARENA_2	0.051	1.02	441.2	RELLENO_ZANJA	1.486	27.84	13234.8
	ARENA_3	0.202	4.04	1767.2				
8540.000	D TIERRA	1.687	35.60	16624.1	ARENA_1	0.118	2.37	1010.4
	ARENA_2	0.051	1.02	442.3	RELLENO_ZANJA	1.298	27.84	13262.7
	ARENA_3	0.202	4.04	1771.2				
8560.000	D TIERRA	1.687	33.73	16657.8	ARENA_1	0.118	2.37	1012.8
	ARENA_2	0.051	1.02	443.3	RELLENO_ZANJA	1.299	25.97	13288.6
	ARENA_3	0.202	4.04	1775.3				
8580.000	D TIERRA	1.686	33.73	16691.6	ARENA_1	0.118	2.37	1015.2
	ARENA_2	0.051	1.02	444.3	RELLENO_ZANJA	1.298	25.97	13314.6
	ARENA_3	0.202	4.05	1779.3				
8600.000	D TIERRA	1.845	35.31	16726.9	ARENA_1	0.118	2.37	1017.5
	ARENA_2	0.051	1.02	445.3	RELLENO_ZANJA	1.456	27.55	13342.2
	ARENA_3	0.202	4.04	1783.4				
8600.582	D TIERRA	1.850	1.08	16728.0	ARENA_1	0.118	0.07	1017.6
	ARENA_2	0.051	0.03	445.4	RELLENO_ZANJA	1.462	0.85	13343.0
	ARENA_3	0.202	0.12	1783.5				
8620.000	D TIERRA	1.811	35.55	16763.5	ARENA_1	0.118	2.30	1019.9
	ARENA_2	0.051	0.99	446.3	RELLENO_ZANJA	1.423	28.01	13371.0
	ARENA_3	0.202	3.93	1787.4				
8630.278	D TIERRA	1.650	17.79	16781.3	ARENA_1	0.118	1.22	1021.1
	ARENA_2	0.051	0.52	446.9	RELLENO_ZANJA	1.262	13.80	13384.8
	ARENA_3	0.202	2.08	1789.5				
8640.000	D TIERRA	1.738	16.47	16797.8	ARENA_1	0.118	1.15	1022.3
	ARENA_2	0.051	0.50	447.4	RELLENO_ZANJA	1.350	12.70	13397.5
	ARENA_3	0.202	1.97	1791.5				
8659.578	D TIERRA	1.920	35.81	16833.6	ARENA_1	0.118	2.32	1024.6
	ARENA_2	0.051	1.00	448.4	RELLENO_ZANJA	1.532	28.21	13425.7
	ARENA_3	0.202	3.96	1795.4				
8660.000	D TIERRA	1.913	0.81	16834.4	ARENA_1	0.118	0.05	1024.7
	ARENA_2	0.051	0.02	448.4	RELLENO_ZANJA	1.525	0.65	13426.4
	ARENA_3	0.202	0.09	1795.5				
8674.278	D TIERRA	1.686	25.70	16860.1	ARENA_1	0.118	1.69	1026.3
	ARENA_2	0.051	0.73	449.1	RELLENO_ZANJA	1.298	20.16	13446.5
	ARENA_3	0.202	2.89	1798.4				

PERFIL	MATERIAL	AREA PERFIL	VOL. PARCIAL	VOL. ACUMUL.	MATERIAL	AREA PERFIL	VOL. PARCIAL	VOL. ACUMUL.
8680.000	D TIERRA	1.589	9.37	16869.4	ARENA_1	0.118	0.68	1027.0
	ARENA_2	0.051	0.29	449.4	RELLENO_ZANJA	1.201	7.15	13453.7
	ARENA_3	0.202	1.16	1799.6				
8700.000	D TIERRA	1.711	33.00	16902.4	ARENA_1	0.118	2.37	1029.4
	ARENA_2	0.051	1.02	450.4	RELLENO_ZANJA	1.323	25.24	13478.9
	ARENA_3	0.202	4.05	1803.6				
8720.000	D TIERRA	1.687	33.98	16936.4	ARENA_1	0.118	2.37	1031.8
	ARENA_2	0.051	1.02	451.5	RELLENO_ZANJA	1.298	26.21	13505.1
	ARENA_3	0.202	4.05	1807.6				
8723.006	D TIERRA	1.674	5.05	16941.5	ARENA_1	0.118	0.36	1032.1
	ARENA_2	0.051	0.15	451.6	RELLENO_ZANJA	1.286	3.88	13509.0
	ARENA_3	0.202	0.61	1808.3				
8740.000	D TIERRA	1.650	28.24	16969.7	ARENA_1	0.118	2.01	1034.1
	ARENA_2	0.051	0.87	452.5	RELLENO_ZANJA	1.262	21.65	13530.7
	ARENA_3	0.202	3.44	1811.7				
8760.000	D TIERRA	1.686	33.36	17003.1	ARENA_1	0.118	2.37	1036.5
	ARENA_2	0.051	1.02	453.5	RELLENO_ZANJA	1.298	25.60	13556.3
	ARENA_3	0.202	4.04	1815.7				
8766.911	D TIERRA	1.856	12.24	17015.3	ARENA_1	0.118	0.82	1037.3
	ARENA_2	0.051	0.35	453.9	RELLENO_ZANJA	1.468	9.56	13565.8
	ARENA_3	0.202	1.40	1817.1				
8774.610	D TIERRA	1.918	14.53	17029.9	ARENA_1	0.118	0.91	1038.2
	ARENA_2	0.051	0.39	454.2	RELLENO_ZANJA	1.530	11.54	13577.4
	ARENA_3	0.202	1.56	1818.7				
8780.000	D TIERRA	1.698	9.74	17039.6	ARENA_1	0.118	0.64	1038.9
	ARENA_2	0.051	0.28	454.5	RELLENO_ZANJA	1.309	7.65	13585.0
	ARENA_3	0.202	1.09	1819.8				
8800.000	D TIERRA	1.772	34.70	17074.3	ARENA_1	0.118	2.37	1041.2
	ARENA_2	0.051	1.02	455.5	RELLENO_ZANJA	1.384	26.94	13612.0
	ARENA_3	0.202	4.04	1823.8				
8800.888	D TIERRA	1.777	1.58	17075.9	ARENA_1	0.118	0.11	1041.3
	ARENA_2	0.051	0.05	455.6	RELLENO_ZANJA	1.389	1.23	13613.2
	ARENA_3	0.202	0.18	1824.0				
8820.000	D TIERRA	1.771	33.91	17109.8	ARENA_1	0.118	2.26	1043.6
	ARENA_2	0.051	0.98	456.6	RELLENO_ZANJA	1.383	26.49	13639.7
	ARENA_3	0.202	3.87	1827.9				
8840.000	D TIERRA	1.704	34.75	17144.5	ARENA_1	0.118	2.37	1046.0
	ARENA_2	0.051	1.02	457.6	RELLENO_ZANJA	1.315	26.99	13666.7
	ARENA_3	0.202	4.04	1831.9				
8840.248	D TIERRA	1.702	0.42	17145.0	ARENA_1	0.118	0.03	1046.0
	ARENA_2	0.051	0.01	457.6	RELLENO_ZANJA	1.314	0.33	13667.0
	ARENA_3	0.202	0.05	1832.0				
8853.436	D TIERRA	1.654	22.13	17167.1	ARENA_1	0.118	1.56	1047.6
	ARENA_2	0.051	0.67	458.3	RELLENO_ZANJA	1.266	17.01	13684.0
	ARENA_3	0.202	2.67	1834.6				
8860.000	D TIERRA	1.653	10.85	17177.9	ARENA_1	0.118	0.78	1048.3
	ARENA_2	0.051	0.34	458.6	RELLENO_ZANJA	1.265	8.30	13692.3
	ARENA_3	0.202	1.33	1836.0				
8880.000	D TIERRA	1.828	34.81	17212.7	ARENA_1	0.118	2.37	1050.7
	ARENA_2	0.051	1.02	459.6	RELLENO_ZANJA	1.440	27.04	13719.4
	ARENA_3	0.202	4.04	1840.0				
8894.922	D TIERRA	1.682	26.19	17238.9	ARENA_1	0.118	1.77	1052.5
	ARENA_2	0.051	0.76	460.4	RELLENO_ZANJA	1.294	20.39	13739.8
	ARENA_3	0.202	3.02	1843.0				
8900.000	D TIERRA	1.684	8.55	17247.5	ARENA_1	0.118	0.60	1053.1
	ARENA_2	0.051	0.26	460.7	RELLENO_ZANJA	1.296	6.57	13746.3
	ARENA_3	0.202	1.03	1844.0				
8901.443	D TIERRA	1.684	2.43	17249.9	ARENA_1	0.118	0.17	1053.2
	ARENA_2	0.051	0.07	460.7	RELLENO_ZANJA	1.295	1.87	13748.2
	ARENA_3	0.202	0.29	1844.3				



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PROYECTO : CIDACOS COMPLETO
EJE : 12: P430 (Pradejón) - P450 (Alcanadre)

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PROYECTO : CIDACOS COMPLETO
EJE : 12: P430 (Pradejón) - P450 (Alcanadre)

*** MEDICIONES DE LOS PERFILES TRANSVERSALES ***
*** CAPAS DE FIRME ***

*** MEDICIONES DE LOS PERFILES TRANSVERSALES ***
*** CAPAS DE FIRME ***

PERFIL	MATERIAL	AREA PERFIL	VOL. PARCIAL	VOL. ACUMUL.	MATERIAL	AREA PERFIL	VOL. PARCIAL	VOL. ACUMUL.
8915.439	D TIERRA	1.764	24.13	17274.0	ARENA_1	0.118	1.66	1054.9
	ARENA_2	0.051	0.72	461.4	RELLENO_ZANJA	1.376	18.70	13766.9
	ARENA_3	0.202	2.83	1847.2				
8920.000	D TIERRA	1.686	7.87	17281.9	ARENA_1	0.118	0.54	1055.4
	ARENA_2	0.051	0.23	461.7	RELLENO_ZANJA	1.298	6.10	13773.0
	ARENA_3	0.202	0.92	1848.1				
8940.000	D TIERRA	1.784	34.70	17316.6	ARENA_1	0.118	2.37	1057.8
	ARENA_2	0.051	1.02	462.7	RELLENO_ZANJA	1.396	26.94	13799.9
	ARENA_3	0.202	4.04	1852.1				
8960.000	D TIERRA	1.780	35.64	17352.2	ARENA_1	0.118	2.37	1060.2
	ARENA_2	0.051	1.02	463.7	RELLENO_ZANJA	1.392	27.88	13827.8
	ARENA_3	0.202	4.04	1856.2				
8978.986	D TIERRA	1.768	33.68	17385.9	ARENA_1	0.118	2.25	1062.4
	ARENA_2	0.051	0.97	464.7	RELLENO_ZANJA	1.380	26.32	13854.1
	ARENA_3	0.202	3.84	1860.0				
8980.000	D TIERRA	1.767	1.79	17387.7	ARENA_1	0.118	0.12	1062.5
	ARENA_2	0.051	0.05	464.7	RELLENO_ZANJA	1.379	1.40	13855.5
	ARENA_3	0.202	0.21	1860.2				
9000.000	D TIERRA	1.734	35.00	17422.7	ARENA_1	0.118	2.37	1064.9
	ARENA_2	0.051	1.02	465.8	RELLENO_ZANJA	1.346	27.24	13882.8
	ARENA_3	0.202	4.04	1864.3				
9020.000	D TIERRA	1.705	34.38	17457.1	ARENA_1	0.118	2.37	1067.3
	ARENA_2	0.051	1.02	466.8	RELLENO_ZANJA	1.317	26.62	13909.4
	ARENA_3	0.202	4.04	1868.3				
9022.499	D TIERRA	1.701	4.26	17461.4	ARENA_1	0.118	0.30	1067.6
	ARENA_2	0.051	0.13	466.9	RELLENO_ZANJA	1.313	3.29	13912.7
	ARENA_3	0.202	0.51	1868.8				
9040.000	D TIERRA	1.694	29.71	17491.1	ARENA_1	0.118	2.07	1069.7
	ARENA_2	0.051	0.89	467.8	RELLENO_ZANJA	1.306	22.92	13935.6
	ARENA_3	0.202	3.54	1872.4				
9050.304	D TIERRA	1.685	17.41	17508.5	ARENA_1	0.118	1.22	1070.9
	ARENA_2	0.051	0.53	468.3	RELLENO_ZANJA	1.297	13.41	13949.0
	ARENA_3	0.202	2.08	1874.4				
9060.000	D TIERRA	1.712	16.47	17524.9	ARENA_1	0.118	1.15	1072.0
	ARENA_2	0.051	0.50	468.8	RELLENO_ZANJA	1.324	12.71	13961.7
	ARENA_3	0.202	1.96	1876.4				
9073.034	D TIERRA	1.694	22.19	17547.1	ARENA_1	0.118	1.54	1073.6
	ARENA_2	0.051	0.67	469.5	RELLENO_ZANJA	1.306	17.13	13978.9
	ARENA_3	0.202	2.64	1879.0				
9080.000	D TIERRA	1.713	11.86	17559.0	ARENA_1	0.118	0.83	1074.4
	ARENA_2	0.051	0.36	469.8	RELLENO_ZANJA	1.325	9.16	13988.0
	ARENA_3	0.202	1.41	1880.4				
9086.940	D TIERRA	1.690	11.81	17570.8	ARENA_1	0.118	0.82	1075.2
	ARENA_2	0.051	0.35	470.2	RELLENO_ZANJA	1.302	9.12	13997.1
	ARENA_3	0.202	1.40	1881.9				
9100.000	D TIERRA	1.701	22.14	17592.9	ARENA_1	0.118	1.55	1076.8
	ARENA_2	0.051	0.67	470.9	RELLENO_ZANJA	1.313	17.08	14014.2
	ARENA_3	0.202	2.64	1884.5				
9102.001	D TIERRA	1.698	3.40	17596.3	ARENA_1	0.118	0.24	1077.0
	ARENA_2	0.051	0.10	471.0	RELLENO_ZANJA	1.310	2.62	14016.8
	ARENA_3	0.202	0.40	1884.9				
9120.000	D TIERRA	1.698	30.56	17626.9	ARENA_1	0.118	2.13	1079.1
	ARENA_2	0.051	0.92	471.9	RELLENO_ZANJA	1.310	23.57	14040.4
	ARENA_3	0.202	3.64	1888.5				
9140.000	D TIERRA	1.686	33.84	17660.7	ARENA_1	0.118	2.37	1081.5
	ARENA_2	0.051	1.02	472.9	RELLENO_ZANJA	1.298	26.08	14066.5
	ARENA_3	0.202	4.04	1892.6				
9160.000	D TIERRA	1.710	33.96	17694.7	ARENA_1	0.118	2.37	1083.9
	ARENA_2	0.051	1.02	473.9	RELLENO_ZANJA	1.322	26.20	14092.7
	ARENA_3	0.202	4.04	1896.6				

PERFIL	MATERIAL	AREA PERFIL	VOL. PARCIAL	VOL. ACUMUL.	MATERIAL	AREA PERFIL	VOL. PARCIAL	VOL. ACUMUL.
9172.553	D TIERRA	1.681	21.29	17716.0	ARENA_1	0.118	1.49	1085.4
	ARENA_2	0.051	0.64	474.6	RELLENO_ZANJA	1.293	16.41	14109.1
	ARENA_3	0.202	2.54	1899.2				
9180.000	D TIERRA	1.744	12.75	17728.7	ARENA_1	0.118	0.88	1086.2
	ARENA_2	0.051	0.38	475.0	RELLENO_ZANJA	1.356	9.86	14119.0
	ARENA_3	0.202	1.51	1900.7				
9192.688	D TIERRA	1.842	22.75	17751.5	ARENA_1	0.118	1.50	1087.7
	ARENA_2	0.051	0.65	475.6	RELLENO_ZANJA	1.454	17.83	14136.8
	ARENA_3	0.202	2.57	1903.2				
9200.000	D TIERRA	1.921	13.76	17765.3	ARENA_1	0.118	0.87	1088.6
	ARENA_2	0.051	0.37	476.0	RELLENO_ZANJA	1.533	10.92	14147.7
	ARENA_3	0.202	1.48	1904.7				
9220.000	D TIERRA	1.688	36.09	17801.3	ARENA_1	0.118	2.37	1091.0
	ARENA_2	0.051	1.02	477.0	RELLENO_ZANJA	1.300	28.33	14176.0
	ARENA_3	0.202	4.04	1908.8				
9240.000	D TIERRA	1.686	33.74	17835.1	ARENA_1	0.118	2.37	1093.3
	ARENA_2	0.051	1.02	478.0	RELLENO_ZANJA	1.298	25.98	14202.0
	ARENA_3	0.202	4.04	1912.8				
9246.084	D TIERRA	1.693	10.28	17845.4	ARENA_1	0.118	0.72	1094.1
	ARENA_2	0.051	0.31	478.3	RELLENO_ZANJA	1.305	7.92	14209.9
	ARENA_3	0.202	1.23	1914.0				
9260.000	D TIERRA	1.777	24.14	17869.5	ARENA_1	0.118	1.65	1095.7
	ARENA_2	0.051	0.71	479.0	RELLENO_ZANJA	1.389	18.74	14228.7
	ARENA_3	0.202	2.81	1916.9				
9277.625	D TIERRA	1.713	30.76	17900.3	ARENA_1	0.118	2.09	1097.8
	ARENA_2	0.051	0.90	479.9	RELLENO_ZANJA	1.325	23.92	14252.6
	ARENA_3	0.202	3.56	1920.4				
9280.000	D TIERRA	1.677	4.03	17904.3	ARENA_1	0.118	0.28	1098.1
	ARENA_2	0.051	0.12	480.1	RELLENO_ZANJA	1.289	3.10	14255.7
	ARENA_3	0.202	0.48	1920.9				
9291.244	D TIERRA	1.772	19.39	17923.7	ARENA_1	0.118	1.33	1099.4
	ARENA_2	0.051	0.57	480.6	RELLENO_ZANJA	1.384	15.03	14270.7
	ARENA_3	0.202	2.27	1923.2				
9300.000	D TIERRA	1.689	15.15	17938.8	ARENA_1	0.118	1.04	1100.4
	ARENA_2	0.051	0.45	481.1	RELLENO_ZANJA	1.301	11.75	14282.5
	ARENA_3	0.202	1.77	1924.9				
9307.718	D TIERRA	1.741	13.24	17952.1	ARENA_1	0.118	0.91	1101.4
	ARENA_2	0.051	0.39	481.5	RELLENO_ZANJA	1.353	10.24	14292.7
	ARENA_3	0.202	1.56	1926.5				
9320.000	D TIERRA	1.689	21.06	17973.1	ARENA_1	0.118	1.45	1102.8
	ARENA_2	0.051	0.63	482.1	RELLENO_ZANJA	1.301	16.30	14309.0
	ARENA_3	0.202	2.48	1929.0				
9327.497	D TIERRA	1.747	12.88	17986.0	ARENA_1	0.118	0.89	1103.7
	ARENA_2	0.051	0.38	482.5	RELLENO_ZANJA	1.359	9.97	14319.0
	ARENA_3	0.202	1.52	1930.5				
9340.000	D TIERRA	1.728	21.73	18007.7	ARENA_1	0.118	1.48	1105.2
	ARENA_2	0.051	0.64	483.1	RELLENO_ZANJA	1.340	16.87	14335.9
	ARENA_3	0.202	2.53	1933.0				
9345.364	D TIERRA	1.719	9.24	18017.0	ARENA_1	0.118	0.64	1105.8
	ARENA_2	0.051	0.27	483.4	RELLENO_ZANJA	1.330	7.16	14343.0
	ARENA_3	0.202	1.08	1934.1				
9360.000	D TIERRA	1.599	24.27	18041.3	ARENA_1	0.118	1.73	1107.6
	ARENA_2	0.051	0.75	484.2	RELLENO_ZANJA	1.211	18.60	14361.6
	ARENA_3	0.202	2.96	1937.1				
9366.155	D TIERRA	1.636	9.96	18051.2	ARENA_1	0.118	0.73	1108.3
	ARENA_2	0.051	0.31	484.5	RELLENO_ZANJA	1.248	7.57	14369.2
	ARENA_3	0.202	1.24	1938.3				
9380.000	D TIERRA	1.690	23.03	18074.3	ARENA_1	0.118	1.64	1109.9
	ARENA_2	0.051	0.71	485.2	RELLENO_ZANJA	1.302	17.66	14386.9
	ARENA_3	0.202	2.80	1941.1				



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PROYECTO : CIDACOS COMPLETO
EJE : 12: P430 (Pradejón) - P450 (Alcanadre)

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PROYECTO : CIDACOS COMPLETO
EJE : 12: P430 (Pradejón) - P450 (Alcanadre)

*** MEDICIONES DE LOS PERFILES TRANSVERSALES ***
*** CAPAS DE FIRME ***

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*** CAPAS DE FIRME ***

PERFIL	MATERIAL	AREA PERFIL	VOL. PARCIAL	VOL. ACUMUL.	MATERIAL	AREA PERFIL	VOL. PARCIAL	VOL. ACUMUL.
9387.644	D TIERRA	1.727	13.06	18087.3	ARENA_1	0.118	0.91	1110.8
	ARENA_2	0.051	0.39	485.6	RELLENO_ZANJA	1.339	10.09	14396.9
	ARENA_3	0.202	1.55	1942.7				
9400.000	D TIERRA	1.774	21.63	18108.9	ARENA_1	0.118	1.46	1112.3
	ARENA_2	0.051	0.63	486.2	RELLENO_ZANJA	1.386	16.83	14413.8
	ARENA_3	0.202	2.50	1945.2				
9413.080	D TIERRA	1.690	22.65	18131.6	ARENA_1	0.118	1.55	1113.8
	ARENA_2	0.051	0.67	486.9	RELLENO_ZANJA	1.302	17.58	14431.4
	ARENA_3	0.202	2.65	1947.8				
9420.000	D TIERRA	1.687	11.69	18143.3	ARENA_1	0.118	0.82	1114.7
	ARENA_2	0.051	0.35	487.2	RELLENO_ZANJA	1.299	9.00	14440.4
	ARENA_3	0.202	1.40	1949.2				
9420.087	D TIERRA	1.686	0.15	18143.4	ARENA_1	0.118	0.01	1114.7
	ARENA_2	0.051	0.00	487.2	RELLENO_ZANJA	1.298	0.11	14440.5
	ARENA_3	0.202	0.02	1949.2				
9432.588	D TIERRA	1.634	20.76	18164.2	ARENA_1	0.118	1.48	1116.2
	ARENA_2	0.051	0.64	487.9	RELLENO_ZANJA	1.246	15.90	14456.4
	ARENA_3	0.202	2.53	1951.8				
9439.868	D TIERRA	1.660	11.99	18176.2	ARENA_1	0.118	0.86	1117.0
	ARENA_2	0.051	0.37	488.2	RELLENO_ZANJA	1.272	9.17	14465.5
	ARENA_3	0.202	1.47	1953.2				
9440.000	D TIERRA	1.661	0.22	18176.4	ARENA_1	0.118	0.02	1117.0
	ARENA_2	0.051	0.01	488.2	RELLENO_ZANJA	1.273	0.17	14465.7
	ARENA_3	0.202	0.03	1953.3				
9446.192	D TIERRA	1.709	10.43	18186.8	ARENA_1	0.118	0.73	1117.8
	ARENA_2	0.051	0.32	488.6	RELLENO_ZANJA	1.321	8.03	14473.7
	ARENA_3	0.202	1.25	1954.5				
9458.656	D TIERRA	1.697	21.22	18208.0	ARENA_1	0.118	1.48	1119.2
	ARENA_2	0.051	0.64	489.2	RELLENO_ZANJA	1.309	16.39	14490.1
	ARENA_3	0.202	2.52	1957.0				
9460.000	D TIERRA	1.686	2.27	18210.3	ARENA_1	0.118	0.16	1119.4
	ARENA_2	0.051	0.07	489.3	RELLENO_ZANJA	1.298	1.75	14491.9
	ARENA_3	0.202	0.27	1957.3				
9480.000	D TIERRA	1.672	33.58	18243.9	ARENA_1	0.118	2.37	1121.8
	ARENA_2	0.051	1.02	490.3	RELLENO_ZANJA	1.284	25.82	14517.7
	ARENA_3	0.202	4.05	1961.3				
9493.753	D TIERRA	1.660	22.91	18266.8	ARENA_1	0.118	1.63	1123.4
	ARENA_2	0.051	0.70	491.0	RELLENO_ZANJA	1.272	17.58	14535.3
	ARENA_3	0.202	2.78	1964.1				
9500.000	D TIERRA	1.686	10.45	18277.3	ARENA_1	0.118	0.74	1124.1
	ARENA_2	0.051	0.32	491.3	RELLENO_ZANJA	1.298	8.03	14543.3
	ARENA_3	0.202	1.26	1965.4				
9520.000	D TIERRA	1.676	33.62	18310.9	ARENA_1	0.118	2.37	1126.5
	ARENA_2	0.051	1.02	492.3	RELLENO_ZANJA	1.288	25.86	14569.2
	ARENA_3	0.202	4.05	1969.4				
9533.461	D TIERRA	1.669	22.51	18333.4	ARENA_1	0.118	1.59	1128.1
	ARENA_2	0.051	0.69	493.0	RELLENO_ZANJA	1.281	17.29	14586.4
	ARENA_3	0.202	2.72	1972.2				
9540.000	D TIERRA	1.655	10.87	18344.3	ARENA_1	0.118	0.77	1128.9
	ARENA_2	0.051	0.33	493.3	RELLENO_ZANJA	1.267	8.33	14594.8
	ARENA_3	0.202	1.32	1973.5				
9546.763	D TIERRA	1.753	11.52	18355.8	ARENA_1	0.118	0.80	1129.7
	ARENA_2	0.051	0.35	493.7	RELLENO_ZANJA	1.365	8.90	14603.7
	ARENA_3	0.202	1.37	1974.8				
9560.000	D TIERRA	1.736	23.09	18378.9	ARENA_1	0.118	1.57	1131.2
	ARENA_2	0.051	0.68	494.4	RELLENO_ZANJA	1.348	17.96	14621.6
	ARENA_3	0.202	2.68	1977.5				
9580.000	D TIERRA	1.711	34.47	18413.3	ARENA_1	0.118	2.37	1133.6
	ARENA_2	0.051	1.02	495.4	RELLENO_ZANJA	1.323	26.71	14648.3
	ARENA_3	0.202	4.05	1981.6				

PERFIL	MATERIAL	AREA PERFIL	VOL. PARCIAL	VOL. ACUMUL.	MATERIAL	AREA PERFIL	VOL. PARCIAL	VOL. ACUMUL.
9600.000	D TIERRA	1.686	33.97	18447.3	ARENA_1	0.118	2.37	1136.0
	ARENA_2	0.051	1.02	496.4	RELLENO_ZANJA	1.298	26.21	14674.5
	ARENA_3	0.202	4.05	1985.6				
9620.000	D TIERRA	1.656	33.42	18480.7	ARENA_1	0.118	2.37	1138.4
	ARENA_2	0.051	1.02	497.4	RELLENO_ZANJA	1.268	25.66	14700.2
	ARENA_3	0.202	4.05	1989.7				
9628.252	D TIERRA	1.672	13.73	18494.5	ARENA_1	0.118	0.98	1139.3
	ARENA_2	0.051	0.42	497.9	RELLENO_ZANJA	1.284	10.53	14710.7
	ARENA_3	0.202	1.67	1991.3				
9640.000	D TIERRA	1.656	19.55	18514.0	ARENA_1	0.118	1.39	1140.7
	ARENA_2	0.051	0.60	498.5	RELLENO_ZANJA	1.268	14.99	14725.7
	ARENA_3	0.202	2.38	1993.7				
9660.000	D TIERRA	1.693	33.49	18547.5	ARENA_1	0.118	2.37	1143.1
	ARENA_2	0.051	1.02	499.5	RELLENO_ZANJA	1.305	25.73	14751.5
	ARENA_3	0.202	4.05	1997.8				
9680.000	D TIERRA	1.674	33.67	18581.2	ARENA_1	0.118	2.37	1145.5
	ARENA_2	0.051	1.02	500.5	RELLENO_ZANJA	1.286	25.91	14777.4
	ARENA_3	0.202	4.04	2001.8				
9688.555	D TIERRA	1.714	14.49	18595.7	ARENA_1	0.118	1.01	1146.5
	ARENA_2	0.051	0.44	500.9	RELLENO_ZANJA	1.326	11.17	14788.5
	ARENA_3	0.202	1.73	2003.5				
9699.145	D TIERRA	1.821	18.72	18614.4	ARENA_1	0.118	1.25	1147.7
	ARENA_2	0.051	0.54	501.5	RELLENO_ZANJA	1.433	14.61	14803.1
	ARENA_3	0.202	2.14	2005.7				
9700.000	D TIERRA	1.818	1.56	18615.9	ARENA_1	0.118	0.10	1147.8
	ARENA_2	0.051	0.04	501.5	RELLENO_ZANJA	1.430	1.22	14804.4
	ARENA_3	0.202	0.17	2005.8				
9720.000	D TIERRA	1.743	35.60	18651.6	ARENA_1	0.118	2.37	1150.2
	ARENA_2	0.051	1.02	502.5	RELLENO_ZANJA	1.354	27.84	14832.2
	ARENA_3	0.202	4.04	2009.9				
9740.000	D TIERRA	1.915	36.58	18688.1	ARENA_1	0.118	2.37	1152.6
	ARENA_2	0.051	1.02	503.6	RELLENO_ZANJA	1.527	28.82	14861.0
	ARENA_3	0.202	4.05	2013.9				
9742.039	D TIERRA	1.936	3.93	18692.1	ARENA_1	0.118	0.24	1152.8
	ARENA_2	0.051	0.10	503.7	RELLENO_ZANJA	1.548	3.14	14864.2
	ARENA_3	0.202	0.41	2014.3				
9760.000	D TIERRA	1.698	32.64	18724.7	ARENA_1	0.118	2.13	1154.9
	ARENA_2	0.051	0.92	504.6	RELLENO_ZANJA	1.310	25.67	14889.8
	ARENA_3	0.202	3.63	2018.0				
9780.000	D TIERRA	1.679	33.78	18758.5	ARENA_1	0.118	2.37	1157.3
	ARENA_2	0.051	1.02	505.6	RELLENO_ZANJA	1.291	26.02	14915.9
	ARENA_3	0.202	4.04	2022.0				
9788.624	D TIERRA	1.672	14.45	18772.9	ARENA_1	0.118	1.02	1158.3
	ARENA_2	0.051	0.44	506.1	RELLENO_ZANJA	1.284	11.11	14927.0
	ARENA_3	0.202	1.74	2023.8				
9800.000	D TIERRA	1.697	19.17	18792.1	ARENA_1	0.118	1.35	1159.7
	ARENA_2	0.051	0.58	506.6	RELLENO_ZANJA	1.309	14.75	14941.7
	ARENA_3	0.202	2.30	2026.1				
9820.000	D TIERRA	1.754	34.51	18826.6	ARENA_1	0.118	2.37	1162.0
	ARENA_2	0.051	1.02	507.7	RELLENO_ZANJA	1.366	26.75	14968.5
	ARENA_3	0.202	4.04	2030.1				
9839.971	D TIERRA	1.736	34.84	18861.5	ARENA_1	0.118	2.37	1164.4
	ARENA_2	0.051	1.02	508.7	RELLENO_ZANJA	1.348	27.09	14995.6
	ARENA_3	0.202	4.04	2034.1				
9840.000	D TIERRA	1.735	0.05	18861.5	ARENA_1	0.118	0.00	1164.4
	ARENA_2	0.051	0.00	508.7	RELLENO_ZANJA	1.347	0.04	14995.6
	ARENA_3	0.202	0.01	2034.2				
9855.317	D TIERRA	1.696	26.28	18887.8	ARENA_1	0.118	1.81	1166.2
	ARENA_2	0.051	0.78	509.5	RELLENO_ZANJA	1.308	20.34	15015.9
	ARENA_3	0.202	3.10	2037.3				



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PROYECTO : CIDACOS COMPLETO
EJE : 12: P430 (Pradejón) - P450 (Alcanadre)

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PROYECTO : CIDACOS COMPLETO
EJE : 12: P430 (Pradejón) - P450 (Alcanadre)

MEDICIONES DE LOS PERFILES TRANSVERSALES
CAPAS DE FIRME

MEDICIONES DE LOS PERFILES TRANSVERSALES
CAPAS DE FIRME

Table with columns: PERFIL, MATERIAL, AREA PERFIL, VOL. PARCIAL, VOL. ACUMUL., MATERIAL, AREA PERFIL, VOL. PARCIAL, VOL. ACUMUL. It lists data for profiles 9860.000 to 10120.000.

Table with columns: PERFIL, MATERIAL, AREA PERFIL, VOL. PARCIAL, VOL. ACUMUL., MATERIAL, AREA PERFIL, VOL. PARCIAL, VOL. ACUMUL. It lists data for profiles 10130.708 to 10360.000.



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PROYECTO : CIDACOS COMPLETO
EJE : 12: P430 (Pradejón) - P450 (Alcanadre)

Istram 9.04 13/04/20 10:22:38
PROYECTO : CIDACOS COMPLETO
EJE : 12: P430 (Pradejón) - P450 (Alcanadre)

MEDICIONES DE LOS PERFILES TRANSVERSALES
CAPAS DE FIRME

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CAPAS DE FIRME

Table with columns: PERFIL, MATERIAL, AREA PERFIL, VOL. PARCIAL, VOL. ACUMUL., MATERIAL, AREA PERFIL, VOL. PARCIAL, VOL. ACUMUL. It lists data for profiles 10365.449 to 10651.036.

Table with columns: PERFIL, MATERIAL, AREA PERFIL, VOL. PARCIAL, VOL. ACUMUL., MATERIAL, AREA PERFIL, VOL. PARCIAL, VOL. ACUMUL. It lists data for profiles 10660.000 to 10900.000.



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EJE : 12: P430 (Pradejón) - P450 (Alcanadre)

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PROYECTO : CIDACOS COMPLETO
EJE : 12: P430 (Pradejón) - P450 (Alcanadre)

MEDICIONES DE LOS PERFILES TRANSVERSALES
CAPAS DE FIRME

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CAPAS DE FIRME

Table with columns: PERFIL, MATERIAL, AREA PERFIL, VOL. PARCIAL, VOL. ACUMUL., MATERIAL, AREA PERFIL, VOL. PARCIAL, VOL. ACUMUL. Rows include profiles 10920.000 to 11200.000 with materials like TIERRA, ARENA, and RELLENO_ZANJA.

Table with columns: PERFIL, MATERIAL, AREA PERFIL, VOL. PARCIAL, VOL. ACUMUL., MATERIAL, AREA PERFIL, VOL. PARCIAL, VOL. ACUMUL. Rows include profiles 11220.000 to 11410.231 with materials like TIERRA, ARENA, RELLENO_ZANJA, and TERRAPLEN.

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 EJE : 12: P430 (Pradejón) - P450 (Alcanadre)

*** MEDICIONES DE LOS PERFILES TRANSVERSALES***
 *** CAPAS DE FIRME ***

PERFIL	MATERIAL	AREA PERFIL	VOL. PARCIAL	VOL. ACUMUL.	MATERIAL	AREA PERFIL	VOL. PARCIAL	VOL. ACUMUL.
11415.883	TERRAPLEN	0.000	0.00	0.2	D_TIERRA	1.530	8.74	22017.8
	ARENA_1	0.118	0.67	1352.7	ARENA_2	0.051	0.29	591.0
	RELLENO_ZANJA	1.142	6.54	17527.0	ARENA_3	0.202	1.14	2363.2
11419.494	TERRAPLEN	0.000	0.00	0.2	D_TIERRA	1.752	5.92	22023.8
	ARENA_1	0.118	0.43	1353.1	ARENA_2	0.051	0.18	591.2
	RELLENO_ZANJA	1.364	4.52	17531.5	ARENA_3	0.202	0.73	2363.9

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*** RESUMEN DE VOLUMENES TOTALES ***

MATERIAL	VOLUMEN
TERRAPLEN	0.2
D_TIERRA	22023.8
ARENA_1	1353.1
ARENA_2	591.2
RELLENO_ZANJA	17531.5
ARENA_3	2363.9

13. EJE 13: P360 (TUDELILLA) – AUSEJO

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 PROYECTO : CIDACOS COMPLETO
 EJE : 13: P360 (Tudelilla) - Ausejo

*** MEDICIONES DE LOS PERFILES TRANSVERSALES***
 *** CAPAS DE FIRME ***

PERFIL	MATERIAL	AREA PERFIL	VOL. PARCIAL	VOL. ACUMUL.	MATERIAL	AREA PERFIL	VOL. PARCIAL	VOL. ACUMUL.
0.000	D_TIERRA	1.336	0.00	0.0	ARENA_1	0.118	0.00	0.0
	ARENA_2	0.056	0.00	0.0	RELLENO_ZANJA	0.947	0.00	0.0
	ARENA_3	0.192	0.00	0.0				
7.151	D_TIERRA	1.375	9.69	9.7	ARENA_1	0.118	0.84	0.8
	ARENA_2	0.056	0.40	0.4	RELLENO_ZANJA	0.985	6.91	6.9
	ARENA_3	0.192	1.38	1.4				
8.398	D_TIERRA	1.392	1.73	11.4	ARENA_1	0.118	0.15	1.0
	ARENA_2	0.056	0.07	0.5	RELLENO_ZANJA	1.003	1.24	8.1
	ARENA_3	0.192	0.24	1.6				
20.000	D_TIERRA	1.452	16.50	27.9	ARENA_1	0.118	1.37	2.4
	ARENA_2	0.056	0.65	1.1	RELLENO_ZANJA	1.063	11.99	20.1
	ARENA_3	0.192	2.23	3.8				
26.761	D_TIERRA	1.327	9.40	37.3	ARENA_1	0.118	0.80	3.2
	ARENA_2	0.056	0.38	1.5	RELLENO_ZANJA	0.938	6.77	26.9
	ARENA_3	0.192	1.30	5.1				
34.481	D_TIERRA	1.703	11.70	49.0	ARENA_1	0.118	0.91	4.1
	ARENA_2	0.056	0.43	1.9	RELLENO_ZANJA	1.314	8.69	35.6
	ARENA_3	0.192	1.48	6.6				
40.000	D_TIERRA	1.267	8.19	57.2	ARENA_1	0.118	0.65	4.7
	ARENA_2	0.056	0.31	2.2	RELLENO_ZANJA	0.878	6.05	41.6
	ARENA_3	0.192	1.06	7.7				
57.399	D_TIERRA	1.270	22.07	79.3	ARENA_1	0.118	2.05	6.8
	ARENA_2	0.056	0.98	3.2	RELLENO_ZANJA	0.881	15.30	56.9
	ARENA_3	0.192	3.35	11.0				
60.000	D_TIERRA	1.433	3.51	82.8	ARENA_1	0.118	0.31	7.1
	ARENA_2	0.056	0.15	3.4	RELLENO_ZANJA	1.044	2.50	59.4
	ARENA_3	0.192	0.50	11.5				
80.000	D_TIERRA	1.503	29.36	112.1	ARENA_1	0.118	2.36	9.4
	ARENA_2	0.056	1.12	4.5	RELLENO_ZANJA	1.114	21.57	81.0
	ARENA_3	0.192	3.85	15.4				
86.518	D_TIERRA	1.268	9.03	121.2	ARENA_1	0.118	0.77	10.2
	ARENA_2	0.056	0.37	4.9	RELLENO_ZANJA	0.879	6.49	87.5
	ARENA_3	0.192	1.25	16.6				
100.000	D_TIERRA	1.253	17.00	138.2	ARENA_1	0.118	1.59	11.8
	ARENA_2	0.056	0.76	5.6	RELLENO_ZANJA	0.864	11.75	99.3
	ARENA_3	0.192	2.59	19.2				
107.495	D_TIERRA	0.000	0.00	138.2	ARENA_1	0.000	0.00	11.8
	ARENA_2	0.000	0.00	5.6	RELLENO_ZANJA	0.000	0.00	99.3
	ARENA_3	0.000	0.00	19.2				
120.000	D_TIERRA	0.000	0.00	138.2	ARENA_1	0.000	0.00	11.8
	ARENA_2	0.000	0.00	5.6	RELLENO_ZANJA	0.000	0.00	99.3
	ARENA_3	0.000	0.00	19.2				
120.000	D_TIERRA	1.272	0.00	138.2	ARENA_1	0.118	0.00	11.8
	ARENA_2	0.056	0.00	5.6	RELLENO_ZANJA	0.883	0.00	99.3
	ARENA_3	0.192	0.00	19.2				
140.000	D_TIERRA	1.268	25.40	163.6	ARENA_1	0.117	2.35	14.1
	ARENA_2	0.057	1.13	6.8	RELLENO_ZANJA	0.879	17.62	116.9
	ARENA_3	0.191	3.83	23.1				
160.000	D_TIERRA	1.404	26.72	190.3	ARENA_1	0.118	2.35	16.5
	ARENA_2	0.056	1.13	7.9	RELLENO_ZANJA	1.014	18.93	135.8
	ARENA_3	0.192	3.83	26.9				
180.000	D_TIERRA	1.053	24.57	214.9	ARENA_1	0.118	2.35	18.8
	ARENA_2	0.056	1.13	9.0	RELLENO_ZANJA	0.664	16.78	152.6
	ARENA_3	0.192	3.83	30.7				
200.000	D_TIERRA	2.350	34.03	248.9	ARENA_1	0.118	2.35	21.2
	ARENA_2	0.056	1.13	10.1	RELLENO_ZANJA	1.961	26.25	178.8
	ARENA_3	0.192	3.83	34.6				



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PROYECTO : CIDACOS COMPLETO
EJE : 13: P360 (Tudelilla) - Ausejo

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PROYECTO : CIDACOS COMPLETO
EJE : 13: P360 (Tudelilla) - Ausejo

MEDICIONES DE LOS PERFILES TRANSVERSALES
CAPAS DE FIRME

MEDICIONES DE LOS PERFILES TRANSVERSALES
CAPAS DE FIRME

Table with 10 columns: PERFIL, MATERIAL, AREA PERFIL, VOL. PARCIAL, VOL. ACUMUL., MATERIAL, AREA PERFIL, VOL. PARCIAL, VOL. ACUMUL. It lists data for profiles 205.690 to 400.000.

Table with 10 columns: PERFIL, MATERIAL, AREA PERFIL, VOL. PARCIAL, VOL. ACUMUL., MATERIAL, AREA PERFIL, VOL. PARCIAL, VOL. ACUMUL. It lists data for profiles 420.000 to 648.113.



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PROYECTO : CIDACOS COMPLETO
EJE : 13: P360 (Tudelilla) - Ausejo

Istram 9.04 11/04/20 17:36:13
PROYECTO : CIDACOS COMPLETO
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MEDICIONES DE LOS PERFILES TRANSVERSALES
CAPAS DE FIRME

MEDICIONES DE LOS PERFILES TRANSVERSALES
CAPAS DE FIRME

Table with columns: PERFIL, MATERIAL, AREA PERFIL, VOL. PARCIAL, VOL. ACUMUL., MATERIAL, AREA PERFIL, VOL. PARCIAL, VOL. ACUMUL. Rows include profiles 660.000 to 860.000 with materials like TIERRA, ARENA, and RELLENO_ZANJA.

Table with columns: PERFIL, MATERIAL, AREA PERFIL, VOL. PARCIAL, VOL. ACUMUL., MATERIAL, AREA PERFIL, VOL. PARCIAL, VOL. ACUMUL. Rows include profiles 861.391 to 1100.000 with materials like TIERRA, ARENA, and RELLENO_ZANJA.



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 PROYECTO : CIDACOS COMPLETO
 EJE : 13: P360 (Tudelilla) - Ausejo

Istram 9.04 11/04/20 17:36:13
 PROYECTO : CIDACOS COMPLETO
 EJE : 13: P360 (Tudelilla) - Ausejo

*** MEDICIONES DE LOS PERFILES TRANSVERSALES ***
 *** CAPAS DE FIRME ***

*** MEDICIONES DE LOS PERFILES TRANSVERSALES ***
 *** CAPAS DE FIRME ***

PERFIL	MATERIAL	AREA PERFIL	VOL. PARCIAL	VOL. ACUMUL.	MATERIAL	AREA PERFIL	VOL. PARCIAL	VOL. ACUMUL.
1120.000	D TIERRA	1.237	25.05	1437.7	ARENA_1	0.118	2.36	129.6
	ARENA_2	0.056	1.13	61.9	RELLENO_ZANJA	0.848	17.27	1009.7
	ARENA_3	0.192	3.85	211.5				
1132.385	D TIERRA	1.248	15.39	1453.1	ARENA_1	0.118	1.46	131.0
	ARENA_2	0.056	0.70	62.6	RELLENO_ZANJA	0.859	10.57	1020.2
	ARENA_3	0.192	2.38	213.9				
1140.000	D TIERRA	1.384	10.02	1463.1	ARENA_1	0.118	0.90	131.9
	ARENA_2	0.056	0.43	63.0	RELLENO_ZANJA	0.994	7.06	1027.3
	ARENA_3	0.192	1.46	215.4				
1152.661	D TIERRA	1.216	16.46	1479.6	ARENA_1	0.118	1.49	133.4
	ARENA_2	0.056	0.71	63.7	RELLENO_ZANJA	0.827	11.53	1038.8
	ARENA_3	0.192	2.43	217.8				
1160.000	D TIERRA	1.268	9.12	1488.7	ARENA_1	0.118	0.86	134.3
	ARENA_2	0.056	0.41	64.1	RELLENO_ZANJA	0.879	6.26	1045.1
	ARENA_3	0.192	1.41	219.2				
1178.425	D TIERRA	1.208	22.81	1511.5	ARENA_1	0.118	2.17	136.5
	ARENA_2	0.056	1.04	65.2	RELLENO_ZANJA	0.819	15.64	1060.7
	ARENA_3	0.192	3.54	222.8				
1180.000	D TIERRA	1.218	1.91	1513.4	ARENA_1	0.118	0.19	136.7
	ARENA_2	0.056	0.09	65.3	RELLENO_ZANJA	0.829	1.30	1062.0
	ARENA_3	0.192	0.30	223.1				
1189.386	D TIERRA	1.268	11.67	1525.1	ARENA_1	0.118	1.11	137.8
	ARENA_2	0.056	0.53	65.8	RELLENO_ZANJA	0.879	8.01	1070.0
	ARENA_3	0.192	1.81	224.9				
1200.000	D TIERRA	1.230	13.26	1538.4	ARENA_1	0.118	1.25	139.0
	ARENA_2	0.056	0.60	66.4	RELLENO_ZANJA	0.841	9.13	1079.2
	ARENA_3	0.192	2.04	226.9				
1207.911	D TIERRA	1.240	9.77	1548.1	ARENA_1	0.118	0.93	139.9
	ARENA_2	0.056	0.44	66.8	RELLENO_ZANJA	0.851	6.69	1085.9
	ARENA_3	0.192	1.52	228.4				
1220.000	D TIERRA	1.314	15.44	1563.6	ARENA_1	0.118	1.42	141.4
	ARENA_2	0.056	0.68	67.5	RELLENO_ZANJA	0.925	10.74	1096.6
	ARENA_3	0.192	2.33	230.8				
1225.946	D TIERRA	1.337	7.88	1571.4	ARENA_1	0.118	0.70	142.1
	ARENA_2	0.056	0.33	67.8	RELLENO_ZANJA	0.948	5.57	1102.2
	ARENA_3	0.192	1.14	231.9				
1240.000	D TIERRA	1.314	18.63	1590.1	ARENA_1	0.118	1.66	143.7
	ARENA_2	0.056	0.79	68.6	RELLENO_ZANJA	0.925	13.16	1115.3
	ARENA_3	0.192	2.70	234.6				
1250.219	D TIERRA	1.268	13.20	1603.3	ARENA_1	0.118	1.20	144.9
	ARENA_2	0.056	0.57	69.2	RELLENO_ZANJA	0.879	9.22	1124.6
	ARENA_3	0.192	1.97	236.6				
1260.000	D TIERRA	1.269	12.41	1615.7	ARENA_1	0.118	1.15	146.1
	ARENA_2	0.056	0.55	69.8	RELLENO_ZANJA	0.880	8.60	1133.2
	ARENA_3	0.192	1.88	238.4				
1280.000	D TIERRA	1.234	25.03	1640.7	ARENA_1	0.118	2.36	148.4
	ARENA_2	0.056	1.12	70.9	RELLENO_ZANJA	0.845	17.25	1150.4
	ARENA_3	0.192	3.85	242.3				
1290.626	D TIERRA	1.268	13.29	1654.0	ARENA_1	0.118	1.25	149.7
	ARENA_2	0.056	0.60	71.5	RELLENO_ZANJA	0.879	9.16	1159.6
	ARENA_3	0.192	2.04	244.3				
1300.000	D TIERRA	1.328	12.17	1666.2	ARENA_1	0.118	1.10	150.8
	ARENA_2	0.056	0.53	72.0	RELLENO_ZANJA	0.939	8.52	1168.1
	ARENA_3	0.192	1.80	246.1				
1320.000	D TIERRA	1.268	25.96	1692.1	ARENA_1	0.118	2.36	153.1
	ARENA_2	0.056	1.12	73.1	RELLENO_ZANJA	0.879	18.18	1186.3
	ARENA_3	0.192	3.85	250.0				
1340.000	D TIERRA	1.270	25.38	1717.5	ARENA_1	0.118	2.36	155.5
	ARENA_2	0.056	1.12	74.3	RELLENO_ZANJA	0.880	17.59	1203.9
	ARENA_3	0.192	3.85	253.8				

PERFIL	MATERIAL	AREA PERFIL	VOL. PARCIAL	VOL. ACUMUL.	MATERIAL	AREA PERFIL	VOL. PARCIAL	VOL. ACUMUL.
1360.000	D TIERRA	1.222	24.91	1742.4	ARENA_1	0.118	2.36	157.9
	ARENA_2	0.056	1.12	75.4	RELLENO_ZANJA	0.833	17.13	1221.0
	ARENA_3	0.192	3.85	257.7				
1380.000	D TIERRA	1.309	25.31	1767.7	ARENA_1	0.118	2.36	160.2
	ARENA_2	0.056	1.12	76.5	RELLENO_ZANJA	0.920	17.52	1238.5
	ARENA_3	0.192	3.85	261.5				
1391.279	D TIERRA	1.268	14.53	1782.3	ARENA_1	0.118	1.33	161.5
	ARENA_2	0.056	0.63	77.1	RELLENO_ZANJA	0.879	10.14	1248.6
	ARENA_3	0.192	2.17	263.7				
1400.000	D TIERRA	1.234	10.91	1793.2	ARENA_1	0.118	1.03	162.6
	ARENA_2	0.056	0.49	77.6	RELLENO_ZANJA	0.845	7.52	1256.2
	ARENA_3	0.192	1.68	265.4				
1403.881	D TIERRA	1.268	4.86	1798.0	ARENA_1	0.118	0.46	163.0
	ARENA_2	0.056	0.22	77.9	RELLENO_ZANJA	0.879	3.35	1259.5
	ARENA_3	0.192	0.75	266.1				
1420.000	D TIERRA	1.227	20.11	1818.1	ARENA_1	0.118	1.90	164.9
	ARENA_2	0.056	0.91	78.8	RELLENO_ZANJA	0.838	13.84	1273.3
	ARENA_3	0.192	3.10	269.2				
1440.000	D TIERRA	1.368	25.94	1844.1	ARENA_1	0.118	2.36	167.3
	ARENA_2	0.056	1.12	79.9	RELLENO_ZANJA	0.979	18.16	1291.5
	ARENA_3	0.192	3.85	273.1				
1450.910	D TIERRA	1.268	14.38	1858.5	ARENA_1	0.118	1.29	168.6
	ARENA_2	0.056	0.61	80.5	RELLENO_ZANJA	0.879	10.13	1301.6
	ARENA_3	0.192	2.10	275.2				
1460.000	D TIERRA	1.250	11.44	1869.9	ARENA_1	0.118	1.07	169.6
	ARENA_2	0.056	0.51	81.0	RELLENO_ZANJA	0.861	7.91	1309.6
	ARENA_3	0.192	1.75	276.9				
1474.761	D TIERRA	1.336	19.08	1889.0	ARENA_1	0.118	1.74	171.4
	ARENA_2	0.056	0.83	81.8	RELLENO_ZANJA	0.947	13.34	1322.9
	ARENA_3	0.192	2.84	279.8				
1480.000	D TIERRA	1.319	6.96	1895.9	ARENA_1	0.118	0.62	172.0
	ARENA_2	0.056	0.29	82.1	RELLENO_ZANJA	0.930	4.92	1327.8
	ARENA_3	0.192	1.01	280.8				
1484.022	D TIERRA	1.268	5.20	1901.2	ARENA_1	0.118	0.47	172.5
	ARENA_2	0.056	0.23	82.4	RELLENO_ZANJA	0.879	3.64	1331.4
	ARENA_3	0.192	0.77	281.5				
1500.000	D TIERRA	1.268	20.26	1921.4	ARENA_1	0.118	1.88	174.4
	ARENA_2	0.056	0.90	83.3	RELLENO_ZANJA	0.879	14.04	1345.5
	ARENA_3	0.192	3.07	284.6				
1520.000	D TIERRA	1.208	24.76	1946.2	ARENA_1	0.118	2.36	176.7
	ARENA_2	0.056	1.12	84.4	RELLENO_ZANJA	0.819	16.98	1362.5
	ARENA_3	0.192	3.85	288.5				
1537.064	D TIERRA	1.266	21.11	1967.3	ARENA_1	0.118	2.01	178.7
	ARENA_2	0.056	0.96	85.3	RELLENO_ZANJA	0.877	14.47	1376.9
	ARENA_3	0.192	3.28	291.7				
1540.000	D TIERRA	1.358	3.85	1971.1	ARENA_1	0.118	0.35	179.1
	ARENA_2	0.056	0.17	85.5	RELLENO_ZANJA	0.969	2.71	1379.6
	ARENA_3	0.192	0.56	292.3				
1545.194	D TIERRA	1.268	6.82	1978.0	ARENA_1	0.118	0.61	179.7
	ARENA_2	0.056	0.29	85.8	RELLENO_ZANJA	0.879	4.80	1384.4
	ARENA_3	0.192	1.00	293.3				
1552.529	D TIERRA	1.263	9.28	1987.2	ARENA_1	0.118	0.86	180.5
	ARENA_2	0.056	0.41	86.2	RELLENO_ZANJA	0.874	6.43	1390.9
	ARENA_3	0.192	1.41	294.7				
1560.000	D TIERRA	1.283	9.51	1996.7	ARENA_1	0.118	0.88	181.4
	ARENA_2	0.056	0.42	86.6	RELLENO_ZANJA	0.894	6.60	1397.5
	ARENA_3	0.192	1.44	296.2				
1566.982	D TIERRA	1.268	8.90	2005.7	ARENA_1	0.118	0.82	182.2
	ARENA_2	0.056	0.39	87.0	RELLENO_ZANJA	0.879	6.19	1403.7
	ARENA_3	0.192	1.34	297.5				



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PROYECTO : CIDACOS COMPLETO
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MEDICIONES DE LOS PERFILES TRANSVERSALES
CAPAS DE FIRME

MEDICIONES DE LOS PERFILES TRANSVERSALES
CAPAS DE FIRME

Table with 5 columns: PERFIL, MATERIAL, AREA PERFIL, VOL. PARCIAL, VOL. ACUMUL. It lists data for various profiles from 1580.000 to 1860.000, including materials like TIERRA and ARENA, and RELLENO_ZANJA.

Table with 5 columns: PERFIL, MATERIAL, AREA PERFIL, VOL. PARCIAL, VOL. ACUMUL. It lists data for various profiles from 1873.282 to 2200.000, including materials like TIERRA and ARENA, and RELLENO_ZANJA.



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PROYECTO : CIDACOS COMPLETO
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MEDICIONES DE LOS PERFILES TRANSVERSALES
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MEDICIONES DE LOS PERFILES TRANSVERSALES
CAPAS DE FIRME

Table with columns: PERFIL, MATERIAL, AREA PERFIL, VOL. PARCIAL, VOL. ACUMUL., MATERIAL, AREA PERFIL, VOL. PARCIAL, VOL. ACUMUL. It lists data for various profiles from 2220.000 to 2440.000.

Table with columns: PERFIL, MATERIAL, AREA PERFIL, VOL. PARCIAL, VOL. ACUMUL., MATERIAL, AREA PERFIL, VOL. PARCIAL, VOL. ACUMUL. It lists data for various profiles from 2446.830 to 2740.000.



Istram 9.04 11/04/20 17:36:13
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MEDICIONES DE LOS PERFILES TRANSVERSALES
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CAPAS DE FIRME

Table with columns: PERFIL, MATERIAL, AREA PERFIL, VOL. PARCIAL, VOL. ACUMUL., MATERIAL, AREA PERFIL, VOL. PARCIAL, VOL. ACUMUL. Rows include profiles 2759.283 to 3000.000 with materials like TIERRA, ARENA, and RELLENO_ZANJA.

Table with columns: PERFIL, MATERIAL, AREA PERFIL, VOL. PARCIAL, VOL. ACUMUL., MATERIAL, AREA PERFIL, VOL. PARCIAL, VOL. ACUMUL. Rows include profiles 3020.000 to 3400.000 with materials like TIERRA, ARENA, and RELLENO_ZANJA.



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MEDICIONES DE LOS PERFILES TRANSVERSALES
CAPAS DE FIRME

MEDICIONES DE LOS PERFILES TRANSVERSALES
CAPAS DE FIRME

Table with 5 columns: PERFIL, MATERIAL, AREA PERFIL, VOL. PARCIAL, VOL. ACUMUL. It lists data for profiles 3420.000 to 3800.000, including materials like TIERRA, ARENA, and RELLENO_ZANJA.

Table with 5 columns: PERFIL, MATERIAL, AREA PERFIL, VOL. PARCIAL, VOL. ACUMUL. It lists data for profiles 3820.000 to 4180.000, including materials like TIERRA, ARENA, and RELLENO_ZANJA.



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PROYECTO : CIDACOS COMPLETO
EJE : 13: P360 (Tudelilla) - Ausejo

MEDICIONES DE LOS PERFILES TRANSVERSALES
CAPAS DE FIRME

MEDICIONES DE LOS PERFILES TRANSVERSALES
CAPAS DE FIRME

Table with columns: PERFIL, MATERIAL, AREA PERFIL, VOL. PARCIAL, VOL. ACUMUL., MATERIAL, AREA PERFIL, VOL. PARCIAL, VOL. ACUMUL. Rows include profiles 4180.306 to 4420.000.

Table with columns: PERFIL, MATERIAL, AREA PERFIL, VOL. PARCIAL, VOL. ACUMUL., MATERIAL, AREA PERFIL, VOL. PARCIAL, VOL. ACUMUL. Rows include profiles 4429.526 to 4714.173.

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 PROYECTO : CIDACOS COMPLETO
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 PROYECTO : CIDACOS COMPLETO
 EJE : 13: P360 (Tudelilla) - Ausejo

*** MEDICIONES DE LOS PERFILES TRANSVERSALES ***
 *** CAPAS DE FIRME ***

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 *** CAPAS DE FIRME ***

PERFIL	MATERIAL	AREA PERFIL	VOL. PARCIAL	VOL. ACUMUL.	MATERIAL	AREA PERFIL	VOL. PARCIAL	VOL. ACUMUL.
4720.000	D TIERRA	2.237	12.15	7526.0	ARENA_1	0.126	0.73	570.5
	ARENA_2	0.067	0.39	286.7	RELLENO_ZANJA	1.774	9.45	5540.7
	ARENA_3	0.248	1.44	1021.1				
4740.000	D TIERRA	1.841	40.78	7566.8	ARENA_1	0.126	2.51	573.0
	ARENA_2	0.067	1.34	288.0	RELLENO_ZANJA	1.378	31.52	5572.2
	ARENA_3	0.248	4.95	1026.1				
4748.328	D TIERRA	2.082	16.34	7583.1	ARENA_1	0.126	1.05	574.1
	ARENA_2	0.067	0.56	288.6	RELLENO_ZANJA	1.619	12.48	5584.7
	ARENA_3	0.248	2.06	1028.1				
4760.000	D TIERRA	2.086	24.33	7607.5	ARENA_1	0.126	1.47	575.5
	ARENA_2	0.067	0.78	289.4	RELLENO_ZANJA	1.623	18.92	5603.6
	ARENA_3	0.248	2.89	1031.0				
4780.000	D TIERRA	2.017	41.03	7648.5	ARENA_1	0.126	2.51	578.0
	ARENA_2	0.067	1.34	290.7	RELLENO_ZANJA	1.554	31.77	5635.3
	ARENA_3	0.248	4.95	1036.0				
4800.000	D TIERRA	1.934	39.51	7688.0	ARENA_1	0.126	2.51	580.6
	ARENA_2	0.067	1.34	292.0	RELLENO_ZANJA	1.471	30.25	5665.6
	ARENA_3	0.248	4.95	1040.9				
4805.142	D TIERRA	1.841	9.70	7697.7	ARENA_1	0.126	0.65	581.2
	ARENA_2	0.067	0.34	292.4	RELLENO_ZANJA	1.378	7.32	5672.9
	ARENA_3	0.248	1.27	1042.2				
4820.000	D TIERRA	1.854	27.45	7725.2	ARENA_1	0.126	1.87	583.1
	ARENA_2	0.067	0.99	293.4	RELLENO_ZANJA	1.391	20.57	5693.5
	ARENA_3	0.248	3.68	1045.9				
4840.000	D TIERRA	1.841	36.95	7762.1	ARENA_1	0.126	2.52	585.6
	ARENA_2	0.067	1.33	294.7	RELLENO_ZANJA	1.378	27.69	5721.2
	ARENA_3	0.248	4.95	1050.9				
4860.000	D TIERRA	1.841	36.82	7798.9	ARENA_1	0.126	2.52	588.1
	ARENA_2	0.067	1.33	296.0	RELLENO_ZANJA	1.378	27.56	5748.7
	ARENA_3	0.248	4.95	1055.8				
4880.000	D TIERRA	1.841	36.82	7835.7	ARENA_1	0.126	2.52	590.6
	ARENA_2	0.067	1.33	297.4	RELLENO_ZANJA	1.378	27.56	5776.3
	ARENA_3	0.248	4.95	1060.8				
4900.000	D TIERRA	1.896	37.37	7873.1	ARENA_1	0.126	2.52	593.1
	ARENA_2	0.067	1.33	298.7	RELLENO_ZANJA	1.433	28.11	5804.4
	ARENA_3	0.248	4.95	1065.7				
4920.000	D TIERRA	1.841	37.37	7910.5	ARENA_1	0.126	2.51	595.7
	ARENA_2	0.067	1.34	300.0	RELLENO_ZANJA	1.378	28.11	5832.5
	ARENA_3	0.248	4.95	1070.7				
4940.000	D TIERRA	1.841	36.81	7947.3	ARENA_1	0.126	2.51	598.2
	ARENA_2	0.067	1.34	301.4	RELLENO_ZANJA	1.378	27.56	5860.1
	ARENA_3	0.248	4.95	1075.6				
4960.000	D TIERRA	1.971	38.11	7985.4	ARENA_1	0.126	2.51	600.7
	ARENA_2	0.067	1.34	302.7	RELLENO_ZANJA	1.508	28.86	5888.9
	ARENA_3	0.248	4.95	1080.6				
4980.000	D TIERRA	1.874	38.45	8023.9	ARENA_1	0.126	2.51	603.2
	ARENA_2	0.067	1.34	304.0	RELLENO_ZANJA	1.411	29.19	5918.1
	ARENA_3	0.248	4.95	1085.5				
5000.000	D TIERRA	1.978	38.52	8062.4	ARENA_1	0.126	2.51	605.7
	ARENA_2	0.067	1.33	305.4	RELLENO_ZANJA	1.515	29.26	5947.4
	ARENA_3	0.248	4.95	1090.5				
5020.000	D TIERRA	1.889	38.67	8101.0	ARENA_1	0.126	2.52	608.2
	ARENA_2	0.067	1.33	306.7	RELLENO_ZANJA	1.426	29.41	5976.8
	ARENA_3	0.248	4.95	1095.4				
5022.095	D TIERRA	1.844	3.91	8104.9	ARENA_1	0.126	0.26	608.5
	ARENA_2	0.067	0.14	306.8	RELLENO_ZANJA	1.381	2.94	5979.7
	ARENA_3	0.248	0.52	1096.0				
5040.000	D TIERRA	1.847	33.04	8138.0	ARENA_1	0.126	2.25	610.7
	ARENA_2	0.067	1.19	308.0	RELLENO_ZANJA	1.384	24.75	6004.5
	ARENA_3	0.248	4.43	1100.4				

PERFIL	MATERIAL	AREA PERFIL	VOL. PARCIAL	VOL. ACUMUL.	MATERIAL	AREA PERFIL	VOL. PARCIAL	VOL. ACUMUL.
5060.000	D TIERRA	1.843	36.91	8174.9	ARENA_1	0.126	2.51	613.3
	ARENA_2	0.067	1.34	309.4	RELLENO_ZANJA	1.380	27.65	6032.1
	ARENA_3	0.248	4.95	1105.4				
5067.013	D TIERRA	2.148	14.00	8188.9	ARENA_1	0.126	0.88	614.1
	ARENA_2	0.067	0.47	309.8	RELLENO_ZANJA	1.685	10.75	6042.9
	ARENA_3	0.248	1.74	1107.1				
5080.000	D TIERRA	1.994	26.90	8215.8	ARENA_1	0.126	1.63	615.8
	ARENA_2	0.067	0.87	310.7	RELLENO_ZANJA	1.531	20.88	6063.8
	ARENA_3	0.248	3.22	1110.3				
5091.052	D TIERRA	1.831	21.14	8236.9	ARENA_1	0.126	1.39	617.2
	ARENA_2	0.067	0.74	311.5	RELLENO_ZANJA	1.368	16.02	6079.8
	ARENA_3	0.248	2.74	1113.0				
5100.000	D TIERRA	1.843	16.44	8253.4	ARENA_1	0.126	1.13	618.3
	ARENA_2	0.067	0.60	312.0	RELLENO_ZANJA	1.380	12.29	6092.1
	ARENA_3	0.248	2.22	1115.3				
5120.000	D TIERRA	1.841	36.84	8290.2	ARENA_1	0.126	2.51	620.8
	ARENA_2	0.067	1.34	313.4	RELLENO_ZANJA	1.378	27.58	6119.7
	ARENA_3	0.248	4.95	1120.2				
5140.000	D TIERRA	1.841	36.82	8327.0	ARENA_1	0.126	2.51	623.3
	ARENA_2	0.067	1.34	314.7	RELLENO_ZANJA	1.378	27.56	6147.2
	ARENA_3	0.248	4.95	1125.2				
5160.000	D TIERRA	1.793	36.34	8363.4	ARENA_1	0.126	2.51	625.8
	ARENA_2	0.067	1.34	316.1	RELLENO_ZANJA	1.330	27.08	6174.3
	ARENA_3	0.248	4.95	1130.1				
5180.000	D TIERRA	1.869	36.62	8400.0	ARENA_1	0.126	2.51	628.3
	ARENA_2	0.067	1.34	317.4	RELLENO_ZANJA	1.406	27.36	6201.7
	ARENA_3	0.248	4.95	1135.1				
5200.000	D TIERRA	1.841	37.10	8437.1	ARENA_1	0.126	2.51	630.9
	ARENA_2	0.067	1.34	318.7	RELLENO_ZANJA	1.378	27.84	6229.5
	ARENA_3	0.248	4.95	1140.0				
5200.000	D TIERRA	1.268	0.00	8437.1	ARENA_1	0.118	0.00	630.9
	ARENA_2	0.056	0.00	318.7	RELLENO_ZANJA	0.879	0.00	6229.5
	ARENA_3	0.192	0.00	1140.0				
5220.000	D TIERRA	1.268	25.36	8462.4	ARENA_1	0.118	2.36	633.2
	ARENA_2	0.056	1.13	319.8	RELLENO_ZANJA	0.879	17.58	6247.1
	ARENA_3	0.192	3.85	1143.9				
5240.000	D TIERRA	1.503	27.71	8490.2	ARENA_1	0.118	2.36	635.6
	ARENA_2	0.056	1.13	321.0	RELLENO_ZANJA	1.114	19.93	6267.0
	ARENA_3	0.192	3.84	1147.7				
5260.000	D TIERRA	1.701	32.05	8522.2	ARENA_1	0.118	2.35	637.9
	ARENA_2	0.056	1.13	322.1	RELLENO_ZANJA	1.312	24.26	6291.3
	ARENA_3	0.192	3.84	1151.6				
5280.000	D TIERRA	1.268	29.69	8551.9	ARENA_1	0.118	2.36	640.3
	ARENA_2	0.056	1.13	323.2	RELLENO_ZANJA	0.879	21.91	6313.2
	ARENA_3	0.192	3.84	1155.4				
5300.000	D TIERRA	1.268	25.36	8577.3	ARENA_1	0.118	2.36	642.6
	ARENA_2	0.056	1.13	324.4	RELLENO_ZANJA	0.879	17.58	6330.8
	ARENA_3	0.192	3.84	1159.2				
5320.000	D TIERRA	1.133	24.01	8601.3	ARENA_1	0.118	2.36	645.0
	ARENA_2	0.056	1.13	325.5	RELLENO_ZANJA	0.744	16.23	6347.0
	ARENA_3	0.192	3.85	1163.1				
5340.000	D TIERRA	1.268	24.01	8625.3	ARENA_1	0.118	2.36	647.4
	ARENA_2	0.056	1.12	326.6	RELLENO_ZANJA	0.879	16.22	6363.2
	ARENA_3	0.192	3.85	1166.9				
5360.000	D TIERRA	1.319	25.87	8651.1	ARENA_1	0.118	2.36	649.7
	ARENA_2	0.056	1.13	327.7	RELLENO_ZANJA	0.929	18.08	6381.3
	ARENA_3	0.192	3.85	1170.8				
5380.000	D TIERRA	1.651	29.70	8680.8	ARENA_1	0.118	2.36	652.1
	ARENA_2	0.056	1.13	328.9	RELLENO_ZANJA	1.262	21.91	6403.2
	ARENA_3	0.192	3.84	1174.6				



Istram 9.04 11/04/20 17:36:13
PROYECTO : CIDACOS COMPLETO
EJE : 13: P360 (Tudelilla) - Ausejo

Istram 9.04 11/04/20 17:36:13
PROYECTO : CIDACOS COMPLETO
EJE : 13: P360 (Tudelilla) - Ausejo

MEDICIONES DE LOS PERFILES TRANSVERSALES
CAPAS DE FIRME

MEDICIONES DE LOS PERFILES TRANSVERSALES
CAPAS DE FIRME

Table with 9 columns: PERFIL, MATERIAL, AREA PERFIL, VOL. PARCIAL, VOL. ACUMUL., MATERIAL, AREA PERFIL, VOL. PARCIAL, VOL. ACUMUL. Rows include profiles 5400.000 to 5715.227.

Table with 9 columns: PERFIL, MATERIAL, AREA PERFIL, VOL. PARCIAL, VOL. ACUMUL., MATERIAL, AREA PERFIL, VOL. PARCIAL, VOL. ACUMUL. Rows include profiles 5720.000 to 6020.000.



Istram 9.04 11/04/20 17:36:13
PROYECTO : CIDACOS COMPLETO
EJE : 13: P360 (Tudelilla) - Ausejo

Istram 9.04 11/04/20 17:36:13
PROYECTO : CIDACOS COMPLETO
EJE : 13: P360 (Tudelilla) - Ausejo

MEDICIONES DE LOS PERFILES TRANSVERSALES
CAPAS DE FIRME

MEDICIONES DE LOS PERFILES TRANSVERSALES
CAPAS DE FIRME

Table with columns: PERFIL, MATERIAL, AREA PERFIL, VOL. PARCIAL, VOL. ACUMUL., MATERIAL, AREA PERFIL, VOL. PARCIAL, VOL. ACUMUL. It lists data for profiles 6040.000 to 6240.000.

Table with columns: PERFIL, MATERIAL, AREA PERFIL, VOL. PARCIAL, VOL. ACUMUL., MATERIAL, AREA PERFIL, VOL. PARCIAL, VOL. ACUMUL. It lists data for profiles 6253.127 to 6517.144.



Istram 9.04 11/04/20 17:36:13
PROYECTO : CIDACOS COMPLETO
EJE : 13: P360 (Tudelilla) - Ausejo

Istram 9.04 11/04/20 17:36:14
PROYECTO : CIDACOS COMPLETO
EJE : 13: P360 (Tudelilla) - Ausejo

MEDICIONES DE LOS PERFILES TRANSVERSALES
CAPAS DE FIRME

MEDICIONES DE LOS PERFILES TRANSVERSALES
CAPAS DE FIRME

Table with columns: PERFIL, MATERIAL, AREA PERFIL, VOL. PARCIAL, VOL. ACUMUL., MATERIAL, AREA PERFIL, VOL. PARCIAL, VOL. ACUMUL. containing data for profiles 6520.000 to 6700.000.

Table with columns: PERFIL, MATERIAL, AREA PERFIL, VOL. PARCIAL, VOL. ACUMUL., MATERIAL, AREA PERFIL, VOL. PARCIAL, VOL. ACUMUL. containing data for profiles 6720.000 to 6918.266.



Istram 9.04 11/04/20 17:36:13
PROYECTO : CIDACOS COMPLETO
EJE : 13: P360 (Tudelilla) - Ausejo

MEDICIONES DE LOS PERFILES TRANSVERSALES
CAPAS DE FIRME

Table with columns: PERFIL, MATERIAL, AREA PERFIL, VOL. PARCIAL, VOL. ACUMUL., MATERIAL, AREA PERFIL, VOL. PARCIAL, VOL. ACUMUL. Rows include profiles 6920.000 to 7020.273 with materials like TIERRA, ARENA, and RELLENO_ZANJA.

Istram 9.04 11/04/20 17:36:14
PROYECTO : CIDACOS COMPLETO
EJE : 13: P360 (Tudelilla) - Ausejo

RESUMEN DE VOLUMENES TOTALES

Summary table with columns: MATERIAL, VOLUMEN. Lists materials like TERRAPLEN, D TIERRA, ARENA, and RELLENO_ZANJA with their respective volumes.

14. EJE 14: ACOMETIDA SANTA EULALIA BAJERA

Istram 9.04 11/04/20 12:51:27
PROYECTO : CIDACOS COMPLETO
EJE : 14: ACOMETIDA SANTA EULALIA BAJERA

MEDICIONES DE LOS PERFILES TRANSVERSALES
CAPAS DE FIRME

Table with columns: PERFIL, MATERIAL, AREA PERFIL, VOL. PARCIAL, VOL. ACUMUL., MATERIAL, AREA PERFIL, VOL. PARCIAL, VOL. ACUMUL. Rows include profiles 313.991 to 469.638 with materials like TIERRA, ARENA, and RELLENO_ZANJA.

Istram 9.04 11/04/20 12:51:27

 PROYECTO : CIDACOS COMPLETO
 EJE : 14: ACOMETIDA SANTA EULALIA BAJERA

Istram 9.04 11/04/20 12:51:27

 PROYECTO : CIDACOS COMPLETO
 EJE : 14: ACOMETIDA SANTA EULALIA BAJERA

 * * * MEDICIONES DE LOS PERFILES TRANSVERSALES* * *
 * * * CAPAS DE FIRME * * *

 * * * MEDICIONES DE LOS PERFILES TRANSVERSALES* * *
 * * * CAPAS DE FIRME * * *

PERFIL	MATERIAL	AREA PERFIL	VOL. PARCIAL	VOL. ACUMUL.	MATERIAL	AREA PERFIL	VOL. PARCIAL	VOL. ACUMUL.
480.000	D TIERRA	3.987	40.69	676.8	ARENA_1	0.152	1.57	25.2
	ARENA_2	0.046	0.47	7.6	RELLENO_ZANJA	3.452	35.14	588.0
	ARENA_3	0.334	3.46	55.4				
500.000	D TIERRA	4.183	81.70	758.5	ARENA_1	0.152	3.03	28.2
	ARENA_2	0.046	0.91	8.5	RELLENO_ZANJA	3.648	71.01	659.0
	ARENA_3	0.334	6.67	62.1				
502.746	D TIERRA	4.300	11.65	770.1	ARENA_1	0.152	0.42	28.6
	ARENA_2	0.046	0.13	8.6	RELLENO_ZANJA	3.765	10.18	669.1
	ARENA_3	0.334	0.92	63.0				
520.000	D TIERRA	4.052	72.05	842.2	ARENA_1	0.152	2.62	31.3
	ARENA_2	0.046	0.79	9.4	RELLENO_ZANJA	3.518	62.83	732.0
	ARENA_3	0.334	5.76	68.7				
540.000	D TIERRA	4.047	81.00	923.2	ARENA_1	0.152	3.03	34.3
	ARENA_2	0.046	0.91	10.3	RELLENO_ZANJA	3.512	70.30	802.3
	ARENA_3	0.334	6.67	75.4				
560.000	D TIERRA	4.006	80.53	1003.7	ARENA_1	0.152	3.03	37.3
	ARENA_2	0.046	0.91	11.2	RELLENO_ZANJA	3.471	69.83	872.1
	ARENA_3	0.334	6.67	82.1				
571.248	D TIERRA	4.218	46.25	1050.0	ARENA_1	0.152	1.71	39.0
	ARENA_2	0.046	0.51	11.7	RELLENO_ZANJA	3.683	40.23	912.3
	ARENA_3	0.334	3.75	85.8				
580.000	D TIERRA	1.318	0.00	1050.0	ARENA_1	0.111	0.00	39.0
	ARENA_2	0.026	0.00	11.7	RELLENO_ZANJA	1.024	0.00	912.3
	ARENA_3	0.153	0.00	85.8				
590.274	D TIERRA	1.293	13.41	1063.4	ARENA_1	0.111	1.14	40.2
	ARENA_2	0.026	0.26	12.0	RELLENO_ZANJA	0.998	10.39	922.7
	ARENA_3	0.153	1.58	87.4				
598.241	D TIERRA	0.000	0.00	1063.4	ARENA_1	0.000	0.00	40.2
	ARENA_2	0.000	0.00	12.0	RELLENO_ZANJA	0.000	0.00	922.7
	ARENA_3	0.000	0.00	87.4				
600.000	D TIERRA	0.000	0.00	1063.4	ARENA_1	0.000	0.00	40.2
	ARENA_2	0.000	0.00	12.0	RELLENO_ZANJA	0.000	0.00	922.7
	ARENA_3	0.000	0.00	87.4				
604.687	D TIERRA	0.000	0.00	1063.4	ARENA_1	0.000	0.00	40.2
	ARENA_2	0.000	0.00	12.0	RELLENO_ZANJA	0.000	0.00	922.7
	ARENA_3	0.000	0.00	87.4				
620.000	D TIERRA	0.000	0.00	1063.4	ARENA_1	0.000	0.00	40.2
	ARENA_2	0.000	0.00	12.0	RELLENO_ZANJA	0.000	0.00	922.7
	ARENA_3	0.000	0.00	87.4				
640.000	D TIERRA	1.271	0.00	1063.4	ARENA_1	0.111	0.00	40.2
	ARENA_2	0.026	0.00	12.0	RELLENO_ZANJA	0.977	0.00	922.7
	ARENA_3	0.153	0.00	87.4				
650.575	D TIERRA	1.299	13.59	1077.0	ARENA_1	0.111	1.18	41.3
	ARENA_2	0.026	0.27	12.3	RELLENO_ZANJA	1.005	10.48	933.2
	ARENA_3	0.153	1.62	89.0				
660.000	D TIERRA	1.300	12.25	1089.2	ARENA_1	0.111	1.05	42.4
	ARENA_2	0.026	0.24	12.5	RELLENO_ZANJA	1.006	9.47	942.7
	ARENA_3	0.153	1.45	90.5				
671.334	D TIERRA	1.374	15.15	1104.4	ARENA_1	0.111	1.26	43.7
	ARENA_2	0.026	0.29	12.8	RELLENO_ZANJA	1.079	11.82	954.5
	ARENA_3	0.153	1.74	92.2				
680.000	D TIERRA	1.270	11.46	1115.8	ARENA_1	0.111	0.96	44.6
	ARENA_2	0.026	0.22	13.0	RELLENO_ZANJA	0.976	8.91	963.4
	ARENA_3	0.153	1.33	93.5				
700.000	D TIERRA	1.418	26.89	1142.7	ARENA_1	0.111	2.22	46.8
	ARENA_2	0.026	0.51	13.6	RELLENO_ZANJA	1.124	21.00	984.4
	ARENA_3	0.153	3.07	96.6				
720.000	D TIERRA	1.317	27.36	1170.1	ARENA_1	0.111	2.22	49.1
	ARENA_2	0.026	0.51	14.1	RELLENO_ZANJA	1.023	21.47	1005.9
	ARENA_3	0.153	3.07	99.7				

PERFIL	MATERIAL	AREA PERFIL	VOL. PARCIAL	VOL. ACUMUL.	MATERIAL	AREA PERFIL	VOL. PARCIAL	VOL. ACUMUL.
722.443	D TIERRA	1.275	3.17	1173.2	ARENA_1	0.111	0.27	49.3
	ARENA_2	0.026	0.06	14.1	RELLENO_ZANJA	0.981	2.45	1008.3
	ARENA_3	0.153	0.37	100.0				
738.251	D TIERRA	1.170	19.33	1192.5	ARENA_1	0.111	1.76	51.1
	ARENA_2	0.026	0.40	14.5	RELLENO_ZANJA	0.876	14.68	1023.0
	ARENA_3	0.153	2.42	102.5				
740.000	D TIERRA	1.157	2.04	1194.6	ARENA_1	0.111	0.19	51.3
	ARENA_2	0.026	0.04	14.6	RELLENO_ZANJA	0.863	1.52	1024.5
	ARENA_3	0.153	0.27	102.7				
751.560	D TIERRA	1.185	13.53	1208.1	ARENA_1	0.111	1.29	52.6
	ARENA_2	0.026	0.30	14.9	RELLENO_ZANJA	0.890	10.13	1034.7
	ARENA_3	0.153	1.77	104.5				
760.000	D TIERRA	1.296	10.47	1218.6	ARENA_1	0.111	0.94	53.5
	ARENA_2	0.026	0.22	15.1	RELLENO_ZANJA	1.002	7.99	1042.6
	ARENA_3	0.153	1.29	105.8				
772.553	D TIERRA	1.235	15.89	1234.5	ARENA_1	0.111	1.40	54.9
	ARENA_2	0.026	0.32	15.4	RELLENO_ZANJA	0.941	12.20	1054.8
	ARENA_3	0.153	1.93	107.7				
780.000	D TIERRA	1.185	9.01	1243.5	ARENA_1	0.111	0.83	55.7
	ARENA_2	0.026	0.19	15.6	RELLENO_ZANJA	0.891	6.82	1061.7
	ARENA_3	0.153	1.14	108.9				
792.800	D TIERRA	1.272	15.73	1259.2	ARENA_1	0.111	1.42	57.2
	ARENA_2	0.026	0.33	15.9	RELLENO_ZANJA	0.978	11.96	1073.6
	ARENA_3	0.153	1.96	110.8				
800.000	D TIERRA	1.272	9.16	1268.4	ARENA_1	0.111	0.80	58.0
	ARENA_2	0.026	0.18	16.1	RELLENO_ZANJA	0.978	7.04	1080.7
	ARENA_3	0.153	1.10	111.9				
807.244	D TIERRA	1.271	9.21	1277.6	ARENA_1	0.111	0.81	58.8
	ARENA_2	0.026	0.19	16.3	RELLENO_ZANJA	0.977	7.08	1087.7
	ARENA_3	0.153	1.11	113.1				

Istram 9.04 11/04/20 12:51:27

 PROYECTO : CIDACOS COMPLETO
 EJE : 14: ACOMETIDA SANTA EULALIA BAJERA

* * * RESUMEN DE VOLUMENES TOTALES * * *

MATERIAL	VOLUMEN
TERRAPLEN	0.0
D TIERRA	1277.6
ARENA_1	58.8
ARENA_2	16.3
RELLENO_ZANJA	1087.7
ARENA_3	113.1



15. EJE 15: ACOMETIDA HERCE

Istram 9.04 11/04/20 12:04:20
PROYECTO :
EJE : 15: ACOMETIDA HERCE

CIDACOS COMPLETO

Istram 9.04 11/04/20 12:04:20
PROYECTO :
EJE : 15: ACOMETIDA HERCE

CIDACOS COMPLETO

MEDICIONES DE LOS PERFILES TRANSVERSALES
CAPAS DE FIRME

MEDICIONES DE LOS PERFILES TRANSVERSALES
CAPAS DE FIRME

Table with columns: PERFIL, MATERIAL, AREA PERFIL, VOL. PARCIAL, VOL. ACUMUL., MATERIAL, AREA PERFIL, VOL. PARCIAL, VOL. ACUMUL. Rows include data for profiles from 0.000 to 280.000.

Table with columns: PERFIL, MATERIAL, AREA PERFIL, VOL. PARCIAL, VOL. ACUMUL., MATERIAL, AREA PERFIL, VOL. PARCIAL, VOL. ACUMUL. Rows include data for profiles from 291.004 to 540.000.

Istram 9.04 11/04/20 12:04:20
 PROYECTO :
 EJE : 15: ACOMETIDA HERCE

CIDACOS COMPLETO

*** MEDICIONES DE LOS PERFILES TRANSVERSALES***
 *** CAPAS DE FIRME ***

PERFIL	MATERIAL	AREA PERFIL	VOL. PARCIAL	VOL. ACUMUL.	MATERIAL	AREA PERFIL	VOL. PARCIAL	VOL. ACUMUL.
560.000	D_TIERRA	1.130	24.98	586.4	ARENA_1	0.111	2.23	56.9
	ARENA_2	0.030	0.60	15.0	RELLENO_ZANJA	0.824	18.85	433.6
	ARENA_3	0.159	3.18	77.9				
570.404	D_TIERRA	2.103	16.82	603.2	ARENA_1	0.111	1.16	58.1
	ARENA_2	0.030	0.31	15.4	RELLENO_ZANJA	1.797	13.63	447.2
	ARENA_3	0.159	1.66	79.5				
575.608	D_TIERRA	1.143	8.45	611.6	ARENA_1	0.111	0.58	58.6
	ARENA_2	0.030	0.16	15.5	RELLENO_ZANJA	0.837	6.85	454.1
	ARENA_3	0.159	0.83	80.4				

Istram 9.04 11/04/20 12:04:20
 PROYECTO :
 EJE : 15: ACOMETIDA HERCE

CIDACOS COMPLETO

*** RESUMEN DE VOLUMENES TOTALES ***

MATERIAL	VOLUMEN
TERRAPLEN	0.0
D_TIERRA	611.6
ARENA_1	58.6
ARENA_2	15.5
RELLENO_ZANJA	454.1
ARENA_3	80.4

16. EJE 16: ACOMETIDA ARNEDO

Istram 9.04 10/04/20 13:04:12
 PROYECTO :
 EJE : 16: ACOMETIDA ARNEDO

CIDACOS COMPLETO

*** MEDICIONES DE LOS PERFILES TRANSVERSALES***
 *** CAPAS DE FIRME ***

PERFIL	MATERIAL	AREA PERFIL	VOL. PARCIAL	VOL. ACUMUL.	MATERIAL	AREA PERFIL	VOL. PARCIAL	VOL. ACUMUL.
0.000	D_TIERRA	2.335	0.00	0.0	ARENA_1	0.157	0.00	0.0
	ARENA_2	0.149	0.00	0.0	RELLENO_ZANJA	1.553	0.00	0.0
	ARENA_3	0.332	0.00	0.0				
20.000	D_TIERRA	1.810	41.45	41.5	ARENA_1	0.157	3.13	3.1
	ARENA_2	0.149	2.99	3.0	RELLENO_ZANJA	1.028	25.81	25.8
	ARENA_3	0.332	6.63	6.6				
35.484	D_TIERRA	2.024	29.68	71.1	ARENA_1	0.157	2.42	5.6
	ARENA_2	0.149	2.31	5.3	RELLENO_ZANJA	1.242	17.57	43.4
	ARENA_3	0.332	5.13	11.8				
40.000	D_TIERRA	2.091	9.29	80.4	ARENA_1	0.157	0.71	6.3
	ARENA_2	0.149	0.68	6.0	RELLENO_ZANJA	1.308	5.76	49.1
	ARENA_3	0.332	1.50	13.3				
60.000	D_TIERRA	1.903	39.93	120.4	ARENA_1	0.157	3.13	9.4
	ARENA_2	0.149	2.99	9.0	RELLENO_ZANJA	1.121	24.29	73.4
	ARENA_3	0.332	6.63	19.9				
65.085	D_TIERRA	1.872	9.60	130.0	ARENA_1	0.157	0.80	10.2
	ARENA_2	0.149	0.76	9.7	RELLENO_ZANJA	1.090	5.62	79.0
	ARENA_3	0.332	1.69	21.6				
80.000	D_TIERRA	1.820	27.53	157.5	ARENA_1	0.157	2.34	12.5
	ARENA_2	0.149	2.23	12.0	RELLENO_ZANJA	1.037	15.86	94.9
	ARENA_3	0.332	4.95	26.5				
100.000	D_TIERRA	1.810	36.30	193.8	ARENA_1	0.157	3.13	15.7
	ARENA_2	0.149	2.99	14.9	RELLENO_ZANJA	1.028	20.66	115.6
	ARENA_3	0.332	6.63	33.2				
120.000	D_TIERRA	1.926	37.37	231.2	ARENA_1	0.157	3.13	18.8
	ARENA_2	0.149	2.99	17.9	RELLENO_ZANJA	1.144	21.72	137.3
	ARENA_3	0.332	6.63	39.8				
135.304	D_TIERRA	1.917	29.41	260.6	ARENA_1	0.157	2.40	21.2
	ARENA_2	0.149	2.29	20.2	RELLENO_ZANJA	1.135	17.44	154.7
	ARENA_3	0.332	5.08	44.9				
140.000	D_TIERRA	1.962	9.11	269.7	ARENA_1	0.157	0.74	21.9
	ARENA_2	0.149	0.70	20.9	RELLENO_ZANJA	1.180	5.44	160.2
	ARENA_3	0.332	1.56	46.4				
147.144	D_TIERRA	1.987	14.11	283.8	ARENA_1	0.157	1.12	23.0
	ARENA_2	0.149	1.07	22.0	RELLENO_ZANJA	1.205	8.52	168.7
	ARENA_3	0.332	2.37	48.8				
160.000	D_TIERRA	2.006	25.67	309.4	ARENA_1	0.157	2.01	25.1
	ARENA_2	0.149	1.92	23.9	RELLENO_ZANJA	1.224	15.61	184.3
	ARENA_3	0.332	4.26	53.1				
180.000	D_TIERRA	1.810	38.16	347.6	ARENA_1	0.157	3.13	28.2
	ARENA_2	0.149	2.99	26.9	RELLENO_ZANJA	1.028	22.52	206.8
	ARENA_3	0.332	6.63	59.7				
196.169	D_TIERRA	1.831	29.43	377.0	ARENA_1	0.157	2.53	30.7
	ARENA_2	0.149	2.42	29.3	RELLENO_ZANJA	1.048	16.79	223.6
	ARENA_3	0.332	5.36	65.1				
200.000	D_TIERRA	1.820	6.99	384.0	ARENA_1	0.157	0.60	31.3
	ARENA_2	0.149	0.57	29.9	RELLENO_ZANJA	1.037	4.00	227.6
	ARENA_3	0.332	1.27	66.3				
217.718	D_TIERRA	1.812	32.17	416.2	ARENA_1	0.157	2.77	34.1
	ARENA_2	0.149	2.65	32.5	RELLENO_ZANJA	1.030	18.31	245.9
	ARENA_3	0.332	5.88	72.2				
220.000	D_TIERRA	1.838	4.16	420.4	ARENA_1	0.157	0.36	34.5
	ARENA_2	0.149	0.34	32.9	RELLENO_ZANJA	1.056	2.38	248.3
	ARENA_3	0.332	0.76	73.0				
233.851	D_TIERRA	1.823	25.35	445.7	ARENA_1	0.157	2.17	36.6
	ARENA_2	0.149	2.07	35.0	RELLENO_ZANJA	1.041	14.52	262.8
	ARENA_3	0.332	4.59	77.6				



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CIDACOS COMPLETO

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PROYECTO :
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CIDACOS COMPLETO

*** MEDICIONES DE LOS PERFILES TRANSVERSALES ***
*** CAPAS DE FIRME ***

*** MEDICIONES DE LOS PERFILES TRANSVERSALES ***
*** CAPAS DE FIRME ***

PERFIL	MATERIAL	AREA PERFIL	VOL. PARCIAL	VOL. ACUMUL.	MATERIAL	AREA PERFIL	VOL. PARCIAL	VOL. ACUMUL.
240.000	D TIERRA	1.812	11.18	456.9	ARENA_1	0.157	0.96	37.6
	ARENA_2	0.149	0.92	35.9	RELLENO_ZANJA	1.030	6.37	269.2
	ARENA_3	0.332	2.04	79.6				
242.327	D TIERRA	1.815	4.22	461.1	ARENA_1	0.157	0.36	37.9
	ARENA_2	0.149	0.35	36.2	RELLENO_ZANJA	1.033	2.40	271.6
	ARENA_3	0.332	0.77	80.4				
260.000	D TIERRA	1.803	31.97	493.1	ARENA_1	0.157	2.77	40.7
	ARENA_2	0.149	2.64	38.9	RELLENO_ZANJA	1.021	18.15	289.7
	ARENA_3	0.332	5.86	86.2				
280.000	D TIERRA	1.810	36.13	529.2	ARENA_1	0.157	3.13	43.8
	ARENA_2	0.149	2.99	41.9	RELLENO_ZANJA	1.028	20.49	310.2
	ARENA_3	0.332	6.63	92.9				
288.226	D TIERRA	1.812	14.90	544.1	ARENA_1	0.157	1.29	45.1
	ARENA_2	0.150	1.23	43.1	RELLENO_ZANJA	1.030	8.46	318.7
	ARENA_3	0.332	2.73	95.6				
296.100	D TIERRA	1.957	14.84	559.0	ARENA_1	0.156	1.23	46.4
	ARENA_2	0.150	1.18	44.3	RELLENO_ZANJA	1.174	8.68	327.4
	ARENA_3	0.330	2.61	98.2				
300.000	D TIERRA	2.103	7.92	566.9	ARENA_1	0.157	0.61	47.0
	ARENA_2	0.149	0.58	44.8	RELLENO_ZANJA	1.321	4.87	332.2
	ARENA_3	0.332	1.29	99.5				
302.433	D TIERRA	2.223	5.26	572.1	ARENA_1	0.157	0.38	47.4
	ARENA_2	0.149	0.36	45.2	RELLENO_ZANJA	1.441	3.36	335.6
	ARENA_3	0.332	0.81	100.3				
313.470	D TIERRA	1.803	22.22	594.4	ARENA_1	0.157	1.73	49.1
	ARENA_2	0.149	1.65	46.9	RELLENO_ZANJA	1.021	13.59	349.2
	ARENA_3	0.332	3.66	104.0				
320.000	D TIERRA	1.811	11.80	606.2	ARENA_1	0.156	1.02	50.1
	ARENA_2	0.150	0.98	47.8	RELLENO_ZANJA	1.029	6.69	355.9
	ARENA_3	0.330	2.16	106.1				
332.443	D TIERRA	1.893	23.04	629.2	ARENA_1	0.157	1.95	52.1
	ARENA_2	0.150	1.86	49.7	RELLENO_ZANJA	1.110	13.31	369.2
	ARENA_3	0.331	4.11	110.2				
340.000	D TIERRA	1.810	13.99	643.2	ARENA_1	0.157	1.18	53.2
	ARENA_2	0.150	1.13	50.8	RELLENO_ZANJA	1.028	8.08	377.2
	ARENA_3	0.331	2.50	112.7				
360.000	D TIERRA	1.829	36.39	679.6	ARENA_1	0.157	3.13	56.4
	ARENA_2	0.150	2.99	53.8	RELLENO_ZANJA	1.047	20.75	398.0
	ARENA_3	0.331	6.62	119.3				
367.286	D TIERRA	2.278	14.96	694.6	ARENA_1	0.157	1.14	57.5
	ARENA_2	0.149	1.09	54.9	RELLENO_ZANJA	1.495	9.26	407.3
	ARENA_3	0.332	2.42	121.8				
373.812	D TIERRA	2.546	15.74	710.3	ARENA_1	0.157	1.02	58.5
	ARENA_2	0.149	0.98	55.9	RELLENO_ZANJA	1.764	10.64	417.9
	ARENA_3	0.332	2.16	123.9				
380.000	D TIERRA	2.461	15.49	725.8	ARENA_1	0.157	0.97	59.5
	ARENA_2	0.149	0.92	56.8	RELLENO_ZANJA	1.679	10.65	428.5
	ARENA_3	0.332	2.05	126.0				
385.200	D TIERRA	2.438	12.74	738.5	ARENA_1	0.157	0.81	60.3
	ARENA_2	0.149	0.78	57.6	RELLENO_ZANJA	1.656	8.67	437.2
	ARENA_3	0.332	1.72	127.7				
400.000	D TIERRA	2.267	34.82	773.3	ARENA_1	0.157	2.32	62.6
	ARENA_2	0.149	2.21	59.8	RELLENO_ZANJA	1.485	23.24	460.5
	ARENA_3	0.332	4.91	132.6				
420.000	D TIERRA	2.017	42.84	816.2	ARENA_1	0.157	3.13	65.8
	ARENA_2	0.149	2.99	62.8	RELLENO_ZANJA	1.235	27.19	487.7
	ARENA_3	0.332	6.63	139.2				
432.008	D TIERRA	1.810	22.98	839.2	ARENA_1	0.157	1.88	67.7
	ARENA_2	0.150	1.79	64.6	RELLENO_ZANJA	1.028	13.59	501.2
	ARENA_3	0.332	3.98	143.2				

PERFIL	MATERIAL	AREA PERFIL	VOL. PARCIAL	VOL. ACUMUL.	MATERIAL	AREA PERFIL	VOL. PARCIAL	VOL. ACUMUL.
440.000	D TIERRA	1.810	14.47	853.6	ARENA_1	0.157	1.25	68.9
	ARENA_2	0.150	1.19	65.8	RELLENO_ZANJA	1.028	8.22	509.5
	ARENA_3	0.332	2.65	145.9				
448.496	D TIERRA	1.813	15.39	869.0	ARENA_1	0.157	1.33	70.2
	ARENA_2	0.149	1.27	67.0	RELLENO_ZANJA	1.031	8.75	518.2
	ARENA_3	0.332	2.82	148.7				
453.723	D TIERRA	1.690	9.15	878.2	ARENA_1	0.156	0.82	71.1
	ARENA_2	0.150	0.78	67.8	RELLENO_ZANJA	0.908	5.07	523.3
	ARENA_3	0.330	1.73	150.4				
460.000	D TIERRA	1.991	11.55	889.7	ARENA_1	0.157	0.98	72.0
	ARENA_2	0.150	0.94	68.8	RELLENO_ZANJA	1.209	6.64	529.9
	ARENA_3	0.330	2.07	152.5				
460.000	D TIERRA	0.000	0.00	889.7	ARENA_1	0.000	0.00	72.0
	ARENA_2	0.000	0.00	68.8	RELLENO_ZANJA	0.000	0.00	529.9
	ARENA_3	0.000	0.00	152.5				
466.215	D TIERRA	0.000	0.00	889.7	ARENA_1	0.000	0.00	72.0
	ARENA_2	0.000	0.00	68.8	RELLENO_ZANJA	0.000	0.00	529.9
	ARENA_3	0.000	0.00	152.5				
474.362	D TIERRA	0.000	0.00	889.7	ARENA_1	0.000	0.00	72.0
	ARENA_2	0.000	0.00	68.8	RELLENO_ZANJA	0.000	0.00	529.9
	ARENA_3	0.000	0.00	152.5				
480.000	D TIERRA	2.084	0.00	889.7	ARENA_1	0.158	0.00	72.0
	ARENA_2	0.157	0.00	68.8	RELLENO_ZANJA	1.266	0.00	529.9
	ARENA_3	0.358	0.00	152.5				
485.638	D TIERRA	2.252	12.22	902.0	ARENA_1	0.158	0.89	72.9
	ARENA_2	0.157	0.88	69.7	RELLENO_ZANJA	1.434	7.61	537.5
	ARENA_3	0.358	2.02	154.5				
497.491	D TIERRA	2.675	29.20	931.2	ARENA_1	0.158	1.88	74.8
	ARENA_2	0.157	1.86	71.5	RELLENO_ZANJA	1.857	19.50	557.0
	ARENA_3	0.358	4.25	158.8				
500.000	D TIERRA	2.691	6.73	937.9	ARENA_1	0.158	0.40	75.2
	ARENA_2	0.157	0.39	71.9	RELLENO_ZANJA	1.873	4.68	561.7
	ARENA_3	0.358	0.90	159.7				
520.000	D TIERRA	2.999	56.90	994.8	ARENA_1	0.158	3.17	78.4
	ARENA_2	0.157	3.13	75.0	RELLENO_ZANJA	2.181	40.54	602.2
	ARENA_3	0.358	7.17	166.8				
536.298	D TIERRA	2.830	0.00	994.8	ARENA_1	0.157	0.00	78.4
	ARENA_2	0.149	0.00	75.0	RELLENO_ZANJA	2.048	0.00	602.2
	ARENA_3	0.332	0.00	166.8				
540.000	D TIERRA	2.868	10.55	1005.3	ARENA_1	0.157	0.58	78.9
	ARENA_2	0.149	0.55	75.6	RELLENO_ZANJA	2.086	7.65	609.9
	ARENA_3	0.332	1.23	168.1				
544.684	D TIERRA	2.128	11.70	1017.0	ARENA_1	0.157	0.73	79.7
	ARENA_2	0.149	0.70	76.3	RELLENO_ZANJA	1.346	8.04	617.9
	ARENA_3	0.332	1.55	169.6				
555.578	D TIERRA	1.810	21.45	1038.5	ARENA_1	0.157	1.71	81.4
	ARENA_2	0.149	1.63	77.9	RELLENO_ZANJA	1.028	12.93	630.9
	ARENA_3	0.332	3.61	173.2				
560.000	D TIERRA	1.781	7.94	1046.4	ARENA_1	0.157	0.69	82.1
	ARENA_2	0.150	0.66	78.6	RELLENO_ZANJA	0.999	4.48	635.3
	ARENA_3	0.332	1.47	174.7				
565.399	D TIERRA	1.749	9.53	1055.9	ARENA_1	0.157	0.85	82.9
	ARENA_2	0.150	0.81	79.4	RELLENO_ZANJA	0.966	5.30	640.6
	ARENA_3	0.332	1.79	176.5				
580.000	D TIERRA	1.811	25.98	1081.9	ARENA_1	0.157	2.29	85.2
	ARENA_2	0.149	2.18	81.6	RELLENO_ZANJA	1.028	14.56	655.2
	ARENA_3	0.332	4.84	181.3				
600.000	D TIERRA	1.782	35.93	1117.9	ARENA_1	0.157	3.13	88.3
	ARENA_2	0.150	2.99	84.6	RELLENO_ZANJA	1.000	20.28	675.5
	ARENA_3	0.331	6.62	187.9				



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CIDACOS COMPLETO

*** MEDICIONES DE LOS PERFILES TRANSVERSALES***
*** CAPAS DE FIRME ***

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PERFIL	MATERIAL	AREA PERFIL	VOL. PARCIAL	VOL. ACUMUL.	MATERIAL	AREA PERFIL	VOL. PARCIAL	VOL. ACUMUL.
604.761	D TIERRA	2.095	9.23	1127.1	ARENA_1	0.157	0.75	89.1
	ARENA_2	0.149	0.71	85.3	RELLENO_ZANJA	1.313	5.51	681.0
	ARENA_3	0.332	1.58	189.5				
620.000	D TIERRA	1.830	29.91	1157.0	ARENA_1	0.157	2.39	91.5
	ARENA_2	0.149	2.28	87.6	RELLENO_ZANJA	1.048	17.99	699.0
	ARENA_3	0.332	5.05	194.6				
620.276	D TIERRA	1.829	0.50	1157.5	ARENA_1	0.157	0.04	91.5
	ARENA_2	0.149	0.04	87.6	RELLENO_ZANJA	1.046	0.29	699.3
	ARENA_3	0.332	0.09	194.7				
627.431	D TIERRA	1.809	13.01	1170.5	ARENA_1	0.157	1.12	92.6
	ARENA_2	0.149	1.07	88.7	RELLENO_ZANJA	1.027	7.42	706.7
	ARENA_3	0.332	2.37	197.0				
640.000	D TIERRA	1.821	22.81	1193.3	ARENA_1	0.157	1.97	94.6
	ARENA_2	0.149	1.88	90.5	RELLENO_ZANJA	1.039	12.98	719.7
	ARENA_3	0.332	4.17	201.2				
649.004	D TIERRA	2.001	17.21	1210.5	ARENA_1	0.157	1.41	96.0
	ARENA_2	0.149	1.35	91.9	RELLENO_ZANJA	1.219	10.16	729.8
	ARENA_3	0.332	2.99	204.2				
660.000	D TIERRA	1.723	20.48	1231.0	ARENA_1	0.157	1.72	97.7
	ARENA_2	0.150	1.64	93.5	RELLENO_ZANJA	0.941	11.87	741.7
	ARENA_3	0.330	3.64	207.8				
680.000	D TIERRA	1.811	35.35	1266.4	ARENA_1	0.157	3.13	100.9
	ARENA_2	0.150	2.99	96.5	RELLENO_ZANJA	1.029	19.70	761.4
	ARENA_3	0.330	6.61	214.4				
680.000	D TIERRA	0.000	0.00	1266.4	ARENA_1	0.000	0.00	100.9
	ARENA_2	0.000	0.00	96.5	RELLENO_ZANJA	0.000	0.00	761.4
	ARENA_3	0.000	0.00	214.4				
696.147	D TIERRA	1.939	0.00	1266.4	ARENA_1	0.158	0.00	100.9
	ARENA_2	0.157	0.00	96.5	RELLENO_ZANJA	1.121	0.00	761.4
	ARENA_3	0.357	0.00	214.4				
700.000	D TIERRA	2.022	7.63	1274.0	ARENA_1	0.158	0.61	101.5
	ARENA_2	0.157	0.60	97.1	RELLENO_ZANJA	1.204	4.48	765.9
	ARENA_3	0.357	1.38	215.8				
718.854	D TIERRA	2.400	41.69	1315.7	ARENA_1	0.158	2.98	104.5
	ARENA_2	0.157	2.96	100.1	RELLENO_ZANJA	1.582	26.26	792.2
	ARENA_3	0.357	6.74	222.6				
720.000	D TIERRA	2.412	2.76	1318.4	ARENA_1	0.158	0.18	104.6
	ARENA_2	0.157	0.18	100.3	RELLENO_ZANJA	1.594	1.82	794.0
	ARENA_3	0.357	0.41	223.0				
740.000	D TIERRA	1.800	42.12	1360.6	ARENA_1	0.158	3.16	107.8
	ARENA_2	0.157	3.14	103.4	RELLENO_ZANJA	0.982	25.76	819.7
	ARENA_3	0.357	7.15	230.1				
747.788	D TIERRA	1.890	14.37	1374.9	ARENA_1	0.158	1.23	109.0
	ARENA_2	0.157	1.22	104.6	RELLENO_ZANJA	1.072	8.00	827.7
	ARENA_3	0.357	2.78	232.9				
760.000	D TIERRA	1.975	23.60	1398.5	ARENA_1	0.158	1.93	111.0
	ARENA_2	0.157	1.92	106.5	RELLENO_ZANJA	1.157	13.61	841.3
	ARENA_3	0.357	4.36	237.3				
779.238	D TIERRA	1.978	38.02	1436.5	ARENA_1	0.158	3.04	114.0
	ARENA_2	0.157	3.02	109.6	RELLENO_ZANJA	1.160	22.29	863.6
	ARENA_3	0.358	6.88	244.1				
780.000	D TIERRA	1.995	1.51	1438.1	ARENA_1	0.158	0.12	114.1
	ARENA_2	0.157	0.12	109.7	RELLENO_ZANJA	1.177	0.89	864.5
	ARENA_3	0.358	0.27	244.4				
800.000	D TIERRA	2.388	43.82	1481.9	ARENA_1	0.158	3.17	117.3
	ARENA_2	0.157	3.14	112.8	RELLENO_ZANJA	1.570	27.47	892.0
	ARENA_3	0.358	7.16	251.6				
820.000	D TIERRA	1.963	43.50	1525.4	ARENA_1	0.158	3.17	120.5
	ARENA_2	0.157	3.14	116.0	RELLENO_ZANJA	1.145	27.14	919.1
	ARENA_3	0.358	7.16	258.7				

PERFIL	MATERIAL	AREA PERFIL	VOL. PARCIAL	VOL. ACUMUL.	MATERIAL	AREA PERFIL	VOL. PARCIAL	VOL. ACUMUL.
837.247	D TIERRA	1.975	33.95	1559.3	ARENA_1	0.158	2.73	123.2
	ARENA_2	0.157	2.70	118.7	RELLENO_ZANJA	1.157	19.85	939.0
	ARENA_3	0.358	6.18	264.9				
840.000	D TIERRA	1.928	5.37	1564.7	ARENA_1	0.158	0.44	123.6
	ARENA_2	0.157	0.43	119.1	RELLENO_ZANJA	1.110	3.12	942.1
	ARENA_3	0.358	0.99	265.9				
860.000	D TIERRA	1.976	39.04	1603.7	ARENA_1	0.158	3.17	126.8
	ARENA_2	0.157	3.14	122.2	RELLENO_ZANJA	1.158	22.68	964.8
	ARENA_3	0.358	7.17	273.1				
880.000	D TIERRA	1.943	39.19	1642.9	ARENA_1	0.158	3.17	130.0
	ARENA_2	0.157	3.14	125.4	RELLENO_ZANJA	1.125	22.83	987.6
	ARENA_3	0.358	7.17	280.2				
900.000	D TIERRA	1.911	38.54	1681.5	ARENA_1	0.158	3.17	133.1
	ARENA_2	0.157	3.14	128.5	RELLENO_ZANJA	1.093	22.19	1009.8
	ARENA_3	0.358	7.16	287.4				
920.000	D TIERRA	2.052	39.64	1721.1	ARENA_1	0.158	3.17	136.3
	ARENA_2	0.157	3.14	131.6	RELLENO_ZANJA	1.234	23.28	1033.1
	ARENA_3	0.358	7.16	294.6				
940.000	D TIERRA	1.975	40.27	1761.4	ARENA_1	0.158	3.17	139.5
	ARENA_2	0.157	3.14	134.8	RELLENO_ZANJA	1.157	23.91	1057.0
	ARENA_3	0.358	7.16	301.7				
960.000	D TIERRA	1.977	39.52	1800.9	ARENA_1	0.158	3.17	142.6
	ARENA_2	0.157	3.14	137.9	RELLENO_ZANJA	1.159	23.16	1080.1
	ARENA_3	0.358	7.16	308.9				
980.000	D TIERRA	3.029	50.06	1851.0	ARENA_1	0.156	3.14	145.8
	ARENA_2	0.159	3.16	141.1	RELLENO_ZANJA	2.211	33.70	1113.8
	ARENA_3	0.331	6.89	315.8				
981.360	D TIERRA	2.813	3.97	1854.9	ARENA_1	0.158	0.21	146.0
	ARENA_2	0.157	0.21	141.3	RELLENO_ZANJA	1.996	2.86	1116.7
	ARENA_3	0.355	0.47	316.2				
1000.000	D TIERRA	1.938	44.29	1899.2	ARENA_1	0.158	2.95	148.9
	ARENA_2	0.157	2.93	144.2	RELLENO_ZANJA	1.120	29.04	1145.7
	ARENA_3	0.355	6.62	322.9				
1016.576	D TIERRA	1.953	32.25	1931.5	ARENA_1	0.158	2.62	151.5
	ARENA_2	0.157	2.60	146.8	RELLENO_ZANJA	1.135	18.69	1164.4
	ARENA_3	0.358	5.91	328.8				
1020.000	D TIERRA	1.968	6.71	1938.2	ARENA_1	0.158	0.54	152.1
	ARENA_2	0.157	0.54	147.4	RELLENO_ZANJA	1.150	3.91	1168.3
	ARENA_3	0.358	1.23	330.0				
1030.878	D TIERRA	2.214	22.74	1960.9	ARENA_1	0.158	1.72	153.8
	ARENA_2	0.157	1.71	149.1	RELLENO_ZANJA	1.396	13.85	1182.2
	ARENA_3	0.358	3.89	333.9				
1040.000	D TIERRA	2.012	19.27	1980.2	ARENA_1	0.158	1.44	155.3
	ARENA_2	0.157	1.43	150.5	RELLENO_ZANJA	1.194	11.81	1194.0
	ARENA_3	0.358	3.27	337.2				
1059.383	D TIERRA	1.975	38.64	2018.8	ARENA_1	0.158	3.07	158.3
	ARENA_2	0.157	3.04	153.5	RELLENO_ZANJA	1.157	22.79	1216.8
	ARENA_3	0.358	6.94	344.1				
1060.000	D TIERRA	1.996	1.22	2020.1	ARENA_1	0.158	0.10	158.4
	ARENA_2	0.157	0.10	153.6	RELLENO_ZANJA	1.178	0.72	1217.5
	ARENA_3	0.358	0.22	344.3				
1080.000	D TIERRA	2.149	41.44	2061.5	ARENA_1	0.158	3.17	161.6
	ARENA_2	0.157	3.14	156.8	RELLENO_ZANJA	1.331	25.08	1242.6
	ARENA_3	0.358	7.17	351.5				
1096.475	D TIERRA	2.109	35.07	2096.6	ARENA_1	0.158	2.61	164.2
	ARENA_2	0.157	2.58	159.3	RELLENO_ZANJA	1.291	21.60	1264.2
	ARENA_3	0.358	5.90	357.4				
1100.000	D TIERRA	1.970	7.19	2103.8	ARENA_1	0.158	0.56	164.7
	ARENA_2	0.157	0.55	159.9	RELLENO_ZANJA	1.152	4.31	1268.5
	ARENA_3	0.358	1.26	358.7				



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PROYECTO :

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CIDACOS COMPLETO

*** MEDICIONES DE LOS PERFILES TRANSVERSALES***
*** CAPAS DE FIRME ***

*** MEDICIONES DE LOS PERFILES TRANSVERSALES***
*** CAPAS DE FIRME ***

PERFIL	MATERIAL	AREA PERFIL	VOL. PARCIAL	VOL. ACUMUL.	MATERIAL	AREA PERFIL	VOL. PARCIAL	VOL. ACUMUL.
1120.000	D TIERRA	1.972	39.42	2143.2	ARENA_1	0.158	3.17	167.9
	ARENA_2	0.157	3.14	163.0	RELLENO_ZANJA	1.154	23.06	1291.6
	ARENA_3	0.358	7.16	365.8				
1140.000	D TIERRA	1.966	39.37	2182.6	ARENA_1	0.158	3.17	171.1
	ARENA_2	0.157	3.14	166.2	RELLENO_ZANJA	1.148	23.02	1314.6
	ARENA_3	0.358	7.16	373.0				
1160.000	D TIERRA	1.962	39.28	2221.8	ARENA_1	0.158	3.17	174.2
	ARENA_2	0.157	3.13	169.3	RELLENO_ZANJA	1.144	22.92	1337.5
	ARENA_3	0.358	7.17	380.1				
1180.000	D TIERRA	1.970	39.32	2261.2	ARENA_1	0.158	3.17	177.4
	ARENA_2	0.157	3.14	172.4	RELLENO_ZANJA	1.152	22.96	1360.5
	ARENA_3	0.358	7.16	387.3				
1183.768	D TIERRA	1.875	7.24	2268.4	ARENA_1	0.158	0.60	178.0
	ARENA_2	0.157	0.59	173.0	RELLENO_ZANJA	1.057	4.16	1364.6
	ARENA_3	0.357	1.35	388.7				
1200.000	D TIERRA	1.772	29.60	2298.0	ARENA_1	0.158	2.57	180.6
	ARENA_2	0.157	2.55	175.6	RELLENO_ZANJA	0.954	16.32	1380.9
	ARENA_3	0.357	5.79	394.4				
1203.143	D TIERRA	1.928	5.81	2303.8	ARENA_1	0.158	0.50	181.1
	ARENA_2	0.157	0.49	176.1	RELLENO_ZANJA	1.110	3.24	1384.2
	ARENA_3	0.357	1.12	395.6				
1220.000	D TIERRA	1.974	32.89	2336.7	ARENA_1	0.158	2.67	183.7
	ARENA_2	0.157	2.65	178.7	RELLENO_ZANJA	1.156	19.10	1403.3
	ARENA_3	0.357	6.02	401.6				
1240.000	D TIERRA	1.974	39.48	2376.2	ARENA_1	0.158	3.16	186.9
	ARENA_2	0.157	3.14	181.9	RELLENO_ZANJA	1.156	23.12	1426.4
	ARENA_3	0.358	7.15	408.7				
1241.262	D TIERRA	1.937	2.47	2378.7	ARENA_1	0.158	0.20	187.1
	ARENA_2	0.157	0.20	182.1	RELLENO_ZANJA	1.119	1.44	1427.8
	ARENA_3	0.358	0.45	409.2				
1251.774	D TIERRA	1.869	20.00	2398.7	ARENA_1	0.158	1.66	188.8
	ARENA_2	0.157	1.65	183.7	RELLENO_ZANJA	1.051	11.41	1439.2
	ARENA_3	0.358	3.77	413.0				
1260.000	D TIERRA	2.165	16.59	2415.2	ARENA_1	0.158	1.30	190.1
	ARENA_2	0.157	1.29	185.0	RELLENO_ZANJA	1.347	9.86	1449.1
	ARENA_3	0.358	2.95	415.9				
1277.396	D TIERRA	2.051	36.67	2451.9	ARENA_1	0.158	2.75	192.8
	ARENA_2	0.157	2.73	187.7	RELLENO_ZANJA	1.233	22.44	1471.5
	ARENA_3	0.358	6.23	422.1				
1280.000	D TIERRA	1.974	5.24	2457.2	ARENA_1	0.158	0.41	193.2
	ARENA_2	0.157	0.41	188.1	RELLENO_ZANJA	1.156	3.11	1474.7
	ARENA_3	0.358	0.93	423.1				
1296.131	D TIERRA	1.970	31.81	2489.0	ARENA_1	0.158	2.55	195.8
	ARENA_2	0.157	2.53	190.7	RELLENO_ZANJA	1.152	18.62	1493.3
	ARENA_3	0.358	5.77	428.8				
1300.000	D TIERRA	1.998	7.68	2496.6	ARENA_1	0.158	0.61	196.4
	ARENA_2	0.157	0.61	191.3	RELLENO_ZANJA	1.180	4.51	1497.8
	ARENA_3	0.358	1.39	430.2				
1302.519	D TIERRA	1.958	4.98	2501.6	ARENA_1	0.158	0.40	196.8
	ARENA_2	0.157	0.39	191.7	RELLENO_ZANJA	1.140	2.92	1500.7
	ARENA_3	0.358	0.90	431.1				
1320.000	D TIERRA	1.975	34.37	2536.0	ARENA_1	0.158	2.77	199.6
	ARENA_2	0.157	2.74	194.4	RELLENO_ZANJA	1.157	20.07	1520.8
	ARENA_3	0.358	6.26	437.4				
1327.322	D TIERRA	2.313	15.70	2551.7	ARENA_1	0.158	1.16	200.7
	ARENA_2	0.157	1.15	195.6	RELLENO_ZANJA	1.495	9.71	1530.5
	ARENA_3	0.358	2.62	440.0				
1340.000	D TIERRA	1.959	27.08	2578.8	ARENA_1	0.158	2.01	202.7
	ARENA_2	0.157	1.99	197.5	RELLENO_ZANJA	1.141	16.71	1547.2
	ARENA_3	0.358	4.54	444.5				

PERFIL	MATERIAL	AREA PERFIL	VOL. PARCIAL	VOL. ACUMUL.	MATERIAL	AREA PERFIL	VOL. PARCIAL	VOL. ACUMUL.
1341.589	D TIERRA	2.008	3.15	2581.9	ARENA_1	0.158	0.25	203.0
	ARENA_2	0.157	0.25	197.8	RELLENO_ZANJA	1.190	1.85	1549.0
	ARENA_3	0.357	0.57	445.1				
1360.000	D TIERRA	1.948	36.42	2618.4	ARENA_1	0.158	2.91	205.9
	ARENA_2	0.157	2.89	200.7	RELLENO_ZANJA	1.130	21.36	1570.4
	ARENA_3	0.357	6.57	451.7				
1370.389	D TIERRA	1.969	20.35	2638.7	ARENA_1	0.158	1.64	207.5
	ARENA_2	0.157	1.63	202.3	RELLENO_ZANJA	1.152	11.85	1582.3
	ARENA_3	0.357	3.71	455.4				
1380.000	D TIERRA	1.997	19.06	2657.8	ARENA_1	0.158	1.52	209.1
	ARENA_2	0.157	1.51	203.8	RELLENO_ZANJA	1.180	11.20	1593.5
	ARENA_3	0.356	3.43	458.8				
1394.657	D TIERRA	1.976	29.12	2686.9	ARENA_1	0.158	2.32	211.4
	ARENA_2	0.157	2.30	206.1	RELLENO_ZANJA	1.158	17.13	1610.6
	ARENA_3	0.357	5.22	464.0				
1400.000	D TIERRA	2.042	10.73	2697.6	ARENA_1	0.158	0.85	212.2
	ARENA_2	0.157	0.84	207.0	RELLENO_ZANJA	1.224	6.36	1617.0
	ARENA_3	0.357	1.91	465.9				
1407.336	D TIERRA	1.976	14.74	2712.4	ARENA_1	0.158	1.16	213.4
	ARENA_2	0.157	1.15	208.1	RELLENO_ZANJA	1.158	8.74	1625.7
	ARENA_3	0.357	2.62	468.6				
1420.000	D TIERRA	1.997	25.16	2737.5	ARENA_1	0.158	2.00	215.4
	ARENA_2	0.157	1.99	210.1	RELLENO_ZANJA	1.179	14.80	1640.5
	ARENA_3	0.358	4.52	473.1				
1425.162	D TIERRA	2.156	10.72	2748.2	ARENA_1	0.158	0.82	216.2
	ARENA_2	0.157	0.81	210.9	RELLENO_ZANJA	1.338	6.50	1647.0
	ARENA_3	0.358	1.85	474.9				
1437.170	D TIERRA	2.045	25.22	2773.5	ARENA_1	0.158	1.90	218.1
	ARENA_2	0.157	1.88	212.8	RELLENO_ZANJA	1.227	15.40	1662.4
	ARENA_3	0.358	4.30	479.2				
1440.000	D TIERRA	2.080	5.84	2779.3	ARENA_1	0.158	0.45	218.6
	ARENA_2	0.157	0.44	213.2	RELLENO_ZANJA	1.262	3.52	1665.9
	ARENA_3	0.358	1.01	480.3				
1460.000	D TIERRA	1.975	40.54	2819.8	ARENA_1	0.158	3.17	221.7
	ARENA_2	0.157	3.13	216.4	RELLENO_ZANJA	1.157	24.18	1690.1
	ARENA_3	0.358	7.17	487.4				
1480.000	D TIERRA	1.975	39.50	2859.3	ARENA_1	0.158	3.17	224.9
	ARENA_2	0.157	3.14	219.5	RELLENO_ZANJA	1.157	23.14	1713.2
	ARENA_3	0.358	7.16	494.6				
1497.874	D TIERRA	1.976	35.31	2894.6	ARENA_1	0.158	2.83	227.7
	ARENA_2	0.157	2.80	222.3	RELLENO_ZANJA	1.158	20.69	1733.9
	ARENA_3	0.358	6.39	501.0				
1500.000	D TIERRA	1.954	4.18	2898.8	ARENA_1	0.158	0.34	228.0
	ARENA_2	0.157	0.33	222.6	RELLENO_ZANJA	1.136	2.44	1736.4
	ARENA_3	0.353	0.76	501.7				
1520.000	D TIERRA	1.983	39.36	2938.2	ARENA_1	0.158	3.16	231.2
	ARENA_2	0.157	3.15	225.8	RELLENO_ZANJA	1.165	23.01	1759.4
	ARENA_3	0.353	7.07	508.8				
1540.000	D TIERRA	1.978	39.61	2977.8	ARENA_1	0.158	3.16	234.4
	ARENA_2	0.157	3.14	228.9	RELLENO_ZANJA	1.160	23.25	1782.6
	ARENA_3	0.358	7.11	515.9				
1560.000	D TIERRA	1.975	39.53	3017.3	ARENA_1	0.158	3.17	237.5
	ARENA_2	0.157	3.14	232.1	RELLENO_ZANJA	1.157	23.18	1805.8
	ARENA_3	0.358	7.16	523.1				
1566.077	D TIERRA	1.980	12.02	3029.3	ARENA_1	0.158	0.96	238.5
	ARENA_2	0.157	0.95	233.0	RELLENO_ZANJA	1.162	7.05	1812.8
	ARENA_3	0.355	2.17	525.2				
1580.000	D TIERRA	1.941	27.30	3056.6	ARENA_1	0.158	2.20	240.7
	ARENA_2	0.157	2.19	235.2	RELLENO_ZANJA	1.123	15.91	1828.8
	ARENA_3	0.358	4.97	530.2				



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CIDACOS COMPLETO

*** MEDICIONES DE LOS PERFILES TRANSVERSALES ***
*** CAPAS DE FIRME ***

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PERFIL	MATERIAL	AREA PERFIL	VOL. PARCIAL	VOL. ACUMUL.	MATERIAL	AREA PERFIL	VOL. PARCIAL	VOL. ACUMUL.
1580.849	D TIERRA	1.975	1.66	3058.3	ARENA_1	0.158	0.13	240.8
	ARENA_2	0.157	0.13	235.3	RELLENO_ZANJA	1.157	0.97	1829.7
	ARENA_3	0.357	0.30	530.5				
1600.000	D TIERRA	2.042	38.47	3096.8	ARENA_1	0.158	3.03	243.9
	ARENA_2	0.157	3.01	238.4	RELLENO_ZANJA	1.224	22.80	1852.5
	ARENA_3	0.357	6.84	537.4				
1614.566	D TIERRA	1.969	29.22	3126.0	ARENA_1	0.158	2.30	246.2
	ARENA_2	0.157	2.29	240.6	RELLENO_ZANJA	1.151	17.30	1869.8
	ARENA_3	0.357	5.21	542.6				
1620.000	D TIERRA	2.015	10.83	3136.8	ARENA_1	0.158	0.86	247.0
	ARENA_2	0.157	0.85	241.5	RELLENO_ZANJA	1.197	6.38	1876.2
	ARENA_3	0.358	1.94	544.5				
1640.000	D TIERRA	1.987	40.03	3176.8	ARENA_1	0.158	3.16	250.2
	ARENA_2	0.157	3.14	244.6	RELLENO_ZANJA	1.169	23.67	1899.9
	ARENA_3	0.358	7.16	551.7				
1660.000	D TIERRA	1.980	39.67	3216.5	ARENA_1	0.158	3.16	253.4
	ARENA_2	0.157	3.14	247.8	RELLENO_ZANJA	1.162	23.31	1923.2
	ARENA_3	0.358	7.15	558.8				
1678.954	D TIERRA	1.968	37.41	3253.9	ARENA_1	0.158	3.00	256.4
	ARENA_2	0.157	2.97	250.7	RELLENO_ZANJA	1.150	21.91	1945.1
	ARENA_3	0.358	6.78	565.6				
1680.000	D TIERRA	1.969	2.06	3256.0	ARENA_1	0.158	0.17	256.5
	ARENA_2	0.157	0.16	250.9	RELLENO_ZANJA	1.151	1.20	1946.3
	ARENA_3	0.358	0.37	566.0				
1693.666	D TIERRA	1.976	26.96	3282.9	ARENA_1	0.158	2.16	258.7
	ARENA_2	0.157	2.14	253.0	RELLENO_ZANJA	1.158	15.78	1962.1
	ARENA_3	0.358	4.90	570.9				
1700.000	D TIERRA	2.229	13.32	3296.3	ARENA_1	0.158	1.00	259.7
	ARENA_2	0.157	0.99	254.0	RELLENO_ZANJA	1.411	8.14	1970.2
	ARENA_3	0.358	2.27	573.1				
1713.219	D TIERRA	1.807	26.68	3322.9	ARENA_1	0.158	2.09	261.8
	ARENA_2	0.157	2.08	256.1	RELLENO_ZANJA	0.989	15.86	1986.1
	ARENA_3	0.357	4.72	577.9				
1720.000	D TIERRA	1.930	12.67	3335.6	ARENA_1	0.158	1.07	262.9
	ARENA_2	0.157	1.07	257.2	RELLENO_ZANJA	1.112	7.12	1993.2
	ARENA_3	0.357	2.42	580.3				
1728.919	D TIERRA	2.072	17.84	3353.5	ARENA_1	0.158	1.41	264.3
	ARENA_2	0.157	1.40	258.6	RELLENO_ZANJA	1.254	10.55	2003.8
	ARENA_3	0.358	3.19	583.5				
1740.000	D TIERRA	1.996	22.54	3376.0	ARENA_1	0.158	1.75	266.0
	ARENA_2	0.157	1.74	260.3	RELLENO_ZANJA	1.178	13.47	2017.2
	ARENA_3	0.358	3.96	587.4				
1752.067	D TIERRA	2.396	26.50	3402.5	ARENA_1	0.158	1.91	267.9
	ARENA_2	0.157	1.89	262.2	RELLENO_ZANJA	1.578	16.63	2033.9
	ARENA_3	0.358	4.32	591.7				
1760.000	D TIERRA	2.335	18.77	3421.3	ARENA_1	0.158	1.25	269.2
	ARENA_2	0.157	1.25	263.5	RELLENO_ZANJA	1.518	12.28	2046.1
	ARENA_3	0.354	2.82	594.6				
1762.076	D TIERRA	2.081	4.58	3425.8	ARENA_1	0.158	0.33	269.5
	ARENA_2	0.157	0.33	263.8	RELLENO_ZANJA	1.264	2.89	2049.0
	ARENA_3	0.354	0.73	595.3				
1774.711	D TIERRA	2.000	25.79	3451.6	ARENA_1	0.158	2.00	271.5
	ARENA_2	0.157	1.99	265.8	RELLENO_ZANJA	1.182	15.45	2064.5
	ARENA_3	0.358	4.50	599.8				
1780.000	D TIERRA	2.056	10.73	3462.4	ARENA_1	0.158	0.84	272.3
	ARENA_2	0.157	0.83	266.6	RELLENO_ZANJA	1.239	6.40	2070.9
	ARENA_3	0.358	1.89	601.7				
1782.754	D TIERRA	1.988	5.57	3467.9	ARENA_1	0.158	0.44	272.8
	ARENA_2	0.157	0.43	267.0	RELLENO_ZANJA	1.170	3.32	2074.2
	ARENA_3	0.357	0.98	602.7				

PERFIL	MATERIAL	AREA PERFIL	VOL. PARCIAL	VOL. ACUMUL.	MATERIAL	AREA PERFIL	VOL. PARCIAL	VOL. ACUMUL.
1800.000	D TIERRA	1.902	33.54	3501.5	ARENA_1	0.158	2.73	275.5
	ARENA_2	0.157	2.71	269.7	RELLENO_ZANJA	1.084	19.43	2093.6
	ARENA_3	0.357	6.15	608.8				
1805.760	D TIERRA	2.203	11.82	3513.3	ARENA_1	0.158	0.91	276.4
	ARENA_2	0.157	0.90	270.6	RELLENO_ZANJA	1.385	7.11	2100.7
	ARENA_3	0.357	2.05	610.9				
1815.908	D TIERRA	1.981	21.23	3534.5	ARENA_1	0.158	1.60	278.0
	ARENA_2	0.157	1.59	272.2	RELLENO_ZANJA	1.163	12.93	2113.7
	ARENA_3	0.356	3.61	614.5				
1820.000	D TIERRA	2.489	9.15	3543.7	ARENA_1	0.158	0.65	278.7
	ARENA_2	0.157	0.64	272.9	RELLENO_ZANJA	1.671	5.80	2119.5
	ARENA_3	0.356	1.46	615.9				
1825.469	D TIERRA	2.045	12.40	3556.1	ARENA_1	0.158	0.86	279.5
	ARENA_2	0.157	0.86	273.7	RELLENO_ZANJA	1.227	7.92	2127.4
	ARENA_3	0.358	1.95	617.9				
1840.000	D TIERRA	1.995	29.35	3585.4	ARENA_1	0.158	2.30	281.8
	ARENA_2	0.157	2.28	276.0	RELLENO_ZANJA	1.177	17.46	2144.9
	ARENA_3	0.358	5.20	623.1				
1840.698	D TIERRA	1.971	1.38	3586.8	ARENA_1	0.158	0.11	281.9
	ARENA_2	0.157	0.11	276.1	RELLENO_ZANJA	1.153	0.81	2145.7
	ARENA_3	0.358	0.25	623.3				
1850.944	D TIERRA	1.960	20.14	3606.9	ARENA_1	0.158	1.62	283.6
	ARENA_2	0.157	1.61	277.7	RELLENO_ZANJA	1.142	11.76	2157.4
	ARENA_3	0.357	3.67	627.0				
1860.000	D TIERRA	1.977	17.83	3624.8	ARENA_1	0.158	1.43	285.0
	ARENA_2	0.157	1.42	279.2	RELLENO_ZANJA	1.159	10.42	2167.8
	ARENA_3	0.357	3.24	630.2				
1870.697	D TIERRA	1.922	20.85	3645.6	ARENA_1	0.158	1.69	286.7
	ARENA_2	0.157	1.68	280.8	RELLENO_ZANJA	1.104	12.10	2179.9
	ARENA_3	0.356	3.82	634.1				
1880.000	D TIERRA	2.060	18.52	3664.1	ARENA_1	0.158	1.47	288.2
	ARENA_2	0.157	1.46	282.3	RELLENO_ZANJA	1.242	10.91	2190.9
	ARENA_3	0.356	3.31	637.4				
1894.085	D TIERRA	2.173	29.81	3693.9	ARENA_1	0.158	2.23	290.4
	ARENA_2	0.157	2.21	284.5	RELLENO_ZANJA	1.355	18.29	2209.2
	ARENA_3	0.356	5.02	642.4				
1900.000	D TIERRA	2.112	12.67	3706.6	ARENA_1	0.158	0.94	291.3
	ARENA_2	0.157	0.93	285.4	RELLENO_ZANJA	1.294	7.83	2217.0
	ARENA_3	0.356	2.11	644.5				
1906.134	D TIERRA	1.978	12.54	3719.2	ARENA_1	0.158	0.97	292.3
	ARENA_2	0.157	0.96	286.4	RELLENO_ZANJA	1.160	7.53	2224.5
	ARENA_3	0.356	2.19	646.7				
1915.778	D TIERRA	1.975	19.06	3738.2	ARENA_1	0.158	1.53	293.8
	ARENA_2	0.157	1.51	287.9	RELLENO_ZANJA	1.157	11.17	2235.7
	ARENA_3	0.357	3.44	650.1				
1920.000	D TIERRA	2.316	9.06	3747.3	ARENA_1	0.158	0.67	294.5
	ARENA_2	0.157	0.66	288.6	RELLENO_ZANJA	1.498	5.60	2241.3
	ARENA_3	0.357	1.51	651.6				
1922.079	D TIERRA	2.315	4.81	3752.1	ARENA_1	0.158	0.33	294.8
	ARENA_2	0.157	0.33	288.9	RELLENO_ZANJA	1.497	3.11	2244.4
	ARENA_3	0.357	0.74	652.4				
1926.277	D TIERRA	2.394	9.88	3762.0	ARENA_1	0.158	0.66	295.5
	ARENA_2	0.157	0.66	289.6	RELLENO_ZANJA	1.576	6.45	2250.9
	ARENA_3	0.357	1.50	653.9				
1933.738	D TIERRA	2.233	17.26	3779.2	ARENA_1	0.158	1.18	296.7
	ARENA_2	0.157	1.17	290.7	RELLENO_ZANJA	1.415	11.16	2262.0
	ARENA_3	0.357	2.66	656.5				
1940.000	D TIERRA	1.915	12.99	3792.2	ARENA_1	0.158	0.99	297.6
	ARENA_2	0.157	0.98	291.7	RELLENO_ZANJA	1.097	7.87	2269.9
	ARENA_3	0.357	2.23	658.8				



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CIDACOS COMPLETO

*** MEDICIONES DE LOS PERFILES TRANSVERSALES ***
*** CAPAS DE FIRME ***

*** MEDICIONES DE LOS PERFILES TRANSVERSALES ***
*** CAPAS DE FIRME ***

PERFIL	MATERIAL	AREA PERFIL	VOL. PARCIAL	VOL. ACUMUL.	MATERIAL	AREA PERFIL	VOL. PARCIAL	VOL. ACUMUL.
1948.191	D TIERRA	1.971	15.92	3808.1	ARENA_1	0.158	1.30	298.9
	ARENA_2	0.157	1.29	293.0	RELLENO_ZANJA	1.154	9.22	2279.1
	ARENA_3	0.357	2.92	661.7				
1960.000	D TIERRA	1.992	23.40	3831.5	ARENA_1	0.158	1.87	300.8
	ARENA_2	0.157	1.86	294.9	RELLENO_ZANJA	1.174	13.74	2292.8
	ARENA_3	0.355	4.20	665.9				
1960.586	D TIERRA	1.980	1.16	3832.7	ARENA_1	0.158	0.09	300.9
	ARENA_2	0.157	0.09	295.0	RELLENO_ZANJA	1.162	0.68	2293.5
	ARENA_3	0.355	0.21	666.1				
1980.000	D TIERRA	1.978	38.42	3871.1	ARENA_1	0.158	3.07	304.0
	ARENA_2	0.157	3.05	298.0	RELLENO_ZANJA	1.160	22.54	2316.1
	ARENA_3	0.356	6.91	673.0				
1993.556	D TIERRA	1.978	26.81	3897.9	ARENA_1	0.158	2.14	306.1
	ARENA_2	0.157	2.13	300.1	RELLENO_ZANJA	1.160	15.72	2331.8
	ARENA_3	0.358	4.84	677.8				
1998.826	D TIERRA	1.941	10.33	3908.3	ARENA_1	0.158	0.83	307.0
	ARENA_2	0.157	0.83	301.0	RELLENO_ZANJA	1.123	6.02	2337.8
	ARENA_3	0.358	1.89	679.7				
2000.000	D TIERRA	1.975	2.30	3910.6	ARENA_1	0.158	0.19	307.1
	ARENA_2	0.157	0.18	301.1	RELLENO_ZANJA	1.157	1.34	2339.1
	ARENA_3	0.358	0.42	680.2				
2004.973	D TIERRA	1.975	9.82	3920.4	ARENA_1	0.158	0.79	307.9
	ARENA_2	0.157	0.78	301.9	RELLENO_ZANJA	1.157	5.75	2344.9
	ARENA_3	0.358	1.78	681.9				
2011.328	D TIERRA	2.114	12.99	3933.4	ARENA_1	0.158	1.01	308.9
	ARENA_2	0.157	1.00	302.9	RELLENO_ZANJA	1.296	7.79	2352.7
	ARENA_3	0.358	2.28	684.2				
2020.000	D TIERRA	1.985	17.77	3951.1	ARENA_1	0.158	1.37	310.3
	ARENA_2	0.157	1.36	304.3	RELLENO_ZANJA	1.167	10.68	2363.4
	ARENA_3	0.358	3.10	687.3				
2030.550	D TIERRA	2.256	22.37	3973.5	ARENA_1	0.158	1.67	312.0
	ARENA_2	0.157	1.66	305.9	RELLENO_ZANJA	1.438	13.74	2377.1
	ARENA_3	0.355	3.76	691.1				
2038.830	D TIERRA	2.066	17.89	3991.4	ARENA_1	0.158	1.31	313.3
	ARENA_2	0.157	1.30	307.2	RELLENO_ZANJA	1.248	11.12	2388.2
	ARENA_3	0.355	2.94	694.0				
2040.000	D TIERRA	1.955	2.35	3993.8	ARENA_1	0.158	0.18	313.5
	ARENA_2	0.157	0.18	307.4	RELLENO_ZANJA	1.137	1.40	2389.6
	ARENA_3	0.355	0.42	694.4				
2060.000	D TIERRA	2.021	39.76	4033.5	ARENA_1	0.158	3.16	316.6
	ARENA_2	0.157	3.14	310.6	RELLENO_ZANJA	1.203	23.40	2413.0
	ARENA_3	0.357	7.12	701.6				
2067.137	D TIERRA	1.991	14.32	4047.8	ARENA_1	0.158	1.13	317.8
	ARENA_2	0.157	1.12	311.7	RELLENO_ZANJA	1.173	8.48	2421.5
	ARENA_3	0.357	2.55	704.1				
2080.000	D TIERRA	2.009	25.73	4073.6	ARENA_1	0.158	2.03	319.8
	ARENA_2	0.157	2.02	313.7	RELLENO_ZANJA	1.192	15.21	2436.7
	ARENA_3	0.357	4.59	708.7				
2081.970	D TIERRA	2.281	4.23	4077.8	ARENA_1	0.158	0.31	320.1
	ARENA_2	0.157	0.31	314.0	RELLENO_ZANJA	1.463	2.61	2439.3
	ARENA_3	0.357	0.70	709.4				
2089.172	D TIERRA	2.503	17.23	4095.0	ARENA_1	0.158	1.14	321.2
	ARENA_2	0.157	1.13	315.1	RELLENO_ZANJA	1.686	11.34	2450.7
	ARENA_3	0.357	2.57	712.0				
2100.000	D TIERRA	2.160	25.25	4120.3	ARENA_1	0.158	1.71	323.0
	ARENA_2	0.157	1.70	316.8	RELLENO_ZANJA	1.342	16.39	2467.1
	ARENA_3	0.357	3.87	715.8				
2112.342	D TIERRA	1.891	25.00	4145.3	ARENA_1	0.158	1.95	324.9
	ARENA_2	0.157	1.94	318.8	RELLENO_ZANJA	1.073	14.90	2482.0
	ARENA_3	0.357	4.41	720.2				

PERFIL	MATERIAL	AREA PERFIL	VOL. PARCIAL	VOL. ACUMUL.	MATERIAL	AREA PERFIL	VOL. PARCIAL	VOL. ACUMUL.
2120.000	D TIERRA	2.130	15.40	4160.7	ARENA_1	0.158	1.21	326.1
	ARENA_2	0.157	1.20	320.0	RELLENO_ZANJA	1.312	9.13	2491.1
	ARENA_3	0.357	2.73	723.0				
2138.068	D TIERRA	1.951	36.86	4197.5	ARENA_1	0.158	2.86	329.0
	ARENA_2	0.157	2.84	322.8	RELLENO_ZANJA	1.133	22.09	2513.2
	ARENA_3	0.357	6.45	729.4				
2140.000	D TIERRA	1.955	3.77	4201.3	ARENA_1	0.158	0.31	329.3
	ARENA_2	0.157	0.30	323.1	RELLENO_ZANJA	1.137	2.19	2515.4
	ARENA_3	0.356	0.69	730.1				
2157.927	D TIERRA	2.080	36.17	4237.5	ARENA_1	0.158	2.84	332.1
	ARENA_2	0.157	2.82	325.9	RELLENO_ZANJA	1.262	21.50	2536.9
	ARENA_3	0.356	6.39	736.5				
2160.000	D TIERRA	2.238	4.48	4241.9	ARENA_1	0.158	0.33	332.4
	ARENA_2	0.157	0.33	326.3	RELLENO_ZANJA	1.420	2.78	2539.7
	ARENA_3	0.356	0.74	737.3				
2173.410	D TIERRA	1.992	28.36	4270.3	ARENA_1	0.158	2.12	334.6
	ARENA_2	0.157	2.10	328.4	RELLENO_ZANJA	1.174	17.39	2557.0
	ARENA_3	0.358	4.79	742.0				
2180.000	D TIERRA	2.052	13.33	4283.6	ARENA_1	0.158	1.04	335.6
	ARENA_2	0.157	1.03	329.4	RELLENO_ZANJA	1.234	7.93	2565.0
	ARENA_3	0.358	2.36	744.4				
2189.084	D TIERRA	1.976	18.30	4301.9	ARENA_1	0.158	1.44	337.0
	ARENA_2	0.157	1.42	330.8	RELLENO_ZANJA	1.158	10.87	2575.8
	ARENA_3	0.358	3.25	747.7				
2200.000	D TIERRA	2.012	21.77	4323.7	ARENA_1	0.158	1.73	338.8
	ARENA_2	0.157	1.71	332.5	RELLENO_ZANJA	1.194	12.84	2588.7
	ARENA_3	0.358	3.91	751.6				
2220.000	D TIERRA	2.188	42.00	4365.7	ARENA_1	0.158	3.17	341.9
	ARENA_2	0.157	3.14	335.7	RELLENO_ZANJA	1.370	25.64	2614.3
	ARENA_3	0.358	7.17	758.7				
2223.772	D TIERRA	1.977	7.85	4373.6	ARENA_1	0.158	0.60	342.5
	ARENA_2	0.157	0.59	336.3	RELLENO_ZANJA	1.159	4.77	2619.1
	ARENA_3	0.357	1.35	760.1				
2238.859	D TIERRA	1.846	28.84	4402.4	ARENA_1	0.158	2.39	344.9
	ARENA_2	0.157	2.37	338.6	RELLENO_ZANJA	1.028	16.49	2635.6
	ARENA_3	0.357	5.38	765.5				
2240.000	D TIERRA	1.940	2.16	4404.5	ARENA_1	0.158	0.18	345.1
	ARENA_2	0.157	0.18	338.8	RELLENO_ZANJA	1.122	1.23	2636.8
	ARENA_3	0.357	0.41	765.9				
2250.629	D TIERRA	2.112	21.53	4426.1	ARENA_1	0.158	1.68	346.8
	ARENA_2	0.157	1.67	340.5	RELLENO_ZANJA	1.294	12.84	2649.7
	ARENA_3	0.357	3.79	769.7				
2260.000	D TIERRA	1.981	19.18	4445.3	ARENA_1	0.158	1.48	348.3
	ARENA_2	0.157	1.47	342.0	RELLENO_ZANJA	1.163	11.51	2661.2
	ARENA_3	0.357	3.34	773.0				
2268.409	D TIERRA	1.996	16.72	4462.0	ARENA_1	0.158	1.33	349.6
	ARENA_2	0.157	1.32	343.3	RELLENO_ZANJA	1.178	9.84	2671.0
	ARENA_3	0.358	3.00	776.0				
2280.000	D TIERRA	2.212	24.39	4486.4	ARENA_1	0.158	1.83	351.4
	ARENA_2	0.157	1.82	345.1	RELLENO_ZANJA	1.394	14.91	2685.9
	ARENA_3	0.358	4.15	780.2				
2282.547	D TIERRA	1.971	5.33	4491.7	ARENA_1	0.158	0.40	351.8
	ARENA_2	0.157	0.40	345.5	RELLENO_ZANJA	1.153	3.24	2689.2
	ARENA_3	0.358	0.91	781.1				
2293.612	D TIERRA	1.986	21.89	4513.6	ARENA_1	0.158	1.75	353.6
	ARENA_2	0.157	1.74	347.2	RELLENO_ZANJA	1.168	12.84	2702.0
	ARENA_3	0.356	3.95	785.0				
2300.000	D TIERRA	1.816	12.14	4525.7	ARENA_1	0.158	1.01	354.6
	ARENA_2	0.157	1.00	348.2	RELLENO_ZANJA	0.998	6.92	2708.9
	ARENA_3	0.357	2.28	787.3				



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*** MEDICIONES DE LOS PERFILES TRANSVERSALES***
*** CAPAS DE FIRME ***

PERFIL	MATERIAL	AREA PERFIL	VOL. PARCIAL	VOL. ACUMUL.	MATERIAL	AREA PERFIL	VOL. PARCIAL	VOL. ACUMUL.
	ARENA_2	0.157	3.11	351.3	RELLENO_ZANJA	1.100	20.77	2729.7
	ARENA_3	0.357	7.06	794.4				
2320.000	D_TIERRA	1.884	0.38	4563.1	ARENA_1	0.158	0.03	357.8
	ARENA_2	0.157	0.03	351.4	RELLENO_ZANJA	1.066	0.22	2729.9
	ARENA_3	0.358	0.07	794.4				
2329.962	D_TIERRA	1.960	19.14	4582.2	ARENA_1	0.158	1.58	359.3
	ARENA_2	0.157	1.56	352.9	RELLENO_ZANJA	1.142	11.00	2740.9
	ARENA_3	0.358	3.57	798.0				

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*** RESUMEN DE VOLUMENES TOTALES ***

MATERIAL	VOLUMEN
TERRAPLEN	0.0
D_TIERRA	4582.2
ARENA_1	359.3
ARENA_2	352.9
RELLENO_ZANJA	2740.9
ARENA_3	798.0

17. EJE 17: ACOMETIDA QUEL

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*** MEDICIONES DE LOS PERFILES TRANSVERSALES***
*** CAPAS DE FIRME ***

PERFIL	MATERIAL	AREA PERFIL	VOL. PARCIAL	VOL. ACUMUL.	MATERIAL	AREA PERFIL	VOL. PARCIAL	VOL. ACUMUL.
0.000	D_TIERRA	9.222	0.00	0.0	ARENA_1	0.162	0.00	0.0
	ARENA_2	0.113	0.00	0.0	RELLENO_ZANJA	8.428	0.00	0.0
	ARENA_3	0.496	0.00	0.0				
8.607	D_TIERRA	10.615	85.37	85.4	ARENA_1	0.162	1.40	1.4
	ARENA_2	0.113	0.97	1.0	RELLENO_ZANJA	9.820	78.53	78.5
	ARENA_3	0.496	4.27	4.3				
20.000	D_TIERRA	11.787	127.61	213.0	ARENA_1	0.162	1.85	3.2
	ARENA_2	0.113	1.29	2.3	RELLENO_ZANJA	10.992	118.56	197.1
	ARENA_3	0.496	5.65	9.9				
40.000	D_TIERRA	10.722	225.09	438.1	ARENA_1	0.162	3.24	6.5
	ARENA_2	0.113	2.26	4.5	RELLENO_ZANJA	9.928	209.20	406.3
	ARENA_3	0.496	9.93	19.9				
56.431	D_TIERRA	9.189	163.58	601.6	ARENA_1	0.162	2.66	9.2
	ARENA_2	0.113	1.86	6.4	RELLENO_ZANJA	8.394	150.53	556.8
	ARENA_3	0.496	8.15	28.0				
60.000	D_TIERRA	8.649	31.83	633.5	ARENA_1	0.162	0.58	9.7
	ARENA_2	0.113	0.40	6.8	RELLENO_ZANJA	7.855	29.00	585.8
	ARENA_3	0.496	1.77	29.8				
80.000	D_TIERRA	7.514	161.63	795.1	ARENA_1	0.162	3.24	13.0
	ARENA_2	0.113	2.26	9.1	RELLENO_ZANJA	6.720	145.75	731.6
	ARENA_3	0.496	9.93	39.7				
100.000	D_TIERRA	6.908	144.23	939.3	ARENA_1	0.162	3.24	16.2
	ARENA_2	0.113	2.26	11.3	RELLENO_ZANJA	6.114	128.34	859.9
	ARENA_3	0.496	9.93	49.6				
110.333	D_TIERRA	6.565	69.61	1008.9	ARENA_1	0.162	1.68	17.9
	ARENA_2	0.113	1.17	12.5	RELLENO_ZANJA	5.771	61.40	921.3
	ARENA_3	0.496	5.13	54.8				
120.000	D_TIERRA	6.405	62.69	1071.6	ARENA_1	0.162	1.57	19.5
	ARENA_2	0.113	1.09	13.6	RELLENO_ZANJA	5.610	55.01	976.3
	ARENA_3	0.496	4.80	59.6				
140.000	D_TIERRA	5.824	122.28	1193.9	ARENA_1	0.162	3.24	22.7
	ARENA_2	0.113	2.26	15.8	RELLENO_ZANJA	5.029	106.40	1082.7
	ARENA_3	0.496	9.93	69.5				
159.637	D_TIERRA	4.430	100.68	1294.6	ARENA_1	0.162	3.18	25.9
	ARENA_2	0.113	2.22	18.1	RELLENO_ZANJA	3.636	85.08	1167.8
	ARENA_3	0.496	9.75	79.2				
160.000	D_TIERRA	4.422	1.61	1296.2	ARENA_1	0.162	0.06	25.9
	ARENA_2	0.113	0.04	18.1	RELLENO_ZANJA	3.627	1.32	1169.1
	ARENA_3	0.496	0.18	79.4				
180.000	D_TIERRA	4.457	88.78	1385.0	ARENA_1	0.162	3.24	29.2
	ARENA_2	0.113	2.26	20.4	RELLENO_ZANJA	3.662	72.90	1242.0
	ARENA_3	0.496	9.93	89.3				
196.678	D_TIERRA	4.538	75.01	1460.0	ARENA_1	0.162	2.70	31.9
	ARENA_2	0.113	1.89	22.3	RELLENO_ZANJA	3.744	61.76	1303.8
	ARENA_3	0.496	8.28	97.6				
200.000	D_TIERRA	4.520	15.04	1475.0	ARENA_1	0.162	0.54	32.4
	ARENA_2	0.113	0.38	22.6	RELLENO_ZANJA	3.725	12.41	1316.2
	ARENA_3	0.496	1.65	99.3				
220.000	D_TIERRA	4.477	89.96	1565.0	ARENA_1	0.162	3.24	35.7
	ARENA_2	0.113	2.26	24.9	RELLENO_ZANJA	3.682	74.08	1390.3
	ARENA_3	0.496	9.93	109.2				
240.000	D_TIERRA	4.516	89.93	1654.9	ARENA_1	0.162	3.24	38.9
	ARENA_2	0.113	2.26	27.2	RELLENO_ZANJA	3.722	74.04	1464.3
	ARENA_3	0.496	9.93	119.1				
260.000	D_TIERRA	4.570	90.86	1745.8	ARENA_1	0.162	3.24	42.2
	ARENA_2	0.113	2.26	29.4	RELLENO_ZANJA	3.776	74.97	1539.3
	ARENA_3	0.496	9.93	129.0				

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PERFIL	MATERIAL	AREA PERFIL	VOL. PARCIAL	VOL. ACUMUL.	MATERIAL	AREA PERFIL	VOL. PARCIAL	VOL. ACUMUL.
279.050	D TIERRA	5.261	93.64	1839.4	ARENA_1	0.162	3.09	45.2
	ARENA_2	0.113	2.16	31.6	RELLENO_ZANJA	4.466	78.50	1617.8
	ARENA_3	0.496	9.45	138.5				
280.000	D TIERRA	5.308	5.02	1844.4	ARENA_1	0.162	0.15	45.4
	ARENA_2	0.113	0.11	31.7	RELLENO_ZANJA	4.513	4.27	1622.0
	ARENA_3	0.496	0.47	139.0				
300.000	D TIERRA	6.274	115.82	1960.3	ARENA_1	0.162	3.24	48.6
	ARENA_2	0.113	2.26	34.0	RELLENO_ZANJA	5.480	99.93	1722.0
	ARENA_3	0.496	9.93	148.9				
320.000	D TIERRA	7.250	135.24	2095.5	ARENA_1	0.162	3.24	51.9
	ARENA_2	0.113	2.26	36.2	RELLENO_ZANJA	6.456	119.36	1841.3
	ARENA_3	0.496	9.93	158.8				
340.000	D TIERRA	7.051	143.01	2238.5	ARENA_1	0.162	3.24	55.1
	ARENA_2	0.113	2.26	38.5	RELLENO_ZANJA	6.257	127.13	1968.5
	ARENA_3	0.496	9.93	168.7				
360.000	D TIERRA	6.351	134.02	2372.5	ARENA_1	0.162	3.24	58.4
	ARENA_2	0.113	2.26	40.7	RELLENO_ZANJA	5.557	118.13	2086.6
	ARENA_3	0.496	9.93	178.7				
370.954	D TIERRA	6.465	70.20	2442.7	ARENA_1	0.162	1.78	60.2
	ARENA_2	0.113	1.24	42.0	RELLENO_ZANJA	5.671	61.49	2148.1
	ARENA_3	0.496	5.44	184.1				
380.000	D TIERRA	6.536	58.80	2501.5	ARENA_1	0.162	1.47	61.6
	ARENA_2	0.113	1.02	43.0	RELLENO_ZANJA	5.741	51.62	2199.7
	ARENA_3	0.496	4.49	188.6				
400.000	D TIERRA	5.764	122.99	2624.5	ARENA_1	0.162	3.24	64.9
	ARENA_2	0.113	2.26	45.3	RELLENO_ZANJA	4.969	107.11	2306.8
	ARENA_3	0.496	9.93	198.5				
406.454	D TIERRA	5.483	36.29	2660.8	ARENA_1	0.162	1.05	65.9
	ARENA_2	0.113	0.73	46.0	RELLENO_ZANJA	4.689	31.17	2338.0
	ARENA_3	0.496	3.20	201.7				
420.000	D TIERRA	5.631	75.27	2736.1	ARENA_1	0.162	2.20	68.1
	ARENA_2	0.113	1.53	47.5	RELLENO_ZANJA	4.836	64.51	2402.5
	ARENA_3	0.496	6.72	208.4				
440.000	D TIERRA	5.722	113.52	2849.6	ARENA_1	0.162	3.24	71.3
	ARENA_2	0.113	2.26	49.8	RELLENO_ZANJA	4.927	97.64	2500.1
	ARENA_3	0.496	9.93	218.4				
452.091	D TIERRA	5.257	66.37	2916.0	ARENA_1	0.162	1.96	73.3
	ARENA_2	0.113	1.37	51.2	RELLENO_ZANJA	4.463	56.77	2556.9
	ARENA_3	0.496	6.00	224.4				
460.000	D TIERRA	5.542	42.71	2958.7	ARENA_1	0.162	1.28	74.6
	ARENA_2	0.113	0.90	52.1	RELLENO_ZANJA	4.747	36.42	2593.3
	ARENA_3	0.496	3.93	228.3				
477.437	D TIERRA	6.241	102.73	3061.4	ARENA_1	0.162	2.83	77.4
	ARENA_2	0.113	1.97	54.0	RELLENO_ZANJA	5.447	88.88	2682.2
	ARENA_3	0.496	8.65	236.9				
480.000	D TIERRA	6.422	16.23	3077.6	ARENA_1	0.162	0.42	77.8
	ARENA_2	0.113	0.29	54.3	RELLENO_ZANJA	5.627	14.19	2696.4
	ARENA_3	0.496	1.27	238.2				
500.000	D TIERRA	4.455	108.76	3186.4	ARENA_1	0.162	3.24	81.1
	ARENA_2	0.113	2.26	56.6	RELLENO_ZANJA	3.660	92.88	2789.3
	ARENA_3	0.496	9.93	248.1				
501.705	D TIERRA	4.353	7.51	3193.9	ARENA_1	0.162	0.28	81.4
	ARENA_2	0.113	0.19	56.8	RELLENO_ZANJA	3.559	6.15	2795.4
	ARENA_3	0.496	0.85	249.0				
520.000	D TIERRA	4.491	80.91	3274.8	ARENA_1	0.162	2.97	84.3
	ARENA_2	0.113	2.07	58.8	RELLENO_ZANJA	3.697	66.37	2861.8
	ARENA_3	0.496	9.08	258.1				
540.000	D TIERRA	4.645	91.36	3366.2	ARENA_1	0.162	3.24	87.6
	ARENA_2	0.113	2.26	61.1	RELLENO_ZANJA	3.851	75.48	2937.3
	ARENA_3	0.496	9.93	268.0				

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PERFIL	MATERIAL	AREA PERFIL	VOL. PARCIAL	VOL. ACUMUL.	MATERIAL	AREA PERFIL	VOL. PARCIAL	VOL. ACUMUL.
560.000	D TIERRA	4.784	94.29	3460.5	ARENA_1	0.162	3.24	90.8
	ARENA_2	0.113	2.26	63.4	RELLENO_ZANJA	3.990	78.40	3015.7
	ARENA_3	0.496	9.93	277.9				
580.000	D TIERRA	4.634	94.17	3554.6	ARENA_1	0.162	3.24	94.0
	ARENA_2	0.113	2.26	65.6	RELLENO_ZANJA	3.839	78.29	3094.0
	ARENA_3	0.496	9.93	287.8				
600.000	D TIERRA	4.266	89.00	3643.6	ARENA_1	0.162	3.24	97.3
	ARENA_2	0.113	2.26	67.9	RELLENO_ZANJA	3.472	73.11	3167.1
	ARENA_3	0.496	9.93	297.8				
614.507	D TIERRA	3.950	59.60	3703.2	ARENA_1	0.162	2.35	99.6
	ARENA_2	0.113	1.64	69.5	RELLENO_ZANJA	3.156	48.07	3215.1
	ARENA_3	0.496	7.20	305.0				
620.000	D TIERRA	3.857	21.44	3724.7	ARENA_1	0.162	0.89	100.5
	ARENA_2	0.113	0.62	70.2	RELLENO_ZANJA	3.062	17.08	3232.2
	ARENA_3	0.496	2.73	307.7				
640.000	D TIERRA	4.229	80.86	3805.5	ARENA_1	0.162	3.24	103.8
	ARENA_2	0.113	2.26	72.4	RELLENO_ZANJA	3.435	64.97	3297.2
	ARENA_3	0.496	9.93	317.6				
640.640	D TIERRA	4.270	2.72	3808.3	ARENA_1	0.162	0.10	103.9
	ARENA_2	0.113	0.07	72.5	RELLENO_ZANJA	3.475	2.21	3299.4
	ARENA_3	0.496	0.32	317.9				
660.000	D TIERRA	5.490	94.48	3902.7	ARENA_1	0.162	3.14	107.0
	ARENA_2	0.113	2.19	74.7	RELLENO_ZANJA	4.696	79.10	3378.5
	ARENA_3	0.496	9.61	327.5				
670.230	D TIERRA	5.621	56.83	3959.6	ARENA_1	0.162	1.66	108.7
	ARENA_2	0.113	1.16	75.9	RELLENO_ZANJA	4.827	48.71	3427.2
	ARENA_3	0.496	5.08	332.6				
676.625	D TIERRA	5.429	35.33	3994.9	ARENA_1	0.162	1.04	109.7
	ARENA_2	0.113	0.72	76.6	RELLENO_ZANJA	4.635	30.25	3457.5
	ARENA_3	0.496	3.17	335.8				
680.000	D TIERRA	5.365	18.21	4013.1	ARENA_1	0.162	0.55	110.3
	ARENA_2	0.113	0.38	77.0	RELLENO_ZANJA	4.571	15.53	3473.0
	ARENA_3	0.496	1.67	337.5				
700.000	D TIERRA	6.078	114.43	4127.5	ARENA_1	0.162	3.24	113.5
	ARENA_2	0.113	2.26	79.2	RELLENO_ZANJA	5.283	98.54	3571.5
	ARENA_3	0.496	9.93	347.4				
701.990	D TIERRA	6.260	12.28	4139.8	ARENA_1	0.162	0.32	113.8
	ARENA_2	0.113	0.23	79.4	RELLENO_ZANJA	5.465	10.69	3582.2
	ARENA_3	0.496	0.99	348.4				
719.578	D TIERRA	5.677	104.97	4244.8	ARENA_1	0.162	2.85	116.7
	ARENA_2	0.113	1.99	81.4	RELLENO_ZANJA	4.883	91.00	3673.2
	ARENA_3	0.496	8.73	357.1				
720.000	D TIERRA	5.674	2.39	4247.2	ARENA_1	0.162	0.07	116.8
	ARENA_2	0.113	0.05	81.5	RELLENO_ZANJA	4.879	2.06	3675.3
	ARENA_3	0.496	0.21	357.3				
740.000	D TIERRA	5.521	111.95	4359.1	ARENA_1	0.162	3.24	120.0
	ARENA_2	0.113	2.26	83.7	RELLENO_ZANJA	4.727	96.06	3771.4
	ARENA_3	0.496	9.93	367.2				
760.000	D TIERRA	5.370	108.91	4468.0	ARENA_1	0.162	3.24	123.2
	ARENA_2	0.113	2.26	86.0	RELLENO_ZANJA	4.575	93.02	3864.4
	ARENA_3	0.496	9.93	377.2				
780.000	D TIERRA	5.245	106.15	4574.2	ARENA_1	0.162	3.24	126.5
	ARENA_2	0.113	2.26	88.3	RELLENO_ZANJA	4.451	90.26	3954.6
	ARENA_3	0.496	9.93	387.1				
800.000	D TIERRA	5.450	106.95	4681.1	ARENA_1	0.162	3.24	129.7
	ARENA_2	0.113	2.26	90.5	RELLENO_ZANJA	4.656	91.06	4045.7
	ARENA_3	0.496	9.93	397.0				
820.000	D TIERRA	5.754	112.04	4793.2	ARENA_1	0.162	3.24	133.0
	ARENA_2	0.113	2.26	92.8	RELLENO_ZANJA	4.960	96.16	4141.9
	ARENA_3	0.496	9.93	406.9				

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840.000	D TIERRA	6.105	118.59	4911.8	ARENA_1	0.162	3.24	136.2
	ARENA_2	0.113	2.26	95.1	RELLENO_ZANJA	5.310	102.70	4244.6
	ARENA_3	0.496	9.93	416.9				
860.000	D TIERRA	6.740	128.44	5040.2	ARENA_1	0.162	3.24	139.5
	ARENA_2	0.113	2.26	97.3	RELLENO_ZANJA	5.945	112.56	4357.1
	ARENA_3	0.496	9.93	426.8				
872.026	D TIERRA	7.123	83.35	5123.6	ARENA_1	0.162	1.95	141.4
	ARENA_2	0.113	1.36	98.7	RELLENO_ZANJA	6.328	73.80	4430.9
	ARENA_3	0.496	5.97	432.8				
880.000	D TIERRA	6.531	54.44	5178.0	ARENA_1	0.162	1.29	142.7
	ARENA_2	0.113	0.90	99.6	RELLENO_ZANJA	5.737	48.10	4479.0
	ARENA_3	0.496	3.96	436.7				
900.000	D TIERRA	6.481	130.12	5308.1	ARENA_1	0.162	3.24	145.9
	ARENA_2	0.113	2.26	101.9	RELLENO_ZANJA	5.687	114.23	4593.3
	ARENA_3	0.496	9.93	446.7				
910.628	D TIERRA	8.852	81.48	5389.6	ARENA_1	0.162	1.72	147.7
	ARENA_2	0.113	1.20	103.1	RELLENO_ZANJA	8.058	73.04	4666.3
	ARENA_3	0.496	5.27	451.9				
920.000	D TIERRA	9.573	86.34	5475.9	ARENA_1	0.162	1.52	149.2
	ARENA_2	0.113	1.06	104.1	RELLENO_ZANJA	8.778	78.89	4745.2
	ARENA_3	0.496	4.65	456.6				
933.322	D TIERRA	13.267	152.14	5628.1	ARENA_1	0.162	2.16	151.3
	ARENA_2	0.113	1.51	105.6	RELLENO_ZANJA	12.473	141.56	4886.7
	ARENA_3	0.496	6.61	463.2				
940.000	D TIERRA	12.805	87.05	5715.1	ARENA_1	0.162	1.08	152.4
	ARENA_2	0.113	0.76	106.4	RELLENO_ZANJA	12.010	81.75	4968.5
	ARENA_3	0.496	3.31	466.5				
960.000	D TIERRA	8.193	209.98	5925.1	ARENA_1	0.162	3.24	155.7
	ARENA_2	0.113	2.26	108.6	RELLENO_ZANJA	7.399	194.09	5162.6
	ARENA_3	0.496	9.93	476.4				
980.000	D TIERRA	3.621	118.14	6043.2	ARENA_1	0.162	3.24	158.9
	ARENA_2	0.113	2.26	110.9	RELLENO_ZANJA	2.827	102.25	5264.8
	ARENA_3	0.496	9.92	486.4				
988.468	D TIERRA	4.393	33.93	6077.2	ARENA_1	0.162	1.37	160.3
	ARENA_2	0.113	0.96	111.9	RELLENO_ZANJA	3.599	27.21	5292.0
	ARENA_3	0.496	4.20	490.6				
1000.000	D TIERRA	6.056	60.25	6137.4	ARENA_1	0.162	1.87	162.2
	ARENA_2	0.113	1.31	113.2	RELLENO_ZANJA	5.262	51.09	5343.1
	ARENA_3	0.496	5.72	496.3				
1000.000	D TIERRA	1.457	0.00	6137.4	ARENA_1	0.116	0.00	162.2
	ARENA_2	0.054	0.00	113.2	RELLENO_ZANJA	1.082	0.00	5343.1
	ARENA_3	0.181	0.00	496.3				
1018.461	D TIERRA	1.345	25.86	6163.3	ARENA_1	0.116	2.15	164.3
	ARENA_2	0.054	1.00	114.2	RELLENO_ZANJA	0.970	18.95	5362.1
	ARENA_3	0.181	3.35	499.6				
1020.000	D TIERRA	1.334	2.06	6165.4	ARENA_1	0.116	0.18	164.5
	ARENA_2	0.054	0.08	114.3	RELLENO_ZANJA	0.960	1.49	5363.6
	ARENA_3	0.181	0.28	499.9				
1040.000	D TIERRA	1.154	24.88	6190.2	ARENA_1	0.116	2.33	166.8
	ARENA_2	0.054	1.08	115.3	RELLENO_ZANJA	0.780	17.39	5381.0
	ARENA_3	0.181	3.63	503.5				
1047.397	D TIERRA	1.135	8.47	6198.7	ARENA_1	0.116	0.86	167.7
	ARENA_2	0.054	0.40	115.7	RELLENO_ZANJA	0.760	5.69	5386.7
	ARENA_3	0.181	1.34	504.9				
1060.000	D TIERRA	1.154	14.42	6213.1	ARENA_1	0.116	1.47	169.1
	ARENA_2	0.054	0.68	116.4	RELLENO_ZANJA	0.780	9.70	5396.4
	ARENA_3	0.181	2.29	507.2				
1080.000	D TIERRA	1.154	23.08	6236.2	ARENA_1	0.116	2.33	171.5
	ARENA_2	0.054	1.08	117.5	RELLENO_ZANJA	0.780	15.59	5411.9
	ARENA_3	0.181	3.63	510.8				

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PERFIL	MATERIAL	AREA PERFIL	VOL. PARCIAL	VOL. ACUMUL.	MATERIAL	AREA PERFIL	VOL. PARCIAL	VOL. ACUMUL.
1100.000	D TIERRA	1.155	23.09	6259.3	ARENA_1	0.116	2.33	173.8
	ARENA_2	0.054	1.08	118.6	RELLENO_ZANJA	0.781	15.60	5427.5
	ARENA_3	0.181	3.63	514.4				
1111.371	D TIERRA	1.182	13.29	6272.6	ARENA_1	0.116	1.32	175.1
	ARENA_2	0.054	0.62	119.2	RELLENO_ZANJA	0.807	9.03	5436.6
	ARENA_3	0.181	2.06	516.5				
1120.000	D TIERRA	1.228	10.40	6283.0	ARENA_1	0.116	1.00	176.1
	ARENA_2	0.054	0.47	119.7	RELLENO_ZANJA	0.854	7.17	5443.7
	ARENA_3	0.181	1.57	518.1				
1140.000	D TIERRA	1.144	23.72	6306.7	ARENA_1	0.116	2.33	178.4
	ARENA_2	0.054	1.08	120.8	RELLENO_ZANJA	0.769	16.23	5460.0
	ARENA_3	0.181	3.63	521.7				
1154.760	D TIERRA	1.167	17.05	6323.8	ARENA_1	0.116	1.72	180.1
	ARENA_2	0.054	0.80	121.6	RELLENO_ZANJA	0.792	11.52	5471.5
	ARENA_3	0.181	2.68	524.4				
1160.000	D TIERRA	1.202	6.20	6330.0	ARENA_1	0.116	0.61	180.8
	ARENA_2	0.054	0.28	121.8	RELLENO_ZANJA	0.827	4.24	5475.7
	ARENA_3	0.181	0.95	525.3				
1177.549	D TIERRA	1.127	20.43	6350.4	ARENA_1	0.116	2.04	182.8
	ARENA_2	0.054	0.95	122.8	RELLENO_ZANJA	0.752	13.86	5489.6
	ARENA_3	0.181	3.18	528.5				
1180.000	D TIERRA	1.125	2.76	6353.2	ARENA_1	0.116	0.28	183.1
	ARENA_2	0.054	0.13	122.9	RELLENO_ZANJA	0.751	1.84	5491.4
	ARENA_3	0.181	0.44	528.9				
1200.000	D TIERRA	1.154	22.80	6376.0	ARENA_1	0.116	2.33	185.4
	ARENA_2	0.054	1.08	124.0	RELLENO_ZANJA	0.779	15.30	5506.7
	ARENA_3	0.181	3.63	532.6				
1201.937	D TIERRA	1.121	2.20	6378.2	ARENA_1	0.116	0.23	185.6
	ARENA_2	0.054	0.10	124.1	RELLENO_ZANJA	0.746	1.48	5508.2
	ARENA_3	0.181	0.35	532.9				
1220.000	D TIERRA	1.095	20.01	6398.2	ARENA_1	0.116	2.10	187.7
	ARENA_2	0.054	0.98	125.1	RELLENO_ZANJA	0.720	13.24	5521.5
	ARENA_3	0.181	3.28	536.2				
1223.530	D TIERRA	1.116	3.90	6402.1	ARENA_1	0.116	0.41	188.1
	ARENA_2	0.054	0.19	125.3	RELLENO_ZANJA	0.742	2.58	5524.0
	ARENA_3	0.181	0.64	536.8				
1240.000	D TIERRA	1.167	18.80	6420.9	ARENA_1	0.116	1.91	190.1
	ARENA_2	0.054	0.89	126.2	RELLENO_ZANJA	0.792	12.63	5536.7
	ARENA_3	0.181	2.99	539.8				
1242.957	D TIERRA	1.154	3.43	6424.3	ARENA_1	0.116	0.34	190.4
	ARENA_2	0.054	0.16	126.3	RELLENO_ZANJA	0.780	2.32	5539.0
	ARENA_3	0.181	0.54	540.4				
1260.000	D TIERRA	1.284	20.77	6445.1	ARENA_1	0.116	1.98	192.4
	ARENA_2	0.054	0.92	127.3	RELLENO_ZANJA	0.909	14.39	5553.4
	ARENA_3	0.181	3.09	543.4				
1264.772	D TIERRA	1.154	5.82	6450.9	ARENA_1	0.116	0.55	192.9
	ARENA_2	0.054	0.26	127.5	RELLENO_ZANJA	0.780	4.03	5557.4
	ARENA_3	0.181	0.87	544.3				
1280.000	D TIERRA	1.154	17.57	6468.5	ARENA_1	0.116	1.77	194.7
	ARENA_2	0.054	0.83	128.3	RELLENO_ZANJA	0.780	11.87	5569.3
	ARENA_3	0.181	2.76	547.1				
1300.000	D TIERRA	1.145	22.99	6491.5	ARENA_1	0.116	2.32	197.0
	ARENA_2	0.054	1.08	129.4	RELLENO_ZANJA	0.770	15.50	5584.8
	ARENA_3	0.181	3.63	550.7				
1303.480	D TIERRA	1.136	3.97	6495.4	ARENA_1	0.116	0.40	197.4
	ARENA_2	0.054	0.19	129.6	RELLENO_ZANJA	0.761	2.66	5587.4
	ARENA_3	0.181	0.63	551.3				
1311.062	D TIERRA	1.154	8.68	6504.1	ARENA_1	0.116	0.88	198.3
	ARENA_2	0.054	0.41	130.0	RELLENO_ZANJA	0.780	5.84	5593.3
	ARENA_3	0.181	1.38	552.7				

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 PROYECTO :
 EJE : 17: ACOMETIDA QUEL

CIDACOS COMPLETO

*** RESUMEN DE VOLUMENES TOTALES ***

MATERIAL	VOLUMEN
TERRAPLEN	0.0
D_TIERRA	6504.1
ARENA_1	198.3
ARENA_2	130.0
RELLENO_ZANJA	5593.3
ARENA_3	552.7

18. EJE 18: ACOMETIDA AUTOL

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 PROYECTO :
 EJE : 18: ACOMETIDA AUTOL

*** MEDICIONES DE LOS PERFILES TRANSVERSALES ***
 *** CAPAS DE FIRME ***

PERFIL	MATERIAL	AREA PERFIL	VOL. PARCIAL	VOL. ACUMUL.	MATERIAL	AREA PERFIL	VOL. PARCIAL	VOL. ACUMUL.
0.000	D_TIERRA	2.951	0.00	0.0	ARENA_1	0.138	0.00	0.0
	ARENA_2	0.104	0.00	0.0	RELLENO_ZANJA	2.353	0.00	0.0
	ARENA_3	0.297	0.00	0.0				
20.000	D_TIERRA	1.865	48.15	48.2	ARENA_1	0.138	2.75	2.8
	ARENA_2	0.104	2.08	2.1	RELLENO_ZANJA	1.267	36.20	36.2
	ARENA_3	0.297	5.93	5.9				
40.000	D_TIERRA	1.864	37.28	85.4	ARENA_1	0.138	2.75	5.5
	ARENA_2	0.104	2.08	4.2	RELLENO_ZANJA	1.266	25.33	61.5
	ARENA_3	0.297	5.93	11.9				
60.000	D_TIERRA	3.086	49.49	134.9	ARENA_1	0.138	2.75	8.3
	ARENA_2	0.104	2.08	6.3	RELLENO_ZANJA	2.488	37.54	99.1
	ARENA_3	0.297	5.93	17.8				
62.720	D_TIERRA	3.204	8.55	143.5	ARENA_1	0.138	0.37	8.6
	ARENA_2	0.104	0.28	6.5	RELLENO_ZANJA	2.606	6.93	106.0
	ARENA_3	0.297	0.81	18.6				
80.000	D_TIERRA	2.973	53.37	196.9	ARENA_1	0.138	2.38	11.0
	ARENA_2	0.104	1.80	8.3	RELLENO_ZANJA	2.375	43.04	149.0
	ARENA_3	0.297	5.13	23.7				
100.000	D_TIERRA	1.864	48.37	245.2	ARENA_1	0.138	2.75	13.8
	ARENA_2	0.104	2.08	10.4	RELLENO_ZANJA	1.266	36.42	185.5
	ARENA_3	0.297	5.93	29.7				
120.000	D_TIERRA	1.931	37.95	283.2	ARENA_1	0.138	2.75	16.5
	ARENA_2	0.104	2.08	12.5	RELLENO_ZANJA	1.333	26.00	211.5
	ARENA_3	0.297	5.93	35.6				
120.000	D_TIERRA	1.438	0.00	283.2	ARENA_1	0.132	0.00	16.5
	ARENA_2	0.091	0.00	12.5	RELLENO_ZANJA	0.917	0.00	211.5
	ARENA_3	0.239	0.00	35.6				
140.000	D_TIERRA	1.612	30.50	313.7	ARENA_1	0.132	2.64	19.2
	ARENA_2	0.091	1.81	14.3	RELLENO_ZANJA	1.091	20.09	231.5
	ARENA_3	0.239	4.78	40.4				
160.000	D_TIERRA	1.459	30.71	344.4	ARENA_1	0.132	2.64	21.8
	ARENA_2	0.091	1.81	16.1	RELLENO_ZANJA	0.939	20.30	251.8
	ARENA_3	0.239	4.78	45.2				
176.919	D_TIERRA	1.399	24.18	368.6	ARENA_1	0.132	2.23	24.0
	ARENA_2	0.091	1.53	17.7	RELLENO_ZANJA	0.878	15.37	267.2
	ARENA_3	0.239	4.04	49.2				
180.000	D_TIERRA	1.382	4.28	372.8	ARENA_1	0.132	0.41	24.4
	ARENA_2	0.091	0.28	17.9	RELLENO_ZANJA	0.862	2.68	269.9
	ARENA_3	0.239	0.74	49.9				
200.000	D_TIERRA	1.410	27.92	400.8	ARENA_1	0.132	2.64	27.1
	ARENA_2	0.091	1.81	19.8	RELLENO_ZANJA	0.889	17.51	287.4
	ARENA_3	0.239	4.78	54.7				
210.425	D_TIERRA	1.399	14.64	415.4	ARENA_1	0.132	1.38	28.5
	ARENA_2	0.091	0.94	20.7	RELLENO_ZANJA	0.878	9.21	296.6
	ARENA_3	0.239	2.49	57.2				
220.000	D_TIERRA	1.367	13.24	428.6	ARENA_1	0.132	1.26	29.7
	ARENA_2	0.091	0.87	21.6	RELLENO_ZANJA	0.847	8.26	304.9
	ARENA_3	0.238	2.28	59.5				
223.021	D_TIERRA	1.267	3.98	432.6	ARENA_1	0.132	0.40	30.1
	ARENA_2	0.091	0.27	21.8	RELLENO_ZANJA	0.746	2.41	307.3
	ARENA_3	0.238	0.72	60.2				
240.000	D_TIERRA	1.399	22.63	455.2	ARENA_1	0.132	2.24	32.4
	ARENA_2	0.091	1.54	23.4	RELLENO_ZANJA	0.878	13.79	321.1
	ARENA_3	0.238	4.04	64.3				
260.000	D_TIERRA	1.543	29.42	484.7	ARENA_1	0.132	2.64	35.0
	ARENA_2	0.091	1.81	25.2	RELLENO_ZANJA	1.022	19.00	340.1
	ARENA_3	0.239	4.77	69.0				



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PROYECTO :
EJE : 18: ACOMETIDA AUTOL

CIDACOS COMPLETO

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PROYECTO :
EJE : 18: ACOMETIDA AUTOL

CIDACOS COMPLETO

*** MEDICIONES DE LOS PERFILES TRANSVERSALES ***
*** CAPAS DE FIRME ***

*** MEDICIONES DE LOS PERFILES TRANSVERSALES ***
*** CAPAS DE FIRME ***

PERFIL	MATERIAL	AREA PERFIL	VOL. PARCIAL	VOL. ACUMUL.	MATERIAL	AREA PERFIL	VOL. PARCIAL	VOL. ACUMUL.
278.456	D TIERRA	1.399	27.15	511.8	ARENA_1	0.132	2.44	37.4
	ARENA_2	0.091	1.67	26.9	RELLENO_ZANJA	0.879	17.54	357.6
	ARENA_3	0.239	4.40	73.4				
280.000	D TIERRA	1.409	2.17	514.0	ARENA_1	0.132	0.20	37.6
	ARENA_2	0.091	0.14	27.0	RELLENO_ZANJA	0.889	1.36	359.0
	ARENA_3	0.239	0.37	73.8				
300.000	D TIERRA	1.399	28.08	542.1	ARENA_1	0.132	2.64	40.3
	ARENA_2	0.091	1.81	28.8	RELLENO_ZANJA	0.878	17.67	376.6
	ARENA_3	0.239	4.78	78.6				
311.065	D TIERRA	1.452	15.77	557.8	ARENA_1	0.132	1.46	41.7
	ARENA_2	0.091	1.00	29.8	RELLENO_ZANJA	0.931	10.01	386.7
	ARENA_3	0.239	2.64	81.2				
320.000	D TIERRA	1.441	12.92	570.8	ARENA_1	0.132	1.18	42.9
	ARENA_2	0.091	0.81	30.6	RELLENO_ZANJA	0.920	8.27	394.9
	ARENA_3	0.239	2.13	83.3				
331.424	D TIERRA	1.398	16.22	587.0	ARENA_1	0.132	1.51	44.4
	ARENA_2	0.091	1.04	31.7	RELLENO_ZANJA	0.878	10.27	405.2
	ARENA_3	0.239	2.73	86.1				
340.000	D TIERRA	1.396	11.98	599.0	ARENA_1	0.132	1.13	45.6
	ARENA_2	0.091	0.78	32.4	RELLENO_ZANJA	0.875	7.52	412.7
	ARENA_3	0.239	2.05	88.1				
360.000	D TIERRA	1.358	27.54	626.5	ARENA_1	0.132	2.64	48.2
	ARENA_2	0.091	1.81	34.3	RELLENO_ZANJA	0.838	17.13	429.8
	ARENA_3	0.239	4.78	92.9				
380.000	D TIERRA	1.419	27.78	654.3	ARENA_1	0.132	2.64	50.8
	ARENA_2	0.091	1.81	36.1	RELLENO_ZANJA	0.899	17.36	447.2
	ARENA_3	0.239	4.78	97.7				
400.000	D TIERRA	1.405	28.24	682.5	ARENA_1	0.132	2.64	53.5
	ARENA_2	0.091	1.81	37.9	RELLENO_ZANJA	0.884	17.83	465.0
	ARENA_3	0.239	4.78	102.5				
420.000	D TIERRA	1.469	28.74	711.3	ARENA_1	0.132	2.64	56.1
	ARENA_2	0.091	1.81	39.7	RELLENO_ZANJA	0.948	18.32	483.4
	ARENA_3	0.239	4.78	107.2				
440.000	D TIERRA	1.399	28.68	739.9	ARENA_1	0.132	2.64	58.8
	ARENA_2	0.091	1.81	41.5	RELLENO_ZANJA	0.878	18.26	501.6
	ARENA_3	0.239	4.78	112.0				
447.155	D TIERRA	1.325	9.74	749.7	ARENA_1	0.132	0.94	59.7
	ARENA_2	0.091	0.65	42.2	RELLENO_ZANJA	0.804	6.02	507.6
	ARENA_3	0.239	1.71	113.7				
460.000	D TIERRA	1.335	17.09	766.8	ARENA_1	0.132	1.70	61.4
	ARENA_2	0.091	1.16	43.3	RELLENO_ZANJA	0.815	10.40	518.0
	ARENA_3	0.239	3.07	116.8				
480.000	D TIERRA	1.399	27.34	794.1	ARENA_1	0.132	2.64	64.1
	ARENA_2	0.091	1.81	45.1	RELLENO_ZANJA	0.878	16.93	535.0
	ARENA_3	0.239	4.78	121.6				
500.000	D TIERRA	1.399	27.97	822.1	ARENA_1	0.132	2.64	66.7
	ARENA_2	0.091	1.81	46.9	RELLENO_ZANJA	0.878	17.56	552.5
	ARENA_3	0.239	4.77	126.3				
520.000	D TIERRA	1.536	29.34	851.4	ARENA_1	0.132	2.64	69.3
	ARENA_2	0.091	1.81	48.8	RELLENO_ZANJA	1.015	18.93	571.5
	ARENA_3	0.239	4.77	131.1				
529.548	D TIERRA	1.398	14.01	865.4	ARENA_1	0.132	1.26	70.6
	ARENA_2	0.091	0.87	49.6	RELLENO_ZANJA	0.878	9.04	580.5
	ARENA_3	0.239	2.28	133.4				
540.000	D TIERRA	1.350	14.36	879.8	ARENA_1	0.132	1.38	72.0
	ARENA_2	0.091	0.95	50.6	RELLENO_ZANJA	0.829	8.92	589.4
	ARENA_3	0.239	2.50	135.9				
560.000	D TIERRA	1.399	27.49	907.3	ARENA_1	0.132	2.64	74.6
	ARENA_2	0.091	1.81	52.4	RELLENO_ZANJA	0.878	17.07	606.5
	ARENA_3	0.239	4.78	140.7				

PERFIL	MATERIAL	AREA PERFIL	VOL. PARCIAL	VOL. ACUMUL.	MATERIAL	AREA PERFIL	VOL. PARCIAL	VOL. ACUMUL.
580.000	D TIERRA	1.399	27.97	935.3	ARENA_1	0.132	2.64	77.3
	ARENA_2	0.091	1.81	54.2	RELLENO_ZANJA	0.878	17.56	624.1
	ARENA_3	0.239	4.78	145.5				
597.523	D TIERRA	1.375	24.30	959.6	ARENA_1	0.132	2.31	79.6
	ARENA_2	0.091	1.59	55.8	RELLENO_ZANJA	0.855	15.18	639.2
	ARENA_3	0.239	4.19	149.6				
600.000	D TIERRA	1.396	3.43	963.0	ARENA_1	0.132	0.33	79.9
	ARENA_2	0.091	0.22	56.0	RELLENO_ZANJA	0.876	2.14	641.4
	ARENA_3	0.239	0.59	150.2				
620.000	D TIERRA	1.852	0.00	963.0	ARENA_1	0.138	0.00	79.9
	ARENA_2	0.104	0.00	56.0	RELLENO_ZANJA	1.255	0.00	641.4
	ARENA_3	0.297	0.00	150.2				
640.000	D TIERRA	1.903	37.55	1000.5	ARENA_1	0.138	2.75	82.6
	ARENA_2	0.104	2.08	58.1	RELLENO_ZANJA	1.305	25.60	667.0
	ARENA_3	0.297	5.93	156.2				
657.978	D TIERRA	1.862	33.84	1034.4	ARENA_1	0.138	2.48	85.1
	ARENA_2	0.104	1.87	60.0	RELLENO_ZANJA	1.264	23.09	690.1
	ARENA_3	0.297	5.33	161.5				
660.000	D TIERRA	2.130	4.04	1038.4	ARENA_1	0.138	0.28	85.4
	ARENA_2	0.104	0.21	60.2	RELLENO_ZANJA	1.533	2.83	692.9
	ARENA_3	0.296	0.60	162.1				
666.424	D TIERRA	2.323	14.31	1052.7	ARENA_1	0.138	0.88	86.3
	ARENA_2	0.104	0.67	60.8	RELLENO_ZANJA	1.726	10.47	703.4
	ARENA_3	0.296	1.90	164.0				
679.569	D TIERRA	3.689	39.52	1092.2	ARENA_1	0.138	1.81	88.1
	ARENA_2	0.104	1.37	62.2	RELLENO_ZANJA	3.092	31.66	735.0
	ARENA_3	0.297	3.90	167.9				
680.000	D TIERRA	3.653	1.58	1093.8	ARENA_1	0.138	0.06	88.2
	ARENA_2	0.104	0.04	62.3	RELLENO_ZANJA	3.056	1.32	736.4
	ARENA_3	0.297	0.13	168.0				
684.482	D TIERRA	3.616	16.29	1110.1	ARENA_1	0.138	0.62	88.8
	ARENA_2	0.104	0.47	62.7	RELLENO_ZANJA	3.019	13.61	750.0
	ARENA_3	0.297	1.33	169.4				
700.000	D TIERRA	1.866	42.54	1152.6	ARENA_1	0.138	2.14	90.9
	ARENA_2	0.104	1.62	64.3	RELLENO_ZANJA	1.268	33.27	783.2
	ARENA_3	0.297	4.60	174.0				
712.347	D TIERRA	2.042	24.12	1176.8	ARENA_1	0.138	1.70	92.6
	ARENA_2	0.104	1.29	65.6	RELLENO_ZANJA	1.444	16.75	800.0
	ARENA_3	0.296	3.66	177.6				
720.000	D TIERRA	1.822	14.78	1191.5	ARENA_1	0.138	1.05	93.7
	ARENA_2	0.104	0.80	66.4	RELLENO_ZANJA	1.224	10.21	810.2
	ARENA_3	0.296	2.27	179.9				
740.000	D TIERRA	1.948	37.69	1229.2	ARENA_1	0.138	2.75	96.4
	ARENA_2	0.104	2.08	68.5	RELLENO_ZANJA	1.350	25.74	835.9
	ARENA_3	0.296	5.93	185.8				
760.000	D TIERRA	2.902	48.50	1277.7	ARENA_1	0.138	2.75	99.2
	ARENA_2	0.104	2.08	70.6	RELLENO_ZANJA	2.305	36.55	872.5
	ARENA_3	0.297	5.93	191.8				
780.000	D TIERRA	2.255	51.57	1329.3	ARENA_1	0.138	2.75	101.9
	ARENA_2	0.104	2.08	72.7	RELLENO_ZANJA	1.657	39.62	912.1
	ARENA_3	0.297	5.93	197.7				
789.442	D TIERRA	1.866	19.46	1348.8	ARENA_1	0.138	1.30	103.2
	ARENA_2	0.104	0.98	73.7	RELLENO_ZANJA	1.269	13.81	925.9
	ARENA_3	0.297	2.80	200.5				
800.000	D TIERRA	2.037	20.60	1369.4	ARENA_1	0.138	1.45	104.7
	ARENA_2	0.104	1.10	74.8	RELLENO_ZANJA	1.439	14.30	940.2
	ARENA_3	0.297	3.13	203.6				
820.000	D TIERRA	1.864	39.01	1408.4	ARENA_1	0.138	2.75	107.4
	ARENA_2	0.104	2.08	76.9	RELLENO_ZANJA	1.266	27.06	967.3
	ARENA_3	0.297	5.93	209.6				

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 PROYECTO :
 EJE : 18: ACOMETIDA AUTOL

CIDACOS COMPLETO

*** MEDICIONES DE LOS PERFILES TRANSVERSALES ***
 *** CAPAS DE FIRME ***

PERFIL	MATERIAL	AREA PERFIL	VOL. PARCIAL	VOL. ACUMUL.	MATERIAL	AREA PERFIL	VOL. PARCIAL	VOL. ACUMUL.
820.073	D TIERRA	1.855	0.14	1408.5	ARENA_1	0.138	0.01	107.4
	ARENA_2	0.104	0.01	76.9	RELLENO_ZANJA	1.257	0.09	967.4
	ARENA_3	0.297	0.02	209.6				
840.000	D TIERRA	1.864	37.05	1445.6	ARENA_1	0.138	2.74	110.2
	ARENA_2	0.104	2.08	78.9	RELLENO_ZANJA	1.266	25.14	992.5
	ARENA_3	0.297	5.91	215.5				
860.000	D TIERRA	1.401	0.00	1445.6	ARENA_1	0.132	0.00	110.2
	ARENA_2	0.091	0.00	78.9	RELLENO_ZANJA	0.881	0.00	992.5
	ARENA_3	0.239	0.00	215.5				
868.555	D TIERRA	1.522	12.50	1458.1	ARENA_1	0.132	1.13	111.3
	ARENA_2	0.091	0.78	79.7	RELLENO_ZANJA	1.001	8.05	1000.5
	ARENA_3	0.239	2.04	217.5				
880.000	D TIERRA	1.412	16.79	1474.9	ARENA_1	0.132	1.51	112.8
	ARENA_2	0.091	1.04	80.7	RELLENO_ZANJA	0.891	10.83	1011.4
	ARENA_3	0.239	2.73	220.3				
884.938	D TIERRA	0.000	0.00	1474.9	ARENA_1	0.000	0.00	112.8
	ARENA_2	0.000	0.00	80.7	RELLENO_ZANJA	0.000	0.00	1011.4
	ARENA_3	0.000	0.00	220.3				
899.696	D TIERRA	0.000	0.00	1474.9	ARENA_1	0.000	0.00	112.8
	ARENA_2	0.000	0.00	80.7	RELLENO_ZANJA	0.000	0.00	1011.4
	ARENA_3	0.000	0.00	220.3				
900.000	D TIERRA	0.000	0.00	1474.9	ARENA_1	0.000	0.00	112.8
	ARENA_2	0.000	0.00	80.7	RELLENO_ZANJA	0.000	0.00	1011.4
	ARENA_3	0.000	0.00	220.3				
900.000	D TIERRA	1.396	0.00	1474.9	ARENA_1	0.132	0.00	112.8
	ARENA_2	0.091	0.00	80.7	RELLENO_ZANJA	0.876	0.00	1011.4
	ARENA_3	0.239	0.00	220.3				
909.198	D TIERRA	1.399	12.85	1487.7	ARENA_1	0.132	1.21	114.0
	ARENA_2	0.091	0.83	81.6	RELLENO_ZANJA	0.878	8.06	1019.4
	ARENA_3	0.239	2.20	222.5				
920.000	D TIERRA	1.399	15.11	1502.8	ARENA_1	0.132	1.43	115.5
	ARENA_2	0.091	0.98	82.6	RELLENO_ZANJA	0.878	9.48	1028.9
	ARENA_3	0.239	2.58	225.1				
940.000	D TIERRA	1.447	28.46	1531.3	ARENA_1	0.132	2.64	118.1
	ARENA_2	0.091	1.81	84.4	RELLENO_ZANJA	0.927	18.05	1047.0
	ARENA_3	0.239	4.78	229.8				
960.000	D TIERRA	1.466	29.14	1560.4	ARENA_1	0.132	2.64	120.7
	ARENA_2	0.091	1.81	86.2	RELLENO_ZANJA	0.946	18.73	1065.7
	ARENA_3	0.239	4.78	234.6				
966.237	D TIERRA	1.406	8.96	1569.4	ARENA_1	0.132	0.82	121.6
	ARENA_2	0.091	0.57	86.7	RELLENO_ZANJA	0.885	5.71	1071.4
	ARENA_3	0.239	1.49	236.1				
980.000	D TIERRA	1.374	19.13	1588.5	ARENA_1	0.132	1.82	123.4
	ARENA_2	0.091	1.25	88.0	RELLENO_ZANJA	0.854	11.97	1083.4
	ARENA_3	0.239	3.29	239.4				
1000.000	D TIERRA	1.401	27.76	1616.3	ARENA_1	0.132	2.64	126.0
	ARENA_2	0.091	1.81	89.8	RELLENO_ZANJA	0.881	17.35	1100.7
	ARENA_3	0.239	4.78	244.2				
1020.000	D TIERRA	1.399	28.00	1644.3	ARENA_1	0.132	2.64	128.7
	ARENA_2	0.091	1.81	91.6	RELLENO_ZANJA	0.878	17.59	1118.3
	ARENA_3	0.239	4.78	249.0				
1040.000	D TIERRA	1.390	27.89	1672.2	ARENA_1	0.132	2.64	131.3
	ARENA_2	0.091	1.81	93.4	RELLENO_ZANJA	0.869	17.47	1135.8
	ARENA_3	0.239	4.78	253.7				
1048.898	D TIERRA	1.485	12.79	1684.9	ARENA_1	0.132	1.18	132.5
	ARENA_2	0.091	0.81	94.2	RELLENO_ZANJA	0.964	8.16	1143.9
	ARENA_3	0.239	2.13	255.9				
1060.000	D TIERRA	1.663	17.47	1702.4	ARENA_1	0.132	1.47	134.0
	ARENA_2	0.091	1.01	95.2	RELLENO_ZANJA	1.143	11.69	1155.6
	ARENA_3	0.239	2.65	258.5				

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 PROYECTO :
 EJE : 18: ACOMETIDA AUTOL

CIDACOS COMPLETO

*** MEDICIONES DE LOS PERFILES TRANSVERSALES ***
 *** CAPAS DE FIRME ***

PERFIL	MATERIAL	AREA PERFIL	VOL. PARCIAL	VOL. ACUMUL.	MATERIAL	AREA PERFIL	VOL. PARCIAL	VOL. ACUMUL.
1080.000	D TIERRA	1.883	35.47	1737.9	ARENA_1	0.132	2.64	136.6
	ARENA_2	0.091	1.81	97.1	RELLENO_ZANJA	1.363	25.06	1180.7
	ARENA_3	0.239	4.78	263.3				
1084.458	D TIERRA	1.810	8.23	1746.1	ARENA_1	0.132	0.59	137.2
	ARENA_2	0.091	0.40	97.5	RELLENO_ZANJA	1.289	5.91	1186.6
	ARENA_3	0.239	1.07	264.4				
1100.000	D TIERRA	1.634	26.76	1772.9	ARENA_1	0.132	2.05	139.2
	ARENA_2	0.091	1.41	98.9	RELLENO_ZANJA	1.113	18.67	1205.3
	ARENA_3	0.239	3.71	268.1				
1118.256	D TIERRA	1.457	28.21	1801.1	ARENA_1	0.132	2.41	141.6
	ARENA_2	0.091	1.65	100.5	RELLENO_ZANJA	0.936	18.70	1224.0
	ARENA_3	0.239	4.36	272.4				
1120.000	D TIERRA	1.388	2.48	1803.6	ARENA_1	0.132	0.23	141.9
	ARENA_2	0.091	0.16	100.7	RELLENO_ZANJA	0.867	1.57	1225.6
	ARENA_3	0.239	0.42	272.9				
1133.779	D TIERRA	1.449	19.54	1823.1	ARENA_1	0.132	1.82	143.7
	ARENA_2	0.091	1.25	101.9	RELLENO_ZANJA	0.928	12.37	1237.9
	ARENA_3	0.239	3.29	276.2				
1140.000	D TIERRA	1.579	9.42	1832.5	ARENA_1	0.132	0.82	144.5
	ARENA_2	0.091	0.56	102.5	RELLENO_ZANJA	1.059	6.18	1244.1
	ARENA_3	0.239	1.49	277.6				
1160.000	D TIERRA	2.496	40.75	1873.3	ARENA_1	0.132	2.64	147.2
	ARENA_2	0.091	1.81	104.3	RELLENO_ZANJA	1.975	30.34	1274.4
	ARENA_3	0.239	4.78	282.4				
1180.000	D TIERRA	1.506	40.02	1913.3	ARENA_1	0.132	2.64	149.8
	ARENA_2	0.091	1.81	106.1	RELLENO_ZANJA	0.986	29.61	1304.1
	ARENA_3	0.239	4.78	287.2				
1200.000	D TIERRA	1.403	29.09	1942.4	ARENA_1	0.132	2.64	152.4
	ARENA_2	0.091	1.81	107.9	RELLENO_ZANJA	0.883	18.68	1322.7
	ARENA_3	0.239	4.78	292.0				
1220.000	D TIERRA	2.247	36.50	1978.9	ARENA_1	0.132	2.64	155.1
	ARENA_2	0.091	1.81	109.7	RELLENO_ZANJA	1.726	26.09	1348.8
	ARENA_3	0.239	4.78	296.8				
1232.039	D TIERRA	2.942	31.23	2010.1	ARENA_1	0.132	1.59	156.7
	ARENA_2	0.091	1.09	110.8	RELLENO_ZANJA	2.421	24.96	1373.8
	ARENA_3	0.239	2.88	299.6				
1240.000	D TIERRA	3.037	23.80	2033.9	ARENA_1	0.132	1.05	157.7
	ARENA_2	0.091	0.72	111.6	RELLENO_ZANJA	2.516	19.65	1393.4
	ARENA_3	0.239	1.90	301.5				
1260.000	D TIERRA	1.603	46.40	2080.3	ARENA_1	0.132	2.64	160.4
	ARENA_2	0.091	1.81	113.4	RELLENO_ZANJA	1.082	35.98	1429.4
	ARENA_3	0.239	4.78	306.3				
1280.000	D TIERRA	1.701	33.04	2113.4	ARENA_1	0.132	2.64	163.0
	ARENA_2	0.091	1.81	115.2	RELLENO_ZANJA	1.181	22.63	1452.0
	ARENA_3	0.239	4.78	311.1				
1296.764	D TIERRA	1.728	28.75	2142.1	ARENA_1	0.132	2.21	165.2
	ARENA_2	0.091	1.52	116.7	RELLENO_ZANJA	1.208	20.02	1472.1
	ARENA_3	0.239	4.01	315.1				
1300.000	D TIERRA	1.635	5.44	2147.6	ARENA_1	0.132	0.43	165.6
	ARENA_2	0.091	0.29	117.0	RELLENO_ZANJA	1.114	3.76	1475.8
	ARENA_3	0.239	0.77	315.9				
1320.000	D TIERRA	1.518	31.53	2179.1	ARENA_1	0.132	2.64	168.3
	ARENA_2	0.091	1.81	118.8	RELLENO_ZANJA	0.997	21.11	1496.9
	ARENA_3	0.239	4.78	320.7				
1326.367	D TIERRA	1.393	9.27	2188.3	ARENA_1	0.132	0.84	169.1
	ARENA_2	0.091	0.58	119.4	RELLENO_ZANJA	0.872	5.95	1502.9
	ARENA_3	0.239	1.52	322.2				
1340.000	D TIERRA	1.399	19.03	2207.4	ARENA_1	0.132	1.80	170.9
	ARENA_2	0.091	1.24	120.6	RELLENO_ZANJA	0.878	11.93	1514.8
	ARENA_3	0.239	3.26	325.4				

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 * * * MEDICIONES DE LOS PERFILES TRANSVERSALES* * *
 * * * CAPAS DE FIRME * * *

 * * * MEDICIONES DE LOS PERFILES TRANSVERSALES* * *
 * * * CAPAS DE FIRME * * *

PERFIL	MATERIAL	AREA PERFIL	VOL. PARCIAL	VOL. ACUMUL.	MATERIAL	AREA PERFIL	VOL. PARCIAL	VOL. ACUMUL.	PERFIL	MATERIAL	AREA PERFIL	VOL. PARCIAL	VOL. ACUMUL.	MATERIAL	AREA PERFIL	VOL. PARCIAL	VOL. ACUMUL.
1344.648	D TIERRA	1.526	6.80	2214.2	ARENA_1	0.132	0.61	171.5	1620.000	D TIERRA	2.158	40.71	2711.6	ARENA_1	0.138	2.75	205.9
	ARENA_2	0.091	0.42	121.0	RELLENO_ZANJA	1.006	4.38	1519.2		ARENA_2	0.104	2.08	145.8	RELLENO_ZANJA	1.560	28.75	1874.5
	ARENA_3	0.239	1.11	326.6						ARENA_3	0.297	5.93	394.4				
1360.000	D TIERRA	2.058	27.52	2241.7	ARENA_1	0.132	2.03	173.6	1640.000	D TIERRA	1.895	40.53	2752.2	ARENA_1	0.138	2.75	208.7
	ARENA_2	0.091	1.39	122.4	RELLENO_ZANJA	1.538	19.52	1538.7		ARENA_2	0.104	2.08	147.9	RELLENO_ZANJA	1.298	28.58	1903.1
	ARENA_3	0.239	3.67	330.2						ARENA_3	0.297	5.93	400.3				
1380.000	D TIERRA	1.429	34.87	2276.6	ARENA_1	0.132	2.64	176.2	1660.000	D TIERRA	1.888	37.83	2790.0	ARENA_1	0.138	2.75	211.4
	ARENA_2	0.091	1.81	124.2	RELLENO_ZANJA	0.908	24.46	1563.2		ARENA_2	0.104	2.08	150.0	RELLENO_ZANJA	1.290	25.88	1929.0
	ARENA_3	0.239	4.78	335.0						ARENA_3	0.297	5.93	406.2				
1400.000	D TIERRA	1.451	28.80	2305.4	ARENA_1	0.132	2.64	178.9	1680.000	D TIERRA	2.208	40.96	2831.0	ARENA_1	0.138	2.75	214.2
	ARENA_2	0.091	1.81	126.0	RELLENO_ZANJA	0.930	18.38	1581.6		ARENA_2	0.104	2.08	152.1	RELLENO_ZANJA	1.611	29.01	1958.0
	ARENA_3	0.239	4.78	339.8						ARENA_3	0.297	5.93	412.2				
1414.948	D TIERRA	1.399	21.30	2326.6	ARENA_1	0.132	1.97	180.8	1699.575	D TIERRA	1.858	39.80	2870.8	ARENA_1	0.138	2.70	216.9
	ARENA_2	0.091	1.35	127.4	RELLENO_ZANJA	0.878	13.51	1595.1		ARENA_2	0.104	2.04	154.1	RELLENO_ZANJA	1.261	28.10	1986.1
	ARENA_3	0.239	3.57	343.4						ARENA_3	0.297	5.81	418.0				
1420.000	D TIERRA	1.504	7.33	2334.0	ARENA_1	0.132	0.67	181.5	1700.000	D TIERRA	1.866	0.79	2871.6	ARENA_1	0.138	0.06	216.9
	ARENA_2	0.091	0.46	127.9	RELLENO_ZANJA	0.984	4.70	1599.8		ARENA_2	0.104	0.04	154.2	RELLENO_ZANJA	1.269	0.54	1986.6
	ARENA_3	0.239	1.21	344.6						ARENA_3	0.297	0.13	418.1				
1428.446	D TIERRA	1.437	12.42	2346.4	ARENA_1	0.132	1.12	182.6	1720.000	D TIERRA	3.258	51.24	2922.8	ARENA_1	0.138	2.75	219.7
	ARENA_2	0.091	0.77	128.6	RELLENO_ZANJA	0.916	8.02	1607.8		ARENA_2	0.104	2.08	156.2	RELLENO_ZANJA	2.661	39.29	2025.9
	ARENA_3	0.239	2.02	346.6						ARENA_3	0.297	5.93	424.0				
1440.000	D TIERRA	1.512	17.03	2363.4	ARENA_1	0.132	1.53	184.1	1728.534	D TIERRA	2.307	23.75	2946.5	ARENA_1	0.138	1.18	220.9
	ARENA_2	0.091	1.05	129.7	RELLENO_ZANJA	0.991	11.02	1618.8		ARENA_2	0.104	0.89	157.1	RELLENO_ZANJA	1.710	18.65	2044.5
	ARENA_3	0.239	2.76	349.3						ARENA_3	0.297	2.53	426.6				
1458.362	D TIERRA	1.395	26.68	2390.1	ARENA_1	0.132	2.42	186.6	1740.000	D TIERRA	1.864	23.91	2970.5	ARENA_1	0.138	1.58	222.4
	ARENA_2	0.091	1.66	131.3	RELLENO_ZANJA	0.874	17.12	1635.9		ARENA_2	0.104	1.19	158.3	RELLENO_ZANJA	1.266	17.06	2061.6
	ARENA_3	0.239	4.39	353.7						ARENA_3	0.297	3.40	430.0				
1460.000	D TIERRA	1.375	2.27	2392.4	ARENA_1	0.132	0.22	186.8	1760.000	D TIERRA	1.979	38.43	3008.9	ARENA_1	0.138	2.75	225.2
	ARENA_2	0.091	0.15	131.5	RELLENO_ZANJA	0.855	1.42	1637.4		ARENA_2	0.104	2.08	160.4	RELLENO_ZANJA	1.381	26.48	2088.1
	ARENA_3	0.239	0.39	354.1						ARENA_3	0.297	5.93	435.9				
1480.000	D TIERRA	1.386	27.61	2420.0	ARENA_1	0.132	2.64	189.4	1780.000	D TIERRA	2.459	44.38	3053.3	ARENA_1	0.138	2.75	227.9
	ARENA_2	0.091	1.81	133.3	RELLENO_ZANJA	0.865	17.20	1654.6		ARENA_2	0.104	2.08	162.5	RELLENO_ZANJA	1.862	32.43	2120.5
	ARENA_3	0.239	4.78	358.9						ARENA_3	0.297	5.93	441.8				
1500.000	D TIERRA	1.787	0.00	2420.0	ARENA_1	0.138	0.00	189.4	1785.101	D TIERRA	2.481	12.60	3065.9	ARENA_1	0.138	0.70	228.7
	ARENA_2	0.104	0.00	133.3	RELLENO_ZANJA	1.189	0.00	1654.6		ARENA_2	0.104	0.53	163.0	RELLENO_ZANJA	1.884	9.55	2130.1
	ARENA_3	0.297	0.00	358.9						ARENA_3	0.297	1.51	443.3				
1504.844	D TIERRA	2.906	11.37	2431.4	ARENA_1	0.137	0.67	190.1	1800.000	D TIERRA	2.515	37.22	3103.1	ARENA_1	0.138	2.05	230.7
	ARENA_2	0.105	0.51	133.8	RELLENO_ZANJA	2.308	8.47	1663.0		ARENA_2	0.104	1.55	164.6	RELLENO_ZANJA	1.917	28.32	2158.4
	ARENA_3	0.294	1.43	360.3						ARENA_3	0.297	4.42	447.8				
1520.000	D TIERRA	4.784	58.28	2489.6	ARENA_1	0.137	2.08	192.2	1803.527	D TIERRA	2.177	8.27	3111.4	ARENA_1	0.138	0.49	231.2
	ARENA_2	0.105	1.59	135.4	RELLENO_ZANJA	4.187	49.22	1712.3		ARENA_2	0.104	0.37	164.9	RELLENO_ZANJA	1.579	6.17	2164.6
	ARENA_3	0.294	4.45	364.8						ARENA_3	0.297	1.05	448.8				
1540.000	D TIERRA	1.892	66.76	2556.4	ARENA_1	0.137	2.75	194.9	1810.546	D TIERRA	1.865	14.18	3125.6	ARENA_1	0.138	0.97	232.2
	ARENA_2	0.105	2.09	137.5	RELLENO_ZANJA	1.294	54.81	1767.1		ARENA_2	0.104	0.73	165.7	RELLENO_ZANJA	1.267	9.99	2174.6
	ARENA_3	0.294	5.88	370.7						ARENA_3	0.297	2.08	450.9				
1560.000	D TIERRA	1.779	36.71	2593.1	ARENA_1	0.138	2.75	197.7	1820.000	D TIERRA	2.289	19.63	3145.2	ARENA_1	0.138	1.30	233.5
	ARENA_2	0.104	2.09	139.6	RELLENO_ZANJA	1.182	24.76	1791.8		ARENA_2	0.104	0.98	166.7	RELLENO_ZANJA	1.691	13.98	2188.5
	ARENA_3	0.296	5.90	376.6						ARENA_3	0.297	2.81	453.7				
1562.904	D TIERRA	2.030	5.53	2598.7	ARENA_1	0.138	0.40	198.1	1822.999	D TIERRA	1.864	6.23	3151.4	ARENA_1	0.138	0.41	233.9
	ARENA_2	0.104	0.30	139.9	RELLENO_ZANJA	1.432	3.80	1795.6		ARENA_2	0.104	0.31	167.0	RELLENO_ZANJA	1.266	4.43	2193.0
	ARENA_3	0.296	0.86	377.4						ARENA_3	0.297	0.89	454.6				
1580.000	D TIERRA	1.959	34.09	2632.7	ARENA_1	0.138	2.35	200.4	1840.000	D TIERRA	1.963	32.53	3183.9	ARENA_1	0.138	2.34	236.2
	ARENA_2	0.104	1.78	141.7	RELLENO_ZANJA	1.361	23.88	1819.5		ARENA_2	0.104	1.77	168.7	RELLENO_ZANJA	1.365	22.37	2215.3
	ARENA_3	0.297	5.07	382.5						ARENA_3	0.297	5.04	459.6				
1586.480	D TIERRA	1.891	12.47	2645.2	ARENA_1	0.138	0.89	201.3	1851.411	D TIERRA	1.864	21.84	3205.8	ARENA_1	0.138	1.57	237.8
	ARENA_2	0.104	0.68	142.3	RELLENO_ZANJA	1.294	8.60	1828.1		ARENA_2	0.104	1.19	169.9	RELLENO_ZANJA	1.267	15.02	2230.4
	ARENA_3	0.296	1.92	384.4						ARENA_3	0.297	3.39	463.0				
1600.000	D TIERRA	1.913	25.71	2670.9	ARENA_1	0.138	1.86	203.2	1860.000	D TIERRA	1.918	16.24	3222.0	ARENA_1	0.138	1.18	239.0
	ARENA_2	0.104	1.41	143.7	RELLENO_ZANJA	1.315	17.64	1845.7		ARENA_2	0.104	0.89	170.8	RELLENO_ZANJA	1.320	11.11	2241.5
	ARENA_3	0.296	4.01	388.4						ARENA_3	0.297	2.55	465.6				



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*** MEDICIONES DE LOS PERFILES TRANSVERSALES***
*** CAPAS DE FIRME ***

PERFIL	MATERIAL	AREA PERFIL	VOL. PARCIAL	VOL. ACUMUL.	MATERIAL	AREA PERFIL	VOL. PARCIAL	VOL. ACUMUL.
1863.618	D_TIERRA	1.864	6.84	3228.9	ARENA_1	0.138	0.50	239.5
	ARENA_2	0.104	0.38	171.2	RELLENO_ZANJA	1.266	4.68	2246.1
	ARENA_3	0.297	1.07	466.6				

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*** RESUMEN DE VOLUMENES TOTALES ***

MATERIAL	VOLUMEN
TERRAPLEN	0.0
D_TIERRA	3228.9
ARENA_1	239.5
ARENA_2	171.2
RELLENO_ZANJA	2246.1
ARENA_3	466.6

19. EJE 19: ACOMETIDA ALDEANUEVA DE EBRO

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PROYECTO :
EJE : 19: ACOMETIDA ALDEANUEVA DE EBRO

*** MEDICIONES DE LOS PERFILES TRANSVERSALES***
*** CAPAS DE FIRME ***

PERFIL	MATERIAL	AREA PERFIL	VOL. PARCIAL	VOL. ACUMUL.	MATERIAL	AREA PERFIL	VOL. PARCIAL	VOL. ACUMUL.
0.000	D_TIERRA	2.333	0.00	0.0	ARENA_1	0.138	0.00	0.0
	ARENA_2	0.104	0.00	0.0	RELLENO_ZANJA	1.735	0.00	0.0
	ARENA_3	0.297	0.00	0.0				
20.000	D_TIERRA	2.324	46.57	46.6	ARENA_1	0.138	2.75	2.8
	ARENA_2	0.104	2.08	2.1	RELLENO_ZANJA	1.727	34.62	34.6
	ARENA_3	0.297	5.93	5.9				
40.000	D_TIERRA	2.041	43.65	90.2	ARENA_1	0.138	2.75	5.5
	ARENA_2	0.104	2.08	4.2	RELLENO_ZANJA	1.443	31.70	66.3
	ARENA_3	0.297	5.93	11.9				
60.000	D_TIERRA	2.152	41.92	132.1	ARENA_1	0.138	2.75	8.3
	ARENA_2	0.104	2.08	6.3	RELLENO_ZANJA	1.554	29.97	96.3
	ARENA_3	0.297	5.93	17.8				
80.000	D_TIERRA	2.000	41.51	173.7	ARENA_1	0.138	2.75	11.0
	ARENA_2	0.104	2.08	8.3	RELLENO_ZANJA	1.402	29.56	125.9
	ARENA_3	0.297	5.93	23.7				
90.116	D_TIERRA	1.866	19.55	193.2	ARENA_1	0.138	1.39	12.4
	ARENA_2	0.104	1.05	9.4	RELLENO_ZANJA	1.268	13.51	139.4
	ARENA_3	0.297	3.00	26.7				
100.000	D_TIERRA	1.954	18.88	212.1	ARENA_1	0.138	1.36	13.8
	ARENA_2	0.104	1.03	10.4	RELLENO_ZANJA	1.356	12.97	152.3
	ARENA_3	0.297	2.93	29.7				
120.000	D_TIERRA	1.961	39.14	251.2	ARENA_1	0.138	2.75	16.5
	ARENA_2	0.104	2.08	12.5	RELLENO_ZANJA	1.363	27.19	179.5
	ARENA_3	0.297	5.93	35.6				
140.000	D_TIERRA	1.949	39.10	290.3	ARENA_1	0.138	2.75	19.3
	ARENA_2	0.104	2.08	14.6	RELLENO_ZANJA	1.352	27.15	206.7
	ARENA_3	0.297	5.93	41.5				
160.000	D_TIERRA	1.902	38.51	328.8	ARENA_1	0.138	2.75	22.0
	ARENA_2	0.104	2.08	16.7	RELLENO_ZANJA	1.304	26.56	233.2
	ARENA_3	0.297	5.93	47.5				
180.000	D_TIERRA	1.864	37.65	366.5	ARENA_1	0.138	2.75	24.8
	ARENA_2	0.104	2.08	18.8	RELLENO_ZANJA	1.266	25.70	258.9
	ARENA_3	0.297	5.93	53.4				
198.161	D_TIERRA	1.896	34.14	400.6	ARENA_1	0.138	2.50	27.3
	ARENA_2	0.104	1.89	20.6	RELLENO_ZANJA	1.298	23.29	282.2
	ARENA_3	0.297	5.39	58.8				
200.000	D_TIERRA	1.910	3.50	404.1	ARENA_1	0.138	0.25	27.5
	ARENA_2	0.104	0.19	20.8	RELLENO_ZANJA	1.312	2.40	284.6
	ARENA_3	0.297	0.55	59.3				
220.000	D_TIERRA	2.045	39.55	443.7	ARENA_1	0.138	2.75	30.3
	ARENA_2	0.104	2.08	22.9	RELLENO_ZANJA	1.447	27.60	312.2
	ARENA_3	0.297	5.93	65.3				
240.000	D_TIERRA	1.975	40.20	483.9	ARENA_1	0.138	2.75	33.0
	ARENA_2	0.104	2.08	25.0	RELLENO_ZANJA	1.377	28.25	340.5
	ARENA_3	0.297	5.93	71.2				
240.922	D_TIERRA	1.973	1.82	485.7	ARENA_1	0.138	0.13	33.2
	ARENA_2	0.104	0.10	25.1	RELLENO_ZANJA	1.376	1.27	341.7
	ARENA_3	0.297	0.27	71.5				
260.801	D_TIERRA	1.974	39.24	524.9	ARENA_1	0.138	2.74	35.9
	ARENA_2	0.104	2.07	27.2	RELLENO_ZANJA	1.377	27.36	369.1
	ARENA_3	0.297	5.90	77.4				
273.947	D_TIERRA	1.972	25.94	550.9	ARENA_1	0.138	1.81	37.7
	ARENA_2	0.104	1.37	28.5	RELLENO_ZANJA	1.375	18.08	387.2
	ARENA_3	0.297	3.90	81.3				
280.000	D_TIERRA	1.966	11.92	562.8	ARENA_1	0.138	0.83	38.6
	ARENA_2	0.104	0.63	29.2	RELLENO_ZANJA	1.368	8.30	395.5
	ARENA_3	0.297	1.80	83.1				



Istram 9.04 28/05/20 09:40:26
PROYECTO : CIDACOS COMPLETO
EJE : 19: ACOMETIDA ALDEANUEVA DE EBRO

MEDICIONES DE LOS PERFILES TRANSVERSALES
CAPAS DE FIRME

Table with 9 columns: PERFIL, MATERIAL, AREA PERFIL, VOL. PARCIAL, VOL. ACUMUL., MATERIAL, AREA PERFIL, VOL. PARCIAL, VOL. ACUMUL. Rows include profiles 300.000 to 409.538 with materials like TIERRA, ARENA, and RELLENO_ZANJA.

Istram 9.04 28/05/20 09:40:26
PROYECTO : CIDACOS COMPLETO
EJE : 19: ACOMETIDA ALDEANUEVA DE EBRO

RESUMEN DE VOLUMENES TOTALES

Summary table with 2 columns: MATERIAL, VOLUMEN. Lists materials like TERRAPLEN, TIERRA, ARENA, and RELLENO_ZANJA with their respective volumes.

20. EJE 20: ACOMETIDA RINCÓN DE SOTO

Istram 9.04 08/04/20 16:55:31
PROYECTO : CIDACOS COMPLETO
EJE : 20: ACOMETIDA RINCÓN DE SOTO

MEDICIONES DE LOS PERFILES TRANSVERSALES
CAPAS DE FIRME

Table with 13 columns: PERFIL, MATERIAL, AREA PERFIL, VOL. PARCIAL, VOL. ACUMUL., MATERIAL, AREA PERFIL, VOL. PARCIAL, VOL. ACUMUL. Rows include profiles 0.000 to 240.000 with materials like TIERRA, ARENA, and RELLENO_ZANJA.



Istram 9.04 08/04/20 16:55:31
PROYECTO : CIDACOS COMPLETO
EJE : 20: ACOMETIDA RINCÓN DE SOTO

Istram 9.04 08/04/20 16:55:31
PROYECTO : CIDACOS COMPLETO
EJE : 20: ACOMETIDA RINCÓN DE SOTO

MEDICIONES DE LOS PERFILES TRANSVERSALES
CAPAS DE FIRME

MEDICIONES DE LOS PERFILES TRANSVERSALES
CAPAS DE FIRME

Table with columns: PERFIL, MATERIAL, AREA PERFIL, VOL. PARCIAL, VOL. ACUMUL., MATERIAL, AREA PERFIL, VOL. PARCIAL, VOL. ACUMUL. Rows include profiles 260.000 to 640.000 with materials like TIERRA, ARENA, and RELLENO_ZANJA.

Table with columns: PERFIL, MATERIAL, AREA PERFIL, VOL. PARCIAL, VOL. ACUMUL., MATERIAL, AREA PERFIL, VOL. PARCIAL, VOL. ACUMUL. Rows include profiles 660.000 to 926.749 with materials like TIERRA, ARENA, and RELLENO_ZANJA.

Istram 9.04 08/04/20 16:55:31
 PROYECTO : CIDACOS COMPLETO
 EJE : 20: ACOMETIDA RINCÓN DE SOTO

Istram 9.04 08/04/20 16:55:31
 PROYECTO : CIDACOS COMPLETO
 EJE : 20: ACOMETIDA RINCÓN DE SOTO

***** MEDICIONES DE LOS PERFILES TRANSVERSALES*****
 ***** CAPAS DE FIRME *****

***** MEDICIONES DE LOS PERFILES TRANSVERSALES*****
 ***** CAPAS DE FIRME *****

PERFIL	MATERIAL	AREA PERFIL	VOL. PARCIAL	VOL. ACUMUL.	MATERIAL	AREA PERFIL	VOL. PARCIAL	VOL. ACUMUL.
940.000	D TIERRA	5.034	64.41	2033.2	ARENA_1	0.138	1.82	129.4
	ARENA_2	0.104	1.38	97.9	RELLENO_ZANJA	4.436	56.49	1471.5
	ARENA_3	0.297	3.93	278.9				
960.000	D TIERRA	5.363	103.97	2137.2	ARENA_1	0.138	2.75	132.2
	ARENA_2	0.104	2.08	100.0	RELLENO_ZANJA	4.765	92.02	1563.5
	ARENA_3	0.297	5.93	284.8				
974.845	D TIERRA	3.974	69.31	2206.5	ARENA_1	0.138	2.04	134.2
	ARENA_2	0.104	1.55	101.6	RELLENO_ZANJA	3.377	60.44	1624.0
	ARENA_3	0.297	4.40	289.2				
980.000	D TIERRA	3.814	20.08	2226.5	ARENA_1	0.138	0.71	134.9
	ARENA_2	0.104	0.54	102.1	RELLENO_ZANJA	3.217	17.00	1641.0
	ARENA_3	0.297	1.53	290.7				
1000.000	D TIERRA	2.954	67.68	2294.2	ARENA_1	0.138	2.75	137.7
	ARENA_2	0.104	2.08	104.2	RELLENO_ZANJA	2.356	55.73	1696.7
	ARENA_3	0.297	5.93	296.7				
1020.000	D TIERRA	2.074	50.28	2344.5	ARENA_1	0.138	2.75	140.4
	ARENA_2	0.104	2.08	106.3	RELLENO_ZANJA	1.477	38.33	1735.0
	ARENA_3	0.297	5.93	302.6				
1040.000	D TIERRA	2.041	41.16	2385.7	ARENA_1	0.138	2.75	143.2
	ARENA_2	0.104	2.08	108.4	RELLENO_ZANJA	1.444	29.21	1764.2
	ARENA_3	0.297	5.93	308.5				
1060.000	D TIERRA	1.955	39.96	2425.6	ARENA_1	0.138	2.75	146.0
	ARENA_2	0.104	2.08	110.4	RELLENO_ZANJA	1.357	28.01	1792.2
	ARENA_3	0.297	5.93	314.5				
1066.329	D TIERRA	1.929	12.29	2437.9	ARENA_1	0.138	0.87	146.8
	ARENA_2	0.104	0.66	111.1	RELLENO_ZANJA	1.332	8.51	1800.7
	ARENA_3	0.297	1.88	316.4				
1080.000	D TIERRA	1.862	25.92	2463.8	ARENA_1	0.138	1.88	148.7
	ARENA_2	0.104	1.42	112.5	RELLENO_ZANJA	1.265	17.75	1818.5
	ARENA_3	0.297	4.06	320.4				
1100.000	D TIERRA	1.956	38.19	2502.0	ARENA_1	0.138	2.75	151.5
	ARENA_2	0.104	2.08	114.6	RELLENO_ZANJA	1.359	26.24	1844.7
	ARENA_3	0.297	5.93	326.3				
1120.000	D TIERRA	1.817	37.73	2539.7	ARENA_1	0.138	2.75	154.2
	ARENA_2	0.104	2.08	116.7	RELLENO_ZANJA	1.219	25.78	1870.5
	ARENA_3	0.297	5.93	332.3				
1126.868	D TIERRA	1.852	12.60	2552.3	ARENA_1	0.138	0.95	155.2
	ARENA_2	0.104	0.72	117.4	RELLENO_ZANJA	1.254	8.49	1879.0
	ARENA_3	0.297	2.04	334.3				
1140.000	D TIERRA	1.867	24.41	2576.8	ARENA_1	0.138	1.81	157.0
	ARENA_2	0.104	1.37	118.8	RELLENO_ZANJA	1.269	16.57	1895.6
	ARENA_3	0.297	3.90	338.2				
1160.000	D TIERRA	2.117	39.84	2616.6	ARENA_1	0.138	2.75	159.7
	ARENA_2	0.104	2.08	120.9	RELLENO_ZANJA	1.520	27.89	1923.5
	ARENA_3	0.297	5.93	344.1				
1180.000	D TIERRA	1.968	40.85	2657.4	ARENA_1	0.138	2.75	162.5
	ARENA_2	0.104	2.08	122.9	RELLENO_ZANJA	1.370	28.90	1952.3
	ARENA_3	0.297	5.93	350.1				
1185.238	D TIERRA	1.935	10.22	2667.7	ARENA_1	0.138	0.72	163.2
	ARENA_2	0.104	0.55	123.5	RELLENO_ZANJA	1.337	7.09	1959.4
	ARENA_3	0.297	1.55	351.6				
1200.000	D TIERRA	1.987	28.95	2696.6	ARENA_1	0.138	2.03	165.2
	ARENA_2	0.104	1.54	125.0	RELLENO_ZANJA	1.389	20.13	1979.6
	ARENA_3	0.297	4.38	356.0				
1220.000	D TIERRA	1.838	38.25	2734.9	ARENA_1	0.138	2.75	168.0
	ARENA_2	0.104	2.08	127.1	RELLENO_ZANJA	1.240	26.29	2005.9
	ARENA_3	0.297	5.93	361.9				
1240.000	D TIERRA	1.859	36.97	2771.8	ARENA_1	0.138	2.75	170.7
	ARENA_2	0.104	2.08	129.2	RELLENO_ZANJA	1.261	25.02	2030.9
	ARENA_3	0.297	5.93	367.9				

PERFIL	MATERIAL	AREA PERFIL	VOL. PARCIAL	VOL. ACUMUL.	MATERIAL	AREA PERFIL	VOL. PARCIAL	VOL. ACUMUL.
1251.965	D TIERRA	1.910	22.55	2794.4	ARENA_1	0.138	1.65	172.4
	ARENA_2	0.104	1.25	130.4	RELLENO_ZANJA	1.312	15.40	2046.3
	ARENA_3	0.297	3.55	371.4				
1260.000	D TIERRA	2.078	16.02	2810.4	ARENA_1	0.138	1.11	173.5
	ARENA_2	0.104	0.84	131.3	RELLENO_ZANJA	1.480	11.22	2057.5
	ARENA_3	0.297	2.38	373.8				
1280.000	D TIERRA	1.874	39.52	2849.9	ARENA_1	0.138	2.75	176.2
	ARENA_2	0.104	2.08	133.4	RELLENO_ZANJA	1.277	27.57	2085.1
	ARENA_3	0.297	5.93	379.7				
1297.489	D TIERRA	1.834	32.43	2882.3	ARENA_1	0.138	2.41	178.7
	ARENA_2	0.104	1.82	135.2	RELLENO_ZANJA	1.237	21.98	2107.0
	ARENA_3	0.297	5.19	384.9				
1300.000	D TIERRA	1.870	4.65	2887.0	ARENA_1	0.138	0.35	179.0
	ARENA_2	0.104	0.26	135.5	RELLENO_ZANJA	1.273	3.15	2110.2
	ARENA_3	0.297	0.75	385.7				
1318.039	D TIERRA	1.917	34.16	2921.2	ARENA_1	0.138	2.48	181.5
	ARENA_2	0.104	1.88	137.3	RELLENO_ZANJA	1.320	23.38	2133.6
	ARENA_3	0.297	5.35	391.0				
1320.000	D TIERRA	1.910	3.75	2924.9	ARENA_1	0.138	0.27	181.8
	ARENA_2	0.104	0.20	137.5	RELLENO_ZANJA	1.313	2.58	2136.2
	ARENA_3	0.297	0.58	391.6				
1339.810	D TIERRA	1.867	37.41	2962.3	ARENA_1	0.138	2.73	184.5
	ARENA_2	0.104	2.06	139.6	RELLENO_ZANJA	1.269	25.57	2161.7
	ARENA_3	0.297	5.88	397.5				
1340.000	D TIERRA	1.867	0.35	2962.7	ARENA_1	0.138	0.03	184.5
	ARENA_2	0.104	0.02	139.6	RELLENO_ZANJA	1.269	0.24	2162.0
	ARENA_3	0.297	0.06	397.6				
1360.000	D TIERRA	1.895	37.62	3000.3	ARENA_1	0.138	2.75	187.3
	ARENA_2	0.104	2.08	141.7	RELLENO_ZANJA	1.298	25.67	2187.6
	ARENA_3	0.297	5.93	403.5				
1380.000	D TIERRA	1.927	38.22	3038.5	ARENA_1	0.138	2.75	190.0
	ARENA_2	0.104	2.08	143.8	RELLENO_ZANJA	1.329	26.27	2213.9
	ARENA_3	0.297	5.93	409.4				
1400.000	D TIERRA	1.864	37.90	3076.4	ARENA_1	0.138	2.75	192.8
	ARENA_2	0.104	2.08	145.9	RELLENO_ZANJA	1.266	25.95	2239.9
	ARENA_3	0.297	5.93	415.4				
1420.000	D TIERRA	1.916	37.80	3114.2	ARENA_1	0.138	2.75	195.5
	ARENA_2	0.104	2.08	148.0	RELLENO_ZANJA	1.319	25.85	2265.7
	ARENA_3	0.297	5.93	421.3				
1426.008	D TIERRA	1.894	11.44	3125.7	ARENA_1	0.138	0.83	196.3
	ARENA_2	0.104	0.63	148.6	RELLENO_ZANJA	1.296	7.85	2273.6
	ARENA_3	0.297	1.78	423.1				
1440.000	D TIERRA	1.863	26.29	3151.9	ARENA_1	0.138	1.93	198.3
	ARENA_2	0.104	1.46	150.0	RELLENO_ZANJA	1.266	17.92	2291.5
	ARENA_3	0.297	4.15	427.2				
1460.000	D TIERRA	1.897	37.60	3189.5	ARENA_1	0.138	2.75	201.0
	ARENA_2	0.104	2.08	152.1	RELLENO_ZANJA	1.299	25.65	2317.1
	ARENA_3	0.297	5.93	433.2				
1480.000	D TIERRA	1.864	37.61	3227.2	ARENA_1	0.138	2.75	203.8
	ARENA_2	0.104	2.08	154.2	RELLENO_ZANJA	1.266	25.66	2342.8
	ARENA_3	0.297	5.93	439.1				
1498.461	D TIERRA	1.869	34.46	3261.6	ARENA_1	0.138	2.54	206.3
	ARENA_2	0.104	1.92	156.1	RELLENO_ZANJA	1.272	23.43	2366.2
	ARENA_3	0.297	5.48	444.6				
1500.000	D TIERRA	1.860	2.87	3264.5	ARENA_1	0.138	0.21	206.5
	ARENA_2	0.104	0.16	156.3	RELLENO_ZANJA	1.263	1.95	2368.2
	ARENA_3	0.297	0.46	445.0				
1520.000	D TIERRA	1.864	0.00	3264.5	ARENA_1	0.138	0.00	206.5
	ARENA_2	0.104	0.00	156.3	RELLENO_ZANJA	1.266	0.00	2368.2
	ARENA_3	0.297	0.00	445.0				



Istram 9.04 08/04/20 16:55:31
PROYECTO : CIDACOS COMPLETO
EJE : 20: ACOMETIDA RINCÓN DE SOTO

MEDICIONES DE LOS PERFILES TRANSVERSALES
CAPAS DE FIRME

Table with columns: PERFIL, MATERIAL, AREA PERFIL, VOL. PARCIAL, VOL. ACUMUL., MATERIAL, AREA PERFIL, VOL. PARCIAL, VOL. ACUMUL. Rows include profiles 1540.000, 1544.682, 1560.000, 1580.000, 1600.000, 1620.000, 1621.225, 1640.000, 1648.329.

Istram 9.04 08/04/20 16:55:31
PROYECTO : CIDACOS COMPLETO
EJE : 20: ACOMETIDA RINCÓN DE SOTO

RESUMEN DE VOLUMENES TOTALES

Summary table with columns: MATERIAL, VOLUMEN. Rows: TERRAPLEN, D TIERRA, ARENA 1, ARENA 2, RELLENO_ZANJA, ARENA 3.

21. EJE 21: ACOMETIDA BERGASA

Istram 9.04 08/04/20 12:04:18
PROYECTO : CIDACOS COMPLETO
EJE : 21: ACOMETIDA BERGASA

MEDICIONES DE LOS PERFILES TRANSVERSALES
CAPAS DE FIRME

Table with columns: PERFIL, MATERIAL, AREA PERFIL, VOL. PARCIAL, VOL. ACUMUL., MATERIAL, AREA PERFIL, VOL. PARCIAL, VOL. ACUMUL. Rows include profiles 0.000, 20.000, 40.000, 60.000, 80.000, 100.000, 118.932, 120.000, 140.000, 160.000, 180.000, 189.832, 200.000, 220.000, 240.000, 244.553, 260.000, 280.000, 300.000.

Istram 9.04 08/04/20 12:04:18
 PROYECTO :
 EJE : 21: ACOMETIDA BERGASA

CIDACOS COMPLETO

*** MEDICIONES DE LOS PERFILES TRANSVERSALES ***
 *** CAPAS DE FIRME ***

PERFIL	MATERIAL	AREA PERFIL	VOL. PARCIAL	VOL. ACUMUL.	MATERIAL	AREA PERFIL	VOL. PARCIAL	VOL. ACUMUL.
320.000	D TIERRA	1.449	28.54	473.6	ARENA_1	0.118	2.36	34.2
	ARENA_2	0.054	1.08	15.7	RELLENO_ZANJA	1.060	20.76	361.0
	ARENA_3	0.198	3.96	57.2				
340.000	D TIERRA	1.340	27.90	501.5	ARENA_1	0.118	2.36	36.5
	ARENA_2	0.054	1.08	16.8	RELLENO_ZANJA	0.951	20.11	381.1
	ARENA_3	0.198	3.96	61.2				
349.252	D TIERRA	1.382	12.59	514.1	ARENA_1	0.118	1.09	37.6
	ARENA_2	0.054	0.50	17.3	RELLENO_ZANJA	0.992	8.99	390.1
	ARENA_3	0.198	1.83	63.0				
360.000	D TIERRA	1.342	14.64	528.7	ARENA_1	0.118	1.27	38.9
	ARENA_2	0.054	0.58	17.8	RELLENO_ZANJA	0.953	10.45	400.6
	ARENA_3	0.198	2.13	65.1				
380.000	D TIERRA	1.364	27.06	555.8	ARENA_1	0.118	2.36	41.2
	ARENA_2	0.054	1.08	18.9	RELLENO_ZANJA	0.975	19.27	419.9
	ARENA_3	0.198	3.96	69.1				
384.885	D TIERRA	1.382	6.71	562.5	ARENA_1	0.118	0.58	41.8
	ARENA_2	0.054	0.26	19.2	RELLENO_ZANJA	0.992	4.80	424.7
	ARENA_3	0.198	0.97	70.0				
400.000	D TIERRA	1.382	20.89	583.4	ARENA_1	0.118	1.78	43.6
	ARENA_2	0.054	0.82	20.0	RELLENO_ZANJA	0.992	15.00	439.7
	ARENA_3	0.198	2.99	73.0				
420.000	D TIERRA	1.359	27.41	610.8	ARENA_1	0.118	2.36	46.0
	ARENA_2	0.054	1.08	21.1	RELLENO_ZANJA	0.970	19.62	459.3
	ARENA_3	0.198	3.96	77.0				
440.000	D TIERRA	1.382	27.41	638.2	ARENA_1	0.118	2.36	48.3
	ARENA_2	0.054	1.08	22.2	RELLENO_ZANJA	0.992	19.62	478.9
	ARENA_3	0.198	3.96	81.0				
460.000	D TIERRA	1.510	28.92	667.1	ARENA_1	0.118	2.36	50.7
	ARENA_2	0.054	1.08	23.3	RELLENO_ZANJA	1.121	21.13	500.0
	ARENA_3	0.198	3.96	84.9				
480.000	D TIERRA	1.432	29.42	696.5	ARENA_1	0.118	2.36	53.0
	ARENA_2	0.054	1.08	24.3	RELLENO_ZANJA	1.042	21.63	521.7
	ARENA_3	0.198	3.96	88.9				
500.000	D TIERRA	1.382	28.13	724.7	ARENA_1	0.118	2.36	55.4
	ARENA_2	0.054	1.08	25.4	RELLENO_ZANJA	0.992	20.35	542.0
	ARENA_3	0.198	3.96	92.9				
520.000	D TIERRA	1.407	27.88	752.6	ARENA_1	0.118	2.36	57.7
	ARENA_2	0.054	1.08	26.5	RELLENO_ZANJA	1.017	20.10	562.1
	ARENA_3	0.198	3.96	96.8				
540.000	D TIERRA	1.382	27.88	780.4	ARENA_1	0.118	2.36	60.1
	ARENA_2	0.054	1.08	27.6	RELLENO_ZANJA	0.992	20.10	582.2
	ARENA_3	0.198	3.96	100.8				
560.000	D TIERRA	1.350	27.32	807.8	ARENA_1	0.118	2.36	62.5
	ARENA_2	0.054	1.08	28.7	RELLENO_ZANJA	0.961	19.53	601.7
	ARENA_3	0.198	3.96	104.7				
580.000	D TIERRA	1.382	27.32	835.1	ARENA_1	0.118	2.36	64.8
	ARENA_2	0.054	1.08	29.8	RELLENO_ZANJA	0.992	19.53	621.3
	ARENA_3	0.198	3.96	108.7				
600.000	D TIERRA	1.382	27.64	862.7	ARENA_1	0.118	2.36	67.2
	ARENA_2	0.054	1.08	30.9	RELLENO_ZANJA	0.992	19.85	641.1
	ARENA_3	0.198	3.96	112.7				
609.469	D TIERRA	2.147	16.71	879.4	ARENA_1	0.118	1.12	68.3
	ARENA_2	0.054	0.51	31.4	RELLENO_ZANJA	1.757	13.02	654.1
	ARENA_3	0.198	1.88	114.5				
620.000	D TIERRA	1.865	21.12	900.5	ARENA_1	0.118	1.24	69.5
	ARENA_2	0.054	0.57	31.9	RELLENO_ZANJA	1.476	17.02	671.2
	ARENA_3	0.198	2.09	116.6				
640.000	D TIERRA	1.382	32.47	933.0	ARENA_1	0.118	2.36	71.9
	ARENA_2	0.054	1.08	33.0	RELLENO_ZANJA	0.992	24.68	695.8
	ARENA_3	0.198	3.96	120.6				

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PERFIL	MATERIAL	AREA PERFIL	VOL. PARCIAL	VOL. ACUMUL.	MATERIAL	AREA PERFIL	VOL. PARCIAL	VOL. ACUMUL.
660.000	D TIERRA	1.586	29.67	962.7	ARENA_1	0.118	2.36	74.3
	ARENA_2	0.054	1.08	34.1	RELLENO_ZANJA	1.196	21.88	717.7
	ARENA_3	0.198	3.96	124.6				
680.000	D TIERRA	1.382	29.68	992.4	ARENA_1	0.118	2.36	76.6
	ARENA_2	0.054	1.08	35.2	RELLENO_ZANJA	0.993	21.89	739.6
	ARENA_3	0.198	3.96	128.5				
700.000	D TIERRA	1.382	27.64	1020.0	ARENA_1	0.118	2.36	79.0
	ARENA_2	0.054	1.08	36.3	RELLENO_ZANJA	0.993	19.85	759.5
	ARENA_3	0.198	3.96	132.5				
720.000	D TIERRA	1.307	26.89	1046.9	ARENA_1	0.118	2.36	81.3
	ARENA_2	0.054	1.08	37.4	RELLENO_ZANJA	0.918	19.10	778.6
	ARENA_3	0.198	3.96	136.4				
740.000	D TIERRA	1.509	28.16	1075.1	ARENA_1	0.118	2.36	83.7
	ARENA_2	0.054	1.08	38.4	RELLENO_ZANJA	1.120	20.37	798.9
	ARENA_3	0.198	3.96	140.4				
760.000	D TIERRA	1.370	28.79	1103.8	ARENA_1	0.118	2.36	86.1
	ARENA_2	0.054	1.08	39.5	RELLENO_ZANJA	0.980	21.00	819.9
	ARENA_3	0.198	3.96	144.4				
780.000	D TIERRA	1.382	27.51	1131.4	ARENA_1	0.118	2.36	88.4
	ARENA_2	0.054	1.08	40.6	RELLENO_ZANJA	0.993	19.73	839.7
	ARENA_3	0.198	3.96	148.3				
800.000	D TIERRA	1.465	28.47	1159.8	ARENA_1	0.118	2.36	90.8
	ARENA_2	0.054	1.08	41.7	RELLENO_ZANJA	1.075	20.68	860.3
	ARENA_3	0.198	3.96	152.3				
820.000	D TIERRA	1.382	28.47	1188.3	ARENA_1	0.118	2.36	93.1
	ARENA_2	0.054	1.08	42.8	RELLENO_ZANJA	0.992	20.68	881.0
	ARENA_3	0.198	3.96	156.2				
840.000	D TIERRA	1.458	28.39	1216.7	ARENA_1	0.118	2.36	95.5
	ARENA_2	0.054	1.08	43.9	RELLENO_ZANJA	1.068	20.61	901.6
	ARENA_3	0.198	3.96	160.2				
860.000	D TIERRA	1.382	28.40	1245.1	ARENA_1	0.118	2.36	97.9
	ARENA_2	0.054	1.08	45.0	RELLENO_ZANJA	0.993	20.61	922.2
	ARENA_3	0.198	3.96	164.2				
880.000	D TIERRA	1.561	29.43	1274.5	ARENA_1	0.118	2.36	100.2
	ARENA_2	0.054	1.08	46.0	RELLENO_ZANJA	1.171	21.64	943.9
	ARENA_3	0.198	3.96	168.1				
900.000	D TIERRA	1.382	29.43	1303.9	ARENA_1	0.118	2.36	102.6
	ARENA_2	0.054	1.08	47.1	RELLENO_ZANJA	0.993	21.64	965.5
	ARENA_3	0.198	3.96	172.1				
917.335	D TIERRA	1.642	26.21	1330.1	ARENA_1	0.118	2.04	104.6
	ARENA_2	0.054	0.94	48.1	RELLENO_ZANJA	1.253	19.46	985.0
	ARENA_3	0.198	3.43	175.5				
920.000	D TIERRA	1.382	4.03	1334.2	ARENA_1	0.118	0.31	104.9
	ARENA_2	0.054	0.14	48.2	RELLENO_ZANJA	0.992	2.99	988.0
	ARENA_3	0.198	0.53	176.1				
940.000	D TIERRA	1.382	27.64	1361.8	ARENA_1	0.118	2.36	107.3
	ARENA_2	0.054	1.08	49.3	RELLENO_ZANJA	0.992	19.85	1007.8
	ARENA_3	0.198	3.96	180.0				
952.075	D TIERRA	1.397	16.78	1378.6	ARENA_1	0.118	1.42	108.7
	ARENA_2	0.054	0.65	49.9	RELLENO_ZANJA	1.008	12.08	1019.9
	ARENA_3	0.198	2.39	182.4				
960.000	D TIERRA	1.382	11.01	1389.6	ARENA_1	0.118	0.94	109.7
	ARENA_2	0.054	0.43	50.4	RELLENO_ZANJA	0.992	7.93	1027.8
	ARENA_3	0.198	1.57	184.0				
980.000	D TIERRA	1.572	29.54	1419.1	ARENA_1	0.118	2.36	112.0
	ARENA_2	0.054	1.08	51.5	RELLENO_ZANJA	1.182	21.75	1049.6
	ARENA_3	0.198	3.96	187.9				
990.908	D TIERRA	1.619	17.40	1436.5	ARENA_1	0.118	1.29	113.3
	ARENA_2	0.054	0.59	52.0	RELLENO_ZANJA	1.230	13.16	1062.7
	ARENA_3	0.198	2.16	190.1				

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PERFIL	MATERIAL	AREA PERFIL	VOL. PARCIAL	VOL. ACUMUL.	MATERIAL	AREA PERFIL	VOL. PARCIAL	VOL. ACUMUL.
1000.000	D TIERRA	1.382	13.64	1450.2	ARENA_1	0.118	1.07	114.4
	ARENA_2	0.054	0.49	52.5	RELLENO_ZANJA	0.993	10.10	1072.8
	ARENA_3	0.198	1.80	191.9				
1020.000	D TIERRA	1.383	27.65	1477.8	ARENA_1	0.118	2.36	116.7
	ARENA_2	0.054	1.08	53.6	RELLENO_ZANJA	0.994	19.86	1092.7
	ARENA_3	0.198	3.96	195.9				
1040.000	D TIERRA	1.809	31.93	1509.8	ARENA_1	0.118	2.36	119.1
	ARENA_2	0.054	1.08	54.7	RELLENO_ZANJA	1.420	24.14	1116.8
	ARENA_3	0.198	3.96	199.8				
1044.689	D TIERRA	1.957	8.83	1518.6	ARENA_1	0.118	0.55	119.6
	ARENA_2	0.054	0.25	55.0	RELLENO_ZANJA	1.568	7.00	1123.8
	ARENA_3	0.198	0.93	200.8				
1044.689	D TIERRA	1.892	0.00	1518.6	ARENA_1	0.112	0.00	119.6
	ARENA_2	0.040	0.00	55.0	RELLENO_ZANJA	1.556	0.00	1123.8
	ARENA_3	0.174	0.00	200.8				
1060.000	D TIERRA	1.338	24.73	1543.3	ARENA_1	0.112	1.71	121.4
	ARENA_2	0.040	0.61	55.6	RELLENO_ZANJA	1.002	19.58	1143.4
	ARENA_3	0.174	2.66	203.4				
1080.000	D TIERRA	1.420	27.59	1570.9	ARENA_1	0.112	2.24	123.6
	ARENA_2	0.040	0.80	56.4	RELLENO_ZANJA	1.084	20.86	1164.3
	ARENA_3	0.174	3.48	206.9				
1100.000	D TIERRA	1.332	27.53	1598.4	ARENA_1	0.112	2.24	125.8
	ARENA_2	0.040	0.80	57.2	RELLENO_ZANJA	0.996	20.80	1185.1
	ARENA_3	0.174	3.48	210.4				
1120.000	D TIERRA	1.362	26.95	1625.4	ARENA_1	0.112	2.24	128.1
	ARENA_2	0.040	0.80	58.0	RELLENO_ZANJA	1.026	20.22	1205.3
	ARENA_3	0.174	3.48	213.9				
1140.000	D TIERRA	1.332	26.94	1652.3	ARENA_1	0.112	2.24	130.3
	ARENA_2	0.040	0.80	58.8	RELLENO_ZANJA	0.995	20.21	1225.5
	ARENA_3	0.174	3.48	217.3				
1160.000	D TIERRA	1.425	27.57	1679.9	ARENA_1	0.112	2.24	132.6
	ARENA_2	0.040	0.80	59.6	RELLENO_ZANJA	1.089	20.84	1246.3
	ARENA_3	0.174	3.48	220.8				
1180.000	D TIERRA	1.348	27.73	1707.6	ARENA_1	0.112	2.24	134.8
	ARENA_2	0.040	0.80	60.3	RELLENO_ZANJA	1.011	21.00	1267.3
	ARENA_3	0.174	3.48	224.3				
1200.000	D TIERRA	1.322	26.69	1734.3	ARENA_1	0.112	2.24	137.0
	ARENA_2	0.040	0.80	61.1	RELLENO_ZANJA	0.985	19.96	1287.3
	ARENA_3	0.174	3.48	227.8				
1207.356	D TIERRA	1.333	9.76	1744.1	ARENA_1	0.112	0.82	137.9
	ARENA_2	0.040	0.29	61.4	RELLENO_ZANJA	0.996	7.29	1294.6
	ARENA_3	0.174	1.28	229.0				
1220.000	D TIERRA	1.484	17.81	1761.9	ARENA_1	0.112	1.42	139.3
	ARENA_2	0.040	0.50	61.9	RELLENO_ZANJA	1.147	13.55	1308.1
	ARENA_3	0.174	2.20	231.2				
1240.000	D TIERRA	1.332	28.16	1790.1	ARENA_1	0.112	2.24	141.5
	ARENA_2	0.040	0.80	62.7	RELLENO_ZANJA	0.996	21.43	1329.6
	ARENA_3	0.174	3.48	234.7				
1260.000	D TIERRA	1.447	27.79	1817.8	ARENA_1	0.112	2.24	143.8
	ARENA_2	0.040	0.80	63.5	RELLENO_ZANJA	1.110	21.06	1350.6
	ARENA_3	0.174	3.48	238.2				
1280.000	D TIERRA	1.433	28.79	1846.6	ARENA_1	0.112	2.24	146.0
	ARENA_2	0.040	0.80	64.3	RELLENO_ZANJA	1.096	22.06	1372.7
	ARENA_3	0.174	3.48	241.7				
1300.000	D TIERRA	1.332	27.65	1874.3	ARENA_1	0.112	2.24	148.2
	ARENA_2	0.040	0.80	65.1	RELLENO_ZANJA	0.996	20.92	1393.6
	ARENA_3	0.174	3.48	245.1				
1320.000	D TIERRA	1.332	26.64	1900.9	ARENA_1	0.112	2.24	150.5
	ARENA_2	0.040	0.80	65.9	RELLENO_ZANJA	0.996	19.91	1413.5
	ARENA_3	0.174	3.48	248.6				

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PERFIL	MATERIAL	AREA PERFIL	VOL. PARCIAL	VOL. ACUMUL.	MATERIAL	AREA PERFIL	VOL. PARCIAL	VOL. ACUMUL.
1340.000	D TIERRA	1.270	26.02	1926.9	ARENA_1	0.112	2.24	152.7
	ARENA_2	0.040	0.80	66.7	RELLENO_ZANJA	0.933	19.29	1432.8
	ARENA_3	0.174	3.48	252.1				
1360.000	D TIERRA	1.332	26.02	1953.0	ARENA_1	0.112	2.24	155.0
	ARENA_2	0.040	0.80	67.5	RELLENO_ZANJA	0.996	19.29	1452.1
	ARENA_3	0.174	3.48	255.6				
1380.000	D TIERRA	1.293	26.26	1979.2	ARENA_1	0.112	2.24	157.2
	ARENA_2	0.040	0.80	68.3	RELLENO_ZANJA	0.957	19.53	1471.6
	ARENA_3	0.174	3.48	259.0				
1400.000	D TIERRA	1.332	26.26	2005.5	ARENA_1	0.112	2.24	159.4
	ARENA_2	0.040	0.80	69.1	RELLENO_ZANJA	0.996	19.53	1491.1
	ARENA_3	0.174	3.48	262.5				
1420.000	D TIERRA	1.333	26.65	2032.1	ARENA_1	0.112	2.24	161.7
	ARENA_2	0.040	0.80	69.9	RELLENO_ZANJA	0.996	19.92	1511.1
	ARENA_3	0.174	3.48	266.0				
1440.000	D TIERRA	1.314	26.47	2058.6	ARENA_1	0.112	2.24	163.9
	ARENA_2	0.040	0.80	70.7	RELLENO_ZANJA	0.977	19.74	1530.8
	ARENA_3	0.174	3.48	269.5				
1460.000	D TIERRA	1.332	26.46	2085.1	ARENA_1	0.112	2.24	166.2
	ARENA_2	0.040	0.80	71.5	RELLENO_ZANJA	0.996	19.73	1550.5
	ARENA_3	0.174	3.48	272.9				
1480.000	D TIERRA	1.449	27.82	2112.9	ARENA_1	0.112	2.24	168.4
	ARENA_2	0.040	0.80	72.3	RELLENO_ZANJA	1.113	21.09	1571.6
	ARENA_3	0.174	3.48	276.4				
1500.000	D TIERRA	1.358	28.08	2141.0	ARENA_1	0.112	2.24	170.6
	ARENA_2	0.040	0.80	73.1	RELLENO_ZANJA	1.022	21.35	1593.0
	ARENA_3	0.174	3.48	279.9				
1520.000	D TIERRA	1.294	26.52	2167.5	ARENA_1	0.112	2.24	172.9
	ARENA_2	0.040	0.80	73.9	RELLENO_ZANJA	0.957	19.79	1612.8
	ARENA_3	0.174	3.48	283.4				
1540.000	D TIERRA	1.332	26.26	2193.7	ARENA_1	0.112	2.24	175.1
	ARENA_2	0.040	0.80	74.7	RELLENO_ZANJA	0.996	19.53	1632.3
	ARENA_3	0.174	3.48	286.8				
1560.000	D TIERRA	1.332	26.65	2220.4	ARENA_1	0.112	2.24	177.4
	ARENA_2	0.040	0.80	75.5	RELLENO_ZANJA	0.996	19.91	1652.2
	ARENA_3	0.174	3.48	290.3				
1580.000	D TIERRA	1.308	26.40	2246.8	ARENA_1	0.112	2.24	179.6
	ARENA_2	0.040	0.80	76.3	RELLENO_ZANJA	0.971	19.67	1671.9
	ARENA_3	0.174	3.48	293.8				
1600.000	D TIERRA	1.332	26.40	2273.2	ARENA_1	0.112	2.24	181.8
	ARENA_2	0.040	0.80	77.1	RELLENO_ZANJA	0.996	19.67	1691.5
	ARENA_3	0.174	3.48	297.3				
1604.237	D TIERRA	1.300	5.58	2278.8	ARENA_1	0.112	0.47	182.3
	ARENA_2	0.040	0.17	77.2	RELLENO_ZANJA	0.964	4.15	1695.7
	ARENA_3	0.174	0.74	298.0				
1620.000	D TIERRA	1.332	20.75	2299.5	ARENA_1	0.112	1.77	184.1
	ARENA_2	0.040	0.63	77.9	RELLENO_ZANJA	0.996	15.44	1711.1
	ARENA_3	0.174	2.74	300.7				
1640.000	D TIERRA	1.332	26.65	2326.2	ARENA_1	0.112	2.24	186.3
	ARENA_2	0.040	0.80	78.6	RELLENO_ZANJA	0.996	19.92	1731.1
	ARENA_3	0.174	3.48	304.2				
1644.147	D TIERRA	1.675	6.24	2332.4	ARENA_1	0.112	0.46	186.8
	ARENA_2	0.040	0.16	78.8	RELLENO_ZANJA	1.338	4.84	1735.9
	ARENA_3	0.174	0.72	304.9				
1660.000	D TIERRA	1.363	24.08	2356.5	ARENA_1	0.112	1.78	188.6
	ARENA_2	0.040	0.63	79.4	RELLENO_ZANJA	1.027	18.75	1754.6
	ARENA_3	0.174	2.75	307.7				
1673.534	D TIERRA	1.477	19.22	2375.7	ARENA_1	0.112	1.52	190.1
	ARENA_2	0.040	0.54	80.0	RELLENO_ZANJA	1.140	14.66	1769.3
	ARENA_3	0.174	2.35	310.0				



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PERFIL	MATERIAL	AREA PERFIL	VOL. PARCIAL	VOL. ACUMUL.	MATERIAL	AREA PERFIL	VOL. PARCIAL	VOL. ACUMUL.
1680.000	D TIERRA	1.332	9.08	2384.8	ARENA_1	0.112	0.72	190.8
	ARENA_2	0.040	0.26	80.2	RELLENO_ZANJA	0.996	6.91	1776.2
	ARENA_3	0.174	1.12	311.2				
1690.765	D TIERRA	1.437	14.91	2399.7	ARENA_1	0.112	1.21	192.0
	ARENA_2	0.040	0.43	80.7	RELLENO_ZANJA	1.101	11.29	1787.5
	ARENA_3	0.174	1.87	313.0				
1700.000	D TIERRA	1.332	12.79	2412.5	ARENA_1	0.112	1.03	193.0
	ARENA_2	0.040	0.37	81.0	RELLENO_ZANJA	0.996	9.68	1797.2
	ARENA_3	0.174	1.60	314.6				
1715.924	D TIERRA	1.332	21.21	2433.7	ARENA_1	0.112	1.78	194.8
	ARENA_2	0.040	0.63	81.7	RELLENO_ZANJA	0.996	15.86	1813.0
	ARENA_3	0.174	2.77	317.4				
1720.000	D TIERRA	1.483	5.74	2439.4	ARENA_1	0.112	0.46	195.3
	ARENA_2	0.040	0.16	81.8	RELLENO_ZANJA	1.146	4.36	1817.4
	ARENA_3	0.174	0.71	318.1				
1734.390	D TIERRA	1.332	20.25	2459.7	ARENA_1	0.112	1.61	196.9
	ARENA_2	0.040	0.57	82.4	RELLENO_ZANJA	0.996	15.41	1832.8
	ARENA_3	0.174	2.50	320.6				
1740.000	D TIERRA	1.354	7.54	2467.2	ARENA_1	0.112	0.63	197.5
	ARENA_2	0.040	0.22	82.6	RELLENO_ZANJA	1.018	5.65	1838.5
	ARENA_3	0.174	0.97	321.6				
1760.000	D TIERRA	1.435	27.89	2495.1	ARENA_1	0.112	2.24	199.8
	ARENA_2	0.040	0.80	83.4	RELLENO_ZANJA	1.098	21.16	1859.6
	ARENA_3	0.174	3.48	325.1				
1780.000	D TIERRA	1.452	28.87	2524.0	ARENA_1	0.112	2.24	202.0
	ARENA_2	0.040	0.80	84.2	RELLENO_ZANJA	1.116	22.14	1881.8
	ARENA_3	0.174	3.48	328.5				
1800.000	D TIERRA	1.332	27.84	2551.8	ARENA_1	0.112	2.24	204.2
	ARENA_2	0.040	0.80	85.0	RELLENO_ZANJA	0.996	21.11	1902.9
	ARENA_3	0.174	3.48	332.0				
1820.000	D TIERRA	1.499	28.31	2580.1	ARENA_1	0.112	2.24	206.5
	ARENA_2	0.040	0.80	85.8	RELLENO_ZANJA	1.162	21.58	1924.5
	ARENA_3	0.174	3.48	335.5				
1823.596	D TIERRA	1.332	5.09	2585.2	ARENA_1	0.112	0.40	206.9
	ARENA_2	0.040	0.14	86.0	RELLENO_ZANJA	0.996	3.88	1928.3
	ARENA_3	0.174	0.62	336.1				
1838.030	D TIERRA	1.351	19.37	2604.6	ARENA_1	0.112	1.62	208.5
	ARENA_2	0.040	0.57	86.5	RELLENO_ZANJA	1.015	14.51	1942.8
	ARENA_3	0.174	2.51	338.6				
1840.000	D TIERRA	1.336	2.65	2607.2	ARENA_1	0.112	0.22	208.7
	ARENA_2	0.040	0.08	86.6	RELLENO_ZANJA	0.999	1.98	1944.8
	ARENA_3	0.174	0.34	339.0				
1860.000	D TIERRA	1.297	26.32	2633.6	ARENA_1	0.112	2.24	211.0
	ARENA_2	0.040	0.80	87.4	RELLENO_ZANJA	0.960	19.59	1964.4
	ARENA_3	0.174	3.48	342.4				
1864.782	D TIERRA	1.332	6.29	2639.8	ARENA_1	0.112	0.54	211.5
	ARENA_2	0.040	0.19	87.6	RELLENO_ZANJA	0.996	4.68	1969.1
	ARENA_3	0.174	0.83	343.3				
1880.000	D TIERRA	1.329	20.25	2660.1	ARENA_1	0.112	1.70	213.2
	ARENA_2	0.040	0.61	88.2	RELLENO_ZANJA	0.993	15.13	1984.2
	ARENA_3	0.174	2.64	345.9				
1900.000	D TIERRA	1.332	26.62	2686.7	ARENA_1	0.112	2.24	215.4
	ARENA_2	0.040	0.80	89.0	RELLENO_ZANJA	0.996	19.89	2004.1
	ARENA_3	0.174	3.48	349.4				
1914.955	D TIERRA	1.333	19.93	2706.6	ARENA_1	0.112	1.67	217.1
	ARENA_2	0.040	0.60	89.6	RELLENO_ZANJA	0.996	14.89	2019.0
	ARENA_3	0.174	2.60	352.0				
1920.000	D TIERRA	1.333	6.72	2713.4	ARENA_1	0.112	0.57	217.7
	ARENA_2	0.040	0.20	89.8	RELLENO_ZANJA	0.996	5.03	2024.0
	ARENA_3	0.174	0.88	352.9				

PERFIL	MATERIAL	AREA PERFIL	VOL. PARCIAL	VOL. ACUMUL.	MATERIAL	AREA PERFIL	VOL. PARCIAL	VOL. ACUMUL.
1925.441	D TIERRA	1.333	7.25	2720.6	ARENA_1	0.112	0.61	218.3
	ARENA_2	0.040	0.22	90.0	RELLENO_ZANJA	0.996	5.42	2029.5
	ARENA_3	0.174	0.95	353.8				
1940.000	D TIERRA	1.376	19.72	2740.3	ARENA_1	0.112	1.63	219.9
	ARENA_2	0.040	0.58	90.6	RELLENO_ZANJA	1.039	14.82	2044.3
	ARENA_3	0.174	2.53	356.3				
1946.118	D TIERRA	1.300	8.19	2748.5	ARENA_1	0.112	0.69	220.6
	ARENA_2	0.040	0.24	90.8	RELLENO_ZANJA	0.963	6.13	2050.4
	ARENA_3	0.174	1.06	357.4				
1960.000	D TIERRA	1.332	18.27	2766.8	ARENA_1	0.112	1.55	222.2
	ARENA_2	0.040	0.55	91.4	RELLENO_ZANJA	0.996	13.60	2064.0
	ARENA_3	0.174	2.41	359.8				
1980.000	D TIERRA	1.332	26.65	2793.4	ARENA_1	0.112	2.24	224.4
	ARENA_2	0.040	0.80	92.2	RELLENO_ZANJA	0.996	19.92	2083.9
	ARENA_3	0.174	3.48	363.3				
2000.000	D TIERRA	1.332	26.65	2820.1	ARENA_1	0.112	2.24	226.6
	ARENA_2	0.040	0.80	93.0	RELLENO_ZANJA	0.996	19.92	2103.8
	ARENA_3	0.174	3.48	366.8				
2020.000	D TIERRA	1.332	26.65	2846.7	ARENA_1	0.112	2.24	228.9
	ARENA_2	0.040	0.80	93.8	RELLENO_ZANJA	0.996	19.92	2123.7
	ARENA_3	0.174	3.48	370.2				
2040.000	D TIERRA	1.332	26.65	2873.4	ARENA_1	0.112	2.24	231.1
	ARENA_2	0.040	0.80	94.6	RELLENO_ZANJA	0.996	19.92	2143.7
	ARENA_3	0.174	3.48	373.7				
2060.000	D TIERRA	1.332	26.65	2900.0	ARENA_1	0.112	2.24	233.4
	ARENA_2	0.040	0.80	95.4	RELLENO_ZANJA	0.996	19.92	2163.6
	ARENA_3	0.174	3.48	377.2				
2080.000	D TIERRA	1.405	27.38	2927.4	ARENA_1	0.112	2.24	235.6
	ARENA_2	0.040	0.80	96.2	RELLENO_ZANJA	1.069	20.64	2184.2
	ARENA_3	0.174	3.48	380.7				
2083.395	D TIERRA	1.383	4.73	2932.1	ARENA_1	0.112	0.38	236.0
	ARENA_2	0.040	0.14	96.3	RELLENO_ZANJA	1.047	3.59	2187.8
	ARENA_3	0.174	0.59	381.3				
2089.600	D TIERRA	1.332	8.42	2940.6	ARENA_1	0.112	0.70	236.7
	ARENA_2	0.040	0.25	96.5	RELLENO_ZANJA	0.996	6.34	2194.2
	ARENA_3	0.174	1.08	382.3				
2100.000	D TIERRA	1.332	13.86	2954.4	ARENA_1	0.112	1.16	237.8
	ARENA_2	0.040	0.41	97.0	RELLENO_ZANJA	0.996	10.36	2204.5
	ARENA_3	0.174	1.81	384.1				
2101.344	D TIERRA	1.329	1.79	2956.2	ARENA_1	0.112	0.15	238.0
	ARENA_2	0.040	0.05	97.0	RELLENO_ZANJA	0.992	1.34	2205.8
	ARENA_3	0.174	0.23	384.4				
2109.565	D TIERRA	1.332	10.94	2967.1	ARENA_1	0.112	0.92	238.9
	ARENA_2	0.040	0.33	97.3	RELLENO_ZANJA	0.996	8.17	2214.0
	ARENA_3	0.174	1.43	385.8				
2120.000	D TIERRA	1.333	13.90	2981.0	ARENA_1	0.112	1.17	240.1
	ARENA_2	0.040	0.42	97.7	RELLENO_ZANJA	0.996	10.39	2224.4
	ARENA_3	0.174	1.81	387.6				
2121.209	D TIERRA	2.383	2.25	2983.3	ARENA_1	0.112	0.14	240.2
	ARENA_2	0.040	0.05	97.8	RELLENO_ZANJA	2.047	1.84	2226.3
	ARENA_3	0.174	0.21	387.8				
2140.000	D TIERRA	1.362	35.19	3018.5	ARENA_1	0.112	2.10	242.3
	ARENA_2	0.040	0.75	98.5	RELLENO_ZANJA	1.026	28.87	2255.1
	ARENA_3	0.174	3.27	391.1				
2160.000	D TIERRA	1.332	26.95	3045.4	ARENA_1	0.112	2.24	244.6
	ARENA_2	0.040	0.80	99.3	RELLENO_ZANJA	0.996	20.22	2275.3
	ARENA_3	0.174	3.48	394.6				
2176.857	D TIERRA	1.332	22.46	3067.9	ARENA_1	0.112	1.89	246.4
	ARENA_2	0.040	0.67	100.0	RELLENO_ZANJA	0.996	16.79	2292.1
	ARENA_3	0.174	2.93	397.5				



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PERFIL	MATERIAL	AREA PERFIL	VOL. PARCIAL	VOL. ACUMUL.	MATERIAL	AREA PERFIL	VOL. PARCIAL	VOL. ACUMUL.
2180.000	D TIERRA	1.363	4.24	3072.1	ARENA_1	0.112	0.35	246.8
	ARENA_2	0.040	0.13	100.1	RELLENO_ZANJA	1.026	3.18	2295.3
	ARENA_3	0.174	0.55	398.1				
2200.000	D TIERRA	1.332	26.95	3099.1	ARENA_1	0.112	2.24	249.0
	ARENA_2	0.040	0.80	100.9	RELLENO_ZANJA	0.996	20.22	2315.5
	ARENA_3	0.174	3.48	401.5				
2220.000	D TIERRA	1.332	26.65	3125.7	ARENA_1	0.112	2.24	251.3
	ARENA_2	0.040	0.80	101.7	RELLENO_ZANJA	0.996	19.92	2335.4
	ARENA_3	0.174	3.48	405.0				
2240.000	D TIERRA	1.712	30.44	3156.2	ARENA_1	0.112	2.24	253.5
	ARENA_2	0.040	0.80	102.5	RELLENO_ZANJA	1.375	23.71	2359.1
	ARENA_3	0.174	3.48	408.5				
2260.000	D TIERRA	1.878	35.90	3192.1	ARENA_1	0.112	2.24	255.8
	ARENA_2	0.040	0.80	103.3	RELLENO_ZANJA	1.542	29.17	2388.3
	ARENA_3	0.174	3.48	412.0				
2280.000	D TIERRA	2.058	39.36	3231.4	ARENA_1	0.112	2.24	258.0
	ARENA_2	0.040	0.80	104.1	RELLENO_ZANJA	1.721	32.63	2420.9
	ARENA_3	0.174	3.48	415.4				
2300.000	D TIERRA	3.744	58.01	3289.4	ARENA_1	0.112	2.24	260.2
	ARENA_2	0.040	0.80	104.9	RELLENO_ZANJA	3.407	51.28	2472.2
	ARENA_3	0.174	3.48	418.9				
2320.000	D TIERRA	1.351	50.95	3340.4	ARENA_1	0.112	2.24	262.5
	ARENA_2	0.040	0.80	105.7	RELLENO_ZANJA	1.015	44.22	2516.4
	ARENA_3	0.174	3.48	422.4				
2340.000	D TIERRA	1.357	27.08	3367.5	ARENA_1	0.112	2.24	264.7
	ARENA_2	0.040	0.80	106.5	RELLENO_ZANJA	1.020	20.35	2536.8
	ARENA_3	0.174	3.47	425.9				
2360.000	D TIERRA	1.352	27.09	3394.5	ARENA_1	0.112	2.24	267.0
	ARENA_2	0.040	0.80	107.3	RELLENO_ZANJA	1.016	20.36	2557.2
	ARENA_3	0.174	3.47	429.3				
2380.000	D TIERRA	1.332	26.85	3421.4	ARENA_1	0.112	2.24	269.2
	ARENA_2	0.040	0.80	108.1	RELLENO_ZANJA	0.996	20.12	2577.3
	ARENA_3	0.174	3.48	432.8				
2400.000	D TIERRA	1.220	25.52	3446.9	ARENA_1	0.112	2.24	271.4
	ARENA_2	0.040	0.80	108.9	RELLENO_ZANJA	0.883	18.79	2596.1
	ARENA_3	0.174	3.48	436.3				
2420.000	D TIERRA	1.332	25.52	3472.4	ARENA_1	0.112	2.24	273.7
	ARENA_2	0.040	0.80	109.7	RELLENO_ZANJA	0.996	18.79	2614.9
	ARENA_3	0.174	3.48	439.8				
2440.000	D TIERRA	1.207	25.40	3497.8	ARENA_1	0.112	2.24	275.9
	ARENA_2	0.040	0.80	110.5	RELLENO_ZANJA	0.871	18.67	2633.5
	ARENA_3	0.174	3.48	443.2				
2460.000	D TIERRA	1.333	25.40	3523.2	ARENA_1	0.112	2.24	278.2
	ARENA_2	0.040	0.80	111.3	RELLENO_ZANJA	0.996	18.67	2652.2
	ARENA_3	0.174	3.48	446.7				
2480.000	D TIERRA	1.480	28.13	3551.4	ARENA_1	0.112	2.24	280.4
	ARENA_2	0.040	0.80	112.1	RELLENO_ZANJA	1.144	21.40	2673.6
	ARENA_3	0.174	3.48	450.2				
2500.000	D TIERRA	1.333	28.13	3579.5	ARENA_1	0.112	2.24	282.6
	ARENA_2	0.040	0.80	112.9	RELLENO_ZANJA	0.996	21.40	2695.0
	ARENA_3	0.174	3.48	453.7				
2520.000	D TIERRA	1.333	26.66	3606.2	ARENA_1	0.112	2.24	284.9
	ARENA_2	0.040	0.80	113.7	RELLENO_ZANJA	0.996	19.93	2714.9
	ARENA_3	0.174	3.48	457.1				
2540.000	D TIERRA	1.416	27.49	3633.6	ARENA_1	0.112	2.24	287.1
	ARENA_2	0.040	0.80	114.5	RELLENO_ZANJA	1.079	20.76	2735.7
	ARENA_3	0.174	3.48	460.6				
2560.000	D TIERRA	1.333	27.48	3661.1	ARENA_1	0.112	2.24	289.4
	ARENA_2	0.040	0.80	115.2	RELLENO_ZANJA	0.996	20.75	2756.4
	ARENA_3	0.174	3.48	464.1				

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PERFIL	MATERIAL	AREA PERFIL	VOL. PARCIAL	VOL. ACUMUL.	MATERIAL	AREA PERFIL	VOL. PARCIAL	VOL. ACUMUL.
2580.000	D TIERRA	1.332	26.65	3687.8	ARENA_1	0.112	2.24	291.6
	ARENA_2	0.040	0.80	116.0	RELLENO_ZANJA	0.996	19.92	2776.3
	ARENA_3	0.174	3.48	467.6				
2600.000	D TIERRA	1.332	26.65	3714.4	ARENA_1	0.112	2.24	293.8
	ARENA_2	0.040	0.80	116.8	RELLENO_ZANJA	0.996	19.92	2796.3
	ARENA_3	0.174	3.48	471.0				
2620.000	D TIERRA	1.341	26.73	3741.2	ARENA_1	0.112	2.24	296.1
	ARENA_2	0.040	0.80	117.6	RELLENO_ZANJA	1.004	20.00	2816.3
	ARENA_3	0.174	3.48	474.5				
2640.000	D TIERRA	1.463	28.04	3769.2	ARENA_1	0.112	2.24	298.3
	ARENA_2	0.040	0.80	118.4	RELLENO_ZANJA	1.127	21.31	2837.6
	ARENA_3	0.174	3.48	478.0				
2660.000	D TIERRA	1.338	28.01	3797.2	ARENA_1	0.112	2.24	300.6
	ARENA_2	0.040	0.80	119.2	RELLENO_ZANJA	1.002	21.28	2858.9
	ARENA_3	0.174	3.48	481.5				
2680.000	D TIERRA	1.332	26.70	3823.9	ARENA_1	0.112	2.24	302.8
	ARENA_2	0.040	0.80	120.0	RELLENO_ZANJA	0.996	19.97	2878.8
	ARENA_3	0.174	3.48	484.9				
2700.000	D TIERRA	1.325	26.58	3850.5	ARENA_1	0.112	2.24	305.0
	ARENA_2	0.040	0.80	120.8	RELLENO_ZANJA	0.989	19.85	2898.7
	ARENA_3	0.174	3.48	488.4				
2720.000	D TIERRA	1.411	27.36	3877.8	ARENA_1	0.112	2.24	307.3
	ARENA_2	0.040	0.80	121.6	RELLENO_ZANJA	1.074	20.63	2919.3
	ARENA_3	0.174	3.48	491.9				
2740.000	D TIERRA	1.357	27.67	3905.5	ARENA_1	0.112	2.24	309.5
	ARENA_2	0.040	0.80	122.4	RELLENO_ZANJA	1.020	20.94	2940.3
	ARENA_3	0.174	3.48	495.4				
2760.000	D TIERRA	1.332	26.89	3932.4	ARENA_1	0.112	2.24	311.8
	ARENA_2	0.040	0.80	123.2	RELLENO_ZANJA	0.996	20.16	2960.4
	ARENA_3	0.174	3.48	498.8				
2780.000	D TIERRA	1.397	27.29	3959.7	ARENA_1	0.112	2.24	314.0
	ARENA_2	0.040	0.80	124.0	RELLENO_ZANJA	1.061	20.56	2981.0
	ARENA_3	0.174	3.48	502.3				
2800.000	D TIERRA	2.380	37.77	3997.5	ARENA_1	0.112	2.24	316.2
	ARENA_2	0.040	0.80	124.8	RELLENO_ZANJA	2.043	31.04	3012.0
	ARENA_3	0.174	3.48	505.8				
2803.231	D TIERRA	2.566	7.99	4005.5	ARENA_1	0.112	0.36	316.6
	ARENA_2	0.040	0.13	124.9	RELLENO_ZANJA	2.229	6.90	3018.9
	ARENA_3	0.174	0.56	506.4				
2816.303	D TIERRA	2.417	32.57	4038.0	ARENA_1	0.112	1.46	318.1
	ARENA_2	0.040	0.52	125.4	RELLENO_ZANJA	2.080	28.17	3047.1
	ARENA_3	0.174	2.27	508.6				
2820.000	D TIERRA	1.332	6.93	4045.0	ARENA_1	0.112	0.41	318.5
	ARENA_2	0.040	0.15	125.6	RELLENO_ZANJA	0.996	5.69	3052.8
	ARENA_3	0.174	0.64	509.3				
2840.000	D TIERRA	1.513	28.46	4073.4	ARENA_1	0.112	2.24	320.7
	ARENA_2	0.040	0.80	126.4	RELLENO_ZANJA	1.177	21.73	3074.5
	ARENA_3	0.174	3.48	512.7				
2845.683	D TIERRA	1.410	8.31	4081.7	ARENA_1	0.112	0.64	321.4
	ARENA_2	0.040	0.23	126.6	RELLENO_ZANJA	1.074	6.40	3080.9
	ARENA_3	0.174	0.99	513.7				
2860.000	D TIERRA	1.332	19.63	4101.4	ARENA_1	0.112	1.60	323.0
	ARENA_2	0.040	0.57	127.2	RELLENO_ZANJA	0.996	14.81	3095.7
	ARENA_3	0.174	2.49	516.2				
2867.986	D TIERRA	1.286	10.45	4111.8	ARENA_1	0.112	0.89	323.9
	ARENA_2	0.040	0.32	127.5	RELLENO_ZANJA	0.949	7.77	3103.5
	ARENA_3	0.174	1.39	517.6				
2880.000	D TIERRA	1.270	15.35	4127.2	ARENA_1	0.112	1.35	325.2
	ARENA_2	0.040	0.48	128.0	RELLENO_ZANJA	0.934	11.31	3114.8
	ARENA_3	0.174	2.09	519.7				



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*** MEDICIONES DE LOS PERFILES TRANSVERSALES***
*** CAPAS DE FIRME ***

PERFIL	MATERIAL	AREA PERFIL	VOL. PARCIAL	VOL. ACUMUL.	MATERIAL	AREA PERFIL	VOL. PARCIAL	VOL. ACUMUL.
2900.000	D TIERRA	1.332	26.02	4153.2	ARENA_1	0.112	2.24	327.4
	ARENA_2	0.040	0.80	128.8	RELLENO_ZANJA	0.996	19.29	3134.1
	ARENA_3	0.174	3.48	523.2				
2920.000	D TIERRA	1.332	26.64	4179.8	ARENA_1	0.112	2.24	329.7
	ARENA_2	0.040	0.80	129.6	RELLENO_ZANJA	0.996	19.91	3154.0
	ARENA_3	0.174	3.48	526.6				
2940.000	D TIERRA	1.477	28.09	4207.9	ARENA_1	0.112	2.24	331.9
	ARENA_2	0.040	0.80	130.4	RELLENO_ZANJA	1.141	21.36	3175.4
	ARENA_3	0.174	3.48	530.1				
2960.000	D TIERRA	1.332	28.09	4236.0	ARENA_1	0.112	2.24	334.2
	ARENA_2	0.040	0.80	131.2	RELLENO_ZANJA	0.996	21.36	3196.7
	ARENA_3	0.174	3.48	533.6				
2980.000	D TIERRA	1.500	28.32	4264.3	ARENA_1	0.112	2.24	336.4
	ARENA_2	0.040	0.80	132.0	RELLENO_ZANJA	1.163	21.59	3218.3
	ARENA_3	0.174	3.48	537.1				
3000.000	D TIERRA	1.332	28.32	4292.7	ARENA_1	0.112	2.24	338.6
	ARENA_2	0.040	0.80	132.8	RELLENO_ZANJA	0.996	21.59	3239.9
	ARENA_3	0.174	3.48	540.5				
3020.000	D TIERRA	1.292	26.24	4318.9	ARENA_1	0.112	2.24	340.9
	ARENA_2	0.040	0.80	133.6	RELLENO_ZANJA	0.955	19.51	3259.4
	ARENA_3	0.174	3.48	544.0				
3040.000	D TIERRA	1.283	25.75	4344.7	ARENA_1	0.112	2.24	343.1
	ARENA_2	0.040	0.80	134.3	RELLENO_ZANJA	0.947	19.02	3278.4
	ARENA_3	0.174	3.48	547.5				
3060.000	D TIERRA	1.301	25.84	4370.5	ARENA_1	0.112	2.24	345.4
	ARENA_2	0.040	0.80	135.1	RELLENO_ZANJA	0.965	19.11	3297.6
	ARENA_3	0.174	3.48	551.0				
3080.000	D TIERRA	1.332	26.33	4396.8	ARENA_1	0.112	2.24	347.6
	ARENA_2	0.040	0.80	135.9	RELLENO_ZANJA	0.996	19.60	3317.2
	ARENA_3	0.174	3.48	554.4				
3100.000	D TIERRA	1.332	26.65	4423.5	ARENA_1	0.112	2.24	349.8
	ARENA_2	0.040	0.80	136.7	RELLENO_ZANJA	0.996	19.92	3337.1
	ARENA_3	0.174	3.48	557.9				
3120.000	D TIERRA	1.332	26.65	4450.1	ARENA_1	0.112	2.24	352.1
	ARENA_2	0.040	0.80	137.5	RELLENO_ZANJA	0.996	19.92	3357.0
	ARENA_3	0.174	3.48	561.4				
3140.000	D TIERRA	1.332	26.64	4476.8	ARENA_1	0.112	2.24	354.3
	ARENA_2	0.040	0.80	138.3	RELLENO_ZANJA	0.996	19.91	3376.9
	ARENA_3	0.174	3.48	564.9				
3148.602	D TIERRA	1.477	12.08	4488.9	ARENA_1	0.112	0.96	355.3
	ARENA_2	0.040	0.34	138.7	RELLENO_ZANJA	1.140	9.19	3386.1
	ARENA_3	0.174	1.49	566.4				
3160.000	D TIERRA	1.008	0.00	4488.9	ARENA_1	0.108	0.00	355.3
	ARENA_2	0.037	0.00	138.7	RELLENO_ZANJA	0.697	0.00	3386.1
	ARENA_3	0.154	0.00	566.4				
3180.000	D TIERRA	1.081	20.88	4509.7	ARENA_1	0.108	2.17	357.4
	ARENA_2	0.037	0.74	139.4	RELLENO_ZANJA	0.770	14.68	3400.8
	ARENA_3	0.154	3.08	569.4				
3184.675	D TIERRA	1.039	4.96	4514.7	ARENA_1	0.108	0.51	358.0
	ARENA_2	0.037	0.17	139.6	RELLENO_ZANJA	0.729	3.51	3404.3
	ARENA_3	0.154	0.72	570.2				
3200.000	D TIERRA	1.108	16.45	4531.1	ARENA_1	0.108	1.66	359.6
	ARENA_2	0.037	0.56	140.1	RELLENO_ZANJA	0.798	11.70	3416.0
	ARENA_3	0.154	2.36	572.5				
3220.000	D TIERRA	1.078	21.86	4553.0	ARENA_1	0.108	2.17	361.8
	ARENA_2	0.037	0.73	140.9	RELLENO_ZANJA	0.768	15.66	3431.6
	ARENA_3	0.154	3.08	575.6				
3240.000	D TIERRA	1.026	21.04	4574.1	ARENA_1	0.108	2.17	364.0
	ARENA_2	0.037	0.73	141.6	RELLENO_ZANJA	0.716	14.84	3446.5
	ARENA_3	0.154	3.08	578.7				

PERFIL	MATERIAL	AREA PERFIL	VOL. PARCIAL	VOL. ACUMUL.	MATERIAL	AREA PERFIL	VOL. PARCIAL	VOL. ACUMUL.
3248.197	D TIERRA	1.569	0.00	4574.1	ARENA_1	0.112	0.00	364.0
	ARENA_2	0.040	0.00	141.6	RELLENO_ZANJA	1.232	0.00	3446.5
	ARENA_3	0.174	0.00	578.7				
3260.000	D TIERRA	1.649	18.99	4593.0	ARENA_1	0.112	1.32	365.3
	ARENA_2	0.040	0.47	142.1	RELLENO_ZANJA	1.313	15.02	3461.5
	ARENA_3	0.174	2.05	580.7				
3280.000	D TIERRA	1.313	29.62	4622.7	ARENA_1	0.112	2.24	367.5
	ARENA_2	0.040	0.80	142.9	RELLENO_ZANJA	0.977	22.89	3484.4
	ARENA_3	0.174	3.48	584.2				
3300.000	D TIERRA	1.332	26.45	4649.1	ARENA_1	0.112	2.24	369.8
	ARENA_2	0.040	0.80	143.7	RELLENO_ZANJA	0.996	19.72	3504.1
	ARENA_3	0.174	3.48	587.7				
3320.000	D TIERRA	1.332	26.65	4675.8	ARENA_1	0.112	2.24	372.0
	ARENA_2	0.040	0.80	144.5	RELLENO_ZANJA	0.996	19.92	3524.0
	ARENA_3	0.174	3.48	591.2				
3340.000	D TIERRA	1.332	26.65	4702.4	ARENA_1	0.112	2.24	374.2
	ARENA_2	0.040	0.80	145.3	RELLENO_ZANJA	0.996	19.92	3543.9
	ARENA_3	0.174	3.48	594.6				
3360.000	D TIERRA	1.332	26.64	4729.1	ARENA_1	0.112	2.24	376.5
	ARENA_2	0.040	0.80	146.1	RELLENO_ZANJA	0.996	19.91	3563.9
	ARENA_3	0.174	3.48	598.1				
3378.697	D TIERRA	1.372	25.28	4754.3	ARENA_1	0.112	2.09	378.6
	ARENA_2	0.040	0.74	146.8	RELLENO_ZANJA	1.035	18.99	3582.8
	ARENA_3	0.174	3.25	601.4				
3380.000	D TIERRA	1.079	0.00	4754.3	ARENA_1	0.108	0.00	378.6
	ARENA_2	0.037	0.00	146.8	RELLENO_ZANJA	0.769	0.00	3582.8
	ARENA_3	0.154	0.00	601.4				
3384.767	D TIERRA	1.071	5.12	4759.5	ARENA_1	0.108	0.52	379.1
	ARENA_2	0.037	0.18	147.0	RELLENO_ZANJA	0.761	3.64	3586.5
	ARENA_3	0.154	0.73	602.1				
3400.000	D TIERRA	1.250	17.68	4777.1	ARENA_1	0.108	1.65	380.7
	ARENA_2	0.037	0.56	147.5	RELLENO_ZANJA	0.940	12.95	3599.4
	ARENA_3	0.154	2.35	604.4				
3411.573	D TIERRA	1.273	14.60	4791.7	ARENA_1	0.108	1.26	382.0
	ARENA_2	0.037	0.43	148.0	RELLENO_ZANJA	0.962	11.01	3610.4
	ARENA_3	0.154	1.78	606.2				
3420.000	D TIERRA	1.079	9.91	4801.6	ARENA_1	0.108	0.91	382.9
	ARENA_2	0.037	0.31	148.3	RELLENO_ZANJA	0.769	7.30	3617.7
	ARENA_3	0.154	1.30	607.5				
3432.354	D TIERRA	1.255	14.42	4816.1	ARENA_1	0.108	1.34	384.3
	ARENA_2	0.037	0.45	148.7	RELLENO_ZANJA	0.944	10.58	3628.3
	ARENA_3	0.154	1.90	609.4				
3440.000	D TIERRA	1.060	8.85	4824.9	ARENA_1	0.108	0.83	385.1
	ARENA_2	0.037	0.28	149.0	RELLENO_ZANJA	0.750	6.48	3634.8
	ARENA_3	0.154	1.18	610.6				
3460.000	D TIERRA	1.081	21.41	4846.3	ARENA_1	0.108	2.17	387.3
	ARENA_2	0.037	0.73	149.7	RELLENO_ZANJA	0.771	15.21	3650.0
	ARENA_3	0.154	3.08	613.7				
3461.333	D TIERRA	1.046	1.42	4847.7	ARENA_1	0.108	0.14	387.4
	ARENA_2	0.037	0.05	149.8	RELLENO_ZANJA	0.736	1.00	3651.0
	ARENA_3	0.154	0.21	613.9				
3475.766	D TIERRA	0.939	14.32	4862.1	ARENA_1	0.108	1.57	389.0
	ARENA_2	0.037	0.53	150.3	RELLENO_ZANJA	0.629	9.85	3660.9
	ARENA_3	0.154	2.22	616.1				
3480.000	D TIERRA	1.116	4.35	4866.4	ARENA_1	0.108	0.46	389.4
	ARENA_2	0.037	0.16	150.5	RELLENO_ZANJA	0.805	3.04	3663.9
	ARENA_3	0.154	0.65	616.8				
3500.000	D TIERRA	0.999	21.15	4887.6	ARENA_1	0.108	2.17	391.6
	ARENA_2	0.037	0.73	151.2	RELLENO_ZANJA	0.689	14.94	3678.8
	ARENA_3	0.154	3.08	619.8				

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CIDACOS COMPLETO

*** MEDICIONES DE LOS PERFILES TRANSVERSALES ***
 *** CAPAS DE FIRME ***

PERFIL	MATERIAL	AREA PERFIL	VOL. PARCIAL	VOL. ACUMUL.	MATERIAL	AREA PERFIL	VOL. PARCIAL	VOL. ACUMUL.
3520.000	D TIERRA	1.099	20.98	4908.5	ARENA_1	0.108	2.17	393.8
	ARENA_2	0.037	0.73	151.9	RELLENO_ZANJA	0.788	14.77	3693.6
	ARENA_3	0.154	3.08	622.9				
3525.058	D TIERRA	1.077	5.50	4914.0	ARENA_1	0.108	0.55	394.3
	ARENA_2	0.037	0.19	152.1	RELLENO_ZANJA	0.767	3.93	3697.5
	ARENA_3	0.154	0.78	623.7				
3539.435	D TIERRA	1.049	15.28	4929.3	ARENA_1	0.108	1.56	395.9
	ARENA_2	0.037	0.53	152.7	RELLENO_ZANJA	0.739	10.82	3708.4
	ARENA_3	0.154	2.21	625.9				
3540.000	D TIERRA	1.045	0.59	4929.9	ARENA_1	0.108	0.06	395.9
	ARENA_2	0.037	0.02	152.7	RELLENO_ZANJA	0.735	0.42	3708.8
	ARENA_3	0.154	0.09	626.0				
3550.658	D TIERRA	1.209	12.01	4941.9	ARENA_1	0.108	1.16	397.1
	ARENA_2	0.037	0.39	153.1	RELLENO_ZANJA	0.898	8.71	3717.5
	ARENA_3	0.154	1.64	627.7				
3560.000	D TIERRA	1.157	11.05	4953.0	ARENA_1	0.108	1.01	398.1
	ARENA_2	0.037	0.34	153.4	RELLENO_ZANJA	0.847	8.15	3725.6
	ARENA_3	0.154	1.44	629.1				
3580.000	D TIERRA	1.329	0.00	4953.0	ARENA_1	0.112	0.00	398.1
	ARENA_2	0.040	0.00	153.4	RELLENO_ZANJA	0.992	0.00	3725.6
	ARENA_3	0.174	0.00	629.1				
3600.000	D TIERRA	1.667	29.96	4982.9	ARENA_1	0.112	2.24	400.3
	ARENA_2	0.040	0.80	154.2	RELLENO_ZANJA	1.331	23.23	3748.9
	ARENA_3	0.174	3.47	632.6				
3620.000	D TIERRA	1.378	30.46	5013.4	ARENA_1	0.112	2.24	402.6
	ARENA_2	0.040	0.80	155.0	RELLENO_ZANJA	1.042	23.73	3772.6
	ARENA_3	0.174	3.47	636.0				
3623.168	D TIERRA	1.334	4.30	5017.7	ARENA_1	0.112	0.35	402.9
	ARENA_2	0.040	0.13	155.1	RELLENO_ZANJA	0.998	3.23	3775.8
	ARENA_3	0.174	0.55	636.6				
3640.000	D TIERRA	1.333	22.44	5040.1	ARENA_1	0.112	1.89	404.8
	ARENA_2	0.040	0.67	155.8	RELLENO_ZANJA	0.996	16.78	3792.6
	ARENA_3	0.174	2.92	639.5				
3659.003	D TIERRA	1.280	24.83	5065.0	ARENA_1	0.112	2.13	406.9
	ARENA_2	0.040	0.76	156.6	RELLENO_ZANJA	0.943	18.43	3811.0
	ARENA_3	0.174	3.30	642.8				
3660.000	D TIERRA	1.279	1.28	5066.2	ARENA_1	0.112	0.11	407.1
	ARENA_2	0.040	0.04	156.6	RELLENO_ZANJA	0.942	0.94	3812.0
	ARENA_3	0.174	0.17	643.0				
3678.244	D TIERRA	1.379	24.25	5090.5	ARENA_1	0.112	2.04	409.1
	ARENA_2	0.040	0.73	157.3	RELLENO_ZANJA	1.043	18.11	3830.1
	ARENA_3	0.174	3.17	646.2				
3680.000	D TIERRA	1.379	2.42	5092.9	ARENA_1	0.112	0.20	409.3
	ARENA_2	0.040	0.07	157.4	RELLENO_ZANJA	1.042	1.83	3831.9
	ARENA_3	0.174	0.31	646.5				
3697.196	D TIERRA	1.370	23.63	5116.5	ARENA_1	0.112	1.93	411.2
	ARENA_2	0.040	0.68	158.1	RELLENO_ZANJA	1.033	17.84	3849.8
	ARENA_3	0.174	2.99	649.5				
3700.000	D TIERRA	1.332	3.79	5120.3	ARENA_1	0.112	0.31	411.5
	ARENA_2	0.040	0.11	158.2	RELLENO_ZANJA	0.996	2.84	3852.6
	ARENA_3	0.174	0.49	649.9				
3717.618	D TIERRA	1.115	0.00	5120.3	ARENA_1	0.108	0.00	411.5
	ARENA_2	0.037	0.00	158.2	RELLENO_ZANJA	0.805	0.00	3852.6
	ARENA_3	0.154	0.00	649.9				
3720.000	D TIERRA	1.124	2.67	5123.0	ARENA_1	0.108	0.26	411.8
	ARENA_2	0.037	0.09	158.3	RELLENO_ZANJA	0.814	1.93	3854.5
	ARENA_3	0.154	0.37	650.3				
3731.086	D TIERRA	1.086	12.25	5135.2	ARENA_1	0.108	1.20	413.0
	ARENA_2	0.037	0.41	158.7	RELLENO_ZANJA	0.775	8.81	3863.3
	ARENA_3	0.154	1.71	652.0				

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CIDACOS COMPLETO

*** MEDICIONES DE LOS PERFILES TRANSVERSALES ***
 *** CAPAS DE FIRME ***

PERFIL	MATERIAL	AREA PERFIL	VOL. PARCIAL	VOL. ACUMUL.	MATERIAL	AREA PERFIL	VOL. PARCIAL	VOL. ACUMUL.
3738.481	D TIERRA	1.150	8.27	5143.5	ARENA_1	0.108	0.80	413.8
	ARENA_2	0.037	0.27	159.0	RELLENO_ZANJA	0.840	5.97	3869.3
	ARENA_3	0.154	1.14	653.2				
3740.000	D TIERRA	1.117	1.72	5145.2	ARENA_1	0.108	0.16	414.0
	ARENA_2	0.037	0.06	159.0	RELLENO_ZANJA	0.807	1.25	3870.6
	ARENA_3	0.154	0.23	653.4				
3760.000	D TIERRA	1.079	21.96	5167.2	ARENA_1	0.108	2.17	416.1
	ARENA_2	0.037	0.74	159.7	RELLENO_ZANJA	0.768	15.76	3886.3
	ARENA_3	0.154	3.08	656.5				
3780.000	D TIERRA	1.177	22.56	5189.7	ARENA_1	0.108	2.17	418.3
	ARENA_2	0.037	0.74	160.5	RELLENO_ZANJA	0.867	16.36	3902.7
	ARENA_3	0.154	3.08	659.5				
3795.137	D TIERRA	1.068	16.99	5206.7	ARENA_1	0.108	1.64	419.9
	ARENA_2	0.037	0.56	161.0	RELLENO_ZANJA	0.758	12.30	3915.0
	ARENA_3	0.154	2.33	661.9				
3800.000	D TIERRA	1.208	5.53	5212.3	ARENA_1	0.108	0.53	420.5
	ARENA_2	0.037	0.18	161.2	RELLENO_ZANJA	0.898	4.02	3919.0
	ARENA_3	0.154	0.75	662.6				
3808.925	D TIERRA	1.079	10.20	5222.5	ARENA_1	0.108	0.97	421.4
	ARENA_2	0.037	0.33	161.5	RELLENO_ZANJA	0.768	7.43	3926.4
	ARENA_3	0.154	1.37	664.0				
3820.000	D TIERRA	1.350	0.00	5222.5	ARENA_1	0.112	0.00	421.4
	ARENA_2	0.040	0.00	161.5	RELLENO_ZANJA	1.014	0.00	3926.4
	ARENA_3	0.174	0.00	664.0				
3840.000	D TIERRA	1.332	26.83	5249.3	ARENA_1	0.112	2.24	423.7
	ARENA_2	0.040	0.80	162.3	RELLENO_ZANJA	0.996	20.10	3946.5
	ARENA_3	0.174	3.47	667.5				
3851.941	D TIERRA	1.705	18.13	5267.4	ARENA_1	0.112	1.34	425.0
	ARENA_2	0.040	0.48	162.8	RELLENO_ZANJA	1.369	14.12	3960.7
	ARENA_3	0.174	2.07	669.6				
3860.000	D TIERRA	1.345	12.29	5279.7	ARENA_1	0.112	0.90	425.9
	ARENA_2	0.040	0.32	163.1	RELLENO_ZANJA	1.008	9.58	3970.2
	ARENA_3	0.174	1.40	671.0				
3869.919	D TIERRA	1.335	13.29	5293.0	ARENA_1	0.112	1.11	427.0
	ARENA_2	0.040	0.40	163.5	RELLENO_ZANJA	0.998	9.95	3980.2
	ARENA_3	0.174	1.72	672.7				
3880.000	D TIERRA	1.632	14.96	5308.0	ARENA_1	0.112	1.13	428.2
	ARENA_2	0.040	0.40	163.9	RELLENO_ZANJA	1.296	11.56	3991.7
	ARENA_3	0.174	1.75	674.4				
3883.516	D TIERRA	1.332	5.21	5313.2	ARENA_1	0.112	0.39	428.6
	ARENA_2	0.040	0.14	164.1	RELLENO_ZANJA	0.996	4.03	3995.8
	ARENA_3	0.174	0.61	675.0				
3899.475	D TIERRA	1.335	21.28	5334.5	ARENA_1	0.112	1.79	430.3
	ARENA_2	0.040	0.63	164.7	RELLENO_ZANJA	0.998	15.91	4011.7
	ARENA_3	0.174	2.77	677.8				
3900.000	D TIERRA	1.357	0.71	5335.2	ARENA_1	0.112	0.06	430.4
	ARENA_2	0.040	0.02	164.7	RELLENO_ZANJA	1.020	0.53	4012.2
	ARENA_3	0.174	0.09	677.9				
3912.879	D TIERRA	1.339	17.36	5352.5	ARENA_1	0.112	1.44	431.8
	ARENA_2	0.040	0.51	165.2	RELLENO_ZANJA	1.002	13.03	4025.2
	ARENA_3	0.174	2.24	680.1				
3914.667	D TIERRA	1.483	2.52	5355.0	ARENA_1	0.112	0.20	432.0
	ARENA_2	0.040	0.07	165.3	RELLENO_ZANJA	1.146	1.92	4027.2
	ARENA_3	0.174	0.31	680.4				

Istram 9.04 08/04/20 12:04:18
 PROYECTO :
 EJE : 21: ACOMETIDA BERGASA

CIDACOS COMPLETO

*** RESUMEN DE VOLUMENES TOTALES ***

MATERIAL	VOLUMEN
TERRAPLEN	0.0
D_TIERRA	5355.0
ARENA_1	432.0
ARENA_2	165.3
RELLENO_ZANJA	4027.2
ARENA_3	680.4

22. EJE 22: ACOMETIDA TUDELILLA

Istram 9.04 08/04/20 10:07:07
 PROYECTO :
 EJE : 22: ACOMETIDA TUDELILLA

CIDACOS COMPLETO

*** MEDICIONES DE LOS PERFILES TRANSVERSALES ***
 *** CAPAS DE FIRME ***

PERFIL	MATERIAL	AREA PERFIL	VOL. PARCIAL	VOL. ACUMUL.	MATERIAL	AREA PERFIL	VOL. PARCIAL	VOL. ACUMUL.
0.000	D_TIERRA	1.649	0.00	0.0	ARENA_1	0.115	0.00	0.0
	ARENA_2	0.045	0.00	0.0	RELLENO_ZANJA	1.284	0.00	0.0
	ARENA_3	0.191	0.00	0.0				
20.000	D_TIERRA	1.603	32.53	32.5	ARENA_1	0.115	2.31	2.3
	ARENA_2	0.045	0.91	0.9	RELLENO_ZANJA	1.238	25.22	25.2
	ARENA_3	0.191	3.83	3.8				
20.849	D_TIERRA	1.581	1.35	33.9	ARENA_1	0.115	0.10	2.4
	ARENA_2	0.045	0.04	0.9	RELLENO_ZANJA	1.216	1.04	26.3
	ARENA_3	0.191	0.16	4.0				

Istram 9.04 08/04/20 10:07:07
 PROYECTO :
 EJE : 22: ACOMETIDA TUDELILLA

CIDACOS COMPLETO

*** RESUMEN DE VOLUMENES TOTALES ***

MATERIAL	VOLUMEN
D_TIERRA	33.9
ARENA_1	2.4
ARENA_2	0.9
RELLENO_ZANJA	26.3
ARENA_3	4.0

23. EJE 23: ACOMETIDA VILLAR DE ARNEDO

Istram 9.04 08/04/20 09:43:13
 PROYECTO :
 EJE : 23: ACOMETIDA VILLAR DE ARNEDO

CIDACOS COMPLETO

*** MEDICIONES DE LOS PERFILES TRANSVERSALES ***
 *** CAPAS DE FIRME ***

PERFIL	MATERIAL	AREA PERFIL	VOL. PARCIAL	VOL. ACUMUL.	MATERIAL	AREA PERFIL	VOL. PARCIAL	VOL. ACUMUL.
0.000	D_TIERRA	1.746	0.00	0.0	ARENA_1	0.114	0.00	0.0
	ARENA_2	0.041	0.00	0.0	RELLENO_ZANJA	1.396	0.00	0.0
	ARENA_3	0.184	0.00	0.0				
20.000	D_TIERRA	1.412	31.58	31.6	ARENA_1	0.114	2.28	2.3
	ARENA_2	0.041	0.83	0.8	RELLENO_ZANJA	1.061	24.57	24.6
	ARENA_3	0.184	3.69	3.7				
20.233	D_TIERRA	1.429	0.33	31.9	ARENA_1	0.114	0.03	2.3
	ARENA_2	0.041	0.01	0.8	RELLENO_ZANJA	1.078	0.25	24.8
	ARENA_3	0.184	0.04	3.7				
40.000	D_TIERRA	1.409	28.05	60.0	ARENA_1	0.114	2.25	4.6
	ARENA_2	0.041	0.82	1.7	RELLENO_ZANJA	1.058	21.12	45.9
	ARENA_3	0.184	3.64	7.4				
52.385	D_TIERRA	1.460	17.77	77.7	ARENA_1	0.114	1.41	6.0
	ARENA_2	0.041	0.51	2.2	RELLENO_ZANJA	1.110	13.43	59.4
	ARENA_3	0.184	2.28	9.7				
60.000	D_TIERRA	1.462	11.13	88.9	ARENA_1	0.114	0.87	6.8
	ARENA_2	0.041	0.32	2.5	RELLENO_ZANJA	1.111	8.46	67.8
	ARENA_3	0.184	1.40	11.1				
80.000	D_TIERRA	1.468	29.30	118.2	ARENA_1	0.114	2.28	9.1
	ARENA_2	0.041	0.83	3.3	RELLENO_ZANJA	1.118	22.29	90.1
	ARENA_3	0.184	3.69	14.8				
90.555	D_TIERRA	1.409	15.18	133.3	ARENA_1	0.114	1.20	10.3
	ARENA_2	0.041	0.44	3.8	RELLENO_ZANJA	1.058	11.48	101.6
	ARENA_3	0.184	1.95	16.7				
100.000	D_TIERRA	1.475	13.62	147.0	ARENA_1	0.114	1.08	11.4
	ARENA_2	0.041	0.39	4.1	RELLENO_ZANJA	1.124	10.31	111.9
	ARENA_3	0.184	1.74	18.4				
120.000	D_TIERRA	1.410	28.85	175.8	ARENA_1	0.114	2.28	13.7
	ARENA_2	0.041	0.83	5.0	RELLENO_ZANJA	1.060	21.84	133.7
	ARENA_3	0.184	3.69	22.1				
140.000	D_TIERRA	1.414	28.25	204.1	ARENA_1	0.114	2.28	15.9
	ARENA_2	0.041	0.83	5.8	RELLENO_ZANJA	1.064	21.23	155.0
	ARENA_3	0.184	3.69	25.8				
147.199	D_TIERRA	1.524	10.58	214.6	ARENA_1	0.114	0.82	16.8
	ARENA_2	0.041	0.30	6.1	RELLENO_ZANJA	1.173	8.05	163.0
	ARENA_3	0.184	1.33	27.1				
160.000	D_TIERRA	1.706	20.67	235.3	ARENA_1	0.114	1.46	18.2
	ARENA_2	0.041	0.53	6.6	RELLENO_ZANJA	1.355	16.18	179.2
	ARENA_3	0.184	2.36	29.5				
180.000	D_TIERRA	1.755	34.61	269.9	ARENA_1	0.114	2.28	20.5
	ARENA_2	0.041	0.83	7.5	RELLENO_ZANJA	1.404	27.59	206.8
	ARENA_3	0.184	3.69	33.2				
200.000	D_TIERRA	1.815	35.69	305.6	ARENA_1	0.114	2.28	22.8
	ARENA_2	0.041	0.83	8.3	RELLENO_ZANJA	1.464	28.68	235.5
	ARENA_3	0.184	3.69	36.9				
220.000	D_TIERRA	1.821	36.36	342.0	ARENA_1	0.114	2.28	25.1
	ARENA_2	0.041	0.83	9.1	RELLENO_ZANJA	1.470	29.34	264.8
	ARENA_3	0.184	3.69	40.6				
240.000	D_TIERRA	1.785	36.06	378.0	ARENA_1	0.114	2.28	27.3
	ARENA_2	0.041	0.83	9.9	RELLENO_ZANJA	1.434	29.04	293.9
	ARENA_3	0.184	3.69	44.3				
245.099	D_TIERRA	1.751	9.01	387.0	ARENA_1	0.114	0.58	27.9
	ARENA_2	0.041	0.21	10.2	RELLENO_ZANJA	1.400	7.23	301.1
	ARENA_3	0.184	0.94	45.2				
260.000	D_TIERRA	1.520	24.37	411.4	ARENA_1	0.114	1.70	29.6
	ARENA_2	0.041	0.62	10.8	RELLENO_ZANJA	1.170	19.15	320.2
	ARENA_3	0.184	2.75	47.9				

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 PROYECTO : CIDACOS COMPLETO
 EJE : 23: ACOMETIDA VILLAR DE ARNEDO

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 PROYECTO : CIDACOS COMPLETO
 EJE : 23: ACOMETIDA VILLAR DE ARNEDO

 * * * MEDICIONES DE LOS PERFILES TRANSVERSALES* * *
 * * * CAPAS DE FIRME * * *

 * * * MEDICIONES DE LOS PERFILES TRANSVERSALES* * *
 * * * CAPAS DE FIRME * * *

PERFIL	MATERIAL	AREA PERFIL	VOL. PARCIAL	VOL. ACUMUL.	MATERIAL	AREA PERFIL	VOL. PARCIAL	VOL. ACUMUL.	PERFIL	MATERIAL	AREA PERFIL	VOL. PARCIAL	VOL. ACUMUL.	MATERIAL	AREA PERFIL	VOL. PARCIAL	VOL. ACUMUL.
280.000	D TIERRA	1.409	29.29	440.7	ARENA_1	0.114	2.28	31.9	560.000	D TIERRA	1.347	21.54	884.0	ARENA_1	0.114	1.85	63.8
	ARENA_2	0.041	0.83	11.6	RELLENO_ZANJA	1.058	22.28	342.5		ARENA_2	0.041	0.67	23.2	RELLENO_ZANJA	0.996	15.84	687.6
	ARENA_3	0.184	3.69	51.6						ARENA_3	0.184	3.00	103.3				
300.000	D TIERRA	1.568	29.77	470.5	ARENA_1	0.114	2.28	34.2	580.000	D TIERRA	1.474	28.20	912.2	ARENA_1	0.114	2.28	66.1
	ARENA_2	0.041	0.83	12.4	RELLENO_ZANJA	1.217	22.76	365.3		ARENA_2	0.041	0.83	24.0	RELLENO_ZANJA	1.123	21.19	708.8
	ARENA_3	0.184	3.69	55.3						ARENA_3	0.184	3.69	106.9				
304.438	D TIERRA	1.597	7.02	477.5	ARENA_1	0.114	0.51	34.7	582.972	D TIERRA	1.501	4.42	916.6	ARENA_1	0.114	0.34	66.4
	ARENA_2	0.041	0.18	12.6	RELLENO_ZANJA	1.246	5.47	370.7		ARENA_2	0.041	0.12	24.2	RELLENO_ZANJA	1.150	3.38	712.2
	ARENA_3	0.184	0.82	56.1						ARENA_3	0.184	0.55	107.5				
320.000	D TIERRA	1.665	25.39	502.9	ARENA_1	0.114	1.77	36.5	600.000	D TIERRA	1.595	26.36	943.0	ARENA_1	0.114	1.94	68.4
	ARENA_2	0.041	0.65	13.3	RELLENO_ZANJA	1.315	19.93	390.7		ARENA_2	0.041	0.71	24.9	RELLENO_ZANJA	1.244	20.38	732.6
	ARENA_3	0.184	2.87	59.0						ARENA_3	0.184	3.14	110.6				
340.000	D TIERRA	1.858	35.23	538.1	ARENA_1	0.114	2.28	38.7	610.885	D TIERRA	1.571	17.23	960.2	ARENA_1	0.114	1.24	69.6
	ARENA_2	0.041	0.83	14.1	RELLENO_ZANJA	1.507	28.22	418.9		ARENA_2	0.041	0.45	25.3	RELLENO_ZANJA	1.221	13.41	746.0
	ARENA_3	0.184	3.69	62.7						ARENA_3	0.184	2.01	112.6				
344.823	D TIERRA	1.906	9.08	547.2	ARENA_1	0.114	0.55	39.3	620.000	D TIERRA	1.409	13.58	973.8	ARENA_1	0.114	1.04	70.6
	ARENA_2	0.041	0.20	14.3	RELLENO_ZANJA	1.555	7.38	426.3		ARENA_2	0.041	0.38	25.7	RELLENO_ZANJA	1.058	10.39	756.4
	ARENA_3	0.184	0.89	63.6						ARENA_3	0.184	1.68	114.3				
360.000	D TIERRA	1.996	29.61	576.8	ARENA_1	0.114	1.73	41.0	629.907	D TIERRA	1.499	14.41	988.2	ARENA_1	0.114	1.13	71.8
	ARENA_2	0.041	0.63	14.9	RELLENO_ZANJA	1.646	24.29	450.5		ARENA_2	0.041	0.41	26.1	RELLENO_ZANJA	1.149	10.93	767.3
	ARENA_3	0.184	2.80	66.4						ARENA_3	0.184	1.83	116.2				
380.000	D TIERRA	1.861	38.57	615.4	ARENA_1	0.114	2.28	43.3	640.000	D TIERRA	1.513	15.20	1003.4	ARENA_1	0.114	1.15	72.9
	ARENA_2	0.041	0.83	15.8	RELLENO_ZANJA	1.510	31.56	482.1		ARENA_2	0.041	0.42	26.5	RELLENO_ZANJA	1.162	11.66	779.0
	ARENA_3	0.184	3.69	70.1						ARENA_3	0.184	1.86	118.0				
400.000	D TIERRA	1.734	35.95	651.3	ARENA_1	0.114	2.28	45.6	646.730	D TIERRA	1.500	10.14	1013.5	ARENA_1	0.114	0.77	73.7
	ARENA_2	0.041	0.83	16.6	RELLENO_ZANJA	1.383	28.94	511.0		ARENA_2	0.041	0.28	26.8	RELLENO_ZANJA	1.149	7.78	786.7
	ARENA_3	0.184	3.69	73.8						ARENA_3	0.184	1.24	119.3				
420.000	D TIERRA	1.616	33.50	684.8	ARENA_1	0.114	2.28	47.8	660.000	D TIERRA	1.467	19.69	1033.2	ARENA_1	0.114	1.51	75.2
	ARENA_2	0.041	0.83	17.4	RELLENO_ZANJA	1.265	26.49	537.5		ARENA_2	0.041	0.55	27.4	RELLENO_ZANJA	1.117	15.03	801.8
	ARENA_3	0.184	3.69	77.4						ARENA_3	0.184	2.45	121.7				
440.000	D TIERRA	1.510	31.26	716.1	ARENA_1	0.114	2.28	50.1	680.000	D TIERRA	1.409	28.76	1062.0	ARENA_1	0.114	2.28	77.5
	ARENA_2	0.041	0.83	18.2	RELLENO_ZANJA	1.159	24.25	561.8		ARENA_2	0.041	0.83	28.2	RELLENO_ZANJA	1.058	21.75	823.5
	ARENA_3	0.184	3.69	81.1						ARENA_3	0.184	3.69	125.4				
452.188	D TIERRA	1.482	18.23	734.3	ARENA_1	0.114	1.39	51.5	699.422	D TIERRA	1.383	27.11	1089.1	ARENA_1	0.114	2.21	79.7
	ARENA_2	0.041	0.51	18.7	RELLENO_ZANJA	1.131	13.96	575.7		ARENA_2	0.041	0.80	29.0	RELLENO_ZANJA	1.033	20.30	843.8
	ARENA_3	0.184	2.25	83.4						ARENA_3	0.184	3.58	129.0				
460.000	D TIERRA	1.462	11.50	745.8	ARENA_1	0.114	0.89	52.4	700.000	D TIERRA	1.382	0.80	1089.9	ARENA_1	0.114	0.07	79.7
	ARENA_2	0.041	0.32	19.1	RELLENO_ZANJA	1.112	8.76	584.5		ARENA_2	0.041	0.02	29.0	RELLENO_ZANJA	1.032	0.60	844.4
	ARENA_3	0.184	1.44	84.8						ARENA_3	0.184	0.11	129.1				
480.000	D TIERRA	1.415	28.77	774.6	ARENA_1	0.114	2.28	54.7	720.000	D TIERRA	1.359	27.41	1117.3	ARENA_1	0.114	2.28	82.0
	ARENA_2	0.041	0.83	19.9	RELLENO_ZANJA	1.064	21.76	606.3		ARENA_2	0.041	0.83	29.8	RELLENO_ZANJA	1.008	20.39	864.8
	ARENA_3	0.184	3.69	88.5						ARENA_3	0.184	3.69	132.8				
500.000	D TIERRA	1.361	27.76	802.4	ARENA_1	0.114	2.28	57.0	740.000	D TIERRA	1.408	27.66	1145.0	ARENA_1	0.114	2.28	84.3
	ARENA_2	0.041	0.83	20.7	RELLENO_ZANJA	1.010	20.74	627.0		ARENA_2	0.041	0.83	30.7	RELLENO_ZANJA	1.057	20.65	885.5
	ARENA_3	0.184	3.69	92.2						ARENA_3	0.184	3.69	136.5				
502.149	D TIERRA	1.352	2.92	805.3	ARENA_1	0.114	0.24	57.2	760.000	D TIERRA	1.464	28.71	1173.7	ARENA_1	0.114	2.28	86.6
	ARENA_2	0.041	0.09	20.8	RELLENO_ZANJA	1.001	2.16	629.2		ARENA_2	0.041	0.83	31.5	RELLENO_ZANJA	1.113	21.70	907.2
	ARENA_3	0.184	0.40	92.6						ARENA_3	0.184	3.69	140.1				
520.000	D TIERRA	1.412	24.67	829.9	ARENA_1	0.114	2.03	59.2	777.684	D TIERRA	1.512	26.32	1200.0	ARENA_1	0.114	2.01	88.6
	ARENA_2	0.041	0.74	21.6	RELLENO_ZANJA	1.061	18.41	647.6		ARENA_2	0.041	0.73	32.2	RELLENO_ZANJA	1.162	20.11	927.3
	ARENA_3	0.184	3.29	95.9						ARENA_3	0.184	3.26	143.4				
525.902	D TIERRA	1.410	8.33	838.3	ARENA_1	0.114	0.67	59.9	780.000	D TIERRA	1.515	3.51	1203.5	ARENA_1	0.114	0.26	88.9
	ARENA_2	0.041	0.24	21.8	RELLENO_ZANJA	1.059	6.26	653.8		ARENA_2	0.041	0.10	32.3	RELLENO_ZANJA	1.164	2.69	930.0
	ARENA_3	0.184	1.09	97.0						ARENA_3	0.184	0.43	143.8				
540.000	D TIERRA	1.325	19.28	857.5	ARENA_1	0.114	1.61	61.5	800.000	D TIERRA	1.534	30.49	1234.0	ARENA_1	0.114	2.28	91.1
	ARENA_2	0.041	0.58	22.4	RELLENO_ZANJA	0.975	14.34	668.2		ARENA_2	0.041	0.83	33.2	RELLENO_ZANJA	1.183	23.47	953.4
	ARENA_3	0.184	2.60	99.6						ARENA_3	0.184	3.69	147.5				
543.747	D TIERRA	1.303	4.92	862.5	ARENA_1	0.114	0.43	61.9	820.000	D TIERRA	1.410	29.44	1263.4	ARENA_1	0.114	2.28	93.4
	ARENA_2	0.041	0.16	22.5	RELLENO_ZANJA	0.953	3.61	671.8		ARENA_2	0.041	0.83	34.0	RELLENO_ZANJA	1.059	22.42	975.9
	ARENA_3	0.184	0.69	100.3						ARENA_3	0.184	3.69	151.2				



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PROYECTO : CIDACOS COMPLETO
EJE : 23: ACOMETIDA VILLAR DE ARNEDE

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PROYECTO : CIDACOS COMPLETO
EJE : 23: ACOMETIDA VILLAR DE ARNEDE

*** MEDICIONES DE LOS PERFILES TRANSVERSALES ***
*** CAPAS DE FIRME ***

*** MEDICIONES DE LOS PERFILES TRANSVERSALES ***
*** CAPAS DE FIRME ***

PERFIL	MATERIAL	AREA PERFIL	VOL. PARCIAL	VOL. ACUMUL.	MATERIAL	AREA PERFIL	VOL. PARCIAL	VOL. ACUMUL.
840.000	D TIERRA	1.339	27.48	1290.9	ARENA_1	0.114	2.28	95.7
	ARENA_2	0.041	0.83	34.8	RELLENO_ZANJA	0.988	20.47	996.3
	ARENA_3	0.184	3.69	154.9				
860.000	D TIERRA	1.420	27.59	1318.5	ARENA_1	0.114	2.28	98.0
	ARENA_2	0.041	0.83	35.6	RELLENO_ZANJA	1.069	20.58	1016.9
	ARENA_3	0.184	3.69	158.6				
880.000	D TIERRA	1.413	28.34	1346.8	ARENA_1	0.114	2.28	100.3
	ARENA_2	0.041	0.83	36.5	RELLENO_ZANJA	1.063	21.32	1038.2
	ARENA_3	0.184	3.69	162.3				
900.000	D TIERRA	0.000	0.00	1346.8	ARENA_1	0.000	0.00	100.3
	ARENA_2	0.000	0.00	36.5	RELLENO_ZANJA	0.000	0.00	1038.2
	ARENA_3	0.000	0.00	162.3				
905.596	D TIERRA	0.000	0.00	1346.8	ARENA_1	0.000	0.00	100.3
	ARENA_2	0.000	0.00	36.5	RELLENO_ZANJA	0.000	0.00	1038.2
	ARENA_3	0.000	0.00	162.3				
920.000	D TIERRA	1.402	0.00	1346.8	ARENA_1	0.114	0.00	100.3
	ARENA_2	0.041	0.00	36.5	RELLENO_ZANJA	1.051	0.00	1038.2
	ARENA_3	0.184	0.00	162.3				
924.950	D TIERRA	1.401	6.94	1353.8	ARENA_1	0.114	0.56	100.8
	ARENA_2	0.041	0.21	36.7	RELLENO_ZANJA	1.051	5.20	1043.4
	ARENA_3	0.184	0.91	163.2				
940.000	D TIERRA	1.409	21.15	1374.9	ARENA_1	0.114	1.71	102.5
	ARENA_2	0.041	0.62	37.3	RELLENO_ZANJA	1.058	15.87	1059.3
	ARENA_3	0.184	2.78	166.0				
960.000	D TIERRA	1.361	27.69	1402.6	ARENA_1	0.114	2.28	104.8
	ARENA_2	0.041	0.83	38.1	RELLENO_ZANJA	1.010	20.68	1080.0
	ARENA_3	0.184	3.69	169.6				
969.121	D TIERRA	1.757	14.22	1416.8	ARENA_1	0.114	1.04	105.8
	ARENA_2	0.041	0.38	38.5	RELLENO_ZANJA	1.406	11.02	1091.0
	ARENA_3	0.184	1.68	171.3				
980.000	D TIERRA	1.764	19.15	1436.0	ARENA_1	0.114	1.24	107.1
	ARENA_2	0.041	0.45	39.0	RELLENO_ZANJA	1.413	15.34	1106.3
	ARENA_3	0.184	2.01	173.3				
1000.000	D TIERRA	1.429	31.93	1467.9	ARENA_1	0.114	2.28	109.4
	ARENA_2	0.041	0.83	39.8	RELLENO_ZANJA	1.078	24.91	1131.2
	ARENA_3	0.184	3.69	177.0				
1003.602	D TIERRA	1.340	4.99	1472.9	ARENA_1	0.114	0.41	109.8
	ARENA_2	0.041	0.15	39.9	RELLENO_ZANJA	0.990	3.72	1135.0
	ARENA_3	0.184	0.66	177.7				
1020.000	D TIERRA	1.384	22.33	1495.2	ARENA_1	0.114	1.87	111.6
	ARENA_2	0.041	0.68	40.6	RELLENO_ZANJA	1.033	16.58	1151.6
	ARENA_3	0.184	3.02	180.7				
1026.302	D TIERRA	1.417	8.83	1504.1	ARENA_1	0.114	0.72	112.4
	ARENA_2	0.041	0.26	40.9	RELLENO_ZANJA	1.067	6.62	1158.2
	ARENA_3	0.184	1.16	181.9				
1040.000	D TIERRA	1.420	19.43	1523.5	ARENA_1	0.114	1.56	113.9
	ARENA_2	0.041	0.57	41.5	RELLENO_ZANJA	1.069	14.63	1172.8
	ARENA_3	0.184	2.53	184.4				
1060.000	D TIERRA	1.398	28.18	1551.7	ARENA_1	0.114	2.28	116.2
	ARENA_2	0.041	0.83	42.3	RELLENO_ZANJA	1.048	21.17	1194.0
	ARENA_3	0.184	3.69	188.1				
1080.000	D TIERRA	1.403	28.01	1579.7	ARENA_1	0.114	2.28	118.5
	ARENA_2	0.041	0.83	43.1	RELLENO_ZANJA	1.052	21.00	1215.0
	ARENA_3	0.184	3.69	191.8				
1081.455	D TIERRA	1.412	2.05	1581.7	ARENA_1	0.114	0.17	118.6
	ARENA_2	0.041	0.06	43.2	RELLENO_ZANJA	1.061	1.54	1216.5
	ARENA_3	0.184	0.27	192.0				
1100.000	D TIERRA	1.413	26.20	1607.9	ARENA_1	0.114	2.11	120.8
	ARENA_2	0.041	0.77	43.9	RELLENO_ZANJA	1.063	19.70	1236.2
	ARENA_3	0.184	3.42	195.5				

PERFIL	MATERIAL	AREA PERFIL	VOL. PARCIAL	VOL. ACUMUL.	MATERIAL	AREA PERFIL	VOL. PARCIAL	VOL. ACUMUL.
1119.116	D TIERRA	1.410	26.99	1634.9	ARENA_1	0.114	2.18	122.9
	ARENA_2	0.041	0.79	44.7	RELLENO_ZANJA	1.060	20.29	1256.5
	ARENA_3	0.184	3.52	199.0				
1120.000	D TIERRA	1.342	1.22	1636.1	ARENA_1	0.114	0.10	123.0
	ARENA_2	0.041	0.04	44.8	RELLENO_ZANJA	0.991	0.91	1257.4
	ARENA_3	0.184	0.16	199.1				
1128.764	D TIERRA	1.379	11.92	1648.1	ARENA_1	0.114	1.00	124.0
	ARENA_2	0.041	0.36	45.1	RELLENO_ZANJA	1.028	8.85	1266.2
	ARENA_3	0.184	1.62	200.8				
1140.000	D TIERRA	1.409	15.66	1663.7	ARENA_1	0.114	1.28	125.3
	ARENA_2	0.041	0.47	45.6	RELLENO_ZANJA	1.058	11.72	1278.0
	ARENA_3	0.184	2.07	202.8				
1158.232	D TIERRA	1.628	27.68	1691.4	ARENA_1	0.114	2.08	127.4
	ARENA_2	0.042	0.76	46.4	RELLENO_ZANJA	1.277	21.29	1299.2
	ARENA_3	0.184	3.36	206.2				
1160.000	D TIERRA	1.415	2.69	1694.1	ARENA_1	0.114	0.20	127.6
	ARENA_2	0.042	0.07	46.4	RELLENO_ZANJA	1.064	2.07	1301.3
	ARENA_3	0.184	0.33	206.5				
1180.000	D TIERRA	1.414	28.29	1722.4	ARENA_1	0.113	2.27	129.9
	ARENA_2	0.042	0.83	47.3	RELLENO_ZANJA	1.063	21.27	1322.6
	ARENA_3	0.184	3.68	210.2				
1200.000	D TIERRA	1.422	28.36	1750.7	ARENA_1	0.114	2.27	132.1
	ARENA_2	0.041	0.83	48.1	RELLENO_ZANJA	1.071	21.34	1343.9
	ARENA_3	0.184	3.68	213.9				
1205.259	D TIERRA	2.399	10.05	1760.8	ARENA_1	0.114	0.60	132.7
	ARENA_2	0.042	0.22	48.3	RELLENO_ZANJA	2.048	8.20	1352.1
	ARENA_3	0.184	0.97	214.8				
1220.000	D TIERRA	1.408	28.06	1788.9	ARENA_1	0.114	1.68	134.4
	ARENA_2	0.042	0.61	48.9	RELLENO_ZANJA	1.058	22.89	1375.0
	ARENA_3	0.184	2.71	217.6				
1240.000	D TIERRA	2.104	35.12	1824.0	ARENA_1	0.114	2.28	136.7
	ARENA_2	0.042	0.83	49.8	RELLENO_ZANJA	1.753	28.11	1403.1
	ARENA_3	0.184	3.68	221.2				
1240.000	D TIERRA	1.452	0.00	1824.0	ARENA_1	0.108	0.00	136.7
	ARENA_2	0.037	0.00	49.8	RELLENO_ZANJA	1.142	0.00	1403.1
	ARENA_3	0.154	0.00	221.2				
1244.161	D TIERRA	1.456	6.05	1830.0	ARENA_1	0.108	0.45	137.1
	ARENA_2	0.037	0.15	49.9	RELLENO_ZANJA	1.146	4.76	1407.9
	ARENA_3	0.154	0.64	221.9				
1253.785	D TIERRA	1.040	12.01	1842.0	ARENA_1	0.108	1.04	138.2
	ARENA_2	0.037	0.35	50.3	RELLENO_ZANJA	0.730	9.03	1416.9
	ARENA_3	0.154	1.48	223.4				
1260.000	D TIERRA	1.410	0.00	1842.0	ARENA_1	0.114	0.00	138.2
	ARENA_2	0.041	0.00	50.3	RELLENO_ZANJA	1.059	0.00	1416.9
	ARENA_3	0.184	0.00	223.4				
1274.227	D TIERRA	1.436	20.24	1862.3	ARENA_1	0.114	1.62	139.8
	ARENA_2	0.041	0.59	50.9	RELLENO_ZANJA	1.085	15.25	1432.2
	ARENA_3	0.184	2.62	226.0				
1280.000	D TIERRA	1.408	8.21	1870.5	ARENA_1	0.114	0.66	140.5
	ARENA_2	0.041	0.24	51.1	RELLENO_ZANJA	1.057	6.18	1438.4
	ARENA_3	0.184	1.06	227.0				
1297.257	D TIERRA	1.409	24.30	1894.8	ARENA_1	0.114	1.97	142.4
	ARENA_2	0.041	0.72	51.8	RELLENO_ZANJA	1.058	18.25	1456.6
	ARENA_3	0.184	3.18	230.2				



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PROYECTO : CIDACOS COMPLETO
EJE : 23: ACOMETIDA VILLAR DE ARNEDO

*** RESUMEN DE VOLUMENES TOTALES ***

MATERIAL	VOLUMEN
TERRAPLEN	0.0
D_TIERRA	1894.8
ARENA_1	142.4
ARENA_2	51.8
RELLENO_ZANJA	1456.6
ARENA_3	230.2

24. EJE 24: ACOMETIDA SANTA EULALIA SOMERA

Istram 9.04 11/04/20 12:53:13
PROYECTO : CIDACOS COMPLETO
EJE : 24: ACOMETIDA SANTA ELULALIA SOMERA

*** MEDICIONES DE LOS PERFILES TRANSVERSALES ***
*** CAPAS DE FIRME ***

PERFIL	MATERIAL	AREA PERFIL	VOL. PARCIAL	VOL. ACUMUL.	MATERIAL	AREA PERFIL	VOL. PARCIAL	VOL. ACUMUL.
0.000	D_TIERRA	1.272	0.00	0.0	ARENA_1	0.111	0.00	0.0
	ARENA_2	0.026	0.00	0.0	RELLENO_ZANJA	0.978	0.00	0.0
	ARENA_3	0.153	0.00	0.0				
20.000	D_TIERRA	1.274	25.45	25.5	ARENA_1	0.111	2.22	2.2
	ARENA_2	0.026	0.51	0.5	RELLENO_ZANJA	0.979	19.57	19.6
	ARENA_3	0.153	3.07	3.1				
40.000	D_TIERRA	1.273	25.47	50.9	ARENA_1	0.111	2.22	4.4
	ARENA_2	0.026	0.51	1.0	RELLENO_ZANJA	0.979	19.58	39.2
	ARENA_3	0.153	3.07	6.1				
53.000	D_TIERRA	1.229	16.26	67.2	ARENA_1	0.111	1.44	5.9
	ARENA_2	0.026	0.33	1.4	RELLENO_ZANJA	0.935	12.44	51.6
	ARENA_3	0.153	1.99	8.1				

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PROYECTO : CIDACOS COMPLETO
EJE : 24: ACOMETIDA SANTA ELULALIA SOMERA

*** RESUMEN DE VOLUMENES TOTALES ***

MATERIAL	VOLUMEN
TERRAPLEN	0.0
D_TIERRA	67.2
ARENA_1	5.9
ARENA_2	1.4
RELLENO_ZANJA	51.6
ARENA_3	8.1

MOVIMIENTO DE TIERRAS. ACCESO AL ÁREA DEL AZUD

1. EJE 1: ACCESO AL AZUD

Istram 9.04 19/05/20 13:29:12
 PROYECTO : CIDACOS COMPLETO. ACCESO AL ÁREA DEL AZUD
 EJE : 1: ACCESO AL AZUD

*** MEDICIONES DE LOS PERFILES TRANSVERSALES***

PERFIL	MATERIAL	AREA PERFIL	VOL. PARCIAL	VOL. ACUMUL.	MATERIAL	AREA PERFIL	VOL. PARCIAL	VOL. ACUMUL.
0.000	D_TIERRA	2.057	0.00	0.0				
3.191	D_TIERRA	1.835	6.21	6.2				
14.961	D_TIERRA	9.007	63.80	70.0				
14.961	D_TIERRA	11.935	0.00	70.0				
20.000	D_TIERRA	18.429	76.50	146.5				
21.856	D_TIERRA	21.497	37.05	183.6				
22.000	D_TIERRA	21.759	3.11	186.7				
24.000	D_TIERRA	22.228	43.99	230.7				
26.000	D_TIERRA	25.659	47.89	278.6				
28.000	D_TIERRA	29.115	54.77	333.3				
30.000	D_TIERRA	30.351	59.47	392.8				
32.000	D_TIERRA	31.867	62.22	455.0				
34.000	D_TIERRA	33.796	65.66	520.7				
36.000	D_TIERRA	34.646	68.44	589.1				
38.000	D_TIERRA	35.110	69.76	658.9				
40.000	D_TIERRA	36.597	71.71	730.6				
42.000	D_TIERRA	37.053	73.65	804.2				
44.000	D_TIERRA	39.049	76.10	880.3				
46.000	D_TIERRA	40.206	79.26	959.6				
48.000	D_TIERRA	43.141	83.35	1042.9				
48.886	D_TIERRA	45.296	39.18	1082.1				
60.000	D_TIERRA	54.940	557.01	1639.1				
72.872	D_TIERRA	95.942	971.08	2610.2				
74.000	D_TIERRA	106.015	113.90	2724.1				
76.000	D_TIERRA	123.800	229.81	2953.9				
78.000	D_TIERRA	133.911	257.71	3211.6				
80.000	D_TIERRA	137.927	271.84	3483.5				
82.000	D_TIERRA	135.306	273.23	3756.7				
84.000	D_TIERRA	129.039	264.35	4021.0				
86.000	D_TIERRA	130.170	259.21	4280.3				
86.067	D_TIERRA	130.260	8.72	4289.0				
88.000	D_TIERRA	125.992	247.67	4536.6				
90.000	D_TIERRA	102.262	228.25	4764.9				
92.000	D_TIERRA	74.969	177.23	4942.1				
94.000	D_TIERRA	52.153	127.12	5069.3				
96.000	D_TIERRA	26.513	78.67	5147.9				
98.000	D_TIERRA	2.328	28.84	5176.8	TERRAPLEN	0.588	0.59	0.6
98.572	D_TIERRA	0.677	0.86	5177.6	TERRAPLEN	0.374	0.28	0.9
98.832	D_TIERRA	0.286	0.13	5177.7	TERRAPLEN	0.937	0.17	1.0
98.832	D_TIERRA	0.003	0.00	5177.7	TERRAPLEN	0.937	0.00	1.0
100.000	D_TIERRA	0.000	0.00	5177.7	TERRAPLEN	4.143	2.97	4.0
100.282	D_TIERRA	0.000	0.00	5177.7	TERRAPLEN	4.251	1.18	5.2
100.282	D_TIERRA	0.000	0.00	5177.7	TERRAPLEN	3.372	0.00	5.2
108.086	D_TIERRA	0.000	0.00	5177.7	TERRAPLEN	7.515	42.48	47.7
108.400	D_TIERRA	0.000	0.00	5177.7	TERRAPLEN	11.682	3.01	50.7
110.253	D_TIERRA	0.000	0.00	5177.7	TERRAPLEN	19.590	28.97	79.7

*** RESUMEN DE VOLUMENES TOTALES ***

MATERIAL	VOLUMEN
D_TIERRA	5177.7
TERRAPLEN	79.7

2. EJE 2: INTERSECCIÓN

Istram 9.04 19/05/20 13:29:12
 PROYECTO : CIDACOS COMPLETO. ACCESO AL ÁREA DEL AZUD
 EJE : 2: INTERSECCION

*** MEDICIONES DE LOS PERFILES TRANSVERSALES***

PERFIL	MATERIAL	AREA PERFIL	VOL. PARCIAL	VOL. ACUMUL.	MATERIAL	AREA PERFIL	VOL. PARCIAL	VOL. ACUMUL.
0.000	D_TIERRA	27.028	0.00	0.0	EXCAVA_SANE0	2.162	0.00	0.0
	VEGETAL	5.215	0.00	0.0	TERRAP_SANE0	2.162	0.00	0.0
	TERRAPLEN	10.207	0.00	0.0				
20.000	D_TIERRA	13.329	403.57	403.6	EXCAVA_SANE0	2.328	44.90	44.9
	VEGETAL	4.728	99.44	99.4	TERRAP_SANE0	2.328	44.90	44.9
	TERRAPLEN	12.580	227.87	227.9				
33.142	D_TIERRA	0.000	87.58	491.2	EXCAVA_SANE0	0.000	15.30	60.2
	VEGETAL	3.292	52.70	152.1	TERRAP_SANE0	0.000	15.30	60.2
	TERRAPLEN	22.216	228.65	456.5				
33.142	D_TIERRA	0.000	0.00	491.2	EXCAVA_SANE0	0.000	0.00	60.2
	VEGETAL	2.650	0.00	152.1	TERRAP_SANE0	0.000	0.00	60.2
	TERRAPLEN	19.259	0.00	456.5				
34.067	D_TIERRA	0.000	0.00	491.2	EXCAVA_SANE0	0.000	0.00	60.2
	VEGETAL	2.648	2.45	154.6	TERRAP_SANE0	0.000	0.00	60.2
	TERRAPLEN	19.851	18.09	474.6				
40.000	D_TIERRA	0.000	0.00	491.2	EXCAVA_SANE0	0.000	0.00	60.2
	VEGETAL	2.754	16.02	170.6	TERRAP_SANE0	0.000	0.00	60.2
	TERRAPLEN	19.407	116.46	591.1				
42.868	D_TIERRA	0.000	0.00	491.2	EXCAVA_SANE0	0.000	0.00	60.2
	VEGETAL	2.781	7.94	178.5	TERRAP_SANE0	0.000	0.00	60.2
	TERRAPLEN	19.664	56.03	647.1				
43.005	D_TIERRA	0.000	0.00	491.2	EXCAVA_SANE0	0.000	0.00	60.2
	VEGETAL	2.182	0.34	178.9	TERRAP_SANE0	0.000	0.00	60.2
	TERRAPLEN	14.787	2.36	649.5				
44.873	D_TIERRA	0.000	0.00	491.2	EXCAVA_SANE0	0.000	0.00	60.2
	VEGETAL	2.201	4.09	183.0	TERRAP_SANE0	0.000	0.00	60.2
	TERRAPLEN	14.886	27.71	677.2				
46.880	D_TIERRA	0.000	0.00	491.2	EXCAVA_SANE0	0.000	0.00	60.2
	VEGETAL	2.222	4.44	187.4	TERRAP_SANE0	0.000	0.00	60.2
	TERRAPLEN	15.001	29.99	707.2				
47.058	D_TIERRA	0.000	0.00	491.2	EXCAVA_SANE0	0.000	0.00	60.2
	VEGETAL	2.824	0.45	187.9	TERRAP_SANE0	0.000	0.00	60.2
	TERRAPLEN	20.050	3.12	710.3				
50.000	D_TIERRA	0.000	0.00	491.2	EXCAVA_SANE0	0.000	0.00	60.2
	VEGETAL	2.856	8.35	196.2	TERRAP_SANE0	0.000	0.00	60.2
	TERRAPLEN	20.331	59.40	769.7				
55.084	D_TIERRA	0.000	0.00	491.2	EXCAVA_SANE0	0.000	0.00	60.2
	VEGETAL	2.832	14.46	210.7	TERRAP_SANE0	0.000	0.00	60.2
	TERRAPLEN	19.608	101.52	871.2				
55.084	D_TIERRA	0.000	0.00	491.2	EXCAVA_SANE0	0.000	0.00	60.2
	VEGETAL	3.699	0.00	210.7	TERRAP_SANE0	0.000	0.00	60.2
	TERRAPLEN	24.123	0.00	871.2				
57.498	D_TIERRA	0.000	0.00	491.2	EXCAVA_SANE0	0.000	0.00	60.2
	VEGETAL	3.700	8.93	219.6	TERRAP_SANE0	0.000	0.00	60.2
	TERRAPLEN	23.804	57.85	929.1				
58.000	D_TIERRA	0.000	0.00	491.2	EXCAVA_SANE0	0.000	0.00	60.2
	VEGETAL	3.690	1.85	221.5	TERRAP_SANE0	0.000	0.00	60.2
	TERRAPLEN	23.520	11.88	940.9				
60.000	D_TIERRA	0.000	0.00	491.2	EXCAVA_SANE0	0.000	0.00	60.2
	VEGETAL	3.587	7.28	228.7	TERRAP_SANE0	0.000	0.00	60.2
	TERRAPLEN	22.730	46.25	987.2				
62.000	D_TIERRA	0.000	0.00	491.2	EXCAVA_SANE0	0.000	0.00	60.2
	VEGETAL	3.541	7.13	235.9	TERRAP_SANE0	0.000	0.00	60.2
	TERRAPLEN	23.206	45.94	1033.1				
64.000	D_TIERRA	0.000	0.00	491.2	EXCAVA_SANE0	0.000	0.00	60.2
	VEGETAL	3.252	6.79	242.7	TERRAP_SANE0	0.000	0.00	60.2
	TERRAPLEN	21.527	44.73	1077.8				

Istram 9.04 19/05/20 13:29:12
 PROYECTO : CIDACOS COMPLETO. ACCESO AL ÁREA DEL AZUD
 EJE : 2: INTERSECCION

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 * * * MEDICIONES DE LOS PERFILES TRANSVERSALES * * *
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PERFIL	MATERIAL	AREA PERFIL	VOL. PARCIAL	VOL. ACUMUL.	MATERIAL	AREA PERFIL	VOL. PARCIAL	VOL. ACUMUL.
66.000	D_TIERRA	0.000	0.00	491.2	EXCAVA_SANE0	0.000	0.00	60.2
	VEGETAL	3.180	6.43	249.1	TERRAP_SANE0	0.000	0.00	60.2
	TERRAPLEN	18.519	40.05	1117.9				
66.530	D_TIERRA	0.000	0.00	491.2	EXCAVA_SANE0	0.000	0.00	60.2
	VEGETAL	3.131	1.67	250.8	TERRAP_SANE0	0.000	0.00	60.2
	TERRAPLEN	17.849	9.64	1127.5				
68.000	D_TIERRA	0.000	0.00	491.2	EXCAVA_SANE0	4.363	3.21	63.4
	VEGETAL	2.854	4.40	255.2	TERRAP_SANE0	4.363	3.21	63.4
	TERRAPLEN	15.286	24.35	1151.9				
70.000	D_TIERRA	0.000	0.00	491.2	EXCAVA_SANE0	3.587	7.95	71.4
	VEGETAL	2.600	5.45	260.6	TERRAP_SANE0	3.587	7.95	71.4
	TERRAPLEN	12.101	27.39	1179.3				
70.032	D_TIERRA	0.000	0.00	491.2	EXCAVA_SANE0	3.574	0.11	71.5
	VEGETAL	2.596	0.08	260.7	TERRAP_SANE0	3.574	0.11	71.5
	TERRAPLEN	12.064	0.39	1179.7				

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 * * * MEDICIONES DE LOS ACUERDOS EN LOS CRUCES * * *
 * * * Cubicacion segun distancias compensadas * * *
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PK	EJE AC	MATERIAL	VOL. PARCIAL	MATERIAL	VOL. PARCIAL
50.000	1 IA	D_TIERRA	0.15	TERRAPLEN	62.57
50.000	1 IP	VEGETAL	10.70	TERRAPLEN	60.18

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 * * * RESUMEN DE VOLUMENES TOTALES * * *
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MATERIAL	VOLUMEN
D_TIERRA	491.3
EXCAVA_SANE0	71.5
VEGETAL	271.4
TERRAP_SANE0	71.5
TERRAPLEN	1302.4

FIRMES. ACCESO AL ÁREA DEL AZUD

1. EJE 1: ACCESO AL AZUD

Istram 9.04 26/05/20 13:19:55
 PROYECTO : CIDACOS COMPLETO. ACCESO AL ÁREA DEL AZUD
 EJE : 1: ACCESO AL AZUD

*** MEDICIONES DE LOS PERFILES TRANSVERSALES ***
 *** CAPAS DE FIRME ***

PERFIL	MATERIAL	AREA PERFIL	VOL. PARCIAL	VOL. ACUMUL.	MATERIAL	AREA PERFIL	VOL. PARCIAL	VOL. ACUMUL.
0.000	ZA_ART	1.135	0.00	0.0	MBC_D12	0.204	0.00	0.0
3.191	ZA_ART	1.068	3.51	3.5	MBC_D12	0.202	0.65	0.6
14.961	ZA_ART	1.068	12.57	16.1	MBC_D12	0.202	2.38	3.0
14.961	ZA_ART	1.135	0.00	16.1	MBC_D12	0.204	0.00	3.0
20.000	ZA_ART	1.135	5.72	21.8	MBC_D12	0.204	1.03	4.1
21.856	ZA_ART	1.135	2.11	23.9	MBC_D12	0.204	0.38	4.4
22.000	ZA_ART	1.135	0.16	24.1	MBC_D12	0.204	0.03	4.5
24.000	ZA_ART	1.135	2.27	26.3	MBC_D12	0.204	0.41	4.9
26.000	ZA_ART	1.135	2.27	28.6	MBC_D12	0.204	0.41	5.3
28.000	ZA_ART	1.135	2.27	30.9	MBC_D12	0.204	0.41	5.7
30.000	ZA_ART	1.135	2.27	33.2	MBC_D12	0.204	0.41	6.1
32.000	ZA_ART	1.135	2.27	35.4	MBC_D12	0.204	0.41	6.5
34.000	ZA_ART	1.135	2.27	37.7	MBC_D12	0.204	0.41	6.9
36.000	ZA_ART	1.135	2.27	40.0	MBC_D12	0.204	0.41	7.3
38.000	ZA_ART	1.135	2.27	42.2	MBC_D12	0.204	0.41	7.7
40.000	ZA_ART	1.135	2.27	44.5	MBC_D12	0.204	0.41	8.1
42.000	ZA_ART	1.135	2.27	46.8	MBC_D12	0.204	0.41	8.5
44.000	ZA_ART	1.135	2.27	49.0	MBC_D12	0.204	0.41	8.9
46.000	ZA_ART	1.135	2.27	51.3	MBC_D12	0.204	0.41	9.4
48.000	ZA_ART	1.135	2.27	53.6	MBC_D12	0.204	0.41	9.8
48.886	ZA_ART	1.135	1.01	54.6	MBC_D12	0.204	0.18	9.9
60.000	ZA_ART	1.135	12.62	67.2	MBC_D12	0.204	2.27	12.2
72.872	ZA_ART	1.135	14.61	81.8	MBC_D12	0.204	2.62	14.8
74.000	ZA_ART	1.135	1.28	83.1	MBC_D12	0.204	0.23	15.1
76.000	ZA_ART	1.135	2.27	85.4	MBC_D12	0.204	0.41	15.5
78.000	ZA_ART	1.135	2.27	87.6	MBC_D12	0.204	0.41	15.9
80.000	ZA_ART	1.135	2.27	89.9	MBC_D12	0.204	0.41	16.3
82.000	ZA_ART	1.135	2.27	92.2	MBC_D12	0.204	0.41	16.7
84.000	ZA_ART	1.135	2.27	94.5	MBC_D12	0.204	0.41	17.1
86.000	ZA_ART	1.135	2.27	96.7	MBC_D12	0.204	0.41	17.5
86.067	ZA_ART	1.136	0.08	96.8	MBC_D12	0.204	0.01	17.5
88.000	ZA_ART	1.135	2.19	99.0	MBC_D12	0.204	0.39	17.9
90.000	ZA_ART	1.135	2.27	101.3	MBC_D12	0.204	0.41	18.3
92.000	ZA_ART	1.136	2.27	103.5	MBC_D12	0.204	0.41	18.7
94.000	ZA_ART	1.135	2.27	105.8	MBC_D12	0.204	0.41	19.1
96.000	ZA_ART	1.135	2.27	108.1	MBC_D12	0.204	0.41	19.5
98.000	ZA_ART	1.135	2.27	110.4	MBC_D12	0.204	0.41	19.9
98.572	ZA_ART	1.135	0.65	111.0	MBC_D12	0.204	0.12	20.1
98.832	ZA_ART	1.135	0.30	111.3	MBC_D12	0.204	0.05	20.1
98.832	ZA_ART	1.068	0.00	111.3	MBC_D12	0.202	0.00	20.1
100.000	ZA_ART	1.068	1.25	112.5	MBC_D12	0.202	0.24	20.4
100.282	ZA_ART	1.067	0.30	112.8	MBC_D12	0.202	0.06	20.4
100.282	ZA_ART	1.000	0.00	112.8	MBC_D12	0.200	0.00	20.4
108.086	ZA_ART	1.000	7.80	120.6	MBC_D12	0.200	1.56	22.0
108.400	ZA_ART	1.067	0.32	121.0	MBC_D12	0.202	0.06	22.0
110.253	ZA_ART	1.135	2.04	123.0	MBC_D12	0.204	0.38	22.4

*** RESUMEN DE VOLUMENES TOTALES ***

MATERIAL	VOLUMEN
ZA_ART	123.0
MBC_D12	22.4

2. EJE 2: INTERSECCIÓN

Istram 9.04 26/05/20 13:19:55
 PROYECTO : CIDACOS COMPLETO. ACCESO AL ÁREA DEL AZUD
 EJE : 2: INTERSECCION

*** MEDICIONES DE LOS PERFILES TRANSVERSALES ***
 *** CAPAS DE FIRME ***

PERFIL	MATERIAL	AREA PERFIL	VOL. PARCIAL	VOL. ACUMUL.	MATERIAL	AREA PERFIL	VOL. PARCIAL	VOL. ACUMUL.
0.000	MBC_D12	1.131	0.00	0.0	ZA_ART	0.204	0.00	0.0
20.000	MBC_D12	1.132	22.63	22.6	ZA_ART	0.204	4.07	4.1
33.142	MBC_D12	1.131	14.87	37.5	ZA_ART	0.204	2.68	6.8
33.142	MBC_D12	1.068	0.00	37.5	ZA_ART	0.202	0.00	6.8
34.067	MBC_D12	1.068	0.99	38.5	ZA_ART	0.202	0.19	6.9
40.000	MBC_D12	1.068	6.33	44.8	ZA_ART	0.202	1.20	8.1
42.868	MBC_D12	1.068	3.06	47.9	ZA_ART	0.202	0.58	8.7
43.005	MBC_D12	0.568	0.11	48.0	ZA_ART	0.102	0.02	8.7
44.873	MBC_D12	0.568	1.06	49.1	ZA_ART	0.102	0.19	8.9
46.880	MBC_D12	0.568	1.14	50.2	ZA_ART	0.102	0.20	9.1
47.058	MBC_D12	1.068	0.15	50.3	ZA_ART	0.202	0.03	9.2
50.000	MBC_D12	1.068	3.14	53.5	ZA_ART	0.202	0.59	9.8
55.084	MBC_D12	1.068	5.43	58.9	ZA_ART	0.202	1.03	10.8
55.084	MBC_D12	1.131	0.00	58.9	ZA_ART	0.204	0.00	10.8
57.498	MBC_D12	1.132	2.73	61.6	ZA_ART	0.204	0.49	11.3
58.000	MBC_D12	1.132	0.57	62.2	ZA_ART	0.204	0.10	11.4
60.000	MBC_D12	1.131	2.26	64.5	ZA_ART	0.204	0.41	11.8
62.000	MBC_D12	1.131	2.26	66.7	ZA_ART	0.204	0.41	12.2
64.000	MBC_D12	1.132	2.26	69.0	ZA_ART	0.204	0.41	12.6
66.000	MBC_D12	1.131	2.26	71.3	ZA_ART	0.204	0.41	13.0
66.530	MBC_D12	1.131	0.60	71.9	ZA_ART	0.204	0.11	13.1
68.000	MBC_D12	1.131	1.66	73.5	ZA_ART	0.204	0.30	13.4
70.000	MBC_D12	1.131	2.26	75.8	ZA_ART	0.204	0.41	13.8
70.032	MBC_D12	1.131	0.04	75.8	ZA_ART	0.204	0.01	13.8

*** MEDICIONES DE LOS ACUERDOS EN LOS CRUCES ***
 *** Cubicacion segun distancias compensadas ***

PK	EJE AC	MATERIAL	VOL. PARCIAL	MATERIAL	VOL. PARCIAL
50.000	1 IA	MBC_D12	5.46	ZA_ART	0.93
50.000	1 IP	MBC_D12	3.81	ZA_ART	0.63

*** RESUMEN DE VOLUMENES TOTALES ***

MATERIAL	VOLUMEN
MBC_D12	85.1
ZA_ART	15.4

**MOVIMIENTO DE TIERRAS.
EXPLANADA DEL ÁREA DE PRETRATAMIENTO**

1. EJE 1: EJE ESTE - OESTE

Istram 9.04 07/05/20 15:16:32

 PROYECTO : CIDACOS COMPLETO. EXPLANADA DEL ÁREA DE PRETRATAMIENTO
 EJE : 1:

* * * MEDICIONES DE LOS PERFILES TRANSVERSALES* * *

PERFIL	MATERIAL	AREA PERFIL	VOL. PARCIAL	VOL. ACUMUL.	MATERIAL	AREA PERFIL	VOL. PARCIAL	VOL. ACUMUL.
0.000	TERRAPLEN	75.201	0.00	0.0				
0.001	TERRAPLEN	75.198	0.08	0.1				
5.000	D_TIERRA	0.117	0.29	0.3	TERRAPLEN	64.629	349.50	349.6
10.000	D_TIERRA	3.775	9.73	10.0	TERRAPLEN	56.837	303.66	653.2
13.305	D_TIERRA	7.396	18.46	28.5	TERRAPLEN	51.114	178.39	831.6
15.000	D_TIERRA	5.997	11.35	39.8	TERRAPLEN	48.360	84.30	915.9
20.000	D_TIERRA	1.931	19.82	59.7	TERRAPLEN	44.643	232.51	1148.4
25.000	D_TIERRA	1.566	8.74	68.4	TERRAPLEN	41.230	214.68	1363.1
29.045	D_TIERRA	0.380	3.94	72.3	TERRAPLEN	38.129	160.50	1523.6

* * * RESUMEN DE VOLUMENES TOTALES * * *

MATERIAL	VOLUMEN
D_TIERRA	72.3
TERRAPLEN	1523.6

2. EJE 2: EJE SUR - NORTE

Istram 9.04 07/05/20 15:16:28

 PROYECTO : CIDACOS COMPLETO. EXPLANADA DEL ÁREA DE PRETRATAMIENTO
 EJE : 2:

* * * MEDICIONES DE LOS PERFILES TRANSVERSALES* * *

PERFIL	MATERIAL	AREA PERFIL	VOL. PARCIAL	VOL. ACUMUL.	MATERIAL	AREA PERFIL	VOL. PARCIAL	VOL. ACUMUL.
0.000	TERRAPLEN	125.021	0.00	0.0				
5.000	TERRAPLEN	100.810	564.58	564.6				
10.000	TERRAPLEN	73.347	435.39	1000.0				
14.805	D_TIERRA	0.682	1.64	1.6	TERRAPLEN	43.564	280.88	1280.8
15.000	D_TIERRA	1.079	0.17	1.8	TERRAPLEN	42.763	8.42	1289.3
20.000	D_TIERRA	5.968	17.62	19.4	TERRAPLEN	19.529	155.73	1445.0
24.001	D_TIERRA	12.958	37.86	57.3	TERRAPLEN	6.272	51.62	1496.6

* * * RESUMEN DE VOLUMENES TOTALES * * *

MATERIAL	VOLUMEN
D_TIERRA	57.3
TERRAPLEN	1496.6



MOVIMIENTO DE TIERRAS. ACCESO A LA ETAP

1. EJE 1: ACCESO A LA ETAP

Istram 9.04 12/06/20 10:13:09 721
 PROYECTO : SISTEMA CIDACOS
 EJE : 1: ACCESO A ETAP CIDACOS

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* * * MEDICIONES DE LOS PERFILES TRANSVERSALES* * *

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PERFIL	MATERIAL	AREA PERFIL	VOL. PARCIAL	VOL. ACUMUL.	MATERIAL	AREA PERFIL	VOL. PARCIAL	VOL. ACUMUL.
0.000	D_TIERRA	1.324	0.00	0.0				
0.570	D_TIERRA	1.312	0.75	0.8				
11.764	D_TIERRA	5.740	39.47	40.2				
11.764	D_TIERRA	8.721	0.00	40.2				
18.200	D_TIERRA	12.953	69.75	110.0				
18.200	D_TIERRA	15.998	0.00	110.0				
20.000	D_TIERRA	17.653	30.29	140.3				
22.124	D_TIERRA	16.736	36.52	176.8				
30.000	D_TIERRA	12.309	114.38	291.2				
39.519	D_TIERRA	7.655	95.02	386.2				
40.000	D_TIERRA	7.156	3.56	389.7				
41.730	D_TIERRA	5.304	10.78	400.5				

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* * * RESUMEN DE VOLUMENES TOTALES * * *

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MATERIAL	VOLUMEN
D_TIERRA	400.5
TERRAPLEN	0.0



FIRMES. ACCESO A LA ETAP

1. EJE 1: ACCESO A LA ETAP

Istram 9.04 12/06/20 10:13:09 721
 PROYECTO : SISTEMA CIDACOS
 EJE : 1: ACCESO A ETAP CIDACOS

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 * * * MEDICIONES DE LOS PERFILES TRANSVERSALES* * *
 * * * CAPAS DE FIRME * * *
 =====

PERFIL	MATERIAL	AREA PERFIL	VOL. PARCIAL	VOL. ACUMUL.	MATERIAL	AREA PERFIL	VOL. PARCIAL	VOL. ACUMUL.
0.000	ZA_ART	1.318	0.00	0.0	MBC_D12	0.252	0.00	0.0
0.570	ZA_ART	1.250	0.73	0.7	MBC_D12	0.250	0.14	0.1
11.764	ZA_ART	1.250	13.99	14.7	MBC_D12	0.250	2.80	2.9
11.764	ZA_ART	1.318	0.00	14.7	MBC_D12	0.252	0.00	2.9
18.200	ZA_ART	1.318	8.48	23.2	MBC_D12	0.252	1.62	4.6
18.200	ZA_ART	1.385	0.00	23.2	MBC_D12	0.254	0.00	4.6
20.000	ZA_ART	1.385	2.49	25.7	MBC_D12	0.254	0.46	5.0
22.124	ZA_ART	1.385	2.94	28.6	MBC_D12	0.254	0.54	5.6
30.000	ZA_ART	1.385	10.91	39.6	MBC_D12	0.254	2.00	7.6
39.519	ZA_ART	1.385	13.19	52.7	MBC_D12	0.254	2.42	10.0
40.000	ZA_ART	1.385	0.67	53.4	MBC_D12	0.254	0.12	10.1
41.730	ZA_ART	1.385	2.40	55.8	MBC_D12	0.254	0.44	10.5

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 * * * RESUMEN DE VOLUMENES TOTALES * * *
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MATERIAL	VOLUMEN
ZA_ART	55.8
MBC_D12	10.5



MEDICIONES GENERALES

MEDICIONES

ABASTECIMIENTO A VARIOS MUNICIPIOS DE LA RIOJA. SISTEMA CIDACOS

CÓDIGO	RESUMEN	UDS	LONGITUD	ANCHURA	ALTURA	PARCIALES	CANTIDAD
CAPÍTULO 01 CAPTACIÓN (AZUD) Y CONDUCCIÓN A ETAP							
SUBCAPÍTULO 01.01 OBRA CIVIL CAPTACIÓN							
APARTADO 01.01.01 AZUD							
001	M3 EXCAVACIÓN A CIELO ABIERTO						
	Excavación a cielo abierto en todo tipo de terrenos incluido terrenos en roca, incluso agotamiento y transporte a lugar de empleo o vertedero.						
	Azud de toma						
	P0 a P1	1	10,00	65,88			658,80
	P1 a P2	1	10,00	111,94			1.119,40
	P2 a P3	1	10,00	92,11			921,10
	P3 a P4	1	10,00	80,90			809,00
	P4 a P5	1	10,00	58,64			586,40
	P5 a P6	1	10,00	68,95			689,50
	P6 a P7	1	3,95	45,16			178,38
	Toma de agua	1	4,00	26,62			106,48
	Adecuación salida azud						
	P0 a PI	1	20,00	144,58			2.891,60
	PI a PII	1	20,00	114,04			2.280,80
	PII a PIII	1	20,00	99,34			1.986,80
	PIII a PIV	1	20,00	100,61			2.012,20
	PIV a PV	1	31,10	48,13			1.496,84
							15.737,30
028	M3 HORMIGÓN DE LIMPIEZA HL-150						
	Hormigón de limpieza HL-150, de consistencia plástica, árido de tamaño máximo 40 mm y cemento CEM-II-D/42,5/SR, para saneos y encachados, incluyendo fabricación y transporte totalmente colocado.						
		1	16,50	2,60	0,10		4,29
		1	6,00	2,20	0,10		1,32
							5,61
030	M3 HORMIGÓN HNE-20/B/40						
	Hormigón HNE-20/B/40, con cemento CEM II/A-D/42,5/SR (UNE 80303:96), en masa o ligeramente armado, colocado en cualquier tipo de obra, incluso fabricación, carga y transporte, totalmente colocado.						
	Azud de toma						
	De P-0 a P-0+5m	1	5,00	28,80			144,00
	De P-0+5m a P-1	1	5,00	39,92			199,60
	De P-1 a P-2	1	10,00	39,92			399,20
	De P-2 a P-3	1	10,00	39,92			399,20
	De P-3 a P-4	1	10,00	39,80			398,00
	De P-4 a P-5	1	10,00	39,67			396,70
	De P-5 a P-5+5m	1	5,00	39,67			198,35
	De P-5+5m a P-6	1	5,00	57,59			287,95
	De P-6 a P-7	1	3,95	28,80			113,76
							2.536,76
031	M3 HORMIGÓN HA-25/B/20/IIa						
	Hormigón HA-25/B/20/IIa, con cemento CEM II/A-D/42,5/SR, incluyendo fabricación, transporte, puesta en obra y vibrado, totalmente ejecutado, incluso curado y juntas.						
	Obra de toma	1	6,00	5,20	0,50		15,60
		1	6,00	2,50	0,30		4,50
	Muros	1	6,00	1,71	0,30		3,08
		1	1,90	3,30	0,30		1,88
		1	2,70	3,60	0,50		4,86
		1	13,12	3,60	0,50		23,62
		1	2,65	3,60	0,50		4,77
		1	3,00	3,60	0,50		5,40
							63,71
023	KG ACERO CORRUGADO B-500-S						
	Acero redondo corrugado para armar tipo B-500-S elaborado y colocado.						

MEDICIONES

ABASTECIMIENTO A VARIOS MUNICIPIOS DE LA RIOJA. SISTEMA CIDACOS

CÓDIGO	RESUMEN	UDS	LONGITUD	ANCHURA	ALTURA	PARCIALES	CANTIDAD
	Arqueta entrada	1	2,20	1,60			3,52
		80	6,00	2,50	0,30		360,00
	Muros	90	6,00	1,71	0,30		277,02
		90	1,90	3,30	0,30		169,29
		90	2,70	3,60	0,50		437,40
		90	13,12	3,60	0,50		2.125,44
		90	2,65	3,60	0,50		429,30
		90	3,00	3,60	0,50		486,00
							5.532,45
025	M2 ENCOFRADO RECTO EN PARAMENTOS OCULTOS						
	Encofrado recto en paramentos ocultos, incluso colocación, fijación y desencofrado.						
	Azud de toma						
	P-0+5 m	1	57,59				57,59
	P-2	1	39,92				39,92
	P-3+5m	1	39,92				39,92
	P-5+5m	1	57,59				57,59
	Obra de toma						
		2	6,00		0,50		6,00
		2	5,20		0,50		5,20
		2	6,00		0,30		3,60
		2	2,50		0,30		1,50
							211,32
026	M2 ENCOFRADO RECTO EN PARAMENTOS VISTOS 1C						
	Encofrado recto en paramentos vistos a una cara, incluso colocación, fijación y desencofrado.						
	Azud de toma						
	Aguas arriba						
	De P-0 a P-0+5m	1	5,00	4,50			22,50
	De P-0+5m a P-1	1	5,00	2,29			11,45
	De P-1 a P-2	1	10,00	2,29			22,90
	De P-2 a P-3	1	10,00	2,29			22,90
	De P-3 a P-4	1	10,00	2,19			21,90
	De P-4 a P-5	1	10,00	2,09			20,90
	De P-5 a P-5+5m	1	5,00	2,19			10,95
	De P-5+5m a P-6	1	5,00	9,00			45,00
	De P-6 a P-7	1	3,95	4,50			17,78
	Aguas abajo						
	De P-0 a P-0+5m	1	5,00	5,04			25,20
	De P-0+5m a P-1	1	5,00	3,71			18,55
	De P-1 a P-2	1	10,00	3,71			37,10
	De P-2 a P-3	1	10,00	3,71			37,10
	De P-3 a P-4	1	10,00	3,71			37,10
	De P-4 a P-5	1	10,00	3,71			37,10
	De P-5 a P-5+5m	1	5,00	3,71			18,55
	De P-5+5m a P-6	1	5,00	10,07			50,35
	De P-6 a P-7	1	3,95	5,04			19,91
	Obra de toma						
		2	6,00	1,71			20,52
		2	1,90	3,30			12,54
		2	2,70	3,60			19,44
		2	13,12	3,60			94,46
		2	2,65	3,60			19,08
		2	3,00	3,60			21,60
							664,88
027	M2 ENCOFRADO CURVO EN PARAMENTOS VISTOS						
	Encofrado curvo en paramentos vistos, incluso colocación, fijación y desencofrado.						
	Azud de toma						
	De P-0+5m a P-1	1	5,00	13,52			67,60
	De P-1 a P-2	1	10,00	13,52			135,20
	De P-2 a P-3	1	10,00	13,52			135,20

MEDICIONES

ABASTECIMIENTO A VARIOS MUNICIPIOS DE LA RIOJA. SISTEMA CIDACOS

CÓDIGO	RESUMEN	UDS	LONGITUD	ANCHURA	ALTURA	PARCIALES	CANTIDAD
	Arqueta entrada	1	2,20	1,60		3,52	
	De P-4 a P-5	1	10,00	13,47		134,70	
	De P-5 a P-5+5m	1	5,00	13,47		67,35	
							675,05
052	ML JUNTAS DE ESTANQUEIDAD DE PVC 32 CM Junta de trabajo interior de policloruro de vinilo (PVC) 100% virgen, con una fuerza máxima de dilatación > 250 % , de 32 cm de ancho, MASTERFLEX 2000 TI-24 de BASF o equivalente, colocada simétricamente en el eje de la losa o muro, incluso solapas y piezas especiales para cruces o ángulos. Medida la longitud ejecutada. Azud de toma						
	P-0+5m	1	10,00			10,00	
	P-2	1	6,70			6,70	
	P-3+5m	1	6,70			6,70	
	P-5+5m	1	10,00			10,00	
	Longitudinal	1	50,00			50,00	
							83,40
015	M3 ESCOLLERA D50 = 0,65 m Escollera caliza media de D50 = 0,65 m colocada en protección de cauces, incluido suministro y preparación de la superficie de apoyo, perfectamente rasanteada y terminada.						
		1	24,80	5,00	2,50	310,00	
		1	65,00	5,00	2,50	812,50	
							1.122,50
020	KG ACERO S 275 J PERFILES LAMINADOS Acero S 275 J en perfiles laminados elaborado y colocado.						
	Pilares	6	5,20	61,30		1.912,56	
	Vigas	3	10,80	61,30		1.986,12	
		3	3,00	61,30		551,70	
							4.450,38
365	ML CERRAMIENTO METÁLICO 2 m ALTURA Cerramiento metálico con malla plastificada S.T 50/17 de 2,00 m de altura, incluida p.p. de cimentación, postes intermedios, esquinas, tornapuntas, tripodes, alambres guías y tensores, puertas de acceso y elementos especiales, totalmente colocada.						
		1	161,00			161,00	
							161,00
APARTADO 01.01.02 ESCALA DE PECES							
028	M3 HORMIGÓN DE LIMIPEZA HL-150 Hormigón de limpieza HL-150, de consistencia plástica, árido de tamaño máximo 40 mm y cemento CEM-II-D/42,5/SR, para saneos y encachados, incluyendo fabricación y transporte totalmente colocado.						
		1	5,70	2,60	0,10	1,48	
		1	7,60	2,60	0,10	1,98	
							3,46
030	M3 HORMIGÓN HNE-20/B/40 Hormigón HNE-20/B/40, con cemento CEM III/A-D/42,5/SR (UNE 80303:96), en masa o ligeramente armado, colocado en cualquier tipo de obra, incluso fabricación, carga y transporte, totalmente colocado.						
	Base	1	2,60	14,20		36,92	
							36,92
031	M3 HORMIGÓN HA-25/B/20/IIa Hormigón HA-25/B/20/IIa, con cemento CEM II/A-D/42,5/SR, incluyendo fabricación, transporte, puesta en obra y vibrado, totalmente ejecutado, incluso curado y juntas.						
	Cimiento	1	5,70	2,60	0,50	7,41	
		1	7,60	2,60	0,50	9,88	
	Solera	1	3,50	2,60	0,30	2,73	
		1	22,20	2,60	0,30	17,32	
	Muros	2	3,50	3,25	0,30	6,83	

MEDICIONES

ABASTECIMIENTO A VARIOS MUNICIPIOS DE LA RIOJA. SISTEMA CIDACOS

CÓDIGO	RESUMEN	UDS	LONGITUD	ANCHURA	ALTURA	PARCIALES	CANTIDAD
	Arqueta entrada	1	2,20	1,60		3,52	
		2	22,20	2,45	0,30	32,63	
		11	1,65	2,00	0,20	7,26	
							86,60
023	KG ACERO CORRUGADO B-500-S Acero redondo corrugado para armar tipo B-500-S elaborado y colocado.						
	Cimiento	80	5,70	2,60	0,50	592,80	
		80	7,60	2,60	0,50	790,40	
	Solera	80	3,50	2,60	0,30	218,40	
		80	22,20	2,60	0,30	1.385,28	
	Muros	180	3,50	3,25	0,30	614,25	
		90	2,60	3,25	0,30	228,15	
		90	22,20	2,45	0,30	1.468,53	
		990	1,65	2,00	0,20	653,40	
							5.951,21
025	M2 ENCOFRADO RECTO EN PARAMENTOS OCULTOS Encofrado recto en paramentos ocultos, incluso colocación, fijación y desencofrado.						
		2	5,70	0,50		5,70	
		2	2,60	0,50		2,60	
		2	7,60	0,50		7,60	
		2	2,60	0,50		2,60	
		2	3,50	0,30		2,10	
		2	2,60	0,30		1,56	
		2	2,20	0,30		1,32	
							23,48
026	M2 ENCOFRADO RECTO EN PARAMENTOS VISTOS 1C Encofrado recto en paramentos vistos a una cara, incluso colocación, fijación y desencofrado.						
	Muros	4	3,50	3,25		45,50	
		2	2,60	3,25		16,90	
		4	22,20	2,45		217,56	
		22	1,65	2,00		72,60	
							352,56
APARTADO 01.01.03 CANAL							
003	M3 EXCAVACIÓN EN ZANJAS CON AGOTAMIENTO Excavación en zanjas y zonas localizadas, en todo tipo de terrenos incluido terrenos en roca con medios mecánicos, incluso rasanteo, nivelación de la superficie de apoyo, agotamiento y transporte a lugar de empleo o vertedero.						
	Canal	1	97,00	4,56	1,72	760,79	
							760,79
010	M3 RELLENO ZANJAS, CIMIENTOS Y TRASDOSES DE MATERIAL SELECCIONADO Relleno con material seleccionado en zanjas, cimientos, trasdós de muros, estribos y otras estructuras procedente de la excavación o préstamos incluso carga, transporte y compactación.						
		1	760,79			760,79	
		-1	97,00	1,70	1,72	-283,63	
							477,16
028	M3 HORMIGÓN DE LIMIPEZA HL-150 Hormigón de limpieza HL-150, de consistencia plástica, árido de tamaño máximo 40 mm y cemento CEM-II-D/42,5/SR, para saneos y encachados, incluyendo fabricación y transporte totalmente colocado.						
		1	97,00	1,70	0,10	16,49	
		1	5,50	4,00	0,10	2,20	
							18,69
031	M3 HORMIGÓN HA-25/B/20/IIa Hormigón HA-25/B/20/IIa, con cemento CEM III/A-D/42,5/SR, incluyendo fabricación, transporte, puesta en obra y vibrado, totalmente ejecutado, incluso curado y juntas.						
	Solera	1	97,00	1,70	0,30	49,47	

MEDICIONES

ABASTECIMIENTO A VARIOS MUNICIPIOS DE LA RIOJA. SISTEMA CIDACOS

CÓDIGO	RESUMEN	UDS	LONGITUD	ANCHURA	ALTURA	PARCIALES	CANTIDAD
	Arqueta entrada	1	2,20	1,60		3,52	
	Muros	2	97,00	1,32	0,25	64,02	
							120,09
023	KG ACERO CORRUGADO B-500-S						
	Acero redondo corrugado para armar tipo B-500-S elaborado y colocado.						
	Solera	80	97,00	1,70	0,30	3.957,60	
		80	5,50	4,00	0,30	528,00	
	Muros	180	97,00	1,32	0,25	5.761,80	
							10.247,40
025	M2 ENCOFRADO RECTO EN PARAMENTOS OCULTOS						
	Encofrado recto en paramentos ocultos, incluso colocación, fijación y desencofrado.						
		2	97,00	0,30		58,20	
		2	1,70	0,30		1,02	
		2	4,00	0,30		2,40	
							61,62
026	M2 ENCOFRADO RECTO EN PARAMENTOS VISTOS 1C						
	Encofrado recto en paramentos vistos a una cara, incluso colocación, fijación y desencofrado.						
	Muros	4	90,00	1,32	0,25	118,80	
							118,80
027	M2 ENCOFRADO CURVO EN PARAMENTOS VISTOS						
	Encofrado curvo en paramentos vistos, incluso colocación, fijación y desencofrado.						
	Muros	4	7,00	1,32	0,25	9,24	
							9,24
015	M3 ESCOLLERA D50 = 0,65 m						
	Escollera caliza media de D50 = 0,65 m colocada en protección de cauces, incluido suministro y preparación de la superficie de apoyo, perfectamente rasanteada y terminada.						
		1	76,00	3,30	1,65	413,82	
							413,82
APARTADO 01.01.04 CANALES TAMIZADO Y DESBASTE							
001	M3 EXCAVACIÓN A CIELO ABIERTO						
	Excavación a cielo abierto en todo tipo de terrenos incluido terrenos en roca, incluso agotamiento y transporte a lugar de empleo o vertedero.						
		1	18,26	9,76	2,41	429,50	
							429,50
010	M3 RELLENO ZANJAS, CIMIENTOS Y TRASDOSES DE MATERIAL SELECCIONADO						
	Relleno con material seleccionado en zanjas, cimientos, trasdós de muros, estribos y otras estructuras procedente de la excavación o préstamos incluso carga, transporte y compactación.						
		1	429,50			429,50	
		-1	15,05	6,55	2,41	-237,57	
							191,93
028	M3 HORMIGÓN DE LIMPIEZA HL-150						
	Hormigón de limpieza HL-150, de consistencia plástica, árido de tamaño máximo 40 mm y cemento CEM-II-D/42,5/SR, para saneos y encachados, incluyendo fabricación y transporte totalmente colocado.						
		1	15,05	6,55	0,10	9,86	
		1	1,80	1,80	0,10	0,32	
							10,18
030	M3 HORMIGÓN HNE-20/B/40						
	Hormigón HNE-20/B/40, con cemento CEM III/A-D/42,5/SR (UNE 80303:96), en masa o ligeramente armado, colocado en cualquier tipo de obra, incluso fabricación, carga y transporte, totalmente colocado.						
		3	2,50	2,01	1,00	15,08	
							15,08

MEDICIONES

ABASTECIMIENTO A VARIOS MUNICIPIOS DE LA RIOJA. SISTEMA CIDACOS

CÓDIGO	RESUMEN	UDS	LONGITUD	ANCHURA	ALTURA	PARCIALES	CANTIDAD
031	M3 HORMIGÓN HA-25/B/20/IIa						
	Hormigón HA-25/B/20/IIa, con cemento CEM III/A-D/42,5/SR, incluyendo fabricación, transporte, puesta en obra y vibrado, totalmente ejecutado, incluso curado y juntas.						
	Solera	1	15,05	6,55	0,40	39,43	
		1	1,80	1,80	0,40	1,30	
	Muros	1	15,05	2,01	0,30	9,08	
		2	5,95	2,01	0,30	7,18	
		1	11,50	2,01	0,30	6,93	
		2	2,10	3,10	0,30	3,91	
		1	1,20	3,10	0,30	1,12	
		2	12,05	2,01	0,30	14,53	
							83,48
023	KG ACERO CORRUGADO B-500-S						
	Acero redondo corrugado para armar tipo B-500-S elaborado y colocado.						
	Solera	80	15,05	6,55	0,40	3.154,48	
		80	1,80	1,80	0,40	103,68	
	Muros	90	15,05	2,01	0,30	816,76	
		180	5,95	2,01	0,30	645,81	
		90	11,50	2,01	0,30	624,11	
		180	2,10	3,10	0,30	351,54	
		90	1,20	3,10	0,30	100,44	
		180	12,05	2,01	0,30	1.307,91	
							7.104,73
025	M2 ENCOFRADO RECTO EN PARAMENTOS OCULTOS						
	Encofrado recto en paramentos ocultos, incluso colocación, fijación y desencofrado.						
		2	15,05	0,40		12,04	
		2	6,55	0,40		5,24	
		4	1,80	0,40		2,88	
							20,16
026	M2 ENCOFRADO RECTO EN PARAMENTOS VISTOS 1C						
	Encofrado recto en paramentos vistos a una cara, incluso colocación, fijación y desencofrado.						
	Muros	2	15,05	2,01		60,50	
		4	5,95	2,01		47,84	
		2	11,50	2,01		46,23	
		4	2,10	3,10		26,04	
		2	1,20	3,10		7,44	
		4	12,05	2,01		96,88	
							284,93
E0A060	UD TRAMEX. ENTRAMADO METÁLICO 30X30X3						
	Entramado metálico 30x30x3 tipo trames o equivalente, incluso estructura auxiliar y suministro con parte proporcional de cerco también galvanizado, montaje, recibido y pintado.						
		1	5,95	1,20		7,14	
		3	2,50	0,50		3,75	
		1	5,95	1,60		9,52	
		1	1,80	1,20		2,16	
							22,57
E0104CH91	ML BARANDILLA METÁLICA ACERO INOXIDABLE AISI-316L						
	Barandilla metálica en acero inoxidable AISI-316L, de 90 cm. de altura, formada por perfilera de tubo hueco de 30 mm y 3 mm de espesor, incluso rodapié de seguridad, elementos de anclaje, colocada.						
		2	6,60			13,20	
		2	6,40			12,80	
							26,00

MEDICIONES

ABASTECIMIENTO A VARIOS MUNICIPIOS DE LA RIOJA. SISTEMA CIDACOS

CÓDIGO	RESUMEN	UDS	LONGITUD	ANCHURA	ALTURA	PARCIALES	CANTIDAD
APARTADO 01.01.05 ACCESOS Y EXPLANADAS							
001	M3 EXCAVACIÓN A CIELO ABIERTO Excavación a cielo abierto en todo tipo de terrenos incluido terrenos en roca, incluso agotamiento y transporte a lugar de empleo o vertedero. Según medición auxiliar						
	EJE 1: ACCESO AL AZUD	1	5.177,70				5.177,70
	EJE 2: INTERSECCIÓN	1	491,30				491,30
		1	71,50				71,50
		1	271,40				271,40
	EJE 3: EJE AUXILIAR	1	60,10				60,10
	Explanada oeste	1	19,00	9,00	3,00		513,00
		1	13,50	3,60	1,20		58,32
	Explanada este	1	72,30				72,30
		1	57,30				57,30
							6.772,92
012	M3 TERRAPLÉN O PEDRAPLÉN Terraplén o pedraplén procedente de las excavaciones o préstamos para carreteras, caminos y obras accesorias, incluso carga, transporte, extendido, humectación y compactación. Según medición auxiliar						
	EJE 1: ACCESO AL AZUD	1	79,70				79,70
	EJE 2: INTERSECCIÓN	1	71,50				71,50
		1	1.302,40				1.302,40
	Explanada este	1	1.523,60				1.523,60
		1	1.496,60				1.496,60
							4.473,80
056	M3 ZAHORRA ARTIFICIAL Zahorra artificial compactada. Según medición auxiliar						
	Accesos	1	123,00				123,00
		1	85,10				85,10
	Explanada este	1	625,00		0,25		156,25
	Explanada oeste	1	58,00		0,25		14,50
							378,85
054	T PAVIMENTO DE MBC AC16 surf S Pavimento de mezcla bituminosa en caliente en capa de rodadura tipo AC 16 surf S de 5 cm de espesor, que incluye riego de imprimación con dotación de 1 Kg/m2, con betún B60/70 en dotación de 70 Kg/Tm, puesto en obra y terminado. Según medición auxiliar						
	Accesos	2,4	22,40				53,76
		2,4	15,40				36,96
	Explanada este	2,4	625,00		0,05		75,00
	Explanada oeste	2,4	58,00		0,05		6,96
							172,68
015	M3 ESCOLLERA D50 = 0,65 m Escollera caliza media de D50 = 0,65 m colocada en protección de cauces, incluido suministro y preparación de la superficie de apoyo, perfectamente rasanteada y terminada.	1	35,00	2,60	1,30		118,30
							118,30
399	ML CUNETAS SIN REVESTIR EN DESMONTE Ejecución de cuneta sin revestir en desmonte de carretera, incluyendo perfilado, totalmente terminada.						
		1	91,000				91,000
		1	105,000				105,000
		1	52,000				52,000
							248,00

MEDICIONES

ABASTECIMIENTO A VARIOS MUNICIPIOS DE LA RIOJA. SISTEMA CIDACOS

CÓDIGO	RESUMEN	UDS	LONGITUD	ANCHURA	ALTURA	PARCIALES	CANTIDAD
377	UD SEÑAL DE TRÁFICO NORMALIZADA Señal de tráfico normalizada con soporte, incluso adquisición, transporte y colocación en su lugar de emplazamiento. STOP (apotema 600 mm)	1					1,00
							1,00
378.1	M2 SUPERFICIE REALMENTE PINTADA Pintura reflexiva blanca, en señalización de isletas, cebreados, etc, incluso premarcaje, totalmente terminada.	1	8,00	0,40			3,20
							3,20
APARTADO 01.01.06 EDIFICIO DE PERMANGANATO Y GRUPO PRESIÓN							
002	M3 EXCAVACIÓN EN ZANJAS Excavación en zanjas y zonas localizadas, en todo tipo de terrenos incluido terrenos en roca con medios mecánicos, incluso rasanteo, nivelación de la superficie de apoyo y transporte a lugar de empleo o vertedero.						
	Solera	1	9,72	3,72	0,70		25,31
							25,31
364B	M3 GRAVA CANTO RODADO 20 mm Suministro de grava de canto rodado de granulometría 20 mm y coeficiente de uniformidad 1,2, libre de arcilla, polvo y materia orgánica. Bajo solera	1	9,72	3,72	0,30		10,85
							10,85
028	M3 HORMIGÓN DE LIMPIEZA HL-150 Hormigón de limpieza HL-150, de consistencia plástica, árido de tamaño máximo 40 mm y cemento CEM-II-D/42,5/SR, para saneos y encachados, incluyendo fabricación y transporte totalmente colocado. Solera	1	9,72	3,72	0,10		3,62
							3,62
031	M3 HORMIGÓN HA-25/B/20/IIa Hormigón HA-25/B/20/IIa, con cemento CEM II/A-D/42,5/SR, incluyendo fabricación, transporte, puesta en obra y vibrado, totalmente ejecutado, incluso curado y juntas.						
	Solera	1	9,72	3,72	0,30		10,85
	Pilares	3	0,25	0,25	3,50		0,66
		3	0,25	0,25	3,25		0,61
	Vigas	3	3,00	0,25	0,25		0,56
		2	9,00	0,25	0,25		1,13
							13,81
023	KG ACERO CORRUGADO B-500-S Acero redondo corrugado para armar tipo B-500-S elaborado y colocado.						
	Pilares	1	150,00				150,00
	Vigas	1	169,00				169,00
	Losa1	1	10,85	75,00			813,75
		0,05	1.132,75				56,64
							1.189,39
025	M2 ENCOFRADO RECTO EN PARAMENTOS OCULTOS Encofrado recto en paramentos ocultos, incluso colocación, fijación y desencofrado.						
	Solera	2	9,72		0,30		5,83
		2	3,72		0,30		2,23
							8,06
026.2	M2 ENCOFRADO RECTO EN PILARES VISTOS Encofrado recto en pilares vistos, incluso colocación, fijación y desencofrado.						
	Pilares	12	0,25		3,50		10,50
		12	0,25		3,25		9,75
							20,25

MEDICIONES

ABASTECIMIENTO A VARIOS MUNICIPIOS DE LA RIOJA. SISTEMA CIDACOS

CÓDIGO	RESUMEN	UDS	LONGITUD	ANCHURA	ALTURA	PARCIALES	CANTIDAD
026.3	M2 ENCOFRADO RECTO EN VIGAS VISTOS Encofrado recto en vigas vistas, incluso colocación, fijación, apuntalamiento o cimbras, y desencofrado. Vigas	6	3,00		0,25		4,50
		3	3,00	0,25			2,25
		4	9,00		0,25		9,00
		2	9,00	0,25			4,50
							20,25
462	M2 FÁBRICA BLOQUES 40x20x20 cm TIPO SPLIT COLOR Fábrica de bloques de hormigón tipo Split, de medidas 40x20x20 cm color i/relleno de hormigón y colocación de armaduras s/normativa y recibido con mortero de cemento y arena de río 1/6 i/p.p. de piezas especiales para dinteles y materialización de jambas, roturas, niv elados, aplomados, llagueados y limpieza, todo ello según normativa.	1	9,30		4,25		39,53
		1	9,32		3,60		33,55
		2	3,30		4,25		28,05
		-2	1,50		2,20		-6,60
		-4	0,80		0,60		-1,92
							92,61
464cf	M2 CARPINTERÍA FIJA ALUMINIO m². Carpintería fija con junquillos para la fijación del vidrio, de aluminio modelo con rotura de puente térmico, Alfil A54RPT de SAPAGROUP con un ancho de marco de 54 mm y con un ancho de hoja de 61 mm, medida del frente de 96,3 mm, con sistema de cámara europea, con espesor de perfil de 1,5 mm, con sistema de cierre por junta central de estanqueidad en EPDM, coplanar exteriormente y con resalte de hoja sobre el marco al interior, para un acristalamiento con altura de galce de 22 mm y anchura hasta 44 mm en marcos y 51 mm en hojas, lacado (entre 60-100 micras) en color estándar (RAL estándar: blanco, gris...), herrajes de colgar, p.p. de cerradura Tesa o similar y costes indirectos. Homologada con Clase 4 en el ensayo de permeabilidad al aire según norma UNE-EN 1026:2000. La transmitancia máxima del marco es de 2,90 W/m² K, y cumple en las zonas A, B, C, D y E, según el CTE/DB-HE 1.	2	0,80		0,60		0,96
							0,96
464V3	M2 VIDRIO SEGURIDAD STADIP 44.1 INCOLORO (2B2) m². Acristalamiento de vidrio laminar de seguridad Stadip compuesto por dos vidrios de 4 mm de espesor unidos mediante lámina de butiral de polivinilo incolora de 0,38 mm, clasificado 2B2 según UNE-EN 12600, fijado sobre carpintería con acufiado mediante calzos de apoyo perimetrales y laterales y sellado en frío con silicona neutra, incluso colocación de junquillos, según UNE 8522:1985.	2	0,80		0,60		0,96
							0,96
520	M2 CUBIERTA PANEL SANDWICH (E=50 mm.) Cubierta con panel tipo sandwich espesor 50 cm., con doble chapa prelacada de 0,4 mm de espesor, y aislamiento térmico de poliuretano, fijada con gancho de acero galvanizado, incluso p.p de piezas de remate, totalmente colocada.	1	9,00	3,25			29,25
							29,25
521	M2 CELOSIA FIJA VENTILACIÓN Celosía metálica fija para ventilación, formada por cerco con empanelado de lamas de acero de 60 mm, con abertura mínima de 1 cm entre lamas, malla de 2 mm para evitar entrada de insectos, garras de sujeción a soporte de 10 cm, elaborada en taller y montada en obra, totalmente colocada.	2	0,80		0,60		0,96
							0,96

MEDICIONES

ABASTECIMIENTO A VARIOS MUNICIPIOS DE LA RIOJA. SISTEMA CIDACOS

CÓDIGO	RESUMEN	UDS	LONGITUD	ANCHURA	ALTURA	PARCIALES	CANTIDAD
465.1	M2 PUERTA DOBLE CHAPA ACERO CON LAMAS Puerta de paso hojas abatibles de doble chapa lisa de acero de 1 mm de espesor, con aislamiento interno de fibre de vidrio, engatillada, realizada en dos bandejas, con rigidizadores de tubo rectangular, i/manillas de acero inoxidable y cerradura, con dos o cuatro rejillas de ventilación con malla anti insectos interior, patillas para recibir en fábricas, herrajes de colgar y de seguridad, imprimación antióxido y pintura al esmalte, totalmente colocada incluyendo el recibido de fábricas.	2	1,50		2,20		6,60
							6,60
519	ML REMATE DE CHAPA PRELACADA CUBIERTA Remate de chapa prelacada en color, para cubrir parte superior de bloque o panel, hasta el panel sandwich de la cubierta por el interior del peto, fijado mediante tacos y/o ganchos anclado a muro y o cubierta, dispuesto según planos.	1	9,32				9,32
		2	3,32				6,64
							15,96
020	KG ACERO S 275 J PERFILES LAMINADOS Acero S 275 J en perfiles laminados elaborado y colocado. Correas IPE-140	3	9,00	12,90			348,30
							348,30
474.1	ML CANALON CHAPA PRELACADA 50cm Canalón de chapa prelacada en color, de 50 cm. de desarrollo fijado mediante ganchos ocultos con tornillo autoroscante 40 cm., incluso p.p. de embocadura de bajante, codos y piezas especiales.	1	9,00				9,00
							9,00
463RCH	M2 REVESTIMIENTO PETO CUBIERTA M2. Revestimiento de peto interior de cubierta entre coronación y solape con impermeabilizante de cubierta, realizado con chapa lacada 0,5 mm con p.p. elementos de fijación, totalmente terminada.	2	9,00		0,60		10,80
		2	3,30		0,60		3,96
							14,76
453AZ	UD ACOMETIDA ABASTECIMIENTO ZONA AZUD Ud. Acometida desde canal formada por tubería de polietileno de 1 1/2" y 10 Atm. para uso alimentario, brida de conexión, machón rosca, manguitos, llaves de paso tipo globo, válvula anti-retorno de 1 1/2", tapa de registro exterior, grifo de pruebas de latón de 1/2", incluso contador, según CTE/DB-HS 4 suministro de agua.	1					1,00
							1,00
453AZD	UD INSTALACIÓN DE FONTANERÍA EDIFICIO AZUD ud. Instalación de fontanería completa para para el edificio del azud, realizada con tuberías de polietileno reticulado (método Engel) utilizando el sistema Quick&Easy de derivaciones por tes para las redes de agua fría, totalmente terminada según CTE/DB-HS, para suministro de lavajos, grupo de presión, preparador de reactivos, toma de agua, incluso rejillas de sumideros interiores de PVC, con tuberías de saneamiento de salida de PVC SN8 DN 160-DN200 hasta al punto de vertido, y con p.p. de redes interiores de ascendentes y bajantes.	1					1,00
							1,00

MEDICIONES

ABASTECIMIENTO A VARIOS MUNICIPIOS DE LA RIOJA. SISTEMA CIDACOS

CÓDIGO	RESUMEN	UDS	LONGITUD	ANCHURA	ALTURA	PARCIALES	CANTIDAD
EDLAV001	UD DUCHA LAVAOJOS Estructura construida en caño de acero galvanizado revestido con pintura epoxi color amarillo. Campana de ducha de diámetro 220 mm construida en acero inoxidable tipo diluvio, con baffle aliviador que produce una campana de agua de diámetro 500 mm. Lavaojos construido con bacha de acero inoxidable de diámetro 250 mm con tapa plástica rebatible automáticamente y rociadores de bronce cromados que producen espuma con efecto de lavaojos y lavacara posee paso calibrado regulador de presión y caudal y capuchones automáticos antipolvo. Accionamiento de la ducha por palanca manual de acero inoxidable con indicador e instructivo de alto impacto y válvula esférica de bronce. Accionamiento del lavaojos por pedal de plástico y palanca manual de acero inoxidable con instructivo e indicador y válvula esférica de bronce. Acometida de agua potable, sumidero de vaciado y conexión a la red de escurridos. Totalmente instalada.	1				1,000	
							1,00
SUBCAPÍTULO 01.02 EQUIPOS ELECTROMECAÑICOS CAPTACIÓN							
APARTADO 01.02.01 DOSIFICACIÓN DE PERMANGANATO POTÁSICO							
EBSM05	UD SKID PARA 2 BOMBAS DOSIFICADORAS Qu=210 L/HY 3 BAR Sistema de dosificación para permanganato potásico, de MILTON ROY, o equivalente, formado por 2 bombas de 210 l/h – 3 bar cada una. Equipo MRE de la serie DOSAPACK PD®. Modelo: PD-D3A1.B2/E3.B2.E1.BC.1.E1.E1.A1.C2.A1.P1.A1. 2 Bombas dosificadoras GM240 (1+1). Instalación con colectores de aspiración e impulsión, estructura metálica de acero, con soporte para todos los elementos, válvulas, amortiguadores, manómetros, etc, según características definidas en las E.T. de proyecto. Instalado y probado.	1				1,000	
							1,00
EQ70000	Ud CONEXIÓN PARA LIMPIEZA DE CONDUCCIONES Conexión para limpieza de conducciones y baldeos, compuesta por válvulas de bola manual DN-25 y conexión rápida mediante racor.	1				1,000	
							1,00
E3256	UD CONJUNTO TUBERÍAS PARA AGUA INDUST. Y POTABLE. PVC Y/O PE Conjunto de tuberías y válvulas para distribución de agua industrial y potable. Material: PVC y/o PE. Diámetro nominal: según planos mm. Presión nominal: 10 Atm. Incluso p.p. de válvulas, soportes y accesorios.	1				1,00	
							1,00
E3257	Ud CONJUNTO TUBERÍAS DISTRIBUCIÓN REACTIVOS PVC Y/O PP Conjunto de tuberías y válvulas para distribución de reactivos. Material: PVC y/o PP. Diámetro nominal: según planos mm. Presión nominal: 10 Atm. Incluso p.p. de válvulas, soportes y accesorios. A bombas y equipos	1				1,000	
							1,00
EEPPOL03	UD EQUIPO PREPARACIÓN PERMANGANATO 600 L/H Equipo de preparación de permanganato. Marca: POLITECH o equivalente. Modelo: POLIBASIC AP 8 PPH PERMANGANATO. Tipo: unidad compacta. Capacidad de preparación (l/h): 600. Dosificador de permanganato: tornillo+motorreductor de 0,18 kW. Tolva de alimentación de capacidad 60 litros. Depósito con tres compartimentos y tapas, de 1.000 l. de capacidad útil. Dos electroagitadores de eje vertical y amarre por brida. Potencia electroagitador (kW): 0,37. Sonda de nivel ultrasónico. Armario de control. Materiales: Cuba en PPH, electroagitadores y tobera: AISI 316. Dosificador volumétrico: PPH. Cuadro eléctrico. Incluso transporte, montaje, conexiones eléctricas y de control, pruebas de funcionamiento. Resto de características según E.T.	1				1,000	
							1,00

MEDICIONES

ABASTECIMIENTO A VARIOS MUNICIPIOS DE LA RIOJA. SISTEMA CIDACOS

CÓDIGO	RESUMEN	UDS	LONGITUD	ANCHURA	ALTURA	PARCIALES	CANTIDAD
APARTADO 01.02.02 DESBASTE Y TAMIZADO							
ETTFD02	UD TORNILLO TRANSPORTADOR PARA REJAS DE GRUESOS 3,0 m3/h Tornillo transportador para residuos de la reja de gruesos. Capacidad: 3,0 m³/h. Diámetro: 273 mm. Material: acero inoxidable AISI-304L. Longitud: 4,20 m. Potencia motor eléctrico: 0,75 kW. Posición de trabajo inclinado a 25°horizontal. Espiral en AISI-304L. Canal y tapas en acero inoxidable AISI-304 L. Zona de compactación en acero inoxidable AISI-304 L. Dos tolvas para acople de las rejas, y soportes standard en acero inoxidable AISI-304 L. Sistema de lavado automático con agua. Incluso transporte, montaje, conexiones eléctricas y pruebas de funcionamiento. Resto de características según E.T.	1				1,000	
							1,00
ETTFD03	UD TORNILLO TRANSPORTADOR PARA TAMICES 3,0 m3/h Tornillo transportador para residuos de la tamices. Capacidad: 3,0 m³/h. Diámetro: 273 mm. Material: acero inoxidable AISI-304L. Longitud: 6,20 m. Potencia motor eléctrico: 0,75 kW. Posición de trabajo inclinado a 15°. Espiral en AISI-304L. Canal y tapas en acero inoxidable AISI-304 L. Zona de compactación en acero inoxidable AISI-304 L. Dos tolvas para acople de las rejas, y soportes standard en acero inoxidable AISI-304 L. Sistema de lavado automático con agua. Incluso transporte, montaje, conexiones eléctricas y pruebas de funcionamiento. Resto de características según E.T.	1				1,000	
							1,00
EREG01	UD REJA DE GRUESOS DE 472,22 L/S. PASO 40 MM. AISI-304L Reja de gruesos en la captación del azud. Capacidad: 472,22 l/s. Luz de paso de 40 mm. Material: acero inoxidable AISI-304L. Ángulo de inclinación 70°. Potencia 0,25 kW. Cuadro eléctrico y de control, así como 2 medidores de diferencia de nivel tipo radar. Incluso transporte, montaje, conexiones eléctricas y pruebas de funcionamiento. Resto de características según E.T.	2				2,000	
							2,00
ETAMI01	UD TAMIZ DE CHAPA PERFORADA DE 472,22 L/S. PASO 3 MM. AISI-304L Tamiz de chapa perforada para la captación del azud. Capacidad: 472,22 l/s. Chapa perforada de 3 mm.de paso. Material: acero inoxidable AISI-304L. Potencia 0,25 kW. Cuadro eléctrico y de control, así como 2 medidores de diferencia de nivel tipo radar. Lavado automático de prensado. Incluso transporte, montaje, conexiones eléctricas y pruebas de funcionamiento. Resto de características según E.T.	2				2,000	
							2,00
ECONT01	UD CONTENEDOR METAL 5 m³ Contenedor metálico de 5 m³ de capacidad para transporte sobre camión normalizado, de chapa de acero protegida contra la corrosión.	2				2,000	
							2,00
EREJ01	UD REJA GRUESOS LIMPIEZA MANUAL IZABLE LUZ 40 mm Reja de desbaste de gruesos manual izable de 40 mm de paso, de acero inoxidable AISI-304L. Incluso rastrillo de limpieza, cestillo y guías y gancho para extracción. Incluso transporte, montaje y pruebas de funcionamiento.	1				1,000	
							1,00

MEDICIONES

ABASTECIMIENTO A VARIOS MUNICIPIOS DE LA RIOJA. SISTEMA CIDACOS

CÓDIGO	RESUMEN	UDS	LONGITUD	ANCHURA	ALTURA	PARCIALES	CANTIDAD
ECCMA01	UD COMPUERTA CANAL MANUAL DE 800x1000 MM. INOX316L Compuerta canal manual de 0,80 m de ancho y 1,0 m de altura de tablero, con husillo y volante de altura variable. Altura máxima agua según planos. Número de cierres 3. Espesor de chapa de 5 mm (mínimo). Número de husillos 1. Accionamiento manual con volante, con rodamiento para absorber el esfuerzo axial. Materiales: Guías, marco, tablero y husillo de acero inoxidable AISI-316L. Incluso transporte, montaje y pruebas de funcionamiento. Resto de características según E.T.	6					6,000
							6,00
SUBCAPÍTULO 01.03 EJE 1: CONDUCCIÓN GRAVEDAD DE CAPTACIÓN - ETAP							
APARTADO 01.03.01 MOVIMIENTO DE TIERRAS							
010	M3 RELLENO ZANJAS, CIMIENTOS Y TRASDOSES DE MATERIAL SELECCIONADO Relleno con material seleccionado en zanjas, cimientos, trasdós de muros, estribos y otras estructuras procedente de la excavación o préstamos incluso carga, transporte y compactación. Según medición auxiliar Desagüe 200	1	32.759,50				32.759,50
		1	205,00	0,80	0,90		147,60
							32.907,10
011	M3 RELLENO DE ARENA Arena para apoyo y protección de tuberías incluso carga, transporte, colocación, compactación y nivelación. Según medición auxiliar A descontar hormigón Desagüe 200	1	20.617,90				20.617,90
		-1	2.522,31				-2.522,31
		1	205,00	0,80	0,40		65,60
							18.161,19
019	M2 DEMOLICIÓN DE FIRMES Demolición de firmes de cualquier tipo, incluso precorte, carga y transporte a vertedero, posterior perfilado y compactación del terreno. P.K. 0+907 - 1+342 P.K. 1+342 - 2+096 P.K. 2+233 - 2+488 P.K. 2+550 - 2+760 P.K. 3+075 - 3+235	1	435,00	3,00			1.305,00
		1	754,00	3,00			2.262,00
		1	255,00	3,00			765,00
		1	210,00	3,00			630,00
		1	160,00	7,00			1.120,00
							6.082,00
007	M2 ENTIBACIÓN MÓDULOS METÁLICOS Entibación a dos caras mediante módulos metálicos y articulados, en zonas de protección de zanja, medida la superficie efectiva. P.K. 0+000 - 2+211 P.K. 2+233 - 2+760 P.K. 3+075 - 3+235	1	2.211,00	2,50			5.527,50
		1	527,00	2,50			1.317,50
		1	160,00	2,50			400,00
							7.245,00
003	M3 EXCAVACIÓN EN ZANJAS CON AGOTAMIENTO Excavación en zanjas y zonas localizadas, en todo tipo de terrenos incluido terrenos en roca con medios mecánicos, incluso rasanteo, nivelación de la superficie de apoyo, agotamiento y transporte a lugar de empleo o vertedero. Según medición auxiliar Desagüe 200	1	59.089,20				59.089,20
		1	205,00	0,80	1,30		213,20
							59.302,40
012	M3 TERRAPLÉN O PEDRAPLÉN Terraplén o pedraplén procedente de las excavaciones o préstamos para carreteras, caminos y obras accesorias, incluso carga, transporte, extendido, humectación y compactación. Según medición auxiliar	1	65,10				65,10
							65,10
008	M2 DESPEJE Y DESBROCE Despeje y desbroce de capa de tierra vegetal con un espesor medio de 50 cm, incluso corte de árboles, extracción de tocones, nivelación de zona adyacente para el paso de maquinaria, transporte a lugar de acopio independiente para posterior reposición de tierra vegetal tras las obras y despedregado de las parcelas, así como transporte a vertedero de tierras sobrantes.						

MEDICIONES

ABASTECIMIENTO A VARIOS MUNICIPIOS DE LA RIOJA. SISTEMA CIDACOS

CÓDIGO	RESUMEN	UDS	LONGITUD	ANCHURA	ALTURA	PARCIALES	CANTIDAD
	Arqueta entrada	1	2,20	1,60			3,52
	P.K. 2+096 - 2+233	1	137,00	3,00			411,00
	P.K. 2+760 - 3+075	1	315,00	7,00			2.205,00
	P.K. 3+235 - 3+660	1	425,00	7,00			2.975,00
	P.K. 3+685 - FIN	1	3.254,00	7,00			22.778,00
							30.636,50
030	M3 HORMIGÓN HNE-20/B/40 Hormigón HNE-20/B/40, con cemento CEM III/A-D/42,5/SR (UNE 80303:96), en masa o ligeramente armado, colocado en cualquier tipo de obra, incluso fabricación, carga y transporte, totalmente colocado. P.K. 0+459 - 0+620 P.K. 0+620 - 0+907 P.K. 2+096 - 2+182,4 P.K. 2+233 - 2+760 P.K. 3+050 - 3+075 P.K. 6+379 - 6+420	1	161,00	1,60	1,30		334,88
		1	287,00	1,60	1,30		596,96
		1	56,40	1,60	1,30		117,31
		1	527,00	1,60	1,30		1.096,16
		1	25,00	3,40	1,30		110,50
		1	41,00	5,00	1,30		266,50
							2.522,31
013	M3 ESCOLLERA D50 =1,30 m Escollera caliza muy pesada de D50 = 1,30 m colocada en protección de cauces, incluido suministro y preparación de la superficie de apoyo, perfectamente rasanteada y terminada. P.K. 2+200 - 2+211	1	11,00	10,36			113,96
							113,96
015	M3 ESCOLLERA D50 = 0,65 m Escollera caliza media de D50 = 0,65 m colocada en protección de cauces, incluido suministro y preparación de la superficie de apoyo, perfectamente rasanteada y terminada. P.K. 4+040 - 4+520 P.K. 4+780 - 4+930 P.K. 6+000 - 6+080	1	500,00	10,36			5.180,00
		1	150,00	10,36			1.554,00
		1	80,00	10,36			828,80
							7.562,80
APARTADO 01.03.02 OBRA CIVIL							
030	M3 HORMIGÓN HNE-20/B/40 Hormigón HNE-20/B/40, con cemento CEM III/A-D/42,5/SR (UNE 80303:96), en masa o ligeramente armado, colocado en cualquier tipo de obra, incluso fabricación, carga y transporte, totalmente colocado. Anclaje codos	14	2,46				34,44
		19	2,85				54,15
		9	3,07				27,63
		8	4,73				37,84
		1	4,74				4,74
		28	5,46				152,88
		7	5,73				40,11
		2	9,11				18,22
		2	9,32				18,64
		1	9,83				9,83
		2	10,43				20,86
		4	10,73				42,92
		3	11,08				33,24
		2	11,25				22,50
		1	11,81				11,81
		1	18,76				18,76
		2	19,35				38,70
		2	19,78				39,56
		1	21,20				21,20
		3	22,99				68,97
		1	36,05				36,05
		10	9,00				90,00
	A mayores						
	P.K. 1+322 - 2+096	1	774,00	3,00	0,20		464,40
	P.K. 0+907 - 1+322	1	415,00	3,00	0,20		249,00
	P.K. 3+075 - 3+233	1	158,00	4,00	0,20		126,40

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CÓDIGO	RESUMEN	UDS	LONGITUD	ANCHURA	ALTURA	PARCIALES	CANTIDAD
	Arqueta entrada	1	2,20	1,60		3,52	
	P.K. 0+939,395	1				1,00	
	P.K. 1+300	1				1,00	
	P.K. 2+226	1				1,00	
	P.K. 2+560	1				1,00	
	P.K. 3+144,003	1				1,00	
	P.K. 3+700	1				1,00	
	P.K. 3+920	1				1,00	
	P.K. 4+600	1				1,00	
	P.K. 5+341,753	1				1,00	
	P.K. 5+540	1				1,00	
	P.K. 6+346,735	1				1,00	
							13,00
116B	UD TE FD EEB DN1000 mm PN16 SALIDA HASTA DN200						
	"T" de fundición dúctil de PFA 16 bar, con dos enchufes y derivación con brida para tubería de 1000 mm con salida comprendida entre 1000 y 200 mm, con un revestimiento interior y exterior epoxi, i/p.p. de junta de unión y medios auxiliares, totalmente colocada y probada.						
		15				15,00	
		11				11,00	
							26,00
232	UD VÁLVULA DE COMPUERTA MANUAL DN200 PN16						
	Válvula de compuerta de cierre elástico de 200 mm. de diámetro nominal y 16 At. de P.N., de accionamiento manual por volante, de cuerpo de fundición nodular GGG-50, con eje de acero inoxidable al 13 % Cr. con roscas conformadas por laminación en frío, cierre en fundición nodular, tornillería de acero inoxidable, protegida contra la corrosión mediante aplicación de doble capa de pintura epoxy, totalmente colocada y probada. Resto de características según ET.						
	Desagües						
	P.K. 0+420	1				1,00	
	P.K. 0+635,874	1				1,00	
	P.K. 0+860	1				1,00	
	P.K. 1+040	1				1,00	
	P.K. 2+147	1				1,00	
	P.K. 3+070	1				1,00	
	P.K. 3+600	1				1,00	
	P.K. 3+880	1				1,00	
	P.K. 5+280	1				1,00	
	P.K. 5+475,034	1				1,00	
	P.K. 6+385	1				1,00	
							11,00
EVMM1000	UD VÁLVULA DE MARIPOSA DOBLE EXCENRICIDAD DN 1000 mm PN16 MANUAL						
	Válvula de mariposa de doble excentricidad de 1000 mm de diámetro y PN16, de accionamiento manual por reductor, incluso mecanismo de accionamiento, maniobra y control, transporte, montaje, juntas, tornillería y pintura totalmente instalada y probada. Resto de características según ET de proyecto.						
	pk 3+140	1				1,00	
							1,00
ECD01000	UD CARRETE DE DESMONTAJE DN=1000 mm PN16						
	Carrete telescópico de desmontaje DN1000 PN 16, bridas de acero al carbono, virolas de acero inoxidable, protección epoxi, tornillos y tuercas en acero F-114, cincado y posterior baño de cromo-níquel, incluido p.p. de brida enchufe, totalmente instalado y probado en obra.						
		1				1,00	
							1,00
116.1	UD BRIDA ENCHUFE FD 1000 mm PN16						
	Brida enchufe de fundición dúctil de PFA 16 bar para tubería de 1000 mm, con un revestimiento interior y exterior epoxi, i/p.p. de junta de unión y medios auxiliares, totalmente colocada y probada.						
		2				2,00	
							2,00

MEDICIONES

ABASTECIMIENTO A VARIOS MUNICIPIOS DE LA RIOJA. SISTEMA CIDACOS

CÓDIGO	RESUMEN	UDS	LONGITUD	ANCHURA	ALTURA	PARCIALES	CANTIDAD
	APARTADO 01.03.05 OBRAS ACCESORIAS Y REPOSICIONES DE SERVICIOS						
030	M3 HORMIGÓN HNE-20/B/40						
	Hormigón HNE-20/B/40, con cemento CEM III/A-D/42,5/SR (UNE 80303:96), en masa o ligeramente armado, colocado en cualquier tipo de obra, incluso fabricación, carga y transporte, totalmente colocado.						
	P.K. 0+496	1	5,00	2,50	0,20	2,50	
							2,50
055	M2 PAVIMENTO DOBLE TRATAMIENTO SUPERFICIAL						
	Pavimento doble tratamiento superficial formado por árido 13/7 y 6/3, y ligante emulsión C60B3 ADH con dotación 4 kg/m2, incluso riego de imprimación previo con ligante emulsión C60BF4 IMP en dotación 1 kg/m2, puesto en obra y terminado.						
	P.K. 1+322 - 2+096	1	774,00	3,00		2.322,00	
							2.322,00
389	ML REPOSICIÓN DE ACEQUIA						
	Reposición de acequia con tubo de hormigón hasta 1 m de diámetro.						
		1	10,00			10,00	
							10,00
381	M2 REPOSICIÓN DE FIRME DE AGLOMERADO						
	Reposición de firme de aglomerado en caliente en zonas afectadas por las obras.						
	P.K. 0+907 - 1+322	1	415,00	3,00		1.245,00	
							1.245,00
383	ML REPOSICIÓN DE CERRAMIENTO EXISTENTE						
	Reposición de cerramiento existente hasta 2,00 m de altura.						
		1	10,00			10,00	
							10,00
380	M2 REPOSICIÓN DE PAVIMENTO DE HORMIGÓN						
	Reposición de pavimento de hormigón HM-20/B/40/IIa+Qa de 15 cm de espesor, totalmente terminado.						
	P.K. 3+075 - 3+233	1	158,00	4,00		632,00	
							632,00
382	ML REPOSICIÓN DE MURO DE HORMIGÓN EXISTENTE						
	Reposición de muro de hormigón existente hasta 2,00 m de altura.						
		1	45,00			45,00	
							45,00
387	ML REPOSICIÓN OBRA DE DRENAJE HASTA DN 1,00 m						
	Reposición de obra de drenaje hasta 1,00 de diámetro, p.p. de boquilla de entrada y salida, excavación, hormigón de recubrimiento y relleno compactado, totalmente terminada.						
		14	5,00			70,00	
							70,00
390	ML REPOSICIÓN DE ACEQUIA HASTA 3 m ANCHURA						
	Reposición de acequia de hormigón de 1,00 a 3,00 m de anchura.						
		1	5,00			5,00	
							5,00
392	UD REPOSICIÓN DE ARQUETA						
	Reposición de arqueta prefabricada de hormigón de 0,60 x 0,60 m para canalización eléctrica, incluso marco y tapa de registro, totalmente colocada.						
		13				13,00	
							13,00
050	M2 RESTITUCIÓN DE FORMAS EN PARAMENTOS DE ESTRIBOS						
	Restitución de formas en paramentos de estribos, incluso armadura adicional y mortero de reparación.						
	Pasarela estribo 1	1	2,87		0,60	1,72	

MEDICIONES

ABASTECIMIENTO A VARIOS MUNICIPIOS DE LA RIOJA. SISTEMA CIDACOS

CÓDIGO	RESUMEN	UDS	LONGITUD	ANCHURA	ALTURA	PARCIALES	CANTIDAD
							1,72
017	M2 CHAPADO DE PIEDRA CALIZA Chapado de piedra caliza, incluso preparación de paramento, hormigón o mortero de agarre y elementos auxiliares de amarre con acero de sujeción, malla, etc.						
	Pasarela	2	1,50	4,50			13,50
							13,50
051	KG RESINA EPOXI SELLADO HORMIGÓN Resina epoxi en sellado de unión de refuerzos de cabeza de fuste de hormigón, incluso inyección y pequeño material.						
	Pasarela	2	2,00	21,98	0,10		8,79
							8,79
208	ML TUBERÍA PRFV DN 1200 mm Tubería de poliéster reforzado con fibra de vidrio de diámetro nominal DN=1200 mm y PN 6 bar, incluso juntas y banda de señalización, totalmente colocada.						
	Pasarela						
	estribo 1	1	3,00				3,00
	estribo 2	1	3,00				3,00
							6,00
033	M3 HORMIGÓN HA-35/P/40/IIa+Qa Hormigón HA-35/P/40/IIa+Qa, con cemento CEM III/A-D/42,5/SR (UNE 80303:96), incluyendo fabricación, transporte, puesta en obra y vibrado, totalmente ejecutado, incluso curado y juntas.						
	Pasarela						
	estribo 1	1	1,50	5,74	0,50		4,31
	estribo 2	1	1,50	5,32	0,50		3,99
		1	3,80	4,92	0,30		5,61
		1	2,70	3,46	0,30		2,80
		2	2,67	0,15	1,00		0,80
							17,51
018	M3 DEMOLICIÓN DE HORMIGÓN Demolición de hormigón en masa o armado en estructuras, pozos y arquetas, con máquina retroexcavadora con martillo, incluso carga y transporte a vertedero.						
	Pasarela						
	estribo 1	1	2,30	3,00	1,90		13,11
	estribo 2	1	2,00	3,00	1,90		11,40
		1	3,70	2,60	1,90		18,28
		1	3,70	2,60	1,00		9,62
							52,41
004	M3 EXCAVACIÓN EN ZANJAS MANUAL Excavación en zanjas y zonas localizadas, en todo tipo de terrenos por medios manuales, incluso transporte a lugar de empleo o vertedero.						
	Pasarela						
	estribo 1	1	1,20	3,00	1,90		6,84
	estribo 2	1	1,00	3,00	1,90		5,70
							12,54
010	M3 RELLENO ZANJAS, CIMIENTOS Y TRASDOSES DE MATERIAL SELECCIONADO Relleno con material seleccionado en zanjas, cimientos, trasdós de muros, estribos y otras estructuras procedente de la excavación o préstamos incluso carga, transporte y compactación.						
	Pasarela						
	estribo 1	1	1,70	3,00	1,90		9,69
	estribo 2	1	1,00	3,00	1,90		5,70
	a deducir	-1	2,70	1,25	0,79		-2,67
							12,72
020	KG ACERO S 275 J PERFILES LAMINADOS Acero S 275 J en perfiles laminados elaborado y colocado.						
	Pasarela						

MEDICIONES

ABASTECIMIENTO A VARIOS MUNICIPIOS DE LA RIOJA. SISTEMA CIDACOS

CÓDIGO	RESUMEN	UDS	LONGITUD	ANCHURA	ALTURA	PARCIALES	CANTIDAD
	Arqueta entrada	1	2,20	1,60			3,52
	refuerzo de basas	2	0,20	0,70	157,00		43,96
		2	0,20	2,20	157,00		138,16
	soportes de tubo	38	1,38	0,12	78,50		493,98
	abrazaderas	19	3,02	0,08	62,80		288,28
		38	0,06		78,50		178,98
							1.259,52
028	M3 HORMIGÓN DE LIMPIEZA HL-150 Hormigón de limpieza HL-150, de consistencia plástica, árido de tamaño máximo 40 mm y cemento CEM-II-D/42,5/SR, para saneos y encachados, incluyendo fabricación y transporte totalmente colocado.						
	Pasarela						
	estribo 1	1	2,50	2,00	1,37		6,85
		1	2,50	3,00	0,10		0,75
	estribo 2	1	2,70	2,00	1,16		6,26
		1	2,70	3,00	0,10		0,81
		1	7,50	2,60	0,25		4,88
	a deducir	-1	5,00	1,25	0,79		-4,94
							14,61
023	KG ACERO CORRUGADO B-500-S Acero redondo corrugado para armar tipo B-500-S elaborado y colocado.						
	Pasarela						
	estribo 1	1	4,31		75,00		323,25
	estribo 2	1	3,99		75,00		299,25
		1	8,41		65,00		546,65
	pilas	1	0,80		165,00		132,00
							1.301,15
016	M3 ESCOLLERA D50 = 0,65 m HORMIGONADA						
	Pasarela	1	2,50	0,50	1,00		1,25
							1,25
026	M2 ENCOFRADO RECTO EN PARAMENTOS VISTOS 1C Encofrado recto en paramentos vistos a una cara, incluso colocación, fijación y desencofrado.						
	Pasarela						
	estribo 1	2	1,50		1,37		4,11
	estribo 2	2	4,30		1,12		9,63
		2	3,70		0,70		5,18
							18,92
027	M2 ENCOFRADO CURVO EN PARAMENTOS VISTOS Encofrado curvo en paramentos vistos, incluso colocación, fijación y desencofrado.						
	Pasarela pilas	2	1,00	3,14	1,00		6,28
							6,28
SUBCAPÍTULO 01.04 INSTALACIONES ELÉCTRICA BT							
ELE021	ML LÍNEA GENERAL DE ALIMENTACIÓN DE 4x6mm² Cu 0,6/1 kV (AS) Línea general de alimentación con cuatro conductores unipolares de 1x6mm ² Cu 0,6/1kV RZ1-K(AS) instalada en canalización subterránea bajo tubo d=160mm.						
		50					50,000
							50,00
ELA049	ML CANALIZACIÓN ELÉCTRICA 2T PE DP 110 Canalización eléctrica formada por dos tubos PE DP 110 mm corrugado de doble pared con guía. Incluyendo corte de pavimento, excavación de zanja de 0,40 m de anchura y 1,0 m de profundidad, lecho de hormigón y recubierta 10 cm como mínimo del mismo material sobre la generatriz superior del tubo, relleno con material de la propia de excavación hasta la cota de terreno, cinta señalizadora, compactado y acabado superficial de hormigón con una altura mínima de 20 cm.						
		1	130,000				130,000
							130,00

MEDICIONES

ABASTECIMIENTO A VARIOS MUNICIPIOS DE LA RIOJA. SISTEMA CIDACOS

CÓDIGO	RESUMEN	UDS	LONGITUD	ANCHURA	ALTURA	PARCIALES	CANTIDAD
ELE0301	UD CUADRO GENERAL BAJA TENSIÓN Cuadro general con apartamentada y envolvente de Schneider, formado por envolvente metálico con puertas montado sobre zócalo y conteniendo interruptor general automático NS 40A regulable, limitador de sobretensiones, analizador de redes, variadores de frecuencia 11 kW, protecciones magneto-térmicas y diferenciales según esquema unifilar, incluso cableado interior, perfiles omega y regletas de conexión. Armario: - Preparado para instalar un interruptor general automático de hasta 250A. - Ampliable por uno de los costados. - Con reserva de espacio de al menos el 50% de la apartamentada instalada.	1				1,000	1,00
BT050	ML BANDEJA AISLANTE 60x150 MM Bandeja perforada de PVC, color gris RAL 7035, de 60x150 mm, resistencia al impacto 5 julios, propiedades eléctricas: aislante, no propagador de la llama, estable frente a los rayos UV y con resistencia a la intemperie y a los agentes químicos, con 1 compartimento, con soporte horizontal, de PVC, color gris RAL 7035.	1	15,000			15,000	15,00
BT060	ML TUBO PVC RIGIDO d=20mm Tubo rígido de PVC d=16mm para canalización de conductores, incluso soportes y anclajes a pared, instalado.	1	20,000			20,000	20,00
EL362	ML LINEA 5x2.5mm2 Cu 0.6/1kV RZ1-K (AS) Línea eléctrica con conductor multipolar 5x2.5mm2 RZ1-K (AS) en canalización existente, incluso conexionado en inicio y final de línea.	1	20,000			20,000	20,00
EL380	ML LINEA 3x1.5mm2 Cu 0.6/1kV RZ1-K (AS) Línea eléctrica con conductor multipolares 3x1.5mm2 RZ1-K (AS) en canalización existente, incluso conexionado en inicio y final de línea.	1	60,000			60,000	60,00
BT131	* ML LINEA 3x4mm2 Cu 0.6/1kV RZ1-K (AS) Línea eléctrica de 3x4mm2 Cu 0.6/kV RZ1-K (AS) en canalización existente, con parte proporcional de cajas de derivación.	1	1,000			1,000	1,00
BT130	ML LINEA 3x2.5mm2 Cu 0.6/1kV RZ1-K (AS) Línea eléctrica de 3x2.5mm2 Cu 0.6/kV RZ1-K (AS) en canalización existente, con parte proporcional de cajas de derivación.	1	40,000			40,000	40,00
EL3623	ML LINEA 4x2.5mm2 Cu 0.6/1kV RZ1-K (AS) Línea eléctrica con conductor multipolar 4x2.5mm2 RZ1-K (AS) en canalización existente, incluso conexionado en inicio y final de línea.	1	343,000			343,000	343,00
EL36231	ML LINEA 4x2.5mm2 Cu 0.6/1kV RZ1KZ1-K (AS) Línea eléctrica con conductor multipolar 4x2.5mm2 RZ1KZ1-K (AS) en canalización existente, incluso conexionado en inicio y final de línea.	1	40,000			40,000	40,00

MEDICIONES

ABASTECIMIENTO A VARIOS MUNICIPIOS DE LA RIOJA. SISTEMA CIDACOS

CÓDIGO	RESUMEN	UDS	LONGITUD	ANCHURA	ALTURA	PARCIALES	CANTIDAD
AL140	m LINEA SUBTERRÁNEA 4x6 mm2 + 1x16 mm2 Línea de alimentación para alumbrado formada por conductor multipolar de cobre de 4x6 mm2 con aislamiento RV 0,6/1 kV y conductor de puesta a tierra 1x16 mm2 750 V, colocado en tendido subterráneo bajo tubo en canalización existente, instalada, transporte, montaje y conexionado, medida la longitud en funcionamiento.	1	130,00			130,00	130,00
ELE0118	UD ARQUETA ELÉCTRICA FÁBRICA 100x100 CM Arqueta de paso de líneas construida en fábrica de ladrillo de 12 cm. de espesor y enfoscado en paredes, dimensiones interiores 100 x 100 y 100 cm. de profundidad, incluso marco y tapa de fundición.	14				14,000	14,00
AL130	UD ARQUETA PASO DERIVACIÓN 40x40x60 Arqueta prefabricada 40x40x60 cm libres, para paso, derivación o toma de tierra, con marco y tapa cuadrada 40x40 cm en fundición, medida la unidad ejecutada en obra.	5				5,00	5,00
BT150	UD INTERRUPTOR ALUMBRADO Interruptor de alumbrado con mecanismo completo y p/p de conductor, tubo y cajas de derivación.	2				2,000	2,00
BT160	UD TOMA DE CORRIENTE Toma de corriente con mecanismo completo y p/p de conductor, tubo y cajas de derivación.	2				2,000	2,00
BT190	UD PANTALLA ESTANCA Pantalla estanca WT120C L1500 1xLED60S/840 de Philips o equivalente, instalada y conexionada.	3				3,000	3,00
BT220	UD EMERGENCIA 300 LM Emergencia Basic Led serie L de Luznor o equivalente, modelo LL-300-T de 300 lúmenes, instalada y conexionada.	2				2,000	2,00
BT210	UD EMERGENCIA 100 LM Emergencia Basic Led serie L de Luznor o equivalente, modelo LLE-100 de 100 lúmenes, instalada y conexionada.	2				2,000	2,00
BT2303	UD PUESTA A TIERRA DE ZONA DE DESBASTE Puesta a tierra de la nave con 50 metros de conductor de cobre desnudo de 50mm2 y 4 picas de acero cobrizado de 2 metros.	1				1,000	1,00
BT2302	UD PUESTA A TIERRA DE EDIFICIO Puesta a tierra de la nave con 28 metros de conductor de cobre desnudo de 50mm2 y 4 picas de acero cobrizado de 2 metros.	1				1,000	1,00
BT181	UD LUMINARIA EXTERIOR NAVE Campana industrial BGP 307 T25 1xLED99-4S/740 DM11 de Philips o equivalente, instalada y conexionada.						

MEDICIONES

ABASTECIMIENTO A VARIOS MUNICIPIOS DE LA RIOJA. SISTEMA CIDACOS

CÓDIGO	RESUMEN	UDS	LONGITUD	ANCHURA	ALTURA	PARCIALES	CANTIDAD
	Arqueta entrada	1	2,20	1,60		3,52	
							6,00
AL040	UD PROYECTOR BVP130 LED260-4S/740 S Instalación de proyector BVP130 LED 260-4S/740 S CLASE II de Philips o equivalente. CON GARANTÍA POR 10 AÑOS EMITIDA POR EL FABRICANTE. Incluyendo nueva caja de derivación para intemperie, caja Clavet con fusible, línea de 3x2,5mm2 Cu 0,6/1kV hasta la luminaria, elemento adaptador de la entrada del proyector a cualquier tipo de columna, báculo o palomilla, totalmente conexas, unido a soporte y probado. Con protección contra sobretensiones, sobreintensidades y sobretemperatura. Incluso desmontaje y retirada al almacén municipal del proyector existente.	2				2,000	2,00
AL071	UD COLUMNA h=8m Suministro y colocación de columna metálica de chapa de acero galvanizada en caliente con altura 8 metros con puerta registrable incluso excavación y cimentación.	7				7,000	7,00
AL100	UD PALOMILLA BANDERA Palomilla bandera de tubo de acero galvanizado en caliente 50x40x4 mm. con dos anclajes a pared separados 50 cm. y vuelo comprendido entre 30 y 90 cm., galvanizado en caliente, tornillería de enlace de acero galvanizado, incluso obras auxiliares de apertura de huecos para anclajes y recibido en paramentos.	1				1,000	1,00
AL110	UD BRAZO SOPORTE RECTO/CURVO Brazo de tubo de acero estirado de 50 mm. de diámetro y 2,5 mm. de espesor, recto sin vuelo o con vuelo entre 0 y 1,5 m. y altura comprendida entre 2,00 y 5,00 m., galvanizado en caliente, tornillería de enlace de acero galvanizado, incluso obras auxiliares de adaptación a palomilla bandera existente o nueva.	1				1,000	1,00
BT260	Ud OCA Inspección inicial y certificado de Organismo de Control autorizado.	1				1,000	1,00
							1,00
CAPÍTULO 02 ESTACIÓN DE TRATAMIENTO DE AGUA POTABLE (ETAP)							
SUBCAPÍTULO 02.01 OBRA CIVIL ETAP							
APARTADO 02.01.01 MOVIMIENTO DE TIERRAS GENERAL DE LA PARCELA							
008	M2 DESPEJE Y DESBROCE Despeje y desbroce de capa de tierra vegetal con un espesor medio de 50 cm, incluso corte de árboles, extracción de tocones, nivelación de zona adyacente para el paso de maquinaria, transporte a lugar de acopio independiente para posterior reposición de tierra vegetal tras las obras y despedregado de las parcelas, así como transporte a vertedero de tierras sobrantes.						
	P0-P1	1	0,01	12,23	1,50	9,18	(b+c)/2*d
	P1-P2	1	12,23	62,03	12,50	464,13	(b+c)/2*d
	P2-P3	1	62,03	93,76	8,00	623,16	(b+c)/2*d
	P3-P4	1	93,76	77,83	23,50	2.016,18	(b+c)/2*d
	P4-P5	1	77,83	82,74	20,00	1.605,70	(b+c)/2*d
	P5-P6	1	82,74	78,66	27,00	2.178,90	(b+c)/2*d
	P6-P7	1	78,66	44,05	14,50	889,65	(b+c)/2*d
	P7-P8	1	44,05	23,98	13,50	459,20	(b+c)/2*d
	P8-P8'	1	23,98	0,01	1,50	17,99	(b+c)/2*d
							8.264,09
001	M3 EXCAVACIÓN A CIELO ABIERTO Excavación a cielo abierto en todo tipo de terrenos incluido terrenos en roca, incluso agotamiento y transporte a lugar de empleo o vertedero.						

MEDICIONES

ABASTECIMIENTO A VARIOS MUNICIPIOS DE LA RIOJA. SISTEMA CIDACOS

CÓDIGO	RESUMEN	UDS	LONGITUD	ANCHURA	ALTURA	PARCIALES	CANTIDAD
	Arqueta entrada	1	2,20	1,60		3,52	
	P1-P2	1	0,02	183,42	12,50	1.146,50	(b+c)/2*d
	P2-P3	1	183,42	225,36	8,00	1.635,12	(b+c)/2*d
	P3-P4	1	225,36	332,29	23,50	6.552,39	(b+c)/2*d
	P4-P5	1	332,29	289,10	20,00	6.213,90	(b+c)/2*d
	P5-P6	1	289,10	182,60	27,00	6.367,95	(b+c)/2*d
	P6-P7	1	182,60	53,59	14,50	1.712,38	(b+c)/2*d
	P7-P8	1	53,59	3,35	13,50	384,35	(b+c)/2*d
	P8-P8'	1	3,35	0,01	1,50	2,52	(b+c)/2*d
							24.015,13
005	M3 TERRAPLENADO DE MATERIAL ADECUADO Terraplenado con material adecuado procedente de las excavaciones o préstamos, incluso material, carga, transporte, extendido y compactación.						
	P0-P1	1	0,01	5,38	1,50	4,04	(b+c)/2*d
	P1-P2	1	5,38	4,62	12,50	62,50	(b+c)/2*d
	P2-P3	1	4,62	17,17	8,00	87,16	(b+c)/2*d
	P3-P4	1	17,17	75,64	23,50	1.090,52	(b+c)/2*d
	P4-P5	1	75,64	110,01	20,00	1.856,50	(b+c)/2*d
	P5-P6	1	110,01	179,11	27,00	3.903,12	(b+c)/2*d
	P6-P7	1	179,11	73,13	14,50	1.828,74	(b+c)/2*d
	P7-P8	1	73,13	21,58	13,50	639,29	(b+c)/2*d
	P8-P8'	1	21,58	0,01	1,50	16,19	(b+c)/2*d
							9.488,06
APARTADO 02.01.02 ARQUETA DE MEDICIÓN DE AGUA BRUTA							
002	M3 EXCAVACIÓN EN ZANJAS Excavación en zanjas y zonas localizadas, en todo tipo de terrenos incluido terrenos en roca con medios mecánicos, incluso rasanteo, nivelación de la superficie de apoyo y transporte a lugar de empleo o vertedero.						
		1	16,00	5,00	2,50	200,00	
							200,00
010	M3 RELLENO ZANJAS, CIMIENTOS Y TRASDOSES DE MATERIAL SELECCIONADO Relleno con material seleccionado en zanjas, cimientos, trasdós de muros, estribos y otras estructuras procedente de la excavación o préstamos incluso carga, transporte y compactación.						
		1	200,00			200,00	
		-1	15,00	3,10	2,40	-111,60	
							88,40
028	M3 HORMIGÓN DE LIMPEZA HL-150 Hormigón de limpieza HL-150, de consistencia plástica, árido de tamaño máximo 40 mm y cemento CEM-II-D/42,5/SR, para saneos y encachados, incluyendo fabricación y transporte totalmente colocado.						
		1	15,40	5,00	0,10	7,70	
							7,70
031	M3 HORMIGÓN HA-25/B/20/IIa Hormigón HA-25/B/20/IIa, con cemento CEM III/A-D/42,5/SR, incluyendo fabricación, transporte, puesta en obra y vibrado, totalmente ejecutado, incluso curado y juntas.						
	Solera	1	15,40	5,00	0,40	30,80	30,80
	Muros	2	15,40	0,30	2,60	24,02	
		2	4,60	0,30	2,60	7,18	31,20
	Tapa	1	15,00	4,60	0,25	17,25	
							79,25
025	M2 ENCOFRADO RECTO EN PARAMENTOS OCULTOS Encofrado recto en paramentos ocultos, incluso colocación, fijación y desencofrado.						
	Solera	2	15,60		0,40	12,48	
		2	5,00		0,40	4,00	
							16,48

MEDICIONES

ABASTECIMIENTO A VARIOS MUNICIPIOS DE LA RIOJA. SISTEMA CIDACOS

CÓDIGO	RESUMEN	UDS	LONGITUD	ANCHURA	ALTURA	PARCIALES	CANTIDAD
026	M2 ENCOFRADO RECTO EN PARAMENTOS VISTOS 1C Encofrado recto en paramentos vistos a una cara, incluso colocación, fijación y desencofrado.						
	Muros	2	15,00		2,60		78,00
		4	4,60		2,60		47,84
	Tapa	2	15,00		0,25		7,50
		2	4,60		0,25		2,30
							135,64
026.1	M2 ENCOFRADO RECTO EN LOSAS VISTOS Encofrado recto en losas vistos, incluso colocación, fijación y desencofrado.	1	15,00	4,60			69,00
							69,00
023	KG ACERO CORRUGADO B-500-S Acero redondo corrugado para armar tipo B-500-S elaborado y colocado.						
	Solera	1	30,80	70,00			2.156,00
	Muros	1	31,20	85,00			2.652,00
	Tapa	1	17,25	85,00			1.466,25
	Solapes y despuntes (5%)	0,05	6.274,26				313,71
							6.587,96
052	ML JUNTAS DE ESTANQUEIDAD DE PVC 32 CM Junta de trabajo interior de policloruro de vinilo (PVC) 100% virgen, con una fuerza máxima de dilatación > 250 % , de 32 cm de ancho, MASTERFLEX 2000 TI-24 de BASF o equivalente, colocada simétricamente en el eje de la losa o muro, incluso solapes y piezas especiales para cruces o ángulos. Medida la longitud ejecutada.						
		2	15,00				30,00
		2	4,60				9,20
							39,20
289B	M2 TAPA DE CHAPA LACRIMADA GALVANIZADA e=4mm Tapa de chapa lacrimada de acero galvanizado de 4 mm de espesor, incluyendo el marco, tiradores, aros para cerradura con candado, anclada, totalmente colocada.	2	1,20	1,20			2,88
							2,88
290	UD PATE POLIPROPILENO Pate de polipropileno de dimensiones 30x25 cm, incluyendo fabricación, transporte a obra, perforación de anclajes y relleno con aportación de material de agarre, completamente colocado.	18					18,00
							18,00
620	UD APOYOS DE TUBERÍA Y VÁLVULAS SOBRE SOLERA Apoyos de tuberías y válvulas en soleras, mediante dado de hormigón HA-25/P/20/IIa, ligeramente armado y anclado a la solera, así como cintas o eslingas de acero con material de protección de tubería para sujeción de las mismas, incluyendo el hormigón, encofrados, acero, eslingas, material de PE de protección, montado.	5					5,00
							5,00
APARTADO 02.01.03 CÁMARA DE PREOZONIZACIÓN							
001	M3 EXCAVACIÓN A CIELO ABIERTO Excavación a cielo abierto en todo tipo de terrenos incluido terrenos en roca, incluso agotamiento y transporte a lugar de empleo o vertedero.	1	404,20	259,68	3,12	1.035,65	(b+c)/2*d
							1.035,65
010	M3 RELLENO ZANJAS, CIMIENTOS Y TRASDOSES DE MATERIAL SELECCIONADO Relleno con material seleccionado en zanjas, cimientos, trasdós de muros, estribos y otras estructuras procedente de la excavación o préstamos incluso carga, transporte y compactación.	1	1.035,65				1.035,65
	De excavación	-1	18,75	13,85	0,60		-155,81
		-1	17,95	10,60	2,52		-479,48

MEDICIONES

ABASTECIMIENTO A VARIOS MUNICIPIOS DE LA RIOJA. SISTEMA CIDACOS

CÓDIGO	RESUMEN	UDS	LONGITUD	ANCHURA	ALTURA	PARCIALES	CANTIDAD
							400,36
028	M3 HORMIGÓN DE LIMPIEZA HL-150 Hormigón de limpieza HL-150, de consistencia plástica, árido de tamaño máximo 40 mm y cemento CEM-II-D/42,5/SR, para saneos y encachados, incluyendo fabricación y transporte totalmente colocado.	1	18,75	13,85	0,10	25,97	
	Cámara						25,97
							25,97
032.1	M3 HORMIGÓN HA-30/P/30/IV Hormigón armado HA-30/B/30/IV, con una dosificación de hormigón de 325 kg/m3 de cemento, consistencia plástica, elaborado en central para estructuras, incluso bombeado y medios manuales, vibrado y colocado.						
	SOLERAS						
	Solera cámara	1	16,35	11,40	0,50	93,20	
		1	2,40	5,60	0,50	6,72	99,92
	Solera arquetas	3	3,50	2,00	0,40	8,40	
		3	3,50	0,81		8,51	16,91
	Falsa solera cámaras	2	10,60	2,20	0,40	18,66	
	MUROS CAMARA						
	Muros cámaras laterales	2	15,55	0,40	5,79	72,03	
		2	9,80	0,40	5,79	45,39	
	Muros interiores	1	9,80	0,40	0,92	3,61	
		1	9,80	0,30	3,83	11,26	
		1	9,80	0,40	5,52	21,64	
		1	9,80	0,30	4,79	14,08	
		1	9,80	0,30	4,72	13,88	
		1	9,80	0,40	0,92	3,61	
		1	9,80	0,30	3,54	10,41	
	Muros interiores longitudinales	2	11,15	0,40	5,79	51,65	
	Muros entrada	1	4,80	0,40	5,79	11,12	
		2	2,00	0,40	5,79	9,26	286,60
	MUROS ARQUETAS						
		1	2,90	0,30	3,80	3,31	
		2	2,60	0,30	3,80	5,93	
		6	1,00	0,30	3,80	6,84	16,08
							419,51
025	M2 ENCOFRADO RECTO EN PARAMENTOS OCULTOS Encofrado recto en paramentos ocultos, incluso colocación, fijación y desencofrado.						
	SOLERAS						
	Solera cámara	2	16,35		0,50	16,35	
		2	11,40		0,50	11,40	
		2	2,40		0,50	2,40	
		2	5,60		0,50	5,60	
	Solera arquetas	3	3,50		0,40	4,20	
		6	2,00		0,40	4,80	
							44,75
026	M2 ENCOFRADO RECTO EN PARAMENTOS VISTOS 1C Encofrado recto en paramentos vistos a una cara, incluso colocación, fijación y desencofrado.						
	MUROS CAMARA						
	Muros cámaras laterales	4	15,55		5,79	360,14	
		4	9,80		5,79	226,97	
	Muros interiores	2	9,80		0,92	18,03	
		2	9,80		3,83	75,07	
		2	9,80		5,52	108,19	
		2	9,80		4,79	93,88	
		2	9,80		4,72	92,51	
		2	9,80		0,92	18,03	
		2	9,80		3,54	69,38	
	Muros interiores longitudinales	4	11,15		5,79	258,23	

MEDICIONES

ABASTECIMIENTO A VARIOS MUNICIPIOS DE LA RIOJA. SISTEMA CIDACOS

CÓDIGO	RESUMEN	UDS	LONGITUD	ANCHURA	ALTURA	PARCIALES	CANTIDAD
	Arqueta entrada	1	2,20	1,60		3,52	
		4	2,00		5,79	46,32	
	MUROS ARQUETAS						
		2	2,90		3,80	22,04	
		4	2,60		3,80	39,52	
		12	1,00		3,80	45,60	
							1.529,49
023	KG ACERO CORRUGADO B-500-S						
	Acero redondo corrugado para armar tipo B-500-S elaborado y colocado.						
	Solera de 50 cm	1	99,92	75,00		7.494,00	
	Solera de 40 cm	1	16,91	95,00		1.606,45	
	Muros de 40 cm	1	265,13	90,00		23.861,70	
	Muros de 30 cm	1	21,47	90,00		1.932,30	
							34.894,45
439E	M2 FORJADO PLACA ALVEOLAR 15+10 cm						
	Forjado unidireccional de losas alveolares prefabricadas de 15 cm de espesor y capa de compresión de 10 cm de hormigón HA-30/F/20/IV, incluso armadura de negativos según planos, mallazo de reparto, formación de huecos, y elementos auxiliares.						
		1	15,55	10,60		164,83	
							164,83
052	ML JUNTAS DE ESTANQUEIDAD DE PVC 32 CM						
	Junta de trabajo interior de policloruro de vinilo (PVC) 100% virgen, con una fuerza máxima de dilatación > 250 %, de 32 cm de ancho, MASTERFLEX 2000 TI-24 de BASF o equivalente, colocada simétricamente en el eje de la losa o muro, incluso solapes y piezas especiales para cruces o ángulos. Medida la longitud ejecutada.						
	SOLETRAS-MUROS						
	Solera-muros	2	15,15			30,30	
		4	10,20			40,80	
	Camara de entrada	1	4,40			4,40	
		2	2,40			4,80	
	VERTICALES						
	Arqueta entrada	10	5,79			57,90	
							138,20
472	ML SELLADO INTERIOR DE JUNTAS DE CONSTRUCCIÓN POLIURETANO						
	Sellado de juntas en paramentos horizontales y verticales con un ancho de junta de 20 mm, con una Dureza Shore A aprox. 40 y Alargamiento a Rotura ISO 8339 > 250 %, con masilla de poliuretano monocomponente MASTERFLEX 474 de BASF o equivalente, Apta para Agua Potable según RD 140/2003. Incluso limpieza, imprimación en base poliuretano de los labios de la junta con MASTERFLEX PRIMER P (ELASTOPRIMER 110) de BASF o equivalente, y cordón de fondo de junta MASTERFLEX FJ de BASF o equivalente de 30 mm. de diámetro. Medida la longitud ejecutada.						
	SOLETRAS-MUROS						
	Solera-muros	5	10,60			53,00	
		2	15,15			30,30	
	Camara entrada	2	2,80			5,60	
		1	4,50			4,50	
	Arquetas	3	3,30			9,90	
		6	1,60			9,60	
	VERTICALES						
	Arqueta entrada	2	4,40			8,80	
		2	4,40			8,80	
							130,50
289B	M2 TAPA DE CHAPA LACRIMADA GALVANIZADA e=4mm						
	Tapa de chapa lacrimada de acero galvanizado de 4 mm de espesor, incluyendo el marco, tiradores, aros para cerradura con candado, anclada, totalmente colocada.						
	Arquetas	1	1,05	2,05		2,15	
		2	1,05	2,35		4,94	
							7,09

MEDICIONES

ABASTECIMIENTO A VARIOS MUNICIPIOS DE LA RIOJA. SISTEMA CIDACOS

CÓDIGO	RESUMEN	UDS	LONGITUD	ANCHURA	ALTURA	PARCIALES	CANTIDAD
E0A060	UD TRAMEX. ENTRAMADO METÁLICO 30X30X3						
	Entramado metálico 30x30x3 tipo tramex o equivalente, incluso estructura auxiliar y suministro con parte proporcional de cerco también galvanizado, montaje, recibido y pintado.						
	Cámara de entrada	1	4,10	2,10		8,61	
							8,61
E0104CH91	ML BARANDILLA METÁLICA ACERO INOXIDABLE AISI-316L						
	Barandilla metálica en acero inoxidable AISI-316L, de 90 cm. de altura, formada por perfilera de tubo hueco de 30 mm y 3 mm de espesor, incluso rodapié de seguridad, elementos de anclaje, colocada.						
		1	56,00			56,00	
							56,00
290A	ML ESCALERA TUBULAR INOXIDABLE CON ELEMENTOS ANTICAIDA						
	Formación de escalera tubular de 50 mm de diámetro, de acero inoxidable AISI-316L, incluso protecciones circulares contra caídas según normativa, anclada a la pared y/o muros, totalmente ejecutada.						
	Interior cámaras	6			5,50	33,00	
	Entrada	1			4,40	4,40	
	Arquetas	3			3,75	11,25	
							48,65
290BB	M2 ESCALERA Y PASARELAS DE ACERO GALVANIZADO. BARANDILLAS AISI316L						
	Escalera y pasarelas de acceso de forma según planos, ejecutada en perfiles de acero galvanizado en caliente, incluso barandilla tubular del mismo material, de 90 cm de altura en uno o dos lados, rodapié de seguridad del mismo en uno o dos lados, así como entramado metálico de 30x30x3 en descansillos y peldaños, medida según su proyección en planta. Anclada a los muros y/o solera, instalada.						
	Subida a cámara	1	4,80	1,10		5,28	
							5,28
APARTADO 02.01.04 COAGULACIÓN-FLOCULACIÓN Y DECANTACIÓN LAMELAR							
002	M3 EXCAVACIÓN EN ZANJAS						
	Excavación en zanjas y zonas localizadas, en todo tipo de terrenos incluido terrenos en roca con medios mecánicos, incluso rasanteo, nivelación de la superficie de apoyo y transporte a lugar de empleo o vertedero.						
		1	197,00	14,75		2.905,75	
		1	213,54	8,40		1.793,74	
		-2	38,45	8,40		-645,96	
		1	20,60	33,00		679,80	
		1	10,50	43,90		460,95	
							5.194,28
010	M3 RELLENO ZANJAS, CIMIENTOS Y TRASDOSES DE MATERIAL SELECCIONADO						
	Relleno con material seleccionado en zanjas, cimientos, trasdós de muros, estribos y otras estructuras procedente de la excavación o préstamos incluso carga, transporte y compactación.						
	De excavación	1	5.194,28			5.194,28	
		-1	186,78	14,75		-2.755,01	
		-1	181,00	8,40		-1.520,40	
		2	38,45	8,40		645,96	
	De bolo	-1	188,35			-188,35	
							1.376,48
006	M3 RELLENOS CON MATERIAL DE BOLO						
	Relleno con material seleccionado de bolo, para evitar asentamientos, en trasdós de muros, estribos y otras estructuras procedente de préstamos incluso carga, transporte y extendido.						
	Bajo cámara coagulación exterior	1	65,00			65,00	
	Bajo floculadores	2	11,40	5,41		123,35	
							188,35
028	M3 HORMIGÓN DE LIMPIEZA HL-150						
	Hormigón de limpieza HL-150, de consistencia plástica, árido de tamaño máximo 40 mm y cemento CEM-II-D/42,5/SR, para saneos y encachados, incluyendo fabricación y transporte totalmente colocado.						

MEDICIONES

ABASTECIMIENTO A VARIOS MUNICIPIOS DE LA RIOJA. SISTEMA CIDACOS

CÓDIGO	RESUMEN	UDS	LONGITUD	ANCHURA	ALTURA	PARCIALES	CANTIDAD
	Arqueta entrada	1	2,20	1,60		3,52	
	Camaras	1	51,30	4,65	0,10	23,85	
		1	47,15	2,50	0,10	11,79	
	Protección tubería salida fangos	4	6,50	0,40	0,40	4,16	
	Zapatatas	9	1,25	1,25	0,10	1,41	
							115,89
032.1	M3 HORMIGÓN HA-30/P/30/IV						
	Hormigón armado HA-30/B/30/IV, con una dosificación de hormigón de 325 kg/m3 de cemento, consistencia plástica, elaborado en central para estructuras, incluso bombeado y medios manuales, vibrado y colocado.						
	SOLERAS						
	Solera decantadores	1	14,50	51,50	0,50	373,38	
		4	3,33	6,30		83,92	
	Solera galerías	1	7,15	51,30	0,50	183,40	
		1	2,50	47,15	0,50	58,94	699,64
	Zapatatas	9	1,25	1,25	0,50	7,03	7,03
	Solera cámara de reparto decantadores	4	12,00	1,00	0,40	19,20	
	Solera reparto decantadores	4	10,70	1,50	0,40	25,68	44,88
	Solera cámara de entrada	1	46,00	1,30	0,30	17,94	
	Solera cámara by-pass	1	21,50	1,30	0,30	8,39	
	Solera canal de salida	1	51,30	1,80	0,30	27,70	54,03
	MUROS						
	Muros decantador frontales	2	50,50	0,50	6,40	323,20	323,20
	Muros decantador divisorios	5	12,00	0,50	6,40	192,00	192,00
	Muros decantador entrada	8	12,00	0,30	3,85	110,88	
	Muros reparto decantadores	8	10,70	0,25	1,45	31,03	
	Muro cámaras-decantador	1	50,00	0,45	8,90	200,25	342,16
	Muros cámara bombeo pequeña	2	3,40	0,40	8,90	24,21	
		-1	1,50	0,40	2,75	-1,65	
		1	6,10	0,40	8,90	21,72	
	Muros cámara bombeo central	2	5,90	0,40	8,90	42,01	
		1	12,60	0,40	8,90	44,86	
	Muros cámara bombeo grande	2	5,90	0,40	8,90	42,01	
		1	6,10	0,40	8,90	21,72	
	Muros cámara coagulación	4	2,50	0,40	2,51	10,04	
		4	2,10	0,40	2,51	8,43	
	Muros floculación	2	11,40	0,40	5,65	51,53	
		1	2,50	0,40	5,65	5,65	
	Muros interior floculación	2	5,50	0,40	5,65	24,86	295,39
		4	5,50	0,30	5,65	37,29	
	Muros canal entrada coagulación	1	46,00	0,30	1,40	19,32	
		1	1,30	0,30	1,40	0,55	
	Muros canal entrada by-pass	1	21,50	0,30	1,40	9,03	
		1	1,30	0,30	1,40	0,55	
	Muros salida	2	1,80	0,30	2,50	2,70	
		1	50,60	0,30	2,50	37,95	107,39
	LOSAS						
	Pasarela decantadores	4	25,00		0,25	25,00	
		4	2,20	1,00	0,25	2,20	
	Forjado cámaras bombeo	1	6,10	3,00	0,25	4,58	
		-1	3,00	1,50	0,25	-1,13	
		1	12,60	3,00	0,25	9,45	
		1	7,60	2,50	0,25	4,75	
		-2	3,00	1,50	0,25	-2,25	
		1	6,10	3,00	0,25	4,58	
		1	3,60	2,50	0,25	2,25	
		-1	3,00	1,50	0,25	-1,13	48,30
	Escalera interior	1	2,60	1,00		2,60	
		3	2,00	1,00	0,20	1,20	3,80
	Pilares	9	0,30	0,30	3,60	2,92	

MEDICIONES

ABASTECIMIENTO A VARIOS MUNICIPIOS DE LA RIOJA. SISTEMA CIDACOS

CÓDIGO	RESUMEN	UDS	LONGITUD	ANCHURA	ALTURA	PARCIALES	CANTIDAD
	Arqueta entrada	1	2,20	1,60		3,52	
							2.124,58
025	M2 ENCOFRADO RECTO EN PARAMENTOS OCULTOS						
	Encofrado recto en paramentos ocultos, incluso colocación, fijación y desencofrado.						
	Solera decantadores	2	14,70		0,40	11,76	
		1	50,80		0,40	20,32	
		4	4,72		1,58	29,83	
	Solera galerías	1	127,00		0,50	63,50	
	Cámaras	1	5,00		0,40	2,00	
		2	12,20		0,40	9,76	
	Solera cámara de entrada	1	46,00		0,30	13,80	
		1	1,30		0,30	0,39	
	Solera cámara by-pass	1	21,50		0,30	6,45	
		1	1,30		0,30	0,39	
	Saloera canal de salida	1	51,30		0,30	15,39	
		2	1,80		0,30	1,08	
	Zapatatas	36	1,25		0,50	22,50	
							197,17
026	M2 ENCOFRADO RECTO EN PARAMENTOS VISTOS 1C						
	Encofrado recto en paramentos vistos a una cara, incluso colocación, fijación y desencofrado.						
	MUROS						
	Muros decantador frontales	4	50,00		5,65	1.130,00	
	Muros divisorios	10	13,45		5,65	759,93	
	Muros entrada	8	12,00		3,85	369,60	
	Muro cámaras-decantador	2	50,00		8,90	890,00	
	Muros cámaras bombeo	4	3,40		8,90	121,04	
		2	6,10		8,90	108,58	
	Muros cámara bombeo central	4	5,90		8,90	210,04	
		2	12,60		8,90	224,28	
	Muros cámara bombeo grande	4	5,90		8,90	210,04	
		2	6,10		8,90	108,58	
	Muros cámara coagulación	8	2,50		2,51	50,20	
		8	2,10		2,51	42,17	
	Muros floculación	4	11,40		5,65	257,64	
		2	2,50		5,65	28,25	
	Muros interior floculación	4	5,50		5,65	124,30	
		8	5,50		5,65	248,60	
	Muros canal entrada coagulación	2	46,00		1,40	128,80	
		2	1,30		1,40	3,64	
	Muros canal entrada by-pass	2	21,50		1,40	60,20	
		2	1,30		1,40	3,64	
	Muros salida	4	1,80		2,50	18,00	
		2	50,60		2,50	253,00	
	Losas lateral decantador	4	27,00		0,25	27,00	
		8	1,00		0,25	2,00	
	Escalera interior	2	2,60			5,20	
		30	1,00		0,18	5,40	
		3	2,00		0,20	1,20	
		2	2,20		0,20	0,88	
	Solera reparto decantadores	8	10,70		1,75	149,80	
							5.542,01
026.1	M2 ENCOFRADO RECTO EN LOSAS VISTOS						
	Encofrado recto en losas vistos, incluso colocación, fijación y desencofrado.						
	Solera cámara de reparto	4	12,00	1,00		48,00	
	Solera reparto decantadores	4	10,70	1,50		64,20	
	Losas cámaras coagulación	4	2,50	2,50		25,00	
	Pasarela decantadores	4	25,00			100,00	
		4	2,20	1,00		8,80	
	Forjado cámaras bombeo	1	6,10	3,00		18,30	

MEDICIONES

ABASTECIMIENTO A VARIOS MUNICIPIOS DE LA RIOJA. SISTEMA CIDACOS

CÓDIGO	RESUMEN	UDS	LONGITUD	ANCHURA	ALTURA	PARCIALES	CANTIDAD
	Arqueta entrada	1	2,20	1,60		3,52	
		1	7,60	2,50		19,00	
		1	6,10	3,00		18,30	
		1	3,60	2,50		9,00	
	Escalera interior	1	2,20	2,20		4,84	
		1	2,20	1,10		2,42	
		3	3,15	1,00		9,45	
							365,11
026.2	M2 ENCOFRADO RECTO EN PILARES VISTOS						
	Encofrado recto en pilares vistos, incluso colocación, fijación y desencofrado.						
	Pilares	36	0,30		3,60	38,88	
		16	0,40		6,00	38,40	
							77,28
023	KG ACERO CORRUGADO B-500-S						
	Acero redondo corrugado para armar tipo B-500-S elaborado y colocado.						
	Soleras 50 cm	1	667,94	105,00		70.133,70	
	Soleras 40 cm	1	44,88	75,00		3.366,00	
	Soleras 30 cm	1	54,03	75,00		4.052,25	
	Muros 50 cm	1	515,20	110,00		56.672,00	
	Muros 45 cm	1	342,56	85,00		29.117,60	
	Muros 40 cm	1	295,39	75,00		22.154,25	
	Muros 30 cm	1	218,27	75,00		16.370,25	
	Losas 25 cm	1	45,48	85,00		3.865,80	
	Escalera	1	3,80	130,00		494,00	
	Pilares	1	6,76	130,00		878,80	
	Solapes y despuntes (5%)	0,05	207.104,65			10.355,23	
							217.459,88
052	ML JUNTAS DE ESTANQUEIDAD DE PVC 32 CM						
	Junta de trabajo interior de policloruro de vinilo (PVC) 100% virgen, con una fuerza máxima de dilatación > 250 % , de 32 cm de ancho, MASTERFLEX 2000 TI-24 de BASF o equivalente, colocada simétricamente en el eje de la losa o muro, incluso solapes y piezas especiales para cruces o ángulos. Medida la longitud ejecutada.						
	Solera-muro	8	50,90			407,20	
		2	13,75			27,50	
		2	5,95			11,90	
		2	23,00			46,00	
		8	2,80			22,40	
	Verticales	18	6,40			115,20	
		13	8,90			115,70	
							745,90
472	ML SELLADO INTERIOR DE JUNTAS DE CONSTRUCCIÓN POLIURETANO						
	Sellado de juntas en paramentos horizontales y verticales con un ancho de junta de 20 mm, con una Dureza Shore A aprox. 40 y Alargamiento a Rotura ISO 8339 > 250 % , con masilla de poliuretano monocomponente MASTERFLEX 474 de BASF o equivalente, Apta para Agua Potable según RD 140/2003. Incluso limpieza, imprimación en base poliuretano de los labios de la junta con MASTERFLEX PRIMER P (ELASTOPRIMER 110) de BASF o equivalente, y cordón de fondo de junta MASTERFLEX FJ de BASF o equivalente de 30 mm. de diámetro. Medida la longitud ejecutada.						
	Solera-muro	8	50,90			407,20	
		2	13,75			27,50	
		2	5,95			11,90	
		2	23,00			46,00	
		8	2,80			22,40	
	Verticales	18	6,40			115,20	
		13	8,90			115,70	
							745,90
E0A060	UD TRAMEX. ENTRAMADO METÁLICO 30X30X3						
	Entramado metálico 30x30x3 tipo tramex o equivalente, incluso estructura auxiliar y suministro con parte proporcional de cerco también galvanizado, montaje, recibido y pintado.						

MEDICIONES

ABASTECIMIENTO A VARIOS MUNICIPIOS DE LA RIOJA. SISTEMA CIDACOS

CÓDIGO	RESUMEN	UDS	LONGITUD	ANCHURA	ALTURA	PARCIALES	CANTIDAD
	Arqueta entrada	1	2,20	1,60		3,52	
	Canal by-pas	1	21,20	1,10		23,32	
	Canal entrada	1	45,30	1,10		49,83	
	Coagulación	4	2,20	2,20		19,36	
	Canales a decantadores	4	12,10	1,10		53,24	
	Sobre floculación	4	5,95	1,00		23,80	
							250,67
E0104CH91	ML BARANDILLA METÁLICA ACERO INOXIDABLE AISI-316L						
	Barandilla metálica en acero inoxidable AISI-316L, de 90 cm. de altura, formada por perfilera de tubo hueco de 30 mm y 3 mm de espesor, incluso rodapié de seguridad, elementos de anclaje, colocada.						
	Exterior	1	162,00			162,00	
		4	16,70			66,80	
		2	22,00			44,00	
	Escalera interior	2	1,00			2,00	
		1	3,10			3,10	
		2	2,10			4,20	
		4	2,25			9,00	
							291,10
290A	ML ESCALERA TUBULAR INOXIDABLE CON ELEMENTOS ANTICAIDA						
	Formación de escalera tubular de 50 mm de diámetro, de acero inoxidable AISI-316L, incluso protecciones circulares contra caídas según normativa, anclada a la pared y/o muros, totalmente ejecutada.						
	Interior cámaras	6			5,50	33,00	
	Entrada	1			4,40	4,40	
	Arquetas	3			3,75	11,25	
							48,65
290BB	M2 ESCALERA Y PASARELAS DE ACERO GALVANIZADO. BARANDILLAS AISI316L						
	Escalera y pasarelas de acceso de forma según planos, ejecutada en perfiles de acero galvanizado en caliente, incluso barandilla tubular del mismo material, de 90 cm de altura en uno o dos lados, rodapié de seguridad del mismo en uno o dos lados, así como entramado metálico de 30x30x3 en descansillos y peldaños, medida según su proyección en planta. Anclada a los muros y/o solera, instalada.						
	Subida a cámara	1	4,50	1,00		4,50	
							4,50
289B	M2 TAPA DE CHAPA LACRIMADA GALVANIZADA e=4mm						
	Tapa de chapa lacrimada de acero galvanizado de 4 mm de espesor, incluyendo el marco, tiradores, aros para cerradura con candado, anclada, totalmente colocada.						
	Sobre losas de bombeo	4	3,00	1,50		18,00	
							18,00
020	KG ACERO S 275 J PERFILES LAMINADOS						
	Acero S 275 J en perfiles laminados elaborado y colocado.						
	Carriles de polipastos						
	HEB-100	16	2,50	20,40		816,00	
		8	2,00	20,40		326,40	
	IPE-220	4	3,50	26,20		366,80	
	Apoyos agitadores	8	2,20			17,60	
		8	5,95	61,30		2.917,88	
							4.444,68

APARTADO 02.01.05 FILTROS DE ARENA Y DEPÓSITO DE AGUA FILTRADA

MEDICIONES

ABASTECIMIENTO A VARIOS MUNICIPIOS DE LA RIOJA. SISTEMA CIDACOS

CÓDIGO	RESUMEN	UDS	LONGITUD	ANCHURA	ALTURA	PARCIALES	CANTIDAD
SUBAPARTADO 02.01.05.1 MOVIMIENTO DE TIERRAS							
001	M3 EXCAVACIÓN A CIELO ABIERTO Excavación a cielo abierto en todo tipo de terrenos incluido terrenos en roca, incluso agotamiento y transporte a lugar de empleo o vertedero.						
	Zona de filtros	1	1.315,00	1.094,00	4,00	4.818,00	(b+c)/2*d
		-2	44,15	6,36	0,86	-482,97	
	Zona de depósitos	1	340,70	212,63	5,25	1.452,49	(b+c)/2*d
							5.787,52
010	M3 RELLENO ZANJAS, CIMIENTOS Y TRASDOSES DE MATERIAL SELECCIONADO Relleno con material seleccionado en zanjas, cimientos, trasdós de muros, estribos y otras estructuras procedente de la excavación o préstamos incluso carga, transporte y compactación.						
	De excavación	1	5.787,52			5.787,52	
	Filtros	-1	37,30	26,75	4,00	-3.991,10	
		2	44,15	6,36	0,86	482,97	
	Depósitos	-1	195,60		0,50	-97,80	
		-1	179,18		5,25	-940,70	
	De bolo	-1	545,20			-545,20	
							695,69
006	M3 RELLENOS CON MATERIAL DE BOLO Relleno con material seleccionado de bolo, para eviatar asentamientos, en trasdós de muros, estribos y otras estructuras procedente de préstamos incluso carga, transporte y extendido.						
	En relleno de excavación bajo edificio	1	40,00	13,63		545,20	
							545,20
SUBAPARTADO 02.01.05.2 OBRA CIVIL							
028	M3 HORMIGÓN DE LIMPEZA HL-150 Hormigón de limpieza HL-150, de consistencia plástica, árido de tamaño máximo 40 mm y cemento CEM-II-D/42,5/SR, para saneos y encachados, incluyendo fabricación y transporte totalmente colocado.						
	Filtros	1	37,90	27,55	0,10	104,41	
	Depósitos	1	7,90	17,00	0,10	13,43	
		1	9,00	6,80	0,10	6,12	
	Escaleras laterales	2	8,75	1,35	0,10	2,36	
							126,32
032.1	M3 HORMIGÓN HA-30/P/30/IV Hormigón armado HA-30/B/30/IV, con una dosificación de hormigón de 325 kg/m3 de cemento, consistencia plástica, elaborado en central para estructuras, incluso bombeado y medios manuales, vibrado y colocado.						
	SOLETRAS						
	Filtros	1	37,90	27,55	0,40	417,66	
	Escaleras laterales	2	8,75	1,35	0,40	9,45	
	Relleno	2	37,90	0,31		23,50	
	Sobreancho salida filtros	2	37,90	1,00		75,80	
	MUROS FILTROS						
	Muros laterales	6	37,50	0,35	4,75	374,06	
	Muro frontal	1	26,75	0,35	4,75	44,47	
	Muros entrada a filtros	2	37,50	0,30	1,30	29,25	
		-14	2,50	0,30	0,70	-7,35	
	Solera entrada filtros	2	37,50	1,80	0,35	47,25	
	Muros separación filtros	12	7,50	0,35	3,89	122,54	
		12	0,60	0,35	3,89	9,80	
	Muros canales reparto filtros	28	7,50	0,20	2,54	106,68	
	Solera canales	14	7,50	0,50	0,20	10,50	
	Muros salida agua filtrada	2	37,50	0,30	2,45	55,13	
		4	1,40	0,30	2,45	4,12	
		26	1,40	0,25	2,45	22,30	
	Vertederos salida	14	1,40	0,20	1,33	5,21	
	Losas entre salida filtros	4	3,85	1,40	0,25	5,39	
	Muros escalera exterior bajada filtros	2	28,00	0,35		19,60	

MEDICIONES

ABASTECIMIENTO A VARIOS MUNICIPIOS DE LA RIOJA. SISTEMA CIDACOS

CÓDIGO	RESUMEN	UDS	LONGITUD	ANCHURA	ALTURA	PARCIALES	CANTIDAD
	Arqueta entrada	1	2,20	1,60		3,52	
	Peldaños escalera	2	1,82	1,00		3,64	
	Pasarelas muros	24	7,50	0,56	0,25	25,20	
	SOLETRAS DEPÓSITOS						
	Soleras	1	8,30	17,00	0,40	56,44	
		1	9,40	6,81	0,40	25,61	
	Muros	1	7,50	0,35	4,75	12,47	
		1	16,65	0,35	4,75	27,68	
		1	6,80	0,35	4,75	11,31	
		1	22,30	0,35	4,75	37,07	
		2	10,35	0,35	2,30	16,66	
		1	8,60	0,35	4,75	14,30	
		1	5,36	0,35	4,75	8,91	
		1	3,96	0,35	0,95	1,32	
		1	5,70	0,35	0,95	1,90	
	Losa depósitos	1	128,00		0,25	32,00	
		1	5,05	5,36	0,30	8,12	
							1.661,30
025	M2 ENCOFRADO RECTO EN PARAMENTOS OCULTOS Encofrado recto en paramentos ocultos, incluso colocación, fijación y desencofrado.						
	SOLETRAS FILTROS						
	Filtros	2	37,90		0,40	30,32	
		2	27,55		0,40	22,04	
	Depósitos	1	8,30		0,40	3,32	
		2	17,00		0,40	13,60	
		1	1,10		0,40	0,44	
		1	9,40		0,40	3,76	
		2	6,81		0,40	5,45	
	Escaleras laterales	2	8,75		0,40	7,00	
		2	1,35		0,40	1,08	
							87,01
026	M2 ENCOFRADO RECTO EN PARAMENTOS VISTOS 1C Encofrado recto en paramentos vistos a una cara, incluso colocación, fijación y desencofrado.						
	Hueco salida agua en sobreancho	4	37,50		0,50	75,00	
	MUROS FILTROS						
	Muros laterales	12	37,50		4,75	2.137,50	
	Muro frontal	2	26,75		4,75	254,13	
	Muros entrada a filtros	4	37,50		1,30	195,00	
		-24	2,50		0,70	-42,00	
	Muros separación filtros	24	7,50		3,89	700,20	
		24	0,60		3,89	56,02	
	Muros canales reparto filtros	56	7,50		2,54	1.066,80	
	Muros salida agua filtrada	4	37,50		2,45	367,50	
		42	1,40		2,45	144,06	
	Vertederos salida	28	1,40		1,33	52,14	
	Muros escalera exterior bajada filtros	4	28,00			112,00	
		4	1,00		4,73	18,92	
	Peldaños escalera	22	11,00		0,18	43,56	
	Muros depósitos	2	7,50		4,75	71,25	
		2	16,65		4,75	158,18	
		2	6,80		4,75	64,60	
		2	22,30		4,75	211,85	
		2	8,60		4,75	81,70	
		2	5,36		4,75	50,92	
		2	5,36		0,95	10,18	
		2	5,70		0,95	10,83	
		4	10,35		2,30	95,22	
							5.935,56

MEDICIONES

ABASTECIMIENTO A VARIOS MUNICIPIOS DE LA RIOJA. SISTEMA CIDACOS

CÓDIGO	RESUMEN	UDS	LONGITUD	ANCHURA	ALTURA	PARCIALES	CANTIDAD
290	UD PATE POLIPROPILENO Pate de polipropileno de dimensiones 30x25 cm, incluyendo fabricación, transporte a obra, perforación de anclajes y relleno con aportación de material de agarre, completamente colocado. Subida forjado edificio control, parte interior	3					3,00
							3,00
051pc2	KG REVESTIMIENTO MULTICAPA RESINA EXPOXI m². Suministro y puesta en obra del Sistema Multicapa Epoxi MASTERTOP 1220 Polykit, con un espesor de 2,0 mm, consistente en formación de capa base epoxi sin disolventes coloreada MASTERTOP 1200 o similar (rendimiento 1,6 kg/m²); espolvoreo en fresco de árido de cuarzo MASTERTOP F 5 o similar con una granulometría 0,3-0,8 mm (rendimiento 3,0 kg/m²); sellado con el revestimiento epoxi sin disolventes coloreado MASTERTOP 1200 o similar (rendimiento 0,600 kg/m²), sobre superficies de hormigón o mortero, sin incluir la preparación del soporte. Colores Estándar. Forjado 15+5 planta v álulas Sala de soplantes Sala sobre bombas de agua de lavado	1 4 2 1 -1 1 1 -1 -1	37,50 4,25 1,68 9,75 1,10 10,57 5,43 1,10 1,00	3,15 1,45 1,45 6,00 1,40 6,07 2,26 1,10 1,20		118,13 24,65 4,87 58,50 -1,54 64,16 12,27 -1,21 -1,20	278,63
APARTADO 02.01.06 EDIFICIO FILTRACIÓN Y DE CONTROL							
SUBAPARTADO 02.01.06.1 MOVIMIENTO DE TIERRAS							
001	M3 EXCAVACIÓN A CIELO ABIERTO Excavación a cielo abierto en todo tipo de terrenos incluido terrenos en roca, incluso agotamiento y transporte a lugar de empleo o vertedero. Solera + encachado	1	233,17		0,30		69,95
							69,95
002	M3 EXCAVACIÓN EN ZANJAS Excavación en zanjas y zonas localizadas, en todo tipo de terrenos incluido terrenos en roca con medios mecánicos, incluso rasanteo, nivelación de la superficie de apoyo y transporte a lugar de empleo o vertedero. Zapatillas Foso ascensor Vigas cimentación	4 4 2 2 1 1	1,80 2,30 2,10 2,60 2,60 47,00	1,80 2,30 2,10 2,60 2,60 1,00	1,15 1,15 1,15 1,15 1,50 1,15	14,90 24,33 10,14 15,55 10,14 54,05	129,11
							129,11
010	M3 RELLENO ZANJAS, CIMIENTOS Y TRASDOSES DE MATERIAL SELECCIONADO Relleno con material seleccionado en zanjas, cimientos, trasdós de muros, estribos y otras estructuras procedente de la excavación o préstamos incluso carga, transporte y compactación. De excavación A deducir zapatas A deducir ascensor A deducir vigas	1 -4 -4 -2 -2 -1 -1	129,11 1,30 1,80 1,60 2,10 2,00 47,00			129,11 -3,38 -6,48 -2,56 -5,29 -6,00 -15,51	89,89
							89,89

MEDICIONES

ABASTECIMIENTO A VARIOS MUNICIPIOS DE LA RIOJA. SISTEMA CIDACOS

CÓDIGO	RESUMEN	UDS	LONGITUD	ANCHURA	ALTURA	PARCIALES	CANTIDAD
SUBAPARTADO 02.01.06.2 ESTRUCTURA							
028	M3 HORMIGÓN DE LIMPIEZA HL-150 Hormigón de limpieza HL-150, de consistencia plástica, árido de tamaño máximo 40 mm y cemento CEM-II-D/42,5/SR, para saneos y encachados, incluyendo fabricación y transporte totalmente colocado. Zapatillas Ascensor Vigas	4 4 2 2 1 1	1,30 1,80 1,60 2,10 2,00 33,20	1,30 1,80 1,60 2,10 2,00 0,40	0,10 0,10 0,10 0,10 0,10 0,10	0,68 1,30 0,51 0,88 0,40 1,33	5,10
							5,10
031	M3 HORMIGÓN HA-25/B/20/IIa Hormigón HA-25/B/20/IIa, con cemento CEM II/A-D/42,5/SR, incluyendo fabricación, transporte, puesta en obra y vibrado, totalmente ejecutado, incluso curado y juntas. Zapatillas Ascensor solera Vigas riostras solera Vigas riostras murete Pilares Vigas Muros ascensor Escalera 1 Escalera 2	4 4 2 2 1 1 1 2 2 1 1 1 2 2 2 1 21 2	1,30 1,80 1,60 2,10 2,00 33,20 48,00 0,30 0,30 0,30 38,37 1,90 1,90 1,66 0,30 1,60 1,45 1,65	1,30 1,80 1,60 2,10 2,00 0,40 0,20 0,30 0,30 0,40 0,20 0,20 0,30 0,30 0,72 0,07 1,65	0,40 0,40 0,40 0,50 0,40 0,40 0,75 12,45 8,45 5,40 5,40 9,35 1,00 9,35 9,35 1,15 2,13 0,20	2,70 5,18 2,05 4,41 1,60 5,31 7,20 4,48 9,13 1,46 1,39 0,65 38,37 3,55 0,38 6,21 1,68 1,15 2,13 1,09	14,34 14,11 17,11 100,12
							100,12
025	M2 ENCOFRADO RECTO EN PARAMENTOS OCULTOS Encofrado recto en paramentos ocultos, incluso colocación, fijación y desencofrado. Zapatillas Ascensor solera Vigas riostras solera Vigas riostras murete Muros ascensor	16 16 8 8 4 2 2 4 4 8	1,30 1,80 1,60 2,10 2,00 33,20 48,00 1,90 1,66 0,30		0,40 0,40 0,40 0,50 0,40 0,40 0,75 1,00 1,00 1,00	8,32 11,52 5,12 8,40 3,20 26,56 72,00 7,60 6,64 2,40	151,76
							151,76
026	M2 ENCOFRADO RECTO EN PARAMENTOS VISTOS 1C Encofrado recto en paramentos vistos a una cara, incluso colocación, fijación y desencofrado. Muros ascensor	2 4 8	1,90 1,66 0,30			8,35 8,35 8,35	31,73 55,44 20,04
							107,21
026.2	M2 ENCOFRADO RECTO EN PILARES VISTOS Encofrado recto en pilares vistos, incluso colocación, fijación y desencofrado. Pilares	16	0,30			12,45	59,76

MEDICIONES

ABASTECIMIENTO A VARIOS MUNICIPIOS DE LA RIOJA. SISTEMA CIDACOS

CÓDIGO	RESUMEN	UDS	LONGITUD	ANCHURA	ALTURA	PARCIALES	CANTIDAD
	Arqueta entrada	1	2,20	1,60		3,52	
		12	0,30		5,40	19,44	
		8	0,30		7,70	18,48	
		4	0,30		5,40	6,48	225,84
							225,84
026.3	M2 ENCOFRADO RECTO EN VIGAS VISTOS						
	Encofrado recto en vigas vistos, incluso colocación, fijación, apuntalamiento o cimbras, y desencofrado.	1	249,82			249,82	
		1	186,51			186,51	
							436,33
023	KG ACERO CORRUGADO B-500-S						
	Acero redondo corrugado para armar tipo B-500-S elaborado y colocado.						
	Zapatas	1	1.485,00			1.485,00	
	Vigas-muros riostras	1	324,00			324,00	
	Pilares	1	869,00			869,00	
	Vigas	1	3.148,00			3.148,00	
	Placas aligeradas	1	688,00			688,00	
	Solapes y despuntes (10%)	0,1	6.514,00			651,40	
							7.165,40
439C	M2 FORJADO PLACA ALVEOLAR 20+5 cm						
	Forjado unidireccional de losas alveolares prefabricadas de 20 cm de espesor y capa de compresión de 5 cm de hormigón HA-25 de 25 N/mm2, incluso armadura de negativos según planos, mallazo de reparto, formación de huecos, y elementos auxiliares.						
	Planta primera	2	26,43	14,27		754,31	
	a deducir huev o escalera	-1	2,68	1,60		-4,29	
		-1	3,42	3,32		-11,35	
		-1	1,90	1,86		-3,53	
							735,14
0092sole	M2 SOLERA ARMADA + ENCACHADO+LAMINA						
	m². Solera pulida de 15 cm de espesor, realizada con hormigón HA-25/P/20/11a N/mm², tamaño máximo del árido 20 mm elaborado en central, i/vertido, colocación y armado con mallazo electrosoldado #150x150x6 mm, incluso p.p. de juntas, aserrado de las mismas y fratasado. Según EHE-08, sobre lámina impermeabilizante PVC 1,5 mm, encachado de piedra machacada 40/80 de 15 cm de espesor, extendida y compactada.						
		213,77				213,77	
							213,77
053	M2 GEOTEXTIL 200 gr/m2						
	Geotextil de polipropileno de 200 gr/m2, totalmente colocado incluso solapes.						
	protección aislante pl. baja	1,05	135,83			142,62	
	protecc. impermeabilizante	2,05	244,15			500,51	
							643,13
440aiss	M2 AISLAMIENTO BAJO SOLERA						
	m². Aislamiento térmico mediante placas rígidas de poliestireno extruido de resistencia a compresión no menor de 500 kPa, de 40 mm de espesor, debajo o arriba de solera en contacto con encachado y terreno natural.						
	techo pl. 1						
	aula	89,94				89,94	
	distribuidor	53,87				53,87	
	despachos	23,3				23,30	
		20,42				20,42	
		11,57				11,57	
		14,44				14,44	
	s. reuniones	19,81				19,81	
	archiv o	8,86				8,86	
	laboratorio	61,96				61,96	

MEDICIONES

ABASTECIMIENTO A VARIOS MUNICIPIOS DE LA RIOJA. SISTEMA CIDACOS

CÓDIGO	RESUMEN	UDS	LONGITUD	ANCHURA	ALTURA	PARCIALES	CANTIDAD
	Arqueta entrada	1	2,20	1,60		3,52	
	aseos	10,25				10,25	
		8,88				8,88	
		5,24				5,24	
	esc.	7,14				7,14	
							338,65
053imp	M2 IMPERMEABILIZACIÓN DE SOLERA						
	m². Impermeabilización de soleras constituida por 0,3 kg/m² de imprimación asfáltica CURIDAN y lámina de betún modificado con elastómeros SBS de 4 kg/m² de peso medio, de superficie no protegida, con armadura de fieltro de poliéster y acabada con film de polietileno por ambas caras, ESTER-DAN 40 P ELAST (Tipo LBM 40 FP), totalmente adherida al soporte con soplete, y geotextil de 200 g/m² como protección; lista para recibir capa de hormigón. Dispone de DIT. "Esterdan pendiente cero". N° 550/10.						
	bajo pv to. planta baja	244,15				244,15	
	bajo pavimento zonas duchas	2	2,00	2,00		8,00	
							252,15
0092REC	M2 RECRECIDO DE MORTERO						
	m². Recrecido pegar un pavimento cerámico o similar, de 6 cm de espesor, realizada con mortero de cemento y arena de río 1/3 (M15), i/nivelación, maestreado y fratasado, s/NTE-RSS.						
	P. BAJA	213,77				213,77	
	P. 1	357				357,00	
							570,77
053PR	M2 AISLAMIENTO ACÚSTICO FORJADO						
	m². Aislamiento acústico a ruido aéreo y de impacto en forjados con compuesto bicapa TriACUSTIC 35, de 3,6 kg/m². de peso y 7 mm de espesor, formado por una lámina viscoelástica de alta densidad adherida térmicamente a una lámina de polietileno.						
	Forjado techo pl. baja sobre zonas ruidosas						
	sobre sala soplantes y bombeo de agua de lavado	144,72				144,72	
							144,72
471jd	ML JUNTA DE DILATACIÓN						
	Formación de junta de dilatación con poliestireno expandido de 15 mm de espesor entre solera y muro y posterior sellado de 15 mm de anchura media con masilla de poliuretano COPSAFLEX 11C, en cartuchos, incluso cordón sellador de poliuretano previamente introducido en la junta. Según CTE/DB-HS 1.						
		1	31,00			31,00	
							31,00
SUBPARTADO 02.01.06.3 ACABADOS							
4432	M2 ALICATADO AZULEJO						
	Alicatado con azulejo blanco mate con cenefa en color diferenciado según local, formato no inferior a 40x20 cm, recibido con adhesivo, incluso preparación de paramentos, cortes, cantoneras cromadas, rejuntados y limpieza, ejecutado según NTE y especificaciones, medido en superficie real, deduciendo huecos superiores a 0,5 m2.						
	P.BAJA						
	vestuarios m	1	19,50		2,80	54,60	
	vest. h	1	19,40		2,80	54,32	
		-2		0,95	2,10	-3,99	
		-2		4,20	0,60	-5,04	
	P. 1						
	aseo acc	1	9,40		2,80	26,32	
	aseo h	1	15,30		2,80	42,84	
	aseo m.	1	15,40		2,80	43,12	
	c. limp	1	7,10		2,80	19,88	
	laboratorio	1	32,40		2,80	90,72	
		2	10,90		2,80	61,04	
		-10		0,95	2,10	-19,95	
		-1		1,00	1,60	-1,60	

MEDICIONES

ABASTECIMIENTO A VARIOS MUNICIPIOS DE LA RIOJA. SISTEMA CIDACOS

CÓDIGO	RESUMEN	UDS	LONGITUD	ANCHURA	ALTURA	PARCIALES	CANTIDAD
	Arqueta entrada	1	2,20	1,60		3,52	
		-2		1,00	0,60	-1,20	
		-1		4,20	0,60	-2,52	
		-2		1,80	1,60	-5,76	
		-1		1,20	1,60	-1,92	
		-2		1,85	1,10	-4,07	
		-2		0,75	1,10	-1,65	
		-2		2,00	1,10	-4,40	
		-1		1,10	1,10	-1,21	
							338,21
440pyl	M2 FALSO TECHO DE PLACA DE YESO LAMINADO						
	m². Techo formado por una doble estructura de perfiles PLADUR® de chapa de acero galvanizada, instalada a dos niveles. La estructura primaria se compone a base de Perfiles continuos PH-45 en forma de "V" invertida, modulados cada 1100 mm y debidamente suspendidos de cuadrillos por medio de varilla roscada Ø 6 mm y tuerca y contratuerca cada 1100 mm La segunda estructura formada por perfiles T-47 se acopla perpendicularmente a la parte inferior de la estructura primaria cada 500 mm mediante encaje directo en las horquillas dobles troqueladas del perfil PH-45 y apoyados perimetralmente en el Angular L A-30 TC, el cual está fijado mecánicamente en toda su longitud A esta estructura de perfiles, se atornilla a la segunda estructura de perfiles T-47 y perpendicularmente a ella una placa de yeso laminado estandar tipo N de 13 mm de espesor, parte proporcional de anclajes, cuelgues, tornillería, juntas estancas /acústicas de su perímetro, pasta de juntas, etc. totalmente terminado con calidad de terminación Nivel 2 (Q2) para terminaciones estándar de pintura ó calidad de terminación Nivel 3 (Q3) para terminaciones de calidad alta de acabados lisos y de poco espesor. Montaje según Normativa Intersectorial de ATEDY: "Sistemas de techos continuos con estructura metálica. ATEDY 3" y requisitos del CTE-DB HR.						
	P. BAJA						
	distribuidor	37,6				37,60	
	vestuario	22,07				22,07	
		21,96				21,96	
	paso	16,25				16,25	
	s. reuniones	16,04				16,04	
	techo registrable	-6,08				-6,08	
	P. 1						
	laboratorio	61,96				61,96	
	distribuidor	53,87				53,87	
	techo registrable	-26,18				-26,18	
	esc	7,16				7,16	
	despachos	11,67				11,67	
		14,44				14,44	
		23,3				23,30	
		20,42				20,42	
	s. reuniones	19,81				19,81	
	techo registrable	-7,2				-7,20	
	archivo	8,86				8,86	
	c. limpieza	2,97				2,97	
	aula	89,94				89,94	
	techo registrable	-35,64				-35,64	
	aseos	10,25				10,25	
		8,88				8,88	
		5,24				5,24	
							377,59

MEDICIONES

ABASTECIMIENTO A VARIOS MUNICIPIOS DE LA RIOJA. SISTEMA CIDACOS

CÓDIGO	RESUMEN	UDS	LONGITUD	ANCHURA	ALTURA	PARCIALES	CANTIDAD
440pya	M2 FALSO TECHO FONOABSORBENTE REGISTRABLE						
	m². Techo formado por una doble estructura de perfiles PLADUR® de chapa de acero galvanizada, instalada a dos niveles. La estructura primaria se compone a base de Perfiles continuos PH-45 en forma de "V" invertida, modulados cada 1100 mm y debidamente suspendidos de cuadrillos por medio de varilla roscada Ø 6 mm y tuerca y contratuerca cada 1100 mm La segunda estructura formada por perfiles T-47 se acopla perpendicularmente a la parte inferior de la estructura primaria cada 500 mm mediante encaje directo en las horquillas dobles troqueladas del perfil PH-45 y apoyados perimetralmente en el Angular L A-30 TC, el cual está fijado mecánicamente en toda su longitud A esta estructura de perfiles, se atornilla a la segunda estructura de perfiles T-47 y perpendicularmente a ella una placa perforada para acondicionamiento acústico, tipo Pladur Fon+ C8/18, de 13 mm de espesor con tratamiento imprimación blanca para protección de rayos ultravioleta, pintado en blanco; parte proporcional de anclajes, cuelgues, tornillería, juntas estancas /acústicas de su perímetro, totalmente terminado. Montaje según Normativa Intersectorial de ATEDY y requisitos del CTE-DB HR.						
	P. BAJA						
	sala de reuniones	1	3,60	1,80		6,48	
	P. 1						
	aula poliv	1	5,40	3,60		19,44	
		1	5,40	3,00		16,20	
	sala reuniones	1	3,00	2,40		7,20	
	distribuidor	1	4,20	1,80		7,56	
		1	10,80	1,00		10,80	
		1	7,80	1,00		7,80	
							75,48
440acus	M2 FALSO TECHO METÁLICO ABSORCIÓN ACÚSTICA						
	m². Techo formado por una doble estructura de perfiles de chapa de acero galvanizada, instalada a dos niveles. La estructura primaria se compone a base de Perfiles continuos PH-45 en forma de "V" invertida, modulados cada 1100 mm y debidamente suspendidos de forjado de placa por medio de varilla roscada Ø 6 mm y tuerca y contratuerca cada 1100 mm dotada de aisladores acústicos para evitar la transmisión a techo. La segunda estructura formada por perfiles T-47 se acopla perpendicularmente a la parte inferior de la estructura primaria cada 500 mm mediante encaje directo en las horquillas dobles troqueladas del perfil PH-45. A esta estructura de perfiles, se atornilla a la segunda estructura de perfiles T-47 y perpendicularmente a ella una falso techo de chapa perforada minionda de 0,6 mm de espesor y 18 mm de canto, galvanizada en caliente, R3T6, parte proporcional de anclajes, cuelgues, tornillería, etc, según requisitos del CTE-DB HR.						
	P. BAJA						
	sala soplantes	1	57,40			57,40	
	sala bombeo	1	76,21			76,21	
							133,61
440pyt	ML TABICA YESO LAMINADO						
	m. Faja o tabica de placa de yeso laminado de 20 a 30 cm de anchura, para falsos techos tanto fijos como desmontables, i/p.p. de perfilera de acero galvanizado de fijación incluso juntas, repaso de las mismas, colocación de andamios y limpieza, y cualquier tipo de medio auxiliar, completamente terminado.						
	techo p. baja zona escalera	1	5,00			5,00	
							5,00
440ais	M2 AISLAMIENTO SOBRE FALSO TECHO						
	m². Lana mineral ISOVER IBR constituido por una manta ligera de lana de vidrio, revestida por una de sus caras con papel kraft que actua como barrera de vapor de 80 mm de espesor cumpliendo la norma UNE EN 13162 Productos Aislantes térmicos para aplicaciones en la edificación con una conductividad térmica de 0,040 W / (m·K), clase de reacción al fuego F y código de designación MW-EN-13162-T2-WS-Z3-AFr5, para cubiertas y techos en posición horizontal o inclinada, sin carga.						
	techo pl. 1						
	aula	89,94				89,94	
	distribuidor	53,87				53,87	
	despachos	23,3				23,30	
		20,42				20,42	
		11,57				11,57	
		14,44				14,44	
	s. reuniones	19,81				19,81	

MEDICIONES

ABASTECIMIENTO A VARIOS MUNICIPIOS DE LA RIOJA. SISTEMA CIDACOS

CÓDIGO	RESUMEN	UDS	LONGITUD	ANCHURA	ALTURA	PARCIALES	CANTIDAD
	Arqueta entrada laboratorio	1	2,20	1,60		3,52	
	c. limpieza aseos	61,96				61,96	
		2,97				2,97	
		10,25				10,25	
		8,88				8,88	
		5,24				5,24	
	esc.	7,14				7,14	
							338,65
440pacus	M2 PARAMENTOS ABSORCIÓN ACÚSTICA m². Revestimiento de paramentos con penel semirrígido de lana de roca volcánica de 50 kg/m3 de densidad, de 11 cm. de espesor, con hendidura para acople de la bandeja de solape. Instalación de bandejas perforadas de chapa de acero R3T6 totalmente terminado. P. BAJA						
	sala soplantes	1	32,74		3,00	98,22	
		-1		1,80	2,60	-4,68	
							93,54
468	M2 ENFOSCADO MAESTRADO Y FRATASADO Enfoscado maestreado y fratasado de 20 mm de espesor en toda su superficie con mortero de cemento y arena de río 1/4 en paramentos verticales, con maestras cada metro, i/preparación y humedecido de soporte, limpieza, p.p. de medios auxiliares con empleo, en su caso, de andamiaje homologado, así como distribución de material en tajos, s/NTE-RPE-7. P. BAJA						
	taller	1	12,20		3,95	48,19	
	sala de cuadros	1	18,80		3,95	74,26	
	almacén	1	8,40		3,95	33,18	
	sala equipos	1	4,75		3,95	18,76	
		1	5,15		3,95	20,34	
	sala de bombeo	1	27,10		3,95	107,05	
	bajo escalera	1	1,50		1,60	2,40	
		1	1,70		2,30	3,91	
		1	3,20		2,90	9,28	
		1	1,70		3,50	5,95	
		-3		0,80	2,00	-4,80	
		-1		1,70	2,10	-3,57	
							314,95
442	M2 ENLUCIDO DE YESO BLANCO, TERMINADO Enlucido de yeso blanco, terminado. P. BAJA						
	muro ascensor	1	2,30		3,10	7,13	
		1	1,80		1,90	3,42	
		1	2,30		0,70	1,61	
	P.1						
	canto forja hueco esc	1	8,20		0,35	2,87	
	muro ascensor	2	1,80		3,15	11,34	
		1	2,30		3,15	7,25	
	pilares	3		1,20	2,80	10,08	
		1		0,40	2,80	1,12	
		2		0,50	2,80	2,80	
							47,62
051pc2	KG REVESTIMIENTO MULTICAPA RESINA EXPOXI m². Suministro y puesta en obra del Sistema Multicapa Epoxi MASTERTOP 1220 Polykit, con un espesor de 2,0 mm, consistente en formación de capa base epoxi sin disolventes coloreada MASTERTOP 1200 o similar (rendimiento 1,6 kg/m²); espolvoreo en fresco de árido de cuarzo MASTERTOP F 5 o similar con una granulometría 0,3-0,8 mm (rendimiento 3,0 kg/m²); sellado con el revestimiento epoxi sin disolventes coloreado MASTERTOP 1200 o similar (rendimiento 0,600 kg/m²), sobre superficies de hormigón o mortero, sin incluir la preparación del soporte. Colores Estándar.						
	sala de soplantes	57,38				57,38	
	sala de bombeo	75,05				75,05	
	taller	31,26				31,26	

MEDICIONES

ABASTECIMIENTO A VARIOS MUNICIPIOS DE LA RIOJA. SISTEMA CIDACOS

CÓDIGO	RESUMEN	UDS	LONGITUD	ANCHURA	ALTURA	PARCIALES	CANTIDAD
	Arqueta entrada	1	2,20	1,60		3,52	
	almacén	22,47				22,47	
	sala de equipos	5,45				5,45	
							220,05
452fp	M2 FELPUDO METÁLICO M2. Suministro y colocación de felpudo de estructura de aluminio, acabado moqueta negro, marca GS-Group ref. Pedimat CS 2050 modelo ebonita, colocado con .p.p. de perfil de acero inox mate de 2 mm. en forma de L, para remate del granito, incluso p.p. de tornillería de fijación. En acceso PE1 En acceso PE3	1	1,80	1,20		2,16	
		1	1,00	1,20		1,20	
							3,36
452PC	M2 PAVIMENTO CERÁMICO m². Solado de baldosa de gres (precio del material 18 euros/m²), en formato comercial, para interiores (resistencia al deslizamiento Rd s/ UNE-ENV 12633 según planos, recibido con cemento cola Weber.col classic blanco, i/piezas especiales, ejecución de cortes, rejuntado con mortero decorativo Weber col junta fina (< 3mm) y limpieza, s/ CTE BD SU y NTE-RSB-7. Clase C1						
	PLANTA BAJA						
	paso	16,25				16,25	
	sala reuniones	16,04				16,04	
	trastero	7,64				7,64	
	PLANTA PRIMERA						
	distribuidor	53,87				53,87	
	archivo	8,86				8,86	
	despacho laboratorio	11,67				11,67	
	Clase C2						
	PLANTA BAJA						
	vestuarios	21,96				21,96	
		22,07				22,07	
	a deducir duchas	-2	1,20	1,50		-3,60	
	PLANTA PRIMERA						
	laboratorio	61,96				61,96	
	aseos	5,24				5,24	
		8,88				8,88	
		10,25				10,25	
	cuarto limp.	2,97				2,97	
	clase C3						
	duchas	2	1,20	1,50		3,60	
							247,66
452Pr	M2 RODAPIÉ CERÁMICO m. Rodapie de gres de 7 cm recibido con mortero de cemento y arena de río M5 según UNE-EN 998-2 o adhesivo si es a placa de yeso, i/rejuntado y limpieza, S/ CTE BD SU y NTE-RSP-16.						
	PLANTA BAJA						
	paso	21,5				21,50	
	sala reuniones	15,8				15,80	
	trastero	12,4				12,40	
	PLANTA PRIMERA						
	distribuidor	45,8				45,80	
	archivo	12				12,00	
	despacho laboratorio	14				14,00	
							121,50

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CÓDIGO	RESUMEN	UDS	LONGITUD	ANCHURA	ALTURA	PARCIALES	CANTIDAD
452PL	M2 PAVIMENTO LAMINADO m². Pavimento laminado AC5/33 con certificación como clase ASF2 (antiestático), con tablero base DPL de alta densidad de medidas 1285x191x11,0 mm dotado de junta de cierre click en los cuatro cantos de la tabla. Compuesto por tres elementos: A, capa de desgaste compuesta de una capa protectora fabricada a partir de resinas melamínicas y papel decorado con acabado de superficie similar a la madera (arce natural, haya, roble...). B, tablero base HDF dotado de sistema anti humedad y unión Click. C, contracapa de papel Krahf para mayor estabilidad del conjunto y sistema de reducción del sonido de la pisada, i/rodapié de 10 cm de MDF laminado en igual color que el pavimento, totalmente terminado.. PLANTA PRIMERA sala de reuniones archivo despachos						19,81 89,94 14,44 23,3 20,42
							19,81 89,94 14,44 23,30 20,42
							167,91
452Pg	M2 PAVIMENTO GRANITO m². Solado de granito nacional con acabado pulido, de 2 cm de espesor para interiores (resistencia al deslizamiento Rd s/ UNE-ENV 12633 para: a) zonas secas, CLASE 1 para pendientes menores al 6% y CLASE 2 para pendientes superiores al 6% y escaleras), recibido con mortero de cemento y arena de miga 1/6 o cemento cola, rejuntado y limpieza, s/ CTE BD SU y NTE-RSP. Clase C1 PLANTA BAJA distribuidor Clase C2 descansos escalera						37,6 4
							37,60 4,00
							41,60
452Pgr	ML RODAPIÉ GRANITO m. Rodapié de granito nacional de 10x2 cm, con mortero de cemento y arena de río M5 según UNE-EN 998-2 o adhesivo si es a placa de yeso, i/rejuntado y limpieza, S/NTE-RSP-16. PLANTA BAJA distribuidor descansos escalera						24 4
			1,50				24,00 6,00
							30,00
452Pgp	ML PELDAÑO GRANITO m. Peldaño de granito nacional con huella y tabica, de 3 y 2 cm de espesor respectivamente, para interiores o exteriores (resistencia al deslizamiento Rd>45 s/ UNE-ENV 12633 CLASE 3), i/p.p. de zanquín del mismo material de 42x17 cm, recibido todo ello con mortero de cemento y arena de miga 1/6, rejuntado y limpieza, s/ CTE BD SU.						24
			1,50				36,00
							36,00
469	M2 PINTURA PLÁSTICA BLANCA Pintura plástica picada blanca en paramentos verticales y horizontales, lavable dos manos, i/lijado y emplastecido. P. BAJA techos taller sala c. elec almacén equipos distribuidro trastero vest. h vest. m paso s. reuniones acceso param. vtales						31,16 28,44 22,47 5,45 37,6 7,64 22,07 21,96 16,25 16,04 1 1,17
							31,16 28,44 22,47 5,45 37,60 8,94 22,07 21,96 16,25 16,04 5,10

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CÓDIGO	RESUMEN	UDS	LONGITUD	ANCHURA	ALTURA	PARCIALES	CANTIDAD
	Arqueta entrada	1	2,20	1,60			3,52
	s. cuadros	1	22,80		3,85		87,78
	bombeo de agua	1	29,00		3,85		111,65
		1	21,16		0,80		16,93
	sala equipos	-1	9,90		3,65		-36,14
	P. PRIMERA						
	techos	61,96					61,96
		11,67					11,67
		53,87					53,87
		14,44					14,44
		10,25					10,25
		2,97					2,97
		8,88					8,88
		5,24					5,24
		56,44					56,44
		20,42					20,42
		8,86					8,86
		23,3					23,30
		88,66					88,66
	acceso	1	3,90	1,60			6,24
	int. asc.	1	6,32	9,80			61,94
							923,24
449	M2 PINTURA PLÁSTICA LISA MATE COLOR Pintura plástica lisa mate color, en interiores, en paramentos horizontales y verticales, dos manos, incluso lijado, mano de imprimación con plástico diluido, plastecido, lijado y acabado. paramentos verticales P. BAJA distrib asc paso s. reuniones esc P. PRIMERA distrib-esc. despacho s. reuniones despacho aula-of 2 desp archivo						30,00 8,30 25,38 16,76 6,36 61,30 14,28 19,81 15,24 42,75 1,60 20,70 12,94 18,80
							3,00 3,00 3,00 2,80 1,25 3,00 2,80 2,80 2,80 3,00 3,00 2,80 2,80 2,80 2,80
							90,00 24,90 76,14 46,93 7,95 183,90 39,98 55,47 42,67 128,25 9,60 57,96 36,23 52,64
							852,62
	SUBPARTADO 02.01.06.4 CARPINTERIA						
444	M2 CARPINTERÍA DE MADERA MACIZA Carpintería de madera maciza, de pino Oregón en puertas, incluso herrajes, montada. hojas ciegas P3 P4 P5 hojas vidrieras PV1 PV2 PV3 PV4 CORREDERA P6						12 1 1 1 1 1 1 1 1
							0,95 0,85 1,75 0,95 0,95 0,95 0,95 1,00
							2,10 2,10 2,10 2,10 2,10 2,10 2,10 2,10
							23,94 1,79 3,68 2,00 2,00 2,00 2,00 2,10
							39,51

MEDICIONES

ABASTECIMIENTO A VARIOS MUNICIPIOS DE LA RIOJA. SISTEMA CIDACOS

CÓDIGO	RESUMEN	UDS	LONGITUD	ANCHURA	ALTURA	PARCIALES	CANTIDAD
444V	M2 MARCO VENTANAL DE MADERA MACIZA m². Ventanal fijo para la colocación de vidrio, con cerco de pino Oregón de 9x7 cm para barnizar, con tapajuntas de pino Oregón 7x1,5 cm, por ambas caras y junquillo fijación vidrio. Según CTE/DB-HS 3.						
	PV2	1	1,85	1,10		2,04	
	PV3	1	0,75	1,10		0,83	
		1	2,00	1,10		2,20	
	PV4	1	1,10	1,10		1,21	
							6,28
465	M2 PUERTA DOBLE CHAPA ACERO Puerta de paso hojas abatibles de doble chapa lisa de acero de 1 mm de espesor, con aislamiento interno de fibre de vidrio, engatillada, realizada en dos bandejas, con rigidizadores de tubo rectangular, i/manillas de acero inoxidable y cerradura, patillas para recibir en fábricas, herrajes de colgar y de seguridad, imprimación antióxido y pintura al esmalte, totalmente colocada incluyendo el recibido de fábricas.						
	PE2	3	1,80	2,15		11,61	
	P1	1	1,80	2,10		3,78	
	P2	1	1,00	2,10		2,10	
							17,49
463MTF	M2 MAMPARA TABLERO FENÓLICO m2 Mampara ligera de tablero fenólico compacto de 12 mm., sin vidrio, con puerta, con accesorios de aluminio extruido, incluso parte proporcional de bisagras y cornisas de aluminio lacado, cerraduras exteriores e interiores de acero inoxidable lacado on indicador de señalización libre/ocupado y manilla tipo Glutz 5059/160 mm. o similar, ralsinizada, color a elegir, pequeño material y medios auxiliares de montaje, incluso formación de encimeras lavabos con elementos de fijación de acero inox. Totalmente terminado.						
	P. BAJA						
	vestuarios	2	2,60	2,00		10,40	
		4	1,60	2,00		12,80	
	P.1						
	aseos	1	1,90	2,00		3,80	
		1	1,60	2,00		3,20	
		1	1,10	2,00		2,20	
							32,40
464ca	M2 CARPINTERÍA ABATIBLE ALUMINIO EN VENTANAS m². Carpintería de hojas abatibles de aluminio modelo con rotura de puente térmico, Alfil A54RPT de SAPAGROUP con un ancho de marco de 54 mm y con un ancho de hoja de 61 mm, medida del frente de 96,3 mm, con sistema de cámara europea, con espesor de perfil de 1,5 mm, con sistema de cierre por junta central de estanqueidad en EPDM, coplanar exteriormente y con resalte de hoja sobre el marco al interior, para un acristalamiento con altura de galce de 22 mm y anchura hasta 44 mm en marcos y 51 mm en hojas, lacado (entre 60-100 micras) en color estándar (RAL estándar: blanco, gris...), herrajes de colgar, p.p. de cerradura Tesa o similar y costes indirectos. Homologada con Clase 4 en el ensayo de permeabilidad al aire según norma UNE-EN 1026:2000. La transmitancia máxima del marco es de 2,90 W/m² K, y cumple en las zonas A, B, C, D y E, según el CTE/DB-HE 1.						
	P. BAJA						
	V6	1	1,20	1,60		1,92	
	V8	2	0,70	1,15		1,61	
	P.1						
	V4	1	1,20	1,60		1,92	
	V5	1	1,20	1,60		1,92	
	V6	2	1,20	1,60		3,84	
	V10	2	1,35	1,60		4,32	
	V13	4	1,20	1,60		7,68	
	V14	1	1,50	1,60		2,40	
							25,61

MEDICIONES

ABASTECIMIENTO A VARIOS MUNICIPIOS DE LA RIOJA. SISTEMA CIDACOS

CÓDIGO	RESUMEN	UDS	LONGITUD	ANCHURA	ALTURA	PARCIALES	CANTIDAD
464cf	M2 CARPINTERÍA FIJA ALUMINIO m². Carpintería fija con junquillos para la fijación del vidrio, de aluminio modelo con rotura de puente térmico, Alfil A54RPT de SAPAGROUP con un ancho de marco de 54 mm y con un ancho de hoja de 61 mm, medida del frente de 96,3 mm, con sistema de cámara europea, con espesor de perfil de 1,5 mm, con sistema de cierre por junta central de estanqueidad en EPDM, coplanar exteriormente y con resalte de hoja sobre el marco al interior, para un acristalamiento con altura de galce de 22 mm y anchura hasta 44 mm en marcos y 51 mm en hojas, lacado (entre 60-100 micras) en color estándar (RAL estándar: blanco, gris...), herrajes de colgar, p.p. de cerradura Tesa o similar y costes indirectos. Homologada con Clase 4 en el ensayo de permeabilidad al aire según norma UNE-EN 1026:2000. La transmitancia máxima del marco es de 2,90 W/m² K, y cumple en las zonas A, B, C, D y E, según el CTE/DB-HE 1.						
	P.BAJA						
	V1	3	4,20	0,60		7,56	
	V8	1	0,80	1,60		1,28	
	V9	1	0,60	1,15		0,69	
	V14	1	1,50	1,60		2,40	
	PE	2	0,60	2,05		2,46	
		1	3,00	0,55		1,65	
	PE2	3	1,80	0,45		2,43	
	P.1						
	V2	1	2,20	0,60		1,32	
	V3	2	1,00	0,60		1,20	
	V4	1	1,00	0,60		0,60	
	V5	2	0,80	1,60		2,56	
	V7	1	4,20	0,60		2,52	
	V10	2	0,65	1,60		2,08	
	V11	2	1,00	1,60		3,20	
	V12	1	1,00	1,60		1,60	
	V13	4	0,60	1,60		3,84	
	V14	1	1,50	1,60		2,40	
							39,79
464caP	M2 CARPINTERÍA ABATIBLE ALUMINIO EN PUERTAS m². Carpintería de hojas abatibles de aluminio modelo con rotura de puente térmico, Alfil A65RPT de SAPAGROUP con un ancho de marco de 65 mm y con un ancho de hoja de 721 mm, medida del frente de 96,3 mm, con sistema de cámara europea, con espesor de perfil de 1,5 mm, con sistema de cierre por junta central de estanqueidad en EPDM, coplanar exteriormente y con resalte de hoja sobre el marco al interior, para un acristalamiento con altura de galce de 22 mm y anchura hasta 65 mm en marcos y 72 mm en hojas, lacado (entre 60-100 micras) en color estándar (RAL estándar: blanco, gris...), herrajes de colgar, p.p. de cerradura Tesa, manilla y barra inox y costes indirectos. Homologada con Clase 4 en el ensayo de permeabilidad al aire según norma UNE-EN 1026:2000. La transmitancia máxima del marco es de 2,90 W/m² K, y cumple en las zonas A, B, C, D y E, según el CTE/DB-HE 1.						
	P. BAJA						
	PE1	1	1,80	2,05		3,69	
	PE3	1	1,00	2,15		2,15	
							5,84
464V1	M2 VIDRIO 6/16/6 BAJO EMISIVO Y CÁMARA CON ARGÓN m². Doble acristalamiento CLIMALIT PLUS, formado por un vidrio bajo emisivo Planitherm XN incoloro de 6 mm y una luna float Planiclear incolora de 6 mm (impreso en vestuarios y aseos), cámara de aire CON Argón de 16 mm con perfil separador de aluminio y doble sellado perimetral, fijado sobre carpintería con acuñado mediante calzos de apoyo perimetrales y laterales y sellado en frío con silicona neutra, incluso cortes de vidrio y colocación de junquillos, según UNE 85222:1985.						
	carpinterías fijas						
	P.BAJA						
	V1	3	4,20	0,60		7,56	
	V8	1	0,80	1,60		1,28	
	V9	1	0,60	1,15		0,69	
	V14	1	1,50	1,60		2,40	
	PE	1	3,00	0,55		1,65	
	PE2	3	1,80	0,45		2,43	

MEDICIONES

ABASTECIMIENTO A VARIOS MUNICIPIOS DE LA RIOJA. SISTEMA CIDACOS

CÓDIGO	RESUMEN	UDS	LONGITUD	ANCHURA	ALTURA	PARCIALES	CANTIDAD
	Arqueta entrada	1	2,20	1,60		3,52	
	V2	1		2,20	0,60	1,32	
	V3	2		1,00	0,60	1,20	
	V4	1		1,00	0,60	0,60	
	V5	2		0,80	1,60	2,56	
	V7	1		4,20	0,60	2,52	
	V10	2		0,65	1,60	2,08	
	V11	2		1,00	1,60	3,20	
	V12	1		1,00	1,60	1,60	
	V13	4		0,60	1,60	3,84	
	V14	1		1,50	1,60	2,40	
	carinterías abatibles						
	P. BAJA						
	V6	1		1,20	1,60	1,92	
	V8	2		0,70	1,15	1,61	
	P.1						
	V4	1		1,20	1,60	1,92	
	V5	1		1,20	1,60	1,92	
	V6	2		1,20	1,60	3,84	
	V10	2		1,35	1,60	4,32	
	V13	4		1,20	1,60	7,68	
	V14	1		1,50	1,60	2,40	
							62,94
464V2	M2 VIDRIO AISLANTE Y DE SEGURIDAD 4+4/16/4+4						
	m². Doble acristalamiento CLIMALIT PLUS y espesor total 32 mm, formado por doble vidrio laminado acústico y de seguridad Stadip Silence 8 mm de espesor (4+4) y cámara de aire deshidratado de 16 mm con perfil separador de aluminio y doble sellado perimetral, fijado sobre carpintería con acuarñado mediante calzos de apoyo perimetrales y laterales y sellado en frío con silicona neutra, incluso colocación de junquillos, según UNE 85222:1985. Nivel de seguridad de uso según UNE EN 12600: NPD/1B1.						
	P.BAJA						
	PE	1		3,00	2,05	6,15	
	PE3	1		1,00	2,15	2,15	
							8,30
464V3	M2 VIDRIO SEGURIDAD STADIP 44.1 INCOLORO (2B2)						
	m². Acristalamiento de vidrio laminado de seguridad Stadip compuesto por dos vidrios de 4 mm de espesor unidos mediante lámina de butiral de polivinilo incolora de 0,38 mm, clasificado 2B2 según UNE-EN 12600, fijado sobre carpintería con acuarñado mediante calzos de apoyo perimetrales y laterales y sellado en frío con silicona neutra, incluso colocación de junquillos, según UNE 85222:1985.						
	PV1 a 4	4		0,65	1,80	4,68	
		1		1,75	1,00	1,75	
		1		0,65	1,00	0,65	
		1		1,90	1,00	1,90	
		1		1,00	1,00	1,00	
	PE2	3		1,70	0,40	2,04	
							12,02

MEDICIONES

ABASTECIMIENTO A VARIOS MUNICIPIOS DE LA RIOJA. SISTEMA CIDACOS

CÓDIGO	RESUMEN	UDS	LONGITUD	ANCHURA	ALTURA	PARCIALES	CANTIDAD
446M2	UD PUERTA CORTAFUEGOS EI2/60/C5 2h 1800 mm						
	ud. Puerta resistente al fuego a partir de los datos obtenidos de los ensayos de resistencia al fuego con clasificación EI2/60/C5 según UNE EN-13501-2 (Integridad E: no transmisión de una cara a otra por llama o gases caliente; Aislamiento I: no transmisión de una cara a otra por transferencia de calor, con sufijo 2: para medición de distancias y temperaturas a tener en cuenta (100 mm/180°/100 mm); Tiempo t= 60 minutos o valor mínimo que debe cumplir tanto la integridad E como el aislamiento I; Capacidad de cierre automático C5; para uso s/ CTE (tabla 1.2 y 2.1 del DB-SI-1.1 y 1.2) siguiente: a) en paredes que delimitan sectores de incendios, con resistencia t de la puerta mitad del requerido a la pared en la que se encuentre, o bien la cuarta parte en caso de utilizar vestíbulos de independencia; b) puertas de locales de riesgo especial (bajo, medio o alto) en comunicación con el resto del edificio; con marcado CE y certificado y declaración CE de conformidad; de dos hojas abatibles de 1800x2150 mm con doble chapa de acero, i/p.p. de aislamiento de fibra mineral, cerco tipo "Z" electrosoldado de 3 mm de espesor, mecanismo de cierre automático y herrajes de colgar y de seguridad, juntas, etc... según CTE/DB-SI						
	P1	1				1,00	
							1,00
464B1	ML BARANDILLA VIDRIO RECTA						
	m. Sistema de barandilla modular GlassFit SV-1401 Top "COMENZA", sin pasamanos, con perfil de montaje de aluminio anodizado, con sistema de nivelación interior Lev el In, capaz de soportar una fuerza horizontal uniformemente repartida de 0,8 kN/m aplicada en el borde superior del vidrio según CTE DB SE-AE, de altura máxima 110 cm, para vidrio laminado de seguridad, compuesto por dos lunas de 10 mm de espesor unidas mediante dos láminas incoloras de butiral de polivinilo, de 0,38 mm de espesor cada una; fijado sobre hormigón mediante anclaje químico con varilla roscada de acero zincado, montada						
	PL. 1 lateral escalera a paso	1	3,30			3,30	
							3,30
464Be	ML BARANDILLA VIDRIO ESCALERA CON PASAMANOS						
	m. Sistema de barandilla modular GlassFit CC-775 con pasamanos RP-1400"COMENZA", con material de montaje de acero inox AISI 316, capaz de soportar una fuerza horizontal uniformemente repartida de 0,8 kN/m aplicada en el borde superior del vidrio según CTE DB SE-AE, de altura máxima 110 cm, para vidrio laminado de seguridad, compuesto por dos lunas de 10 mm de espesor unidas mediante dos láminas incoloras de butiral de polivinilo, de 0,38 mm de espesor cada una, rematado con pasamanos de acero inox; fijado sobre hormigón mediante anclaje químico con varilla roscada de acero zincado, montada en borde de escalera.						
	PL.BAJA lateral escalera	1	4,75			4,75	
							4,75
464BP	ML PASAMANOS ACERO INOX						
	m. Pasamanos de tubo 40x1,5 y anclajes a paramento en L redondo liso macizo de 12 mm, todo ello de acero inox AISI 316, incluso codos y remate en curva a paramento en arranques, capaz de soportar una fuerza horizontal uniformemente repartida de 0,8 kN/m, montado						
	escalera	1	8,90			8,90	
		1	5,50			5,50	
							14,40
469b	M2 BARNIZADO CARPINTERÍA DE MADERA						
	m². Barnizado de carpintería de madera interior con Procobar filtro 10 o similar, lijado y relijado dos manos y una mano de imprimación.						
	hojas ciegas						
	P3	24		0,95	2,10	47,88	

MEDICIONES

ABASTECIMIENTO A VARIOS MUNICIPIOS DE LA RIOJA. SISTEMA CIDACOS

CÓDIGO	RESUMEN	UDS	LONGITUD	ANCHURA	ALTURA	PARCIALES	CANTIDAD
	Arqueta entrada	1	2,20	1,60		3,52	
	P5	2		1,75	2,10	7,35	
	hojas vidrieras						
	PV1	2	0,40	0,95	2,10	1,60	
	PV2	2	0,40	0,95	2,10	1,60	
	PV3	2	0,40	0,95	2,10	1,60	
	PV4	2	0,40	0,95	2,10	1,60	
	CORREDERA						
	P6	2		1,00	2,10	4,20	
							69,40
SUBAPARTADO 02.01.06.5 INSTALACIONES FONTANERIA							
002	M3 EXCAVACIÓN EN ZANJAS						
	Excavación en zanjas y zonas localizadas, en todo tipo de terrenos incluido terrenos en roca con medios mecánicos, incluso rasanteo, nivelación de la superficie de apoyo y transporte a lugar de empleo o vertedero.						
	Red de saneamiento	1	25,50	0,40	0,40	4,08	
		6	1,50	0,30	0,30	0,81	
		1	20,00	0,45	0,55	4,95	
		1	6,00	0,50	0,80	2,40	
							12,24
010	M3 RELLENO ZANJAS, CIMIENTOS Y TRASDOSES DE MATERIAL SELECCIONADO						
	Relleno con material seleccionado en zanjas, cimientos, trasdós de muros, estribos y otras estructuras procedente de la excavación o préstamos incluso carga, transporte y compactación.						
	Red de saneamiento	1	25,50	0,40	0,30	3,06	
		6	1,50	0,30	0,20	0,54	
		1	20,00	0,45	0,40	3,60	
		1	6,00	0,50	0,60	1,80	
							9,00
198110	ML TUBERÍA DE PVC 110 mm Sn4						
	Tubería de PVC con junta elástica de 110 mm de diámetro exterior, Sn-4, fabricados según UNE EN 1401-1, colocada en zanja recubierta con arena.						
	Red de snmto hrztlal	3	3,50			10,50	
		1	2,00			2,00	
		1	5,00			5,00	
		1	8,00			8,00	
							25,50
198112	ML TUBERÍA DE PVC 125 mm Sn4						
	Tubería de PVC con junta elástica de 125 mm de diámetro exterior, Sn-4, fabricados según UNE EN 1401-1, colocada en zanja recubierta con arena.						
	Red de snmto hrztlal	2	10,00			20,00	
							20,00
198116	ML TUBERÍA DE PVC 160 mm Sn4						
	Tubería de PVC con junta elástica de 160 mm de diámetro exterior, Sn-4, fabricados según UNE EN 1401-1, colocada en zanja recubierta con arena.						
	Red de snmto hrztlal	2	3,00			6,00	
							6,00
198110b	ML TUBERÍA DE PVC 110 mm serie B						
	m. Tubería de PVC sanitaria serie B, de 110 mm de diámetro y 3,2 mm de espesor, unión por adhesivo, color gris, colocada en bajantes y red de saneamiento horizontal colgada, con una pendiente mínima del 1 % , i/ p.p. de piezas especiales según UNE EN 1329 y CTE/DB-HS 5.						
	Tubería colgada	1	10,00			10,00	
	Bajantes pluviales	3	8,50			25,50	
		2	4,60			9,20	
	bajantes residuales	3	4,60			13,80	
							58,50

MEDICIONES

ABASTECIMIENTO A VARIOS MUNICIPIOS DE LA RIOJA. SISTEMA CIDACOS

CÓDIGO	RESUMEN	UDS	LONGITUD	ANCHURA	ALTURA	PARCIALES	CANTIDAD
460s	UD ARQUETA RED DE SNT0. DE 40x40x40 TAPA FUNDICIÓN						
	Arqueta de red de saneamiento de 40x40x40, de hormigón HM-20 dotada de cerco y tapa de fundición hidráulica de 40x40 cm C-250						
		1				1,00	
							1,00
4602sR	UD ARQUETA RED DE SNT0. DE 50x50x80 TAPA RELLENABLE						
	Arqueta de red de saneamiento de 50x50 y 80 cm de altura media, de hormigón HM-20 dotada de cerco y tapa HERMÉTICA de aluminio rellenable, paso 50x50 cm						
		5				5,00	
							5,00
460s2	UD ARQUETA RED DE SNT0. DE 50x50x80 TAPA FUNDICIÓN						
	Arqueta de red de saneamiento de 50x50 y 80 cm de altura media, de hormigón HM-20 dotada de cerco y tapa de fundición hidráulica de 50x50 cm C-250						
		2				2,00	
							2,00
460sum	UD SUMIDERO SIFÓNICO DE FUNDICIÓN 14,5x14,5						
	ud. Sumidero sifónico de fundición de 14,5x14,5 cm, salida d=50 mm, enlazado a arqueta mediante tubería de PVC de diámetro exterior 50 mm x 3 mm de espesor Serie B, totalmente instalado, según CTE/DB-HS 5.						
		4				4,00	
							4,00
460sumi	UD SUMIDERO SIFÓNICO ACERO INOX						
	ud. Sumidero sifónico de acero inoxidable cm para instalación en suelos de vestuarios, totalmente instalado i/ p.p. de material de agarre, enlazado a arqueta mediante tubería de PVC de diámetro exterior 50 mm x 3 mm de espesor Serie B, totalmente instalado, según CTE/DB-HS 5.						
	vestuarios	2				2,00	
	duchas	2				2,00	
							4,00
453AC	UD ACOMETIDA ABASTECIMIENTO A EDIFICIO DE CONTROL						
	Ud. Acometida a la red general, formada por tubería de polietileno de 1 1/2" y 10 Atm. para uso alimentario, brida de conexión, machón rosca, manguitos, llaves de paso tipo globo, válvula anti-retorno de 1 1/2", tapa de registro exterior, grifo de pruebas de latón de 1/2", incluso contador, según CTE/ DB-HS 4 suministro de agua.						
		1				1,00	
							1,00
453L	UD INSTALACIÓN DE FONTANERÍA Y EVACUACIÓN LABORATORIO						
	ud. Instalación del laboratorio y dependencias enexas, de fontanería completa en TABIQUERÍA SECA, realizada con tuberías de polietileno reticulado (método Engel) utilizando el sistema Quick&Easy de derivaciones por tes para las redes de agua fría y caliente y con tuberías de PVC serie C para la red de desagüe con los diámetros necesarios para cada punto de consumo, totalmente terminada según CTE/ DB-HS 4 suministro de agua, sin incluir los aparatos sanitarios ni griferías, y con p.p. de redes interiores de ascendentes y bajantes.						
		1				1,00	
							1,00
453A	UD INSTALACIÓN DE FONTANERÍA Y EVACUACIÓN ASEOS PL.1						
	ud. Instalación de aseos y cuarto de limpieza de planta primera, de fontanería completa en TABIQUERÍA SECA, realizada con tuberías de polietileno reticulado (método Engel) utilizando el sistema Quick&Easy de derivaciones por tes para las redes de agua fría y caliente y con tuberías de PVC serie C para la red de desagüe con los diámetros necesarios para cada punto de consumo, totalmente terminada según CTE/ DB-HS 4 suministro de agua, sin incluir los aparatos sanitarios ni griferías, y con p.p. de redes interiores de ascendentes y bajantes.						
		1				1,00	
							1,00

MEDICIONES

ABASTECIMIENTO A VARIOS MUNICIPIOS DE LA RIOJA. SISTEMA CIDACOS

CÓDIGO	RESUMEN	UDS	LONGITUD	ANCHURA	ALTURA	PARCIALES	CANTIDAD
453T	UD INSTALACIÓN DE FONTANERÍA TALLER ud. Instalación de fontanería completa para el taller, realizada con tuberías de polietileno reticulado (método Engel) utilizando el sistema Quick&Easy de derivaciones por tes para las redes de agua fría, totalmente terminada según CTE/ DB-HS 4 suministro de agua, sin incluir los aparatos sanitarios ni griferías, y con p.p. de redes interiores de ascendentes y bajantes.	1				1,00	1,00
453ACE	UD INSTALACIÓN DE FONTANERÍA Y EVACUACIÓN ALMACÉN ud. Instalación del almacén y cuarto de equipos, de fontanería completa, realizada con tuberías de polietileno reticulado (método Engel) utilizando el sistema Quick&Easy de derivaciones por tes para las redes de agua fría y caliente y con tuberías de PVC serie C para la red de desagüe con los diámetros necesarios para cada punto de consumo, totalmente terminada según CTE/ DB-HS 4 suministro de agua, sin incluir los aparatos sanitarios ni griferías, y con p.p. de redes interiores de ascendentes y bajantes.	1				1,00	1,00
453v	UD INSTALACIÓN DE FONTANERÍA Y EVACUACIÓN VESTUARIOS ud. Instalación de vestuarios, de fontanería completa en TABIQUERÍA SECA, realizada con tuberías de polietileno reticulado (método Engel) utilizando el sistema Quick&Easy de derivaciones por tes para las redes de agua fría y caliente y con tuberías de PVC serie C para la red de desagüe con los diámetros necesarios para cada punto de consumo, totalmente terminada según CTE/ DB-HS 4 suministro de agua, sin incluir los aparatos sanitarios ni griferías, y con p.p. de redes interiores de ascendentes y bajantes.	1				1,00	1,00
45332	ML TUBERÍA POLIETILENO RETICULADO 32x2,9 m. Tubería de polietileno reticulado por el método Engel (Peróxido), según norma UNE-EN ISO 15875, de 32x2,9 mm de diámetro, colocada en instalaciones interiores de para agua fría y caliente, sin protección superficial, con p.p. de accesorios Quick&Easy de PPSU, instalada y funcionando según CTE/ DB-HS 4 suministro de agua.	2	14,00			28,00	28,00
45325	ML TUBERÍA POLIETILENO RETICULADO 25x2,3 m. Tubería de polietileno reticulado por el método Engel (Peróxido), según norma UNE-EN ISO 15875, de 25x2,3 mm de diámetro, colocada en instalaciones interiores para agua fría y caliente, sin protección superficial, con p.p. de accesorios Quick&Easy de PPSU, instalada y funcionando según CTE/ DB-HS 4 suministro de agua.	2	4,50			9,00	9,00
453br	UD RECIRCULACIÓN ACS Ud. Instalación de recirculación de a.c.s. con circulador de bronce SB 4Y, tubería de polietileno de d=20 con p.p. de accesorios y aislamiento amaflex, 2 llaves de esfera de 3/4" H-H con bola de acero inox., 1 válvula de retención de 3/4", totalmente intalado.	1				1,00	1,00
45316C	ML AISLAM. COQUILLA D=16 MM iINT, E= 9 MM m. Aislamiento térmico con coquilla flexible autoadhesiva, elastómero extruido de célula cerrada, clase M1, de 9 mm de grueso, diámetro interior 16 mm, para utilizar con tubería de fontanería, con un coeficiente de conductividad térmica de 0,0,33 a 0,0037 W/m°C, en instalaciones de fontanería (Temperatura de trabajo entre -40°C y +110°C).	55				55,00	55,00
		18				18,00	18,00
							73,00

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CÓDIGO	RESUMEN	UDS	LONGITUD	ANCHURA	ALTURA	PARCIALES	CANTIDAD
45320C	ML AISLAM. COQUILLA D=20 MM iINT, E= 9 MM m. Aislamiento térmico con coquilla flexible autoadhesiva, elastómero extruido de célula cerrada, clase M1, de 9 mm de grueso, diámetro interior 20 mm, para utilizar con tubería de fontanería, con un coeficiente de conductividad térmica de 0,0,33 a 0,0037 W/m°C, en instalaciones de fontanería (Temperatura de trabajo entre -40°C y +110°C).	42				42,00	42,00
45325C	ML AISLAM. COQUILLA D=25 MM iINT, E= 9 MM m. Aislamiento térmico con coquilla flexible autoadhesiva, elastómero extruido de célula cerrada, clase M1, de 9 mm de grueso, diámetro interior 25 mm, para utilizar con tubería de fontanería, con un coeficiente de conductividad térmica de 0,0,33 a 0,0037 W/m°C, en instalaciones de fontanería (Temperatura de trabajo entre -40°C y +110°C).	5				5,00	5,00
45332C	ML AISLAM. COQUILLA D=32 MM iINT, E= 9 MM m. Aislamiento térmico con coquilla flexible autoadhesiva, elastómero extruido de célula cerrada, clase M1, de 9 mm de grueso, diámetro interior 32 mm, para utilizar con tubería de fontanería, con un coeficiente de conductividad térmica de 0,0,33 a 0,0037 W/m°C, en instalaciones de fontanería (Temperatura de trabajo entre -40°C y +110°C).	14				14,00	14,00
452BF	ud BARRA APOYO FIJA Ud. Barra de apoyo MEDICLINIC Ref. BR0600CS acero inox AISI 304, o modelo equivalente, instalada con p.p. de elementos de anclaje de acero inox. Aseo accesible	1				1,00	1,00
452BA	ud BARRA APOYO ABATIBLE Ud. Barra de apoyo MEDICLINIC Ref. BG0800C acero inox AISI 304, o modelo equivalente, instalada con p.p. de elementos de anclaje de acero inox. Aseo accesible	1				1,00	1,00
452DJ	ud DOSIFICADOR DE JABÓN ud. Dosificador de jabón MEDICLINICS DJ0111C o equivalente, acero inoxidable, instalado.	5				5,00	5,00
452PR	ud DISPENSADOR PAPEL ROLLO ud. Dispensador de papel higiénico industrial circular, modelo MEDICLINICS PR0783CS o modelo equivalente, instalado.	6				6,00	6,00
452PT	ud DISPENSADOR PAPEL TOALLA ud. Dispensador de papel toalla modelo MEDICLINICS DT2106CS o modelo equivalente, instalado.	5				5,00	5,00
452LP	ud LAVABO SOBRE PEDESTAL ud. Lavabo de Roca o similar, modelo Victoria de 52x41 cm con pedestal en blanco, con grifería temporizada de 1/2" marca Presto 605 o similar, válvula de desagüe de 32 mm, llave de escuadra de 1/2" cromada y sifón individual PVC 40 mm y latiguillo flexible 20 cm, totalmente instalada. Vestuarios	4				4,00	4,00

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CÓDIGO	RESUMEN	UDS	LONGITUD	ANCHURA	ALTURA	PARCIALES	CANTIDAD
452LV	ud LAVABO MURAL ACCESIBLE Ud. Lavabo mural de Roca modelo Hall de 450x380 mm. en blanco, con mezclador de lavabo monomando adaptado, válvula de desagüe de 32 mm., llaves de escuadra de 1/2" cromadas y sifón individual y tuberías de enlace a paramento y sanitario cromado 40 mm. y latiguillo flexible 20 cm., totalmente instalado. Aseo accesible	1				1,00	1,00
452Lm	ud LAVABO MURAL Ud. Lavabo mural de Roca modelo Hall de 450x380 mm. en blanco, con mezclador de lavabo monomando, válvula de desagüe de 32 mm., llaves de escuadra de 1/2" cromadas y sifón individual y tuberías de enlace a paramento y sanitario cromado 40 mm. y latiguillo flexible 20 cm., totalmente instalado. Aseos pl. 1	4				4,00	4,00
452IN	ud INODORO TANQUE BAJO Ud. Inodoro de Roca modelo Victoria de tanque bajo en blanco, con asiento pintado en blanco y mecanismos, llave de escuadra 1/2" cromada, latiguillo flexible de 20 cm., empalme simple PVC de 110 mm., totalmentete instalado.	5				5,00	5,00
452IA	ud INODORO TANQUE BAJO ACCESIBLE Ud. Inodoro de Roca modelo Access de tanque bajo en blanco de 480 mm. de altura (sin asiento), con asiento y tapa con bisagras de acero inox., mecanismos, llave de escuadra 1/2" cromada, latiguillo flexible de 20 cm., empalme hasta bajante o tubería de evacuación de PVC de 110 mm., totalmente instalado.	1				1,00	1,00
452UR	ud URINARIO MURAL Ud. Urinario de Roca modelo Site, o equivalente, con grifo temporizado Presto 27 1/2" y enlace a urinario y sifón incorporado, totalmente instalado.	1				1,00	1,00
452VT	ud VERTEDERO Ud. Vertedero modelo Garda completo con mezclador exterior de caño giratorio modelo Victoria Plus de Roca o similar, i/rejilla, desagüe, enchufe de unión y fijación instalada.	1				1,00	1,00
452gd	ud GRIFERÍA DUCHAS Ud. Mezclador temporizado para ducha con pulsador de regulación de temperatura integrado, tipo Presto Alfa 80, y tubería de de enlace y rociador antivandálico, cromados para instalación vista, tipo Nofer 07072, o equivalente, i/p.p. de piezas especiales de enlace y fijación, totalmente instalado.	2				2,00	2,00
452TER	ud TERMO ELÉCTRICO 80 L JUNKERS Ud. Termo eléctrico vertical/horizontal para el servicio de a.c.s acumulada, JUNKERS modelo HS 80-3B, con una capacidad útil de 80 litros. Potencia 2,0 kW. Ajuste de temperatura en intervalos de 10°C y tensión de alimentación a 230 V. Tiempo de calentamiento 140 minutos. Testigo luminoso de funcionamiento y display con indicación de temperatura. Depósito de acero vitrificado. Aislamiento de espuma de poliuretano sin CFC y ánodo de sacrificio de magnesio. Presión máxima admisible de 8 bar. Dimensiones 948 mm de alto y 452 mm de diámetro.	1				1,00	1,00

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CÓDIGO	RESUMEN	UDS	LONGITUD	ANCHURA	ALTURA	PARCIALES	CANTIDAD
452dep	ud ACUMULACIÓN A.C.S. Ud. Depósito para acumulación ACV, Mod. SMART SL de 160 litros de capacidad, fabricado en acero inoxidable, aislado térmicamente, válvula de seguridad de 1", válvula de retención de 1", 2 llaves de esfera de 1", vaciado, vaseo de expansión de 8 l., accesorios y pequeño material, completamente montado, probado y funcionando	1				1,00	1,00
452BAT	ud BATER. 6 PANELES PLANOS FK-1 W JUNKERS 13,50 M2 Ud. Batería de 6 captadores solares planos FK-1 W de alto rendimiento, con tratamiento selectivo en cromo negro, para montaje en horizontal. Permite conexión en paralelo hasta 10 captadores. Circuito hidráulico de parilla de tubos. Aislamiento de lana mineral de 55 mm de espesor. Estructura en forma de caja, realizada en fibra de vidrio. Superficie de apertura: 2,25 m2. Uniones mediante manguitos flexibles con abrazaderas de ajuste rápido. Instalado sobre cubierta plana mediante una estructura de soporte de aluminio con elementos de conexión incluyendo racores, válvulas de corte, purgador, etc. Incluso transporte, montaje, conexionado, pruebas de funcionamiento y puesta en marcha. Conexión hidráulica entre captadores y sujeción física a estructura.	1				1,00	1,00
452cis	ud CIRCUITOS INSTALACIÓN SOLAR Ud. Ejecución de circuitos primario y secundario con tubería cobre rígido, incluso puesta a punto de soldadura dura o blanda según corresponda, codos, tes, manguitos y demás accesorios y pequeño material, aislada con coquilla de Armaflex, de espesor nominal de 30 mm, recubierta de pintura protectora exterior del aislante, vaso de expansión para sistemas cerrados, de 12 litros de capacidad, 4 bar y 120°C de presión y temperatura máximas de trabajo, 1.5 bar de presión inicial, homologado según directiva 97/23/CE de aparatos a presión, conexión roscada R 3/4", incluso válvula de seguridad de 3 kg/cm.2, llaves, de cierre, circulador Grundfos para instalación con presión y temperatura máxima de 10 bar y 110°C respectivamente, constituido por motor de rotor encapsulado, selector de 3 velocidades, manómetros, separador de aire, sonda de temperatura, purgador y demás accesorios y pequeño material, completamente montado, probado y funcionando.	1				1,00	1,00
452ce	ud C. ELÉCT./CON. SYSTEMTRONIC ACS 2 Ud. Cuadro eléctrico y de control formado por caja estanca e interruptores de protección. Incluso cableado y bombas de conexión. Control diferencial, marca SYSTEMTRONIC, modelo PTC 2001/rd, con dos sondas de inmersión para actuación de bomba del primario (P<250W) mediante termostato diferencial, termostato mínima en paneles y termostato de máxima en acumulación, mediante actuación directa. Incluso accesorios y pequeño material, completamente montado, probado y funcionando.	1				1,00	1,00
452cen	ud CENTRALITA CONTROL JUNKERS TDS 050 Ud. Centralita solar JUNKERS modelo TDS 050 de regulación para una aplicación. Regulador por temperatura diferencial. Dos entradas tipo NTC (Temperatura panel y temperatura parte inferior del depósito). Display LCD con esquema de instalación en movimiento. Indicación de temperaturas, códigos de error, modo de funcionamiento y estado de la bomba. Una salida de tensión de 230V de corriente alterna para el circulador. Posibilidad de ajuste de diferencia de temperatura de conexión. Posibilidad de aplicación para recirculación entre depósitos. Posibilidad de ajuste de temperatura máxima en acumulador. Dimensiones: 134 x 137 x 38 mm.	1				1,00	1,00
452leg	ud LEGALIZACIÓN INSTALACIÓN A.C.S. Ud. Legalización instalación de energía solar térmica de potencia inferior a 21 kW, comprende tasas administrativas y tramitación por parte de un Organismo de Control Autorizado.	1				1,00	1,00

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SUBAPARTADO 02.01.06.6 CERRAMIENTOS Y CUBIERTA							
463p	M2 PANEL PREFABRICADO DE HORMIGÓN 16 cm M2. Panel de cerramiento con acabado gris natural, de 16 cm. de espesor para colocación horizontal, con modulación según proyecto, tratamiento anticarbonatación, ambas caras lisas, i/elementos de fijación de acero galvanizado en caliente y sellado de juntas interior y exterior con SILCOSELL o equivalente, colocado, (medido deduciendo huecos mayores de 10 m2.)						
		1	26,75		9,50		254,13
		2	14,60		9,50		277,40
		1	26,75		6,70		179,23
		2	1,75		2,60		9,10
		1	3,00	1,90			5,70
		2	3,10		5,25		32,55
		2	2,25		0,75		3,38
							761,49
463RC	M2 REVESTIMIENTO EXTERIOR DE CHAPA ONDULADA M2. Revestimiento de chapa ondulada de aluminio tipo tipo alubel ond-all 33 acabado lacado estandar a elegir, con p.p. elementos de fijación y remates inferior, a huecos, esquinas, coronación, etc, totalmente terminada.						
		1	26,75		9,50		254,13
		1	26,75		6,70		179,23
		2	1,75		2,60		9,10
		1	3,00		1,75		5,25
		2	3,10		5,25		32,55
		2	2,25		0,75		3,38
							483,64
463CI	M2 CUBIERTA PLANA NO TRANSITABLE m². Cubierta invertida completa, no transitable, constituida por: capa de hormigón aligerado de 10 cm de espesor medio, para formación de pendientes, con tendido de mortero de cemento M5 de 2 cm de espesor para regularizar la superficie; lámina geotextil de 200 g/m²; lámina asfáltica de oxiasfalto, GLASDAN 40 P OXI, en posición flotante respecto al soporte, salvo en perímetros y puntos singulares; lámina asfáltica de oxiasfalto, ESTERDAN 40 P ELAST, totalmente adherida a la anterior con soplete; cazoleta con conexión a bajante d110 mm con paragravillas; aislamiento térmico con planchas de poliestireno extruido de 50 mm de espesor, DANOPREN 50; lámina geotextil; capa de gravilla de canto rodado de 5 cm de espesor. Solución según membrana PN-6 de la norma UNE 104-402/96. Cumple los requisitos del C.T.E.						
		1	26,75	14,60			390,55
		-1	3,20	2,00			-6,40
							384,15
463RCH	M2 REVESTIMIENTO PETO CUBIERTA M2. Revestimiento de peto interior de cubierta entre coronación y solape con impermeabilizante de cubierta, realizado con chapa lacada 0,5 mm con p.p. elementos de fijación, totalmente terminada.						
		1	89,20		0,90		80,28
							80,28
463	M2 FÁBRICA BLOQUES 40x20x20 cm GRIS Fábrica de bloques de hormigón color gris de medidas 40x20x20 cm, para terminación posterior en peanas de ventilaciones, i/relleno de hormigón HM-20 y armadura en zona según normativa y recibido con mortero de cemento y arena de río 1/6, i/p.p. de piezas especiales, roturas, aplomados, nivelados y limpieza todo ello según NTE-FFB-6.						
	divisiones						
	taller a sala cuadros	1	7,37		4,00		29,48
	taller a distrib.	1	3,65		4,00		14,60
	sia cuadros a sala soplantes	1	7,37		4,00		29,48
	sala cuadros a distrib	1	3,71		4,00		14,84
	sala soplantes a deistrib	1	3,31		4,00		13,24
	sala bombas a dist-s.r.-almacén	1	19,70		4,00		78,80
	almacén a sala reuniones	1	5,26		4,00		21,04
	sala soplantes a filtrac	1	5,81		4,00		23,24
	sala equipos	1	4,70		4,00		18,80

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	Arqueta entrada	1	2,20	1,60			3,52
	divis. bajo losa escalera trastero	1	1,50		1,60		2,40
							243,82
463TB	M2 TABIQUE AUTOPORTANTE 2x15N+70+2x15N m². Tabique formado por una estructura de perfiles de chapa de acero galvanizada de 70 mm de ancho, a base de Montantes (elementos verticales) separados 400 mm entre ellos y canales (elementos horizontales), En cada cara se atornillan dos placas de yeso laminado, estandar tipo N de 15 mm de espesor, dando un ancho total terminado de 130 mm. Parte proporcional de tornillería, juntas estancas /acústicas de su perímetro, cintas y pasta de juntas, piezas de arriostamiento, anclajes mecánicos, etc. totalmente terminado con calidad de terminación Nivel 1 (Q1) para terminaciones de calidad de terminación Nivel 2 (Q2) para terminaciones estándar de pintura. Alma con Lana Mineral tipo Arena PR de 65 mm de espesor. Montaje según Norma UNE 102.041 IN y requisitos del CTE-DB HR. Montaje según Norma UNE 102.041 IN y requisitos del CTE-DB HR.						
	divisiones						
	P.BAJA						
	distrib. a pasillo	1	1,50		3,95		5,93
	pasillo a sala reuniones	1	5,25		3,95		20,74
	acc. a bajo escalera	1	1,50		3,95		5,93
	PL. 1						
	paso a sala r. y desp.	1	7,60		3,90		29,64
	paso a sala poliv.	1	18,00		3,90		70,20
	paso a despacho y archivo	1	10,10		3,90		39,39
	archivo a despachos	2	4,30		3,90		33,54
	despacho a sala reuniones	1	3,90		3,90		15,21
	s. reuniones a desp laborat	1	4,40		3,90		17,16
	esc. a desp laborat	1	1,60		3,90		6,24
		-8		0,95	2,10		-15,96
		-1		1,75	2,10		-3,68
							224,34
463TBh	M2 TABIQUE AUTOPORTANTE 2x15N+70+1x15H m². Tabique formado por una estructura de perfiles de chapa de acero galvanizada de 70 mm de ancho, a base de Montantes (elementos verticales) separados 400 mm entre ellos y canales (elementos horizontales), En una cara se atornillan dos placas de yeso laminado, estandar tipo N de 15 mm de espesor y en la otra una placa de yeso laminado hidrofugada tipo H1, de 15 mm, dando un ancho total terminado de 115 mm. Parte proporcional de tornillería, juntas estancas /acústicas de su perímetro, cintas y pasta de juntas, piezas de arriostamiento, anclajes mecánicos, etc. totalmente terminado con calidad de terminación Nivel 1 (Q1) para terminación de alicatado en lado placa hidrofugada, y calidad de terminación Nivel 2 (Q2) para terminaciones estándar de pintura en lado Alma con Lana Mineral tipo Arena PR de 65 mm de espesor. Montaje según Norma UNE 102.041 IN y requisitos del CTE-DB HR. Montaje según Norma UNE 102.041 IN y requisitos del CTE-DB HR.						
	divisiones						
	P. BAJA						
	paso a vestuarios	1	13,70		3,95		54,12
	P. 1						
	paso a aseos	1	7,20		3,90		28,08
	despacho a aseos	1	3,90		3,90		15,21
	sala reuniones a laborat.	1	4,40		3,90		17,16
	esc. paso. a laborat	1	12,60		3,90		49,14
		-6		0,95	2,10		-11,97
							151,74
463TB2h	M2 TABIQUE AUTOPORTANTE 1X15H+70+1x15H m². Tabique formado por una estructura de perfiles de chapa de acero galvanizada de 70 mm de ancho, a base de Montantes (elementos verticales) separados 400 mm entre ellos y canales (elementos horizontales), En cada cara se atornillan una placa de yeso laminado hidrofugada tipo H1, de 15 mm, dando un ancho total terminado de 115 mm. Parte proporcional de tornillería, juntas estancas /acústicas de su perímetro, cintas y pasta de juntas, piezas de arriostamiento, anclajes mecánicos, etc. totalmente terminado con calidad de terminación Nivel 1 (Q1) para terminaciones de alicatado. Alma con Lana Mineral tipo Arena PR de 65 mm de espesor. Montaje según Norma UNE 102.041 IN y requisitos del CTE-DB HR. Montaje según Norma UNE 102.041 IN y requisitos del CTE-DB HR.						
	divisiones						

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ABASTECIMIENTO A VARIOS MUNICIPIOS DE LA RIOJA. SISTEMA CIDACOS

CÓDIGO	RESUMEN	UDS	LONGITUD	ANCHURA	ALTURA	PARCIALES	CANTIDAD
	Arqueta entrada	1	2,20	1,60		3,52	
	vestuarios	1	3,90		3,95	15,41	
	P.1						
	vestuarios	1	3,90		3,90	15,21	
		1	3,60		3,90	14,04	
		1	4,80		3,90	18,72	
	laboratorio	1	4,00		3,90	15,60	
		1	5,60		3,90	21,84	
		1	4,20		3,90	16,38	
		-3		0,95	2,10	-5,99	
		-1		1,85	1,10	-2,04	
		-1		0,75	1,10	-0,83	
		-1		2,00	1,10	-2,20	
		-1		1,10	1,10	-1,21	
							104,93
463TR	M2 TRASDOSADO AUTOPORTANTE 70+2x15N						
	m². Trasdosado autoportante formado por una estructura de perfiles de chapa de acero galvanizada de 70 mm de ancho, a base de Montantes (elementos verticales) colocados dobles en H, separados 400 mm entre ellos y canales (elementos horizontales). A éstos se atomillan dos placas de yeso laminado, estandar tipo N de 15 mm de espesor, dando un ancho total terminado de 100 mm. Parte proporcional de tornillería, juntas estancas /acústicas de su perímetro, cintas y pasta de juntas, piezas de arriostamiento, anclajes mecánicos, etc. totalmente terminado con calidad de terminación Nivel 2 (Q2) para terminaciones estándar de pintura. Alma con Lana Mineral tipo Arena PR de 65 mm de espesor. Montaje según Norma UNE 102.041 IN y requisitos del CTE-DB HR. Montaje según Norma UNE 102.041 IN y requisitos del CTE-DB HR.						
	P. BAJA						
	distrib. a zona indust	1	5,60		3,95	22,12	
		1	2,70		3,95	10,67	
	distrib. a fachada	1	8,35		3,95	32,98	
	zona escalera	1	1,70		2,45	4,17	
		1	1,70		1,85	3,15	
		1	1,50		1,25	1,88	
		-1		3,00	2,60	-7,80	
		-1		1,20	1,60	-1,92	
		-1		1,80	2,10	-3,78	
		-1		1,00	2,15	-2,15	
		-1		2,00	1,15	-2,30	
	P. 1						
	zonas no húmedas a fachada	1	53,25		3,90	207,68	
		1	12,70		3,90	49,53	
		-3		1,20	1,60	-5,76	
		-1		2,80	1,60	-4,48	
		-2		1,80	1,60	-5,76	
		-2		1,00	1,60	-3,20	
		-1		3,00	1,60	-4,80	
		-1		2,00	1,60	-3,20	
							287,03
463TRh	M2 TRASDOSADO AUTOPORTANTE 70+1x15H						
	m². Trasdosado autoportante formado por una estructura de perfiles de chapa de acero galvanizada de 70 mm de ancho, a base de Montantes (elementos verticales) colocados dobles en H, separados 400 mm entre ellos y canales (elementos horizontales). A éstos se atomilla una placa de yeso laminado, hidrofugada de 15 mm de espesor, dando un ancho total terminado de 85 mm. Parte proporcional de tornillería, juntas estancas /acústicas de su perímetro, cintas y pasta de juntas, piezas de arriostamiento, anclajes mecánicos, etc. totalmente terminado con calidad de terminación Nivel 1 (Q1) para terminaciones de alicatado. Alma con Lana Mineral tipo Arena PR de 65 mm de espesor. Montaje según Norma UNE 102.041 IN y requisitos del CTE-DB HR. Montaje según Norma UNE 102.041 IN y requisitos del CTE-DB HR.						
	P. BAJA						
	vest a fachada	1	17,50		3,95	69,13	
		-2		4,20	0,60	-5,04	
	P.1						

MEDICIONES

ABASTECIMIENTO A VARIOS MUNICIPIOS DE LA RIOJA. SISTEMA CIDACOS

CÓDIGO	RESUMEN	UDS	LONGITUD	ANCHURA	ALTURA	PARCIALES	CANTIDAD
	Arqueta entrada	1	2,20	1,60		3,52	
	laboratorio a fachada	1	14,90		3,90	58,11	
		-1		2,20	0,60	-1,32	
		-2		1,80	1,60	-5,76	
							178,11
461	M2 TABICÓN DE LADRILLO HUECO DOBLE						
	Tabicón de ladrillo hueco doble tomado con mortero de cemento y arena de río 1:6, construido según normas y especificaciones, medido en superficie, ejecutado deduciendo huecos superiores a 1 m2.						
	forrado bajantes						
	p. b taller	1		0,80	3,95	3,16	
		1		0,70	3,95	2,77	
							5,93
	SUBPARTADO 02.01.06.7 INSTALACIONES DE CLIMATIZACIÓN EDIFICIO DE CONTROL						
	ELEMENTO 02.01.07.7.1 GENERACIÓN DE CALOR						
2473CL0101	ud BOMBA DE CALOR FERROLI NEPTUNO 60R						
	Bomba de calor condensada por aire FERROLI NEPTUNO 60R con potencia frigorífica 59,6 kW y potencia calorífica 68,25 kW diseñada para producir agua caliente hasta 65°C con temperaturas exteriores de -10°C. Version alta eficiencia, limites operativos de -20°C trabajando en modo calefaccion y +48°C en modo refrigeracion. Refrigerante R410A. Con ventiladores axiales control de condensacion con capacidad continua de regulacion incorporado en bomba de calor, compresor scroll encapsulados y ekepada superficie de intercambio para un comportamiento silencioso, 2 circuitos frigorificos independientes, con grupo hidrónico y bomba de implusión tipo 3 y kit antivibratorios VT15. Totalmente montado e instalado incluso pp de pequeño material y conexión eléctrica.						
		1					1,000
							1,00
	ELEMENTO 02.01.07.7.2 FAN COIL						
2473CL0201	ud FANCOIL CASSETTE DE TECHO						
	Cassette de techo diseñado para emision sonora reducida. Grupo moto-ventilador con 3/4 velocidades. Estructura de sustentacion reforzada con faja lateral de acero galvanizado. Filtro de aire precargado electrostaticamente de facil extraccion y limpieza. Posibilidad de introduccion directa de aire exterior. Bandeja de condensados con grado de auto extincion VO. Incluido Plafon para cassette GLF10						
		18					18,000
							18,00
	ELEMENTO 02.01.07.7.3 EQUIPOS DE VENTILACIÓN						
2473CL0301	Ud RECUPERADOR DE CALOR						
	Unidad de recuperacion de calor Equipada con recuperador de placas de aluminio a contracorriente de elevada eficiencia para lograr rendimientos secos superiores al 80% , ventiladores plug EC. Construida con perfiles de aluminio y paneles sandwich de 25mm de espesor fijados mediante compresion mecanica por perfil perimetral de aluminio que confiere el cerramiento gran resistencia mecanica.						
	La unidad de recuperacion incluye:						
	-Ejecucion en horizontal						
	-Montaje con orejetas para instalacion interior en falso techo						
	-Filtros F6+F8						
	-Compuertas para free cooling						
	-Vnetiladores con motor EC						
	-Bateria de agua a 2 tubos						
	-Display remoto hasta 30m						
	-Cuadro de control y fuerza						
	-Control de equipo a caudal constante						
	-Comunicacion MODBUS						
		1					1,000
							1,00
2473CL0302	Ud VENTILADOR HELICONCENTRIFUGO						
	Ventilador heliconcentrifugo in-line de bajo perfil, extremadamente silencioso, fabricado en material de plástico, con elementos acusticos, cuerpo-motor desmontable sin necesidad de tocar los conductos, juntas de goma en impulsión y descarga para absorber las vibraciones, caja de bornes externa orientable 360°.						

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CÓDIGO	RESUMEN	UDS	LONGITUD	ANCHURA	ALTURA	PARCIALES	CANTIDAD
	Arqueta entrada	1	2,20	1,60		3,52	
							4,00
ELEMENTO 02.01.07.7.4 TRATAMIENTO DE AIRE Y VENTILACIÓN							
2473CL0401	m. CONDUCTO CHAPA 0,8 mm. con aislamiento URSA AIR M2021 Canalización de aire realizada con chapa de acero galvanizada de 0,8 mm. de espesor, con aislamiento exterior URSA AIR M2021 o equivalente, para canalización de aire en zonas exteriores, i/embocaduras, derivaciones, elementos de fijación y piezas especiales, sellado de juntas, homologado, instalado, según normas UNE y NTE-ICI-23. Totalmente instalado y comprobado.	1	204,380			204,380	
							204,38
2473CL0403	Ud Rejilla de intemperie TROX WG-AL-WG 400x330 mm Rejilla de intemperie de aluminio de la marca TROX serie WG-AG-WG 400x330mm o equivalente, para toma de aire exterior de los equipos de climatización de medidas según indicaciones de planos adjuntos, con lamas fijas horizontales antilluvia y malla metálica posterior de protección anti-pájaros y anti-insectos para toma de aire o salida de aire de condensación, instalada sobre muro exterior con revestimiento hidrófugo pintado en color RAL según indicaciones de la dirección facultativa, s/NTE-ICI-27, totalmente instalada y comprobada.	1	1,000			1,000	
							1,00
2473CL0405	Ud Rejilla de extracción TROX AH-AF 325x225 mm Rejillas lineales de extracción de la instalación marca TROX modelo AH-AF 325x225mm o equivalente, compuesta por marco frontal, con lamas deflectoras horizontales y orientables en la cara frontal, montaje roscado (SM) y con compuerta corredera de regulación. Marco y lamas fabricadas en chapa de acero lacado y termoesmaltada en RAL 9010 (blanco) o en chapa de acero electrogalvanizado. Piezas adosadas en chapa de acero electrogalvanizado, totalmente instalado y comprobado.	13				13,000	
							13,00
2473CL0406	Ud Rejilla de extracción TROX AH-AF 225x165 mm Rejillas lineales de extracción de la instalación marca TROX modelo AH-AF 225x165mm o equivalente, compuesta por marco frontal, con lamas deflectoras horizontales y orientables en la cara frontal, montaje roscado (SM) y con compuerta corredera de regulación. Marco y lamas fabricadas en chapa de acero lacado y termoesmaltada en RAL 9010 (blanco) o en chapa de acero electrogalvanizado. Piezas adosadas en chapa de acero electrogalvanizado, totalmente instalado y comprobado.	1				1,000	
							1,00
2473CL0408	Ud Rejilla de extracción TROX AH-AF 425x325 mm Rejillas lineales de extracción de la instalación marca TROX modelo AH-AF 425x325mm o equivalente, compuesta por marco frontal, con lamas deflectoras horizontales y orientables en la cara frontal, montaje roscado (SM) y con compuerta corredera de regulación. Marco y lamas fabricadas en chapa de acero lacado y termoesmaltada en RAL 9010 (blanco) o en chapa de acero electrogalvanizado. Piezas adosadas en chapa de acero electrogalvanizado, totalmente instalado y comprobado.	6				6,000	
							6,00
2473CL04081	Ud Difusor rotacional TROX ADLR D= 244 mm Difusor rotacional de diámetro 244 mm marca TROX modelo ADLR de deflectores fijos con placa frontal circular, con plenum de conexión horizontal de chapa de acero galvanizado, pintado en color RAL 9010, para instalar en alturas de hasta 4 m. Incluso accesorios de montaje y elementos de fijación.	3				3,000	
							3,00
2473CL0409	Ud Boca de extracción SCHAKO TVB -100 Boca de extracción Schako TVB-100 o similar, para aseos, complementan la instalación de los extractores de la serie TD, dedicados a la instalación en conductos circulares. Totalmente instalado y probado, i/p.p. de ayudas de albañilería, medios y elementos auxiliares necesarios.	5				5,000	
							5,00

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CÓDIGO	RESUMEN	UDS	LONGITUD	ANCHURA	ALTURA	PARCIALES	CANTIDAD
2473CL0410	Ud Regulador de Caudal Constante marca SCHAKO modelo VRM-200 Caja de caudal constante circular marca Schako modelo VRM-200 o similar, adecuada para regulación continua de caudal constante hasta máx. 1000 Pa de diferencia de presión, incertidumbre de medida mas menos el 5% , equipada con bridas metu y clavetas de regulación de flujo. Carcasa fabricada en acero galvanizado, apropiado para tubos y conductos rectangulares según DIN 24145, totalmente instalado y comprobado.	18				18,000	
							18,00
ELEMENTO 02.01.07.7.5 INSTALACIÓN ELECTRICA							
2473CL0503	PA Conexionado y cableado de control Suministro, montaje, acabado, puesta a punto y pruebas de las unidades y equipos de acuerdo a planos y especificaciones. Suministro e instalación de cableados formados por conductores tipo RVK 0,6/1Kv de distintas secciones y números de polos, desde panel de control a los puntos existentes según listado de funciones, incluso parte proporcional de canalizaciones mediante tubo de PVC flexible, en tramos ocultos, rígidos en tramos vistos y acero en el exterior. SALA DE CALDERAS	1				1,000	
							1,00
ELEMENTO 02.01.07.7.6 LEGALIZACIÓN Y CONTROL DE CALIDAD							
2473CL0601	Ud Tramitación Expediente y Certificados Instalador Tramitación del expediente administrativo ante la delegación de Industria de la Comunidad Autónoma y las Compañías Suministradoras, lo cual incluye la presentación y recogida de la documentación ante estos organismos, quedando a su cargo el abono de las correspondientes tasas de legalización. Así mismo, la empresa instaladora deberá de realizar y entregar ante estos organismos la siguiente documentación: - Certificado de instalación térmica visado ante colegio oficial competente de instalación, realizado por el instalador autorizado. - Boletín de la instalación. Dicha documentación ha de ser entregada en copia una vez tramitada por la Delegación de Industria a la Propiedad y a la Dirección Facultativa de Instalaciones.	1				1,000	
							1,00
SUBPARTADO 02.01.06.8 INSTALACIÓN CONTRAINCENDIOS							
EXTABC	UD EXTINT. POLVO ABC 6 Kg. EF 21A-113B Ud. Eextintor de polvo ABC con eficacia 21A-113B para extinción de fuego de materias sólidas, líquidas, productos gaseosos e incendios de equipos eléctricos, de 6 Kg. de agente extintor con soporte, manómetro y boquilla con difusor según norma UNE-23110, totalmente instalado según CTE/DB-SI 4. Certificado por AENOR. Extintor ABC 6 Kg	6				6,000	
							6,00
C04.04.01.03	UD EXTINTOR DE CO2 EFICACIA 89B Ud. Extintor de CO2 (Nieve Carbónica) de 5 kg. de capacidad, eficacia 89B, equipado de manguera con difusor y homologado e instalado. Extintor CO2 5 Kg	1				1,000	
							1,00
SEÑAL01	UD SEÑAL LUMINISCENTE EXT. INCENDIOS Ud. Señal luminiscente para elementos de extinción de incendios (eextintores, bies, pulsadores....) de 297x210 por una cara en pvc rígido de 2 mm de espesor, totalmente instalada, según norma UNE 23033 y CTE/DB-SI 4. Señal Luminiscente Elementos Extinción	22				22,000	
							22,00

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CÓDIGO	RESUMEN	UDS	LONGITUD	ANCHURA	ALTURA	PARCIALES	CANTIDAD
C04.04.07.01	UD CENTRAL ANAL. 2 LAZOS 198 DETEC. Ud. Central de detección de incendios Analógica con 2 lazos compacta (no ampliable) de 198 detectores + 198 módulos analógicos, con 5 salidas de relé, pantalla LCD de 128x64 píxeles retroiluminada, 2 salidas serie RS-232, fuente de alimentación y d baterías de 12V / 7 Ah, totalmente instalada, conexionada, programada y probada, según CTE/DB-SI 4. Incluye 9 módulos de entrada-salida programable para maniobra y estado de equipos no analógicos, y 5 módulos de entrada analógicos para identificar señales de equipos no analógicos. Incluye dos fuentes de alimentación de 24 V 5 A, instaladas. Central analógica de Incendios	1				1,00	1,00
							1,00
C04.04.07.04	UD PULSADOR DE ALARMA REARMABLE Ud. Pulsador de alarma tipo rearmable, con tapa de plástico basculante totalmente instalado, i/p.p. de tubos y cableado, conexionado y probado, según CTE/DB-SI 4. Pulsador de Alarma	8				8,00	8,00
							8,00
C04.04.07.05	UD SIRENA ELECTRÓNICA BITONAL 24 V. Ud. Sirena de alarma de incendios bitonal, para montaje interior con señal óptica y acústica a 24v, totalmente instalada, i/p.p. tubo y cableado, conexionado y probado, según CTE/DB-SI 4. Sirena Electrónica	6				6,00	6,00
							6,00
C04.04.07.06	UD SIRENA ELECTRÓNICA BITONAL PARA EXTERIOR Ud. Sirena de alarma de incendios bitonal, para montaje exterior, con señal óptica y acústica a 24v, totalmente instalada, i/p.p. tubo y cableado, conexionado y probado, según CTE/DB-SI 4. Sirena Electr. Exterior	2				2,00	2,00
							2,00
C04.04.07.07	UD INST. ELÉCTRICA TUBO PVC Instalación eléctrica bajo tubo de PVC rígido o flexible según casos, libre de halógenos, con p.p. de manguera apantallada no propagador de llamas de 2X1,5 mm2 de sección, cajas de derivación, bridas de fijación, bornas de conexión, etc. incluso mano de obra para instalación, programación y pruebas. Inst. eléctrica	1				1,00	1,00
							1,00
APARTADO 02.01.07 DEPÓSITO DE AGUA TRATADA							
SUBAPARTADO 02.01.07.1 ARQUETA DE REPARTO ENTRADA A DEPÓSITO							
002	M3 EXCAVACIÓN EN ZANJAS Excavación en zanjas y zonas localizadas, en todo tipo de terrenos incluido terrenos en roca con medios mecánicos, incluso rasanteo, nivelación de la superficie de apoyo y transporte a lugar de empleo o vertedero.	1	16,00	5,00	2,50	200,00	200,00
							200,00
010	M3 RELLENO ZANJAS, CIMIENTOS Y TRASDOSES DE MATERIAL SELECCIONADO Relleno con material seleccionado en zanjas, cimientos, trasdós de muros, estribos y otras estructuras procedente de la excavación o préstamos incluso carga, transporte y compactación.	1	200,00			200,00	
		-1	15,00	3,10	2,40	-111,60	
							88,40
028	M3 HORMIGÓN DE LIMPIEZA HL-150 Hormigón de limpieza HL-150, de consistencia plástica, árido de tamaño máximo 40 mm y cemento CEM-II-D/42,5/SR, para saneos y encachados, incluyendo fabricación y transporte totalmente colocado.	1	15,40	5,00	0,10	7,70	
							7,70
031	M3 HORMIGÓN HA-25/B/20/IIa Hormigón HA-25/B/20/IIa, con cemento CEM II/A-D/42,5/SR, incluyendo fabricación, transporte, puesta en obra y vibrado, totalmente ejecutado, incluso curado y juntas.						

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CÓDIGO	RESUMEN	UDS	LONGITUD	ANCHURA	ALTURA	PARCIALES	CANTIDAD
	Arqueta entrada	1	2,20	1,60		3,52	
	Muros	2	15,40	0,30	2,60	24,02	
		2	4,60	0,30	2,60	7,18	31,20
	Tapa	1	15,00	4,60	0,25	17,25	
							79,25
025	M2 ENCOFRADO RECTO EN PARAMENTOS OCULTOS Encofrado recto en paramentos ocultos, incluso colocación, fijación y desencofrado. Solera	2	15,60		0,40	12,48	
		2	5,00		0,40	4,00	
							16,48
026	M2 ENCOFRADO RECTO EN PARAMENTOS VISTOS 1C Encofrado recto en paramentos vistos a una cara, incluso colocación, fijación y desencofrado. Muros	2	15,00		2,60	78,00	
		4	4,60		2,60	47,84	
	Tapa	2	15,00		0,25	7,50	
		2	4,60		0,25	2,30	
							135,64
026.1	M2 ENCOFRADO RECTO EN LOSAS VISTOS Encofrado recto en losas vistos, incluso colocación, fijación y desencofrado.	1	15,00	4,60		69,00	
							69,00
023	KG ACERO CORRUGADO B-500-S Acero redondo corrugado para armar tipo B-500-S elaborado y colocado. Solera	1	30,80	70,00		2.156,00	
	Muros	1	31,20	85,00		2.652,00	
	Tapa	1	17,25	85,00		1.466,25	
	Solapes y despuntes (5%)	0,05	6.274,26			313,71	
							6.587,96
052	ML JUNTAS DE ESTANQUEIDAD DE PVC 32 CM Junta de trabajo interior de policloruro de vinilo (PVC) 100% virgen, con una fuerza máxima de dilatación > 250 % , de 32 cm de ancho, MASTERFLEX 2000 TI-24 de BASF o equivalente, colocada simétricamente en el eje de la losa o muro, incluso solapes y piezas especiales para cruces o ángulos. Medida la longitud ejecutada.	2	15,00			30,00	
		2	4,60			9,20	
							39,20
289B	M2 TAPA DE CHAPA LACRIMADA GALVANIZADA e=4mm Tapa de chapa lacrimada de acero galvanizado de 4 mm de espesor, incluyendo el marco, tiradores, aros para cerradura con candado, anclada, totalmente colocada.	2	1,20	1,20		2,88	
							2,88
290	UD PATE POLIPROPILENO Pate de polipropileno de dimensiones 30x25 cm, incluyendo fabricación, transporte a obra, perforación de anclajes y relleno con aportación de material de agarre, completamente colocado.	18				18,00	
							18,00
620	UD APOYOS DE TUBERÍA Y VÁLVULAS SOBRE SOLERA Apoyos de tuberías y válvulas en soleras, mediante dado de hormigón HA-25/P/20/IIa, ligeramente armado y anclado a la solera, así como cintas o eslingas de acero con material de protección de tubería para sujeción de las mismas, incluyendo el hormigón, encofrados, acero, eslingas, material de PE de protección, montado.	5				5,00	
							5,00

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CÓDIGO	RESUMEN	UDS	LONGITUD	ANCHURA	ALTURA	PARCIALES	CANTIDAD
SUBAPARTADO 02.01.07.2 DEPÓSITO AGUA TRATADA Y CASETA DE VÁLVULAS							
ELEMENTO 02.01.07.2.1 MOVIMIENTO DE TIERRAS							
001	M3 EXCAVACIÓN A CIELO ABIERTO Excavación a cielo abierto en todo tipo de terrenos incluido terrenos en roca, incluso agotamiento y transporte a lugar de empleo o vertedero.						
	Cuerpo depósito	1	328,81	78,83			25.920,09
	Caseta	1	14,62	16,10			235,38
		1	3,00	4,50			13,50
							26.168,97
010	M3 RELLENO ZANJAS, CIMIENTOS Y TRASDOSES DE MATERIAL SELECCIONADO Relleno con material seleccionado en zanjas, cimientos, trasdós de muros, estribos y otras estructuras procedente de la excavación o préstamos incluso carga, transporte y compactación.						
	De excavación	1	26.168,97				26.168,97
		-1	6.571,00		0,60		-3.942,60
		-1	250,64	74,10			-18.572,42
							3.653,95
ELEMENTO 02.01.07.2.2 OBRA CIVIL							
028	M3 HORMIGÓN DE LIMPEZA HL-150 Hormigón de limpieza HL-150, de consistencia plástica, árido de tamaño máximo 40 mm y cemento CEM-II-D/42,5/SR, para saneos y encachados, incluyendo fabricación y transporte totalmente colocado.						
	Solera depósito	1	87,50	75,10	0,10		657,13
	Solera caseta	1	14,90	8,65	0,10		12,89
							670,02
032.1	M3 HORMIGÓN HA-30/P/30/IV Hormigón armado HA-30/B/30/IV, con una dosificación de hormigón de 325 kg/m3 de cemento, consistencia plástica, elaborado en central para estructuras, incluso bombeado y medios manuales, vibrado y colocado.						
	Solera depósito	1	87,50	75,10	0,40		2.628,50
	Zapatas muro exterior	2	87,50	4,10	0,20		143,50
	Zapatas muro central	1	82,70	6,70	0,20		110,82
	Zapatas traseras	2	30,10	6,70	0,20		80,67
	Zaptas frontales a caseta	2	25,30	6,70	0,20		67,80
	Zapatas pilares	66	3,20	3,20	0,20		135,17
	Relleno muro frontal y bajo aliviaderos (long.x superficie)	1	16,30	5,40			88,02
	a deducir arqueta v aciado	-2	1,00	1,00	1,10		-2,20
	a deducir arqueta salida alivio	-2	2,00	2,00	1,30		-10,40
	Muros exteriores	2	86,50	0,50	5,03		435,10
	Peto	2	86,50	0,20	1,52		52,59
	Muro central	1	85,50	0,50	5,73		244,96
	Muro frontal y trasero	2	73,10	0,50	5,03		367,69
	(triángulo superior)	2	73,10	0,50	0,70		25,59
	Peto (superficie x espesor)	2	86,30	0,20			34,52
	Muros aliviaderos	4	2,40	0,40	4,50		17,28
		2	2,00	0,40	4,50		7,20
	Solera caseta	1	14,90	8,65	0,40		51,55
	Muros caseta bajo solera	1	10,70	0,40	1,50		6,42
		1	1,60	0,40	1,50		0,96
		1	3,40	0,40	1,50		2,04
		1	3,20	0,40	1,50		1,92
		1	5,20	0,40	1,50		3,12
	Muros perimetales	1	14,30	0,30	3,50		15,02
		2	8,55	0,30	3,50		17,96
	petos muros caseta	1	14,30	0,20	1,00		2,86
		2	8,70	0,20	1,00		3,48
	Ménsula apoyo placas de forjado caseta	1	13,70	0,06			0,82

MEDICIONES

ABASTECIMIENTO A VARIOS MUNICIPIOS DE LA RIOJA. SISTEMA CIDACOS

CÓDIGO	RESUMEN	UDS	LONGITUD	ANCHURA	ALTURA	PARCIALES	CANTIDAD
	Arqueta entrada	1	2,20	1,60			3,52
		-6	1,80	0,30	2,10		-6,80
	Bancadas de apoyo bombas y otros	1	2,00	1,00	0,20		0,40
		1	0,50	1,35	0,20		0,14
		1	1,30	1,30	0,20		0,34
							4.525,54
025	M2 ENCOFRADO RECTO EN PARAMENTOS OCULTOS Encofrado recto en paramentos ocultos, incluso colocación, fijación y desencofrado.						
	Solera depósito exterior	2	87,50		0,60		105,00
		2	75,10		0,60		90,12
	Solera caseta exterior	1	14,90		0,40		5,96
		2	8,65		0,40		6,92
	Huecos solera de vaciados	8	1,00		1,10		8,80
	Huecos solera de alivio	8	2,00		1,30		20,80
	Muros exterior bajo solera caseta válvulas	1	24,70		1,50		37,05
							274,65
026	M2 ENCOFRADO RECTO EN PARAMENTOS VISTOS 1C Encofrado recto en paramentos vistos a una cara, incluso colocación, fijación y desencofrado.						
	Muros exteriores	4	86,50		5,03		1.740,38
	Peto	4	86,50		1,52		525,92
	Muro central	2	85,50		5,73		979,83
	Muro frontal y trasero	4	73,10		5,03		1.470,77
	(triángulo superior)	4	73,10	0,70			102,34
	Peto (superficie x espesor)	4	86,30				345,20
	Muros aliviaderos	8	2,40		4,50		86,40
		4	2,00		4,50		36,00
	Muros interior bajo solera caseta válvulas	1	37,00		1,50		55,50
	Muros perimetales caseta de válvulas	2	14,30		3,50		100,10
		4	8,55		3,50		119,70
	petos muros caseta	2	14,30		1,00		28,60
		4	8,70		1,00		34,80
	Ménsula apoyo placas de forjado caseta	1	13,70	0,48			6,58
	Deducir huecos de puertas y ventanas	-2	2,00		2,50		-10,00
		-12	1,80		2,10		-45,36
	Interior de huecos	12	1,80	0,30			6,48
		12	2,10	0,30			7,56
		1	2,00	0,30			0,60
		2	2,50	0,30			1,50
	Bancadas de apoyo bombas y otros	2	2,00		0,20		0,80
		2	1,00		0,20		0,40
		2	0,50		0,20		0,20
		2	1,35		0,20		0,54
		4	1,30		0,20		1,04
							5.595,88
023	KG ACERO CORRUGADO B-500-S Acero redondo corrugado para amarr tipo B-500-S elaborado y colocado.						
	Zapatas depósito	1	1.481,97	75,00			111.147,75
	Solera depósito	1	1.654,47	87,00			143.938,89
	Rellenos zona salida alivio	1	75,42	75,00			5.656,50
	Muros depósito	1	862,90	152,00			131.160,80
	Muro central depósito	1	244,96	115,00			28.170,40
	Petos depósito	1	52,59	120,00			6.310,80
	Solera caseta	1	51,55	70,00			3.608,50
	Muros caseta bajos solera	1	14,46	80,00			1.156,80
	Muros caseta sobre rasante	1	18,50	80,00			1.480,00
	Petos caseta	1	6,34	90,00			570,60

MEDICIONES

ABASTECIMIENTO A VARIOS MUNICIPIOS DE LA RIOJA. SISTEMA CIDACOS

CÓDIGO	RESUMEN	UDS	LONGITUD	ANCHURA	ALTURA	PARCIALES	CANTIDAD
	Arqueta entrada	1	2,20	1,60		3,52	
		2	14,00	0,89		24,92	
	Barras muro central a forjado	427	0,62	0,62		164,14	
	Barras muros perimetral a forjado	580	0,61	0,62		219,36	
	Cosido de esquinas en L depósito	136	1,60	0,89		193,66	
	Cosido esquinas en T depósito	136	1,60	0,89		193,66	
	Arranque pilares	1056	0,80	1,58		1.334,78	
		264	2,00	0,89		469,92	
		264	2,00	0,62		327,36	
	Solapes y despuntes 5%	0,05	436.324,61			21.816,23	
							458.140,83
463F	M2 PANEL PREFABRICADO DE HORMIGÓN 12 cm SIN SELLAR M2. Panel de cerramiento con acabado gris natural, de 12 cm. de espesor para colocación horizontal, con modulación según proyecto, tratamiento anticarbonatación, ambas caras lisas, i/elementos de fijación de acero galvanizado en caliente, colocado, con p.p. de apoyos en la parte inferior para dejar hueco. Muros deflectores	30	8,70		4,60	1.200,60	
							1.200,60
463G	ML VIGA PREFABRICADA DE HORMIGÓN ARMADO B 50 CM X H 60CM Viga prefabricada de hormigón armado de 50 cm de ancho x 60 de canto total preparada para apoyo de forjado de placa alveolar de 25+5 cm de canto. Incluido suministro, montaje y p.p. de anclajes según planos.	6	86,00			516,00	
							516,00
463H	ML PILAR PREFABRICADA DE HORMIGÓN ARMADO DE 60 X 60CM Pilar prefabricado de hormigón armado de 60x60 cm, preparado para apoyo de vigas prefabricadas. Incluido suministro, montaje y p.p. de placas de anclaje, vainas y pernos de anclajes según planos.	22	4,68			102,96	
		22	4,88			107,36	
		22	5,05			111,10	
							321,42
439D	M2 FORJADO PLACA ALVEOLAR 25+5 cm Forjado unidireccional de losas alveolares prefabricadas de 25 cm de espesor y capa de compresión de 5 cm de hormigón HA-25 de 25 N/mm2, incluso armadura de negativos según planos, mallazo de reparto y elementos auxiliares.	1	86,10	73,70		6.345,57	
	Depósito	1	86,10	73,70		6.345,57	
	Caseta v ál v ulas	1	14,00	8,70		121,80	
							6.467,37
467	ML NEOPRENO ZUNCHADO 150x20 mm Neopreno zunchado de 150x20 mm para apoyo de cubierta, totalmente colocado incluso mortero.	16	86,10			1.377,60	
	Depósito	2	73,70			147,40	
	Caseta v ál v ulas	2	14,00			28,00	
		2	8,70			17,40	
							1.570,40
463CI	M2 CUBIERTA PLANA NO TRANSITABLE m². Cubierta invertida completa, no transitable, constituida por: capa de hormigón aligerado de 10 cm de espesor medio, para formación de pendientes, con tendido de mortero de cemento M5 de 2 cm de espesor para regularizar la superficie; lámina geotextil de 200 g/m²; lámina asfáltica de oxiasfalto, GLASDAN 40 P OXI, en posición flotante respecto al soporte, salvo en perímetros y puntos singulares; lámina asfáltica de oxiasfalto, ESTERDAN 40 P ELAST, totalmente adherida a la anterior con soplete; cazoleta con conexión a bajante d110 mm con paragravillas; aislamiento térmico con planchas de poliestireno extruido de 50 mm de espesor, DANOPREN 50; lámina geotextil; capa de grava de canto rodado de 5 cm de espesor. Solución según membrana PN-6 de la norma UNE 104-402/96. Cumple los requisitos del C. T.E.	1	86,10	73,70		6.345,57	
	Depósito	1	86,10	73,70		6.345,57	

MEDICIONES

ABASTECIMIENTO A VARIOS MUNICIPIOS DE LA RIOJA. SISTEMA CIDACOS

CÓDIGO	RESUMEN	UDS	LONGITUD	ANCHURA	ALTURA	PARCIALES	CANTIDAD
	Arqueta entrada	1	2,20	1,60		3,52	
							6.467,37
463RCH	M2 REVESTIMIENTO PETO CUBIERTA M2. Revestimiento de peto interior de cubierta entre coronación y solape con impermeabilizante de cubierta, realizado con chapa lacada 0,5 mm con p.p. elementos de fijación, totalmente terminada.						
	Depósito	2	86,50		1,20	207,60	
		2	74,10		1,20	177,84	
	Caseta	2	14,30		0,70	20,02	
		2	8,85		0,70	12,39	
	Entradas depósitos	12	2,40		0,60	17,28	
							435,13
463	M2 FÁBRICA BLOQUES 40x20x20 cm GRIS Fábrica de bloques de hormigón color gris de medidas 40x20x20 cm, para terminación posterior en peanas de ventilaciones, i/relleno de hormigón HM-20 y armadura en zona según normativa y recibido con mortero de cemento y arena de río 1/6, i/p.p. de piezas especiales, roturas, aplomados, nivelados y limpieza todo ello según NTE-FFB-6.						
	Entradas cubierta	24	2,40		0,60	34,56	
							34,56
335	m2 CERRAMIENTO TRASLÚCIDO Cerramiento translúcido con moldeados de vidrio de 200x200x80 mm. con mortero de cemento y redondos de acero corrugado B-500-S, según especificaciones NTE-FFV, completamente terminado, incluso replanteo, nivelación y aplomado, preparación, corte y colocación de las armaduras, p.p. de mermas, solapes, roturas, rellenos elásticos, cartón alquitranado, sellado y rejuntado, medida la superficie ejecutada.						
	Ventanas caseta	6	1,800		2,100	22,680	
							22,68
465.1	M2 PUERTA DOBLE CHAPA ACERO CON LAMAS Puerta de paso hojas abatibles de doble chapa lisa de acero de 1 mm de espesor, con aislamiento interno de fibra de vidrio, engatillada, realizada en dos bandejas, con rigidizadores de tubo rectangular, i/manillas de acero inoxidable y cerradura, con dos o cuatro rejillas de ventilación con malla anti insectos interior, patillas para recibir en fábricas, herrajes de colgar y de seguridad, imprimación antióxido y pintura al esmalte, totalmente colocada incluyendo el recibido de fábricas.						
	Puerta de entrada	1	2,00		2,50	5,00	
							5,00
020	KG ACERO S 275 J PERFILES LAMINADOS Acero S 275 J en perfiles laminados elaborado y colocado.						
	Polipasto IPE-270	1	30,00	36,10		1.083,00	
							1.083,00
473	UD RESPIRADERO DE CHAPA Suministro y colocación de capucha respiradero de chapa en huecos de ventilación de depósitos, realizado con estructura de tubo 70x70x3, convenientemente arriostrado, lamas de acero anti-lluvia de espesor 3 mm y cubierta de chapa del mismo espesor realizada a cuatro aguas, de dimensiones y forma detallada en planos, i/garras de anclaje a fábrica de bloques, recibido de las mismas, miniado y pintado al esmalte, totalmente colocadas.						
		8				8,00	
							8,00
289B	M2 TAPA DE CHAPA LACRIMADA GALVANIZADA e=4mm Tapa de chapa lacrimada de acero galvanizado de 4 mm de espesor, incluyendo el marco, tiradores, aros para cerradura con candado, anclada, totalmente colocada.						
	Entradas superiores depósito	6	2,60	2,60		40,56	
							40,56
290	UD PATE POLIPROPILENO Pate de polipropileno de dimensiones 30x25 cm, incluyendo fabricación, transporte a obra, perforación de anclajes y relleno con aportación de material de agarre, completamente colocado.						
	Superior en salidas cubierta depósito	6				6,00	

MEDICIONES

ABASTECIMIENTO A VARIOS MUNICIPIOS DE LA RIOJA. SISTEMA CIDACOS

CÓDIGO	RESUMEN	UDS	LONGITUD	ANCHURA	ALTURA	PARCIALES	CANTIDAD
							6,00
521	M2 CELOSIA FIJA VENTILACIÓN Celosía metálica fija para ventilación, formada por cerco con empanelado de lamas de acero de 60 mm, con abertura mínima de 1 cm entre lamas, malla de 2 mm para evitar entrada de insectos, garras de sujeción a soporte de 10 cm, elaborada en taller y montada en obra, totalmente colocada. Ventanas depósito Caseta válvulas	18 4	0,80		0,40	5,76 1,28	
							7,04
290C	ML GÁRGOLA DE ACERO GALVANIZADO DE 100 x100 mm. e=2 mm. Gárgola de acero galvanizado de 100 x 100 mm. espesor e=2mm, de 45 cm de longitud, incluso relleno de hueco y sellado a la lámina de cubierta, colocada. Cubierta depósito Cubiseta caseta	16 2				16,00 2,00	
							18,00
ELEMENTO 02.01.07.2.3 IMPERMEABILIZACIONES DEPÓSITO							
052	ML JUNTAS DE ESTANQUEIDAD DE PVC 32 CM Junta de trabajo interior de policloruro de vinilo (PVC) 100% virgen, con una fuerza máxima de dilatación > 250 %, de 32 cm de ancho, MASTERFLEX 2000 TI-24 de BASF o equivalente, colocada simétricamente en el eje de la losa o muro, incluso solapes y piezas especiales para cruces o ángulos. Medida la longitud ejecutada. Solera-muro depósito Verticales depósito Junta de dilatación	2 2 27 12 1 2 2 4	86,00 73,60 5,03 5,38 75,10 5,33 87,50 5,33			172,00 147,20 135,81 64,56 75,10 10,66 175,00 21,32	
							801,65
472	ML SELLADO INTERIOR DE JUNTAS DE CONSTRUCCIÓN POLIURETANO Sellado de juntas en paramentos horizontales y verticales con un ancho de junta de 20 mm, con una Dureza Shore A aprox. 40 y Alargamiento a Rotura ISO 8339 > 250 %, con masilla de poliuretano monocomponente MASTERFLEX 474 de BASF o equivalente, Apta para Agua Potable según RD 140/2003. Incluso limpieza, imprimación en base poliuretano de los labios de la junta con MASTERFLEX PRIMER P (ELASTOPRIMER 110) de BASF o equivalente, y cordón de fondo de junta MASTERFLEX FJ de BASF o equivalente de 30 mm. de diámetro. Medida la longitud ejecutada. Solera-muro depósito Verticales depósito Junta de dilatación	2 2 27 12 1 2 2 4	86,00 73,60 5,03 5,38 75,10 5,33 87,50 5,33			172,00 147,20 135,81 64,56 75,10 10,66 175,00 21,32	
							801,65
052A	ML MEDIA CAÑA DE IMPERMEABILIZACIÓN JUNTAS DE ESQUINA Suministro y puesta en obra de realización de medias cañas con el mortero de reparación estructural Clase R4, según Normativa Vigente UNE EN 1504, consistente en una capa de imprimación con la resina epoxi EMACO EPOXIPRIMER BP o equivalente (rendimiento 0,08 kg/m); realización de media caña con el mortero cementoso EMACO S-88 TIXOTRÓPICO o equivalente (rendimiento 4,0 kg/m). Incluso preparación de superficie. Medida la longitud ejecutada. Terminada. Solera - pilares	264	0,60			158,40	
							158,40

MEDICIONES

ABASTECIMIENTO A VARIOS MUNICIPIOS DE LA RIOJA. SISTEMA CIDACOS

CÓDIGO	RESUMEN	UDS	LONGITUD	ANCHURA	ALTURA	PARCIALES	CANTIDAD
052B	ML SELLADO DE JUNTAS Y ESQUINAS CON BANDA ELÁSTICA E=1 mm Sellado de juntas con banda de elastómero termoplástico (TPE) de 1 mm de espesor y 20 cm de ancho, con un alargamiento a la rotura del 600 % según DIN 53504 S2 y una dureza Shore A de aprox. 80 según ISO 868, Apta para Agua Potable según RD 140/2003, adherida al soporte al menos en 6 cm a cada lado de la junta mediante resina epoxi sin disolventes, MASTERFLEX 3000 ADHESIVO de BASF o equivalente, incluso limpieza del soporte y p.p. de solapes. Medida la longitud real ejecutada. Solera-muro depósito Verticales depósito Junta de dilatación	2 2 27 12 1 2 2 4	86,00 73,60 5,03 5,38 75,10 5,33 87,50 5,33			172,00 147,20 135,81 64,56 75,10 10,66 175,00 21,32	
							801,65
470	M2 IMPERMEABILIZACIÓN EXTERIOR DE MUROS Impermeabilización de paramentos con mortero cementoso impermeable, sulfuresistente, MASTERSEAL 531 de BASF o equivalente en dos manos cruzadas, con un consumo mínimo de 3 kg/m2 y un espesor de 2 mm. Incluso limpieza previa del paramento; según NBE-QB-90 y UNE-104. Posterior suministro y colocación de geocompuesto drenante compuesto por lámina de PEAD con geotextil incorporado en una de sus caras, DELTA NP DRAIN, de BASF o equivalente. Medida la superficie ejecutada. Superficie lateral Superficie trasera	2 1	250,00 74,10		5,80	500,00 429,78	
							929,78
ELEMENTO 02.01.07.2.4 DRENAJE							
002	M3 EXCAVACIÓN EN ZANJAS Excavación en zanjas y zonas localizadas, en todo tipo de terrenos incluido terrenos en roca con medios mecánicos, incluso rasanteo, nivelación de la superficie de apoyo y transporte a lugar de empleo o vertedero. Depósito Salidas drenajes	4 4 4 2 2 2 2 2 1 1 1	38,00 47,00 40,00 25,00 4,00 44,00 12,00 31,00 12,00 31,00	1,00 1,00 1,00 1,00 1,00 1,00 1,00 1,00 1,00 1,00	1,20 1,20 1,20 1,20 1,20 1,50 1,20 1,80 2,00 3,50	182,40 225,60 192,00 60,00 9,60 132,00 28,80 55,80 24,00 108,50	
							1.018,70
010	M3 RELLENO ZANJAS, CIMIENTOS Y TRASDOSES DE MATERIAL SELECCIONADO Relleno con material seleccionado en zanjas, cimientos, trasdós de muros, estribos y otras estructuras procedente de la excavación o préstamos incluso carga, transporte y compactación. De excavación De arena de gravilla	1 -1 -1	1.018,70 99,50 217,65			1.018,70 -99,50 -217,65	
							701,55
011	M3 RELLENO DE ARENA Arena para apoyo y protección de tuberías incluso carga, transporte, colocación, compactación y nivelación. Salidas drenajes	2 2 2 1 -1	44,00 12,00 31,00 25,00 199,00	1,00 1,00 1,00 1,00 0,08	0,50 0,50 0,50 0,50	44,00 12,00 31,00 12,50 -15,92	
							83,58

MEDICIONES

ABASTECIMIENTO A VARIOS MUNICIPIOS DE LA RIOJA. SISTEMA CIDACOS

CÓDIGO	RESUMEN	UDS	LONGITUD	ANCHURA	ALTURA	PARCIALES	CANTIDAD
196A	ML TUBERIA PVC DP Ø 200 mm DRENAJE CAMA CERRADA Tubería ranurada de PVC de doble pared de 200 mm de diámetro nominal, con ranuras en arco de 220° y cama sin ranurar, con una rigidez de SN 4KN/m2, unión por junta elástica, incluso parte proporcional de uniones y accesorios. Totalmente colocada						
	Depósito	4	38,00				152,00
		4	47,00				188,00
		4	40,00				160,00
		2	25,00				50,00
		2	4,00				8,00
							558,00
196B	ML TUBERÍA DE PVC DP SN-8, PARA SANEAMIENTO DE 315 MM Tubería de PVC de doble pared SN8 para saneamiento de 315 mm de diámetro exterior, con junta elástica, totalmente colocada en zanja.						
	Salidas drenajes	2	44,00				88,00
		2	12,00				24,00
		2	31,00				62,00
		1	25,00				25,00
							199,00
460R	UD ARQUETA ESTANCA DRENAJE DE 80x60x50 TAPA HORMIGÓN Arqueta estanca para red de drenaje de 80x60x50, de hormigón HNE-20 con tapa de hormigón para drenajes.						
		8					8,00
							8,00
373A	UD POZO DE REGISTRO DE AROS DE HORMIGÓN DN1000 Pozo de registro de abastecimiento o saneamiento de cualquier altura de diámetro interior D=1000 mm, incluso base de hormigón HNE-20, aros de hormigón, cono prefabricado de hormigón, pates y tapa de fundición, totalmente terminado.						
		6					6,00
							6,00
053	M2 GEOTEXTIL 200 gr/m2 Geotextil de polipropileno de 200 gr/m2, totalmente colocado incluso solapes.						
	Depósito	4	38,00	2,65			402,80
		4	47,00	2,65			498,20
		4	40,00	2,65			424,00
		2	25,00	2,65			132,50
		2	4,00	2,65			21,20
							1.478,70
364	M3 GRAVA SILÍCEA 3/5 mm Suministro de grava silícea de granulometría 3/5 mm y coeficiente de uniformidad 1,2, libre de arcilla, polvo y materia orgánica.						
	Depósito	4	38,00	0,39			59,28
		4	47,00	0,39			73,32
		4	40,00	0,39			62,40
		2	25,00	0,39			19,50
		2	4,00	0,39			3,12
							217,62
ELEMENTO 02.01.07.2.5 TERMINACIONES INTERIORES							
290A	ML ESCALERA TUBULAR INOXIDABLE CON ELEMENTOS ANTICAIDA Formación de escalera tubular de 50 mm de diámetro, de acero inoxidable AISI-316L, incluso protecciones circulares contra caídas según normativa, anclada a la pared y/o muros, totalmente ejecutada.						
	Entradas depósito	4	6,25				25,00
		2	6,55				13,10
							38,10
ELEMENTO 02.01.07.2.6 INSTALACIÓN CONTRAINCENDIOS							

MEDICIONES

ABASTECIMIENTO A VARIOS MUNICIPIOS DE LA RIOJA. SISTEMA CIDACOS

CÓDIGO	RESUMEN	UDS	LONGITUD	ANCHURA	ALTURA	PARCIALES	CANTIDAD
EXTABC	UD EXTINT. POLVO ABC 6 Kg. EF 21A-113B Ud. Extintor de polvo ABC con eficacia 21A-113B para extinción de fuego de materias sólidas, líquidas, productos gaseosos e incendios de equipos eléctricos, de 6 Kg. de agente extintor con soporte, manómetro y boquilla con difusor según norma UNE-23110, totalmente instalado según CTE/DB-SI 4. Certificado por AENOR.						
		1					1,00
							1,00
C04.04.01.03	UD EXTINTOR DE CO2 EFICACIA 89B Ud. Extintor de CO2 (Nieve Carbónica) de 5 kg. de capacidad, eficacia 89B, equipado de manguera con difusor y homologado e instalado.						
		1					1,00
							1,00
SEÑAL01	UD SEÑAL LUMINISCENTE EXT. INCENDIOS Ud. Señal luminiscente para elementos de extinción de incendios (extintores, bies, pulsadores...) de 297x210 por una cara en pvc rígido de 2 mm de espesor, totalmente instalada, según norma UNE 23033 y CTE/DB-SI 4.						
		4					4,00
							4,00
C04.04.07.01	UD CENTRAL ANAL. 2 LAZOS 198 DETEC. Ud. Central de detección de incendios Analógica con 2 lazos compacta (no ampliable) de 198 detectores + 198 módulos analógicos, con 5 salidas de relé, pantalla LCD de 128x64 píxeles retroiluminada, 2 salidas serie RS-232, fuente de alimentación y d baterías de 12V / 7 Ah, totalmente instalada, conexionada, programada y probada, según CTE/DB-SI 4. Incluye 9 módulos de entrada-salida programable para maniobra y estado de equipos no analógicos, y 5 módulos de entrada analógicos para identificar señales de equipos no analógicos. Incluye dos fuentes de alimentación de 24 V 5 A, instaladas.						
		1					1,00
							1,00
C04.04.07.04	UD PULSADOR DE ALARMA REARMABLE Ud. Pulsador de alarma tipo rearmable, con tapa de plástico basculante totalmente instalado, i/p.p. de tubos y cableado, conexionado y probado, según CTE/DB-SI 4.						
		1					1,00
							1,00
C04.04.07.05	UD SIRENA ELECTRÓNICA BITONAL 24 V. Ud. Sirena de alarma de incendios bitonal, para montaje interior con señal óptica y acústica a 24v, totalmente instalada, i/p.p. tubo y cableado, conexionado y probado, según CTE/DB-SI 4.						
		1					1,00
							1,00
C04.04.07.06	UD SIRENA ELECTRÓNICA BITONAL PARA EXTERIOR Ud. Sirena de alarma de incendios bitonal, para montaje exterior, con señal óptica y acústica a 24v, totalmente instalada, i/p.p. tubo y cableado, conexionado y probado, según CTE/DB-SI 4.						
		1					1,00
							1,00
C04.04.07.072	UD INST. ELÉCTRICA TUBO PVC Instalación eléctrica bajo tubo de PVC rígido o flexible según casos, libre de halógenos, con p.p. de manguera apantallada no propagador de llamas de 2X1,5 mm2 de sección, cajas de derivación, bridas de fijación, bornas de conexión, etc. incluso mano de obra para instalación, programación y pruebas.						
		1					1,00
							1,00

MEDICIONES

ABASTECIMIENTO A VARIOS MUNICIPIOS DE LA RIOJA. SISTEMA CIDACOS

CÓDIGO	RESUMEN	UDS	LONGITUD	ANCHURA	ALTURA	PARCIALES	CANTIDAD
APARTADO 02.01.08 EDIFICIO DE DESHIDRATACIÓN Y REACTIVOS							
SUBAPARTADO 02.01.08.1 MOVIMIENTO DE TIERRAS							
001	M3 EXCAVACIÓN A CIELO ABIERTO Excavación a cielo abierto en todo tipo de terrenos incluido terrenos en roca, incluso agotamiento y transporte a lugar de empleo o vertedero.						
	Zapatas	11	3,00	3,00	0,70	69,30	
	Vigas	1	95,00	1,00	0,70	66,50	
							135,80
010	M3 RELLENO ZANJAS, CIMIENTOS Y TRASDOSES DE MATERIAL SELECCIONADO Relleno con material seleccionado en zanjas, cimientos, trasdós de muros, estribos y otras estructuras procedente de la excavación o préstamos incluso carga, transporte y compactación.						
	De excavación	1	135,80			135,80	
	a deducir zapatas y riostras	-1	48,77			-48,77	
		-1	10,93			-10,93	
							76,10
SUBAPARTADO 02.01.08.2 ESTRUCTURA							
028	M3 HORMIGÓN DE LIMPEZA HL-150 Hormigón de limpieza HL-150, de consistencia plástica, árido de tamaño máximo 40 mm y cemento CEM-II-D/42,5/SR, para saneos y enchachados, incluyendo fabricación y transporte totalmente colocado.						
	Zapatas	3	2,10	2,10	0,10	1,32	
		2	1,90	1,90	0,10	0,72	
		3	1,80	1,80	0,10	0,97	
		1	2,40	2,40	0,10	0,58	
		1	2,50	2,50	0,10	0,63	
		1	2,00	2,00	0,10	0,40	
	Vigas riostras	1	70,00	0,40	0,10	2,80	
	Solera tanques de cal	2	2,75	2,75	0,10	1,51	
							8,93
031	M3 HORMIGÓN HA-25/B/20/IIa Hormigón HA-25/B/20/IIa, con cemento CEM II/A-D/42,5/SR, incluyendo fabricación, transporte, puesta en obra y vibrado, totalmente ejecutado, incluso curado y juntas.						
	Apoyos y bancadas						
	Apoyos centrifugas	4	0,50	0,50	0,50	0,50	
	Bancadas bombas	1	1,80	1,00	0,30	0,54	
		1	0,90	1,00	0,30	0,27	
		1	2,50	0,90	0,30	0,68	
	Apoyos tanques	4	6,09		0,20	4,87	
		1	1,86		0,20	0,37	
	Bombas de cal	1	1,10	3,00	0,30	0,99	
	Bombas trasiego	1	0,75	1,50	0,30	0,34	
	Canaleta reactivos						
	Solera	1	24,20	1,50	0,25	9,08	
	Muros	2	24,20	0,25	0,80	9,68	
		2	1,50	0,25	0,80	0,60	
	Arqueta descargas						
	Solera	1	2,00	1,00	0,25	0,50	
	Muros	2	2,00	0,25	0,60	0,60	
		1	0,75	0,25	0,60	0,11	
							29,13
032.1	M3 HORMIGÓN HA-30/P/30/IV Hormigón armado HA-30/B/30/IV, con una dosificación de hormigón de 325 kg/m3 de cemento, consistencia plástica, elaborado en central para estructuras, incluso bombeado y medios manuales, vibrado y colocado.						
	Zapatas	3	2,10	2,10	0,45	5,95	
		2	1,90	1,90	0,40	2,89	
		3	1,80	1,80	0,40	3,89	
		1	2,40	2,40	0,50	2,88	

MEDICIONES

ABASTECIMIENTO A VARIOS MUNICIPIOS DE LA RIOJA. SISTEMA CIDACOS

CÓDIGO	RESUMEN	UDS	LONGITUD	ANCHURA	ALTURA	PARCIALES	CANTIDAD
	Arqueta entrada	1	2,20	1,60		3,52	
		1	2,00	2,00	0,45	1,80	20,85
	Vigas riostras	1	70,00	0,40	0,40	11,20	
	Solera tanques de cal	2	2,75	2,75	0,50	7,56	18,76
	Muretes	2	8,20	0,50	0,30	2,46	
		2	8,20	0,25	1,00	4,10	
		2	7,15	0,50	0,30	2,15	
		2	7,15	0,25	1,45	5,18	
		1	8,20	0,50	0,30	1,23	
		1	8,20	0,25	1,45	2,97	18,09
							57,70
025	M2 ENCOFRADO RECTO EN PARAMENTOS OCULTOS Encofrado recto en paramentos ocultos, incluso colocación, fijación y desencofrado.						
	Apoyos y bancadas						
	Apoyos centrifugas	2	2,50	0,50	0,50	1,25	
	Bancadas bombas	1	1,80	1,00	0,30	0,54	
		1	0,90	1,00	0,30	0,27	
		1	2,50	0,90	0,30	0,68	
	Apoyos tanques	4	9,00		0,20	7,20	
		1	5,00		0,20	1,00	
	Bombas de cal	1	1,10	3,00	0,30	0,99	
	Bombas trasiego	1	0,75	1,50	0,30	0,34	
	Canaleta reactivos						
	Solera	2	24,20		0,25	12,10	
		2	1,50		0,25	0,75	
	Muros	4	24,20		0,80	77,44	
		2	1,50		0,80	2,40	
	Arqueta descargas						
	Solera	1	2,00		0,25	0,50	
		2	1,00		0,25	0,50	
	Muros	4	2,00		0,60	4,80	
		2	0,75		0,60	0,90	
	Zapatas	12	2,10		0,45	11,34	
		8	1,90		0,40	6,08	
		12	1,80		0,40	8,64	
		4	2,40		0,50	4,80	
		4	2,50		0,55	5,50	
		4	2,00		0,45	3,60	
	Vigas riostras	2	70,00		0,40	56,00	
	Muretes	4	8,20		0,30	9,84	
		4	7,15		0,30	8,58	
		2	8,20		0,30	4,92	
							230,96
026	M2 ENCOFRADO RECTO EN PARAMENTOS VISTOS 1C Encofrado recto en paramentos vistos a una cara, incluso colocación, fijación y desencofrado.						
	Apoyos y bancadas						
	Apoyos centrifugas	16	0,50		0,50	4,00	
	Bancadas bombas	2	1,80		0,30	1,08	
		2	1,00		0,30	0,60	
		2	0,90		0,30	0,54	
		2	1,00		0,30	0,60	
		2	2,50		0,30	1,50	
		2	0,90		0,30	0,54	
	Apoyos tanques	4	9,00		0,20	7,20	
		1	5,00		0,20	1,00	
	Bombas de cal	2	1,10		0,30	0,66	
		2	3,00		0,30	1,80	
	Bombas trasiego	2	0,75		0,30	0,45	
		2	1,50		0,30	0,90	
	Muretes	4	8,20		1,00	32,80	

MEDICIONES

ABASTECIMIENTO A VARIOS MUNICIPIOS DE LA RIOJA. SISTEMA CIDACOS

CÓDIGO	RESUMEN	UDS	LONGITUD	ANCHURA	ALTURA	PARCIALES	CANTIDAD
	Arqueta entrada	1	2,20	1,60		3,52	
		2	8,20		1,45	23,78	
							118,92
023	KG ACERO CORRUGADO B-500-S Acero redondo corrugado para armar tipo B-500-S elaborado y colocado.						
	Zapatillas	1	859,41			859,41	
	Vigas riostras	1	651,59			651,59	
	Solera tanques de cal	2	133,00			266,00	
	Muretas	1	18,09	60,00		1.085,40	
		0,05	2.862,40			143,12	
							3.005,52
439C	M2 FORJADO PLACA ALVEOLAR 20+5 cm Forjado unidireccional de losas alveolares prefabricadas de 20 cm de espesor y capa de compresión de 5 cm de hormigón HA-25 de 25 N/mm2, incluso armadura de negativos según planos, mallazo de reparto, formación de huecos, y elementos auxiliares.						
		1	34,32	8,05		276,28	
		1	7,32	7,75		56,73	
							333,01
0092sole	M2 SOLERA ARMADA + ENCACHADO+LAMINA m². Solera pulida de 15 cm de espesor, realizada con hormigón HA-25/P/20/IIa N/mm², tamaño máximo del árido 20 mm elaborado en central, i/vertido, colocación y armado con mallazo electrosoldado #150x150x6 mm, incluso p.p. de juntas, aserrado de las mismas y fratasado. Según EHE-08, sobre lámina impermeabilizante PVC 1,5 mm, encachado de piedra machacada 40/80 de 15 cm de espesor, extendida y compactada.						
		1	34,32	16,12		553,24	
							553,24
020	KG ACERO S 275 J PERFILES LAMINADOS Acero S 275 J en perfiles laminados elaborado y colocado.						
	Polipastos						
	IPE-330	1	26,70	49,10		1.310,97	
	IPE-120	1	6,00	10,40		62,40	
	IPE-140	1	4,00	12,90		51,60	
	IPE-180	1	14,70	18,80		276,36	
	HEB-120	1	19,50	26,70		520,65	
	HEB-180	1	9,80	51,20		501,76	
	Placas de anclaje	0,1	2.723,74			272,37	
							2.996,11
439F	ML VIGAS PREFABRICADAS DE 40X75 CM Vigas prefabricadas de hormigón de 40 cm de ancho y 75 cm de canto, montadas.						
		4	8,25			33,00	
							33,00
439G	ML VIGAS PREFABRICADAS DE 25X60 CM Vigas prefabricadas de hormigón de 25 cm de ancho y 60 cm de canto, montadas.						
		2	9,95			19,90	
							19,90
439H	ML VIGAS PREFABRICADAS DE 25X50 CM Vigas prefabricadas de hormigón de 25 cm de ancho y 60 cm de canto, montadas.						
		4	8,25			33,00	
		2	8,73			17,46	
		2	8,20			16,40	
		4	7,00			28,00	
							94,86
439I	ML PILAR PREFABRICADAS DE 40X50 CM Pilar prefabricado de hormigón de 40 cm de ancho y 50 cm de canto, con p.p. de ménsulas de apoyo según planos, montados.						

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CÓDIGO	RESUMEN	UDS	LONGITUD	ANCHURA	ALTURA	PARCIALES	CANTIDAD
	Arqueta entrada	1	2,20	1,60		3,52	
	P11-P12-P13-P14	4			7,15	28,60	
							72,40
439J	ML PILAR PREFABRICADAS DE 30X40 CM Pilar prefabricado de hormigón de 30 cm de ancho y 40 cm de canto, con p.p. de ménsulas de apoyo según planos, montados.						
	P1-P2	2			4,00	8,00	
	P3-P4-P5-P10-15	5			5,40	27,00	
							35,00
439K	ML CORREAS TUBULARES PREFABRICADAS DE 25 CM Correas tubulares de 25 cm, montadas.						
		5	24,05			120,25	
							120,25
439L	ML VIGA PORTACANALÓN PREFABRICADA Viga portacanalón prefabricada, montadas.						
		2	24,05			48,10	
							48,10
SUBPARTADO 02.01.08.3 CERRAMIENTOS Y CUBIERTA							
463p	M2 PANEL PREFABRICADO DE HORMIGÓN 16 cm M2. Panel de cerramiento con acabado gris natural, de 16 cm. de espesor para colocación horizontal, con modulación según proyecto, tratamiento anticarbonatación, ambas caras lisas, i/elementos de fijación de acero galvanizado en caliente y sellado de juntas interior y exterior con SILCOSELL o equivalente, colocado, (medido deduciendo huecos mayores de 10 m².)						
	Lateral izquierdo	1	8,42		9,00	75,78	
		1	7,70		6,05	46,59	
		-1	6,00		1,85	-11,10	
	Lateral derecho	1	16,12		6,05	97,53	
		1	8,46		4,25	35,96	
		-2	4,00		4,00	-32,00	
	Frontal	1	34,32		6,05	207,64	
		1	27,38		4,05	110,89	
		-1	5,00		2,15	-10,75	
	Posterior	1	27,37		9,00	246,33	
		1	6,95		6,05	42,05	
		-4	5,00		2,15	-43,00	
							765,92
463RC	M2 REVESTIMIENTO EXTERIOR DE CHAPA ONDULADA M2. Revestimiento de chapa ondulada de aluminio tipo tipo alubel ond-all 33 acabado lacado estandar a elegir, con p.p. elementos de fijación y remates inferior, a huecos, esquinas, coronación, etc, totalmente terminada.						
	Frontal	1	34,32		6,05	207,64	
		1	27,38		4,05	110,89	
	Posterior	1	27,37		9,00	246,33	
		1	6,95		6,05	42,05	
		-3	3,00		2,60	-23,40	
		-1	2,50		2,15	-5,38	
		-2	3,00		1,40	-8,40	
		-1	2,50		1,85	-4,63	
		-1	3,00		2,15	-6,45	
		-5	5,00		2,15	-53,75	
							504,90

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CÓDIGO	RESUMEN	UDS	LONGITUD	ANCHURA	ALTURA	PARCIALES	CANTIDAD
463CI	M2 CUBIERTA PLANA NO TRANSITABLE m². Cubierta invertida completa, no transitable, constituida por: capa de hormigón aligerado de 10 cm de espesor medio, para formación de pendientes, con tendido de mortero de cemento M5 de 2 cm de espesor para regularizar la superficie; lámina geotextil de 200 g/m²; lámina asfáltica de oxiasfalto, GLASDAN 40 P OXI, en posición flotante respecto al soporte, salvo en perímetros y puntos singulares; lámina asfáltica de oxiasfalto, ESTERDAN 40 P ELAST, totalmente adherida a la anterior con soplete; cazoleta con conexión a bajante d110 mm con paragravillas; aislamiento térmico con planchas de poliestireno extruido de 50 mm de espesor, DANOPREN 50; lámina geotextil; capa de grava de canto rodado de 5 cm de espesor. Solución según membrana PN-6 de la norma UNE 104-402/96. Cumple los requisitos del C.T.E.						
		1	27,05	8,05		217,75	
		1	6,95	15,80		109,81	
							327,56
463RCH	M2 REVESTIMIENTO PETO CUBIERTA M2. Revestimiento de peto interior de cubierta entre coronación y solape con impermeabilizante de cubierta, realizado con chapa lacada 0,5 mm con p.p. elementos de fijación, totalmente terminada.						
	Perimetral	2	34,40			68,80	
		2	16,20			32,40	
		1	27,37			27,37	
		1	8,46			8,46	
							137,03
463	M2 FÁBRICA BLOQUES 40x20x20 cm GRIS Fábrica de bloques de hormigón color gris de medidas 40x20x20 cm, para terminación posterior en peanas de ventilaciones, y relleno de hormigón HM-20 y armadura en zona según normativa y recibido con mortero de cemento y arena de río 1/6, i/p.p. de piezas especiales, roturas, aplomados, nivelados y limpieza todo ello según NTE-FFB-6.						
	Almacen	1	15,45	4,60		71,07	
	A deducir puertas	-1	2,00	2,10		-4,20	
	Reactivos	1	16,25	1,00		16,25	
		1	5,00	1,00		5,00	
		1	5,34	1,00		5,34	
	Fangos-genrador-cuadros	1	19,00	4,50		85,50	
		3	8,05	4,50		108,68	
	A deducir puertas	-1	2,00	2,10		-4,20	
	Ozono	1	7,55	4,50		33,98	
	Ozono-cal-reactivos	1	15,80			15,80	
							333,22
520	M2 CUBIERTA PANEL SANDWICH (E=50 mm.) Cubierta con panel tipo sandwich espesor 50 cm., con doble chapa prelacada de 0,4 mm de espesor, y aislamiento térmico de poliuretano, fijada con gancho de acero galvanizado, incluso p.p de piezas de remate, totalmente colocada.						
	Zona almacen y reactivos	1	27,05	8,14		220,19	
							220,19
519	ML REMATE DE CHAPA PRELACADA CUBIERTA Remate de chapa prelacada en color, para cubrir parte superior de bloque o panel, hasta el panel sandwich de la cubierta por el interior del peto, fijado mediante tacos y/o ganchos anclado a muro y o cubierta, dispuesto según planos.						
	Perimetral	2	34,40			68,80	
		2	16,20			32,40	
		1	27,37			27,37	
		1	8,46			8,46	
							137,03
474.1	ML CANALON CHAPA PRELACADA 50cm Canalón de chapa prelacada en color, de 50 cm. de desarrollo fijado mediante ganchos ocultos con tornillo autoroscante 40 cm., incluso p.p. de embocadura de bajante, codos y piezas especiales.						
		1	24,05			24,05	
							24,05

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CÓDIGO	RESUMEN	UDS	LONGITUD	ANCHURA	ALTURA	PARCIALES	CANTIDAD
SUBPARTADO 02.01.08.4 CARPINTERIA							
465	M2 PUERTA DOBLE CHAPA ACERO Puerta de paso hojas abatibles de doble chapa lisa de acero de 1 mm de espesor, con aislamiento interno de fibre de vidrio, engatillada, realizada en dos bandejas, con rigidizadores de tubo rectangular, i/manillas de acero inoxidable y cerradura, patillas para recibir en fábricas, herrajes de colgar y de seguridad, imprimación antióxido y pintura al esmalte, totalmente colocada incluyendo el recibido de fábricas.						
	P1	2	2,00		2,10	8,40	
							8,40
465.1	M2 PUERTA DOBLE CHAPA ACERO CON LAMAS Puerta de paso hojas abatibles de doble chapa lisa de acero de 1 mm de espesor, con aislamiento interno de fibre de vidrio, engatillada, realizada en dos bandejas, con rigidizadores de tubo rectangular, i/manillas de acero inoxidable y cerradura, con dos o cuatro rejillas de ventilación con malla anti insectos interior, patillas para recibir en fábricas, herrajes de colgar y de seguridad, imprimación antióxido y pintura al esmalte, totalmente colocada incluyendo el recibido de fábricas.						
	PE1	2	2,40		2,15	10,32	
	PE2	3	3,00		2,60	23,40	
	PE3	1	2,50		2,15	5,38	
							39,10
464PC	M2 SISTEMA MODULAR DE POLICARBONATO CELULAR EN VENTANAS m². Sistema modular de policarbonato celular con encastre machiembreado y protección UV para paramentos verticales, con zonas abatibles según planos. Espesor de 40 mm. Estructura de 9 paredes con perfilera y tapetas de aluminio anodizado. Herrejes de sujeción, monado.						
	V1	5	5,00		2,15	53,75	
	V2	1	6,00		1,85	11,10	
	V3	2	3,00		1,40	8,40	
	V4	1	2,50		1,85	4,63	
	V5	1	3,00		2,15	6,45	
							84,33
465.2	M2 PUERTA INDUSTRIAL SECCIONABLE AUTOMÁTICA Puerta seccional métrica industrial de Horman SPU-F42 o equivalente, acabado estuco color a elegir, fabricada con panel sandwich de 42 mm de espesor, con protección contra los dedos, protección de superficie con imprimación, cerco angular perfilado de acero galvanizado. Automatismo de apertura y cierre de eje WA 300S4 con desbloqueo de emergencia. Panel acristalado doble de seguridad. Pesitlo interior. Apertura y cierre automático. Cuadro de maniobra. Totalmente colocada incluyendo el recibido de fábricas y conexiones eléctricas.						
	PE4	2	4,00		4,00	32,00	
							32,00
SUBPARTADO 02.01.08.5 ACABADOS							
4432A	M2 ALICATADO AZULEJO ANTIÁCIDO Alicatado con azulejo blanco mate antiácido, formato no inferior a 40x20 cm, recibido con adhesivo, incluso preparación de paramentos, cortes, cantoneras cromadas, rejuntados y limpieza, ejecutado según NTE y especificaciones, medido en superficie real, deduciendo huecos superiores a 0,5 m2.						
	Reactivos (interior y borde superior)	2	16,25		1,00	32,50	
		1	16,25		0,20	3,25	
		4	5,00		1,00	20,00	
		1	5,00		0,20	1,00	
		1	5,34		1,00	5,34	
		1	5,34		0,20	1,07	
							63,16

MEDICIONES

ABASTECIMIENTO A VARIOS MUNICIPIOS DE LA RIOJA. SISTEMA CIDACOS

CÓDIGO	RESUMEN	UDS	LONGITUD	ANCHURA	ALTURA	PARCIALES	CANTIDAD
440acus	M2 FALSO TECHO METÁLICO ABSORCIÓN ACÚSTICA m². Techo formado por una doble estructura de perfiles de chapa de acero galvanizada, instalada a dos niveles. La estructura primaria se compone a base de Perfiles continuos PH-45 en forma de "V" invertida, modulados cada 1100 mm y debidamente suspendidos de forjado de placa por medio de varilla roscada Ø 6 mm y tuerca y contratuerca cada 1100 mm dotada de aisladores acústicos para evitar la transmisión a techo. La segunda estructura formada por perfiles T-47 se acopla perpendicularmente a la parte inferior de la estructura primaria cada 500 mm mediante encaje directo en las horquillas dobles troqueladas del perfil PH-45. A esta estructura de perfiles, se atornilla a la segunda estructura de perfiles T-47 y perpendicularmente a ella una falso techo de chapa perforada minionda de 0,6 mm de espesor y 18 mm de canto, galvanizada en caliente, R3T6, parte proporcional de anclajes, cuelgues, tornillería, etc, según requisitos del CTE-DB HR. Almacen	1	5,15	10,30		53,05	
							53,05
468	M2 ENFOSCADO MAESTRADO Y FRATASADO Enfoscado maestreado y fratasado de 20 mm de espesor en toda su superficie con mortero de cemento y arena de río 1/4 en paramentos verticales, con maestras cada metro, i/preparación y humedecido de soporte, limpieza, p.p. de medios auxiliares con empleo, en su caso, de andamiaje homologado, así como distribución de material en tajos, s/NTE-RPE-7. Almacen A deducir puertas Reactivos Fangos-genrador-cuadros A deducir puertas Ozono Ozono-cal-reactivos	2 -2 2 1 2 1 2 1 2 6 -2 2 2	15,45 2,00 16,25 16,25 5,00 5,00 5,34 5,34 19,00 8,05 2,00 7,55 15,80	4,60 2,10 1,00 0,20 1,00 0,20 1,00 0,20 4,50 4,50 2,10 4,50 4,50	142,14 -8,40 32,50 3,25 10,00 1,00 10,68 1,07 171,00 217,35 -8,40 67,95 142,20		782,34
							81,71
051pc2	KG REVESTIMIENTO MULTICAPA RESINA EXPOXI m². Suministro y puesta en obra del Sistema Multicapa Epoxi MASTERTOP 1220 Polykit, con un espesor de 2,0 mm, consistente en formación de capa base epoxi sin disolventes coloreada MASTERTOP 1200 o similar (rendimiento 1,6 kg/m²); espolvoreo en fresco de árido de cuarzo MASTERTOP F 5 o similar con una granulometría 0,3-0,8 mm (rendimiento 3,0 kg/m²); sellado con el revestimiento epoxi sin disolventes coloreado MASTERTOP 1200 o similar (rendimiento 0,600 kg/m²), sobre superficies de hormigón o mortero, sin incluir la preparación del soporte. Colores Estándar. Zona sala de fangos	1	8,05	10,15		81,71	
							81,71
449	M2 PINTURA PLÁSTICA LISA MATE COLOR Pintura plástica lisa mate color, en interiores, en paramentos horizontales y verticales, dos manos, incluso lijado, mano de imprimación con plástico diluido, plastecido, lijado y acabado. PARAMENTOS VERTICALES Almacen A deducir puertas Reactivos (exterior) Fangos-genrador-cuadros A deducir puertas Ozono Ozono-cal-reactivos TECHOS Bajo forjado	2 2 1 1 1 2 6 -2 2 2 1 1	10,15 5,00 2,00 16,25 5,00 5,34 16,25 19,00 8,05 2,00 7,55 15,80 18,85 8,20	4,60 2,10 1,00 1,00 1,00 6,50 4,50 4,50 2,10 4,50 4,50 8,05 7,55	93,38 10,00 -8,40 16,25 5,00 5,34 105,63 171,00 217,35 -8,40 67,95 142,20 151,74 61,91		

MEDICIONES

ABASTECIMIENTO A VARIOS MUNICIPIOS DE LA RIOJA. SISTEMA CIDACOS

CÓDIGO	RESUMEN	UDS	LONGITUD	ANCHURA	ALTURA	PARCIALES	CANTIDAD
	Arqueta entrada	1	2,20	1,60		3,52	
							1.146,29
289B	M2 TAPA DE CHAPA LACRIMADA GALVANIZADA e=4mm Tapa de chapa lacrimada de acero galvanizado de 4 mm de espesor, incluyendo el marco, tiradores, aros para cerradura con candado, anclada, totalmente colocada. Arqueta trasiego	1	0,80	1,60		1,28	
							1,28
E0A060	UD TRAMEX. ENTRAMADO METÁLICO 30X30X3 Entramado metálico 30x30x3 tipo tramex o equivalente, incluso estructura auxiliar y suministro con parte proporcional de cerco también galvanizado, montaje, recibido y pintado. Canaleta	1	24,20	1,10		26,62	
							26,62
							26,62
	SUBPARTADO 02.01.08.6 INSTALACIONES FONTANERIA						
453R	UD INSTALACIÓN DE FONTANERÍA Y EVACUACIÓN REACTIVOS ud. Instalación del laboratorio y dependencias enexas, de fontanería completa en TABIQUERÍA SE-CA, realizada con tuberías de polietileno reticulado (método Engel) utilizando el sistema Quick&Easy de derivaciones por tes para las redes de agua fría y caliente y con tuberías de PVC serie C para la red de desagüe con los diámetros necesarios para cada punto de consumo, totalmente terminada según CTE/DB-HS 4 suministro de agua, sin incluir los aparatos sanitarios ni griferías, y con p.p. de redes interiores de ascendentes y bajantes. Reactivos Fangos	1 1				1,00 1,00	
							2,00
							2,00
	SUBPARTADO 02.01.08.7 INSTALACIÓN CONTRAINCENDIOS						
EXTABC	UD EXTINT. POLVO ABC 6 Kg. EF 21A-113B Ud. Extintor de polvo ABC con eficacia 21A-113B para extinción de fuego de materias sólidas, líquidas, productos gaseosos e incendios de equipos eléctricos, de 6 Kg. de agente extintor con soporte, manómetro y boquilla con difusor según norma UNE-23110, totalmente instalado según CTE/DB-SI 4. Certificado por AENOR. Extintor ABC 6 Kg	5				5,00	
							5,00
C04.04.01.03	UD EXTINTOR DE CO2 EFICACIA 89B Ud. Extintor de CO2 (Nieve Carbónica) de 5 kg. de capacidad, eficacia 89B, equipado de manguera con difusor y homologado e instalado. Extintor CO2 5 Kg	2				2,00	
							2,00
							2,00
SEÑAL01	UD SEÑAL LUMINISCENTE EXT. INCENDIOS Ud. Señal luminiscente para elementos de extinción de incendios (extintores, bies, pulsadores...) de 297x210 por una cara en pvc rígido de 2 mm de espesor, totalmente instalada, según norma UNE 23033 y CTE/DB-SI 4. Señal Luminiscente Elementos Extinción	23				23,00	
							23,00
							23,00
C04.04.07.01	UD CENTRAL ANAL. 2 LAZOS 198 DETEC. Ud. Central de detección de incendios Analógica con 2 lazos compacta (no ampliable) de 198 detectores + 198 módulos analógicos, con 5 salidas de relé, pantalla LCD de 128x64 píxeles retroiluminada, 2 salidas serie RS-232, fuente de alimentación y d baterías de 12V / 7 Ah, totalmente instalada, conexionada, programada y probada, según CTE/DB-SI 4. Incluye 9 módulos de entrada-salida programable para maniobra y estado de equipos no analógicos, y 5 módulos de entrada analógicos para identificar señales de equipos no analógicos. Incluye dos fuentes de alimentación de 24 V 5 A, instaladas. Central analógica de Incendios	1				1,00	
							1,00
							1,00
C04.04.07.04	UD PULSADOR DE ALARMA REARMABLE Ud. Pulsador de alarma tipo rearmable, con tapa de plástico basculante totalmente instalado, i/p.p. de tubos y cableado, conexionado y probado, según CTE/DB-SI 4.						

MEDICIONES

ABASTECIMIENTO A VARIOS MUNICIPIOS DE LA RIOJA. SISTEMA CIDACOS

CÓDIGO	RESUMEN	UDS	LONGITUD	ANCHURA	ALTURA	PARCIALES	CANTIDAD
	Arqueta entrada	1	2,20	1,60		3,52	
							8,00
C04.04.07.05	UD SIRENA ELECTRÓNICA BITONAL 24 V. Ud. Sirena de alarma de incendios bitonal, para montaje interior con señal óptica y acústica a 24v, totalmente instalada, i/p.p. tubo y cableado, conexionado y probado, según CTE/DB-SI 4. Sirena Electrónica	7				7,00	
							7,00
C04.04.07.06	UD SIRENA ELECTRÓNICA BITONAL PARA EXTERIOR Ud. Sirena de alarma de incendios bitonal, para montaje exterior, con señal óptica y acústica a 24v, totalmente instalada, i/p.p. tubo y cableado, conexionado y probado, según CTE/DB-SI 4. Sirena Electr. Exterior	1				1,00	
							1,00
C04.04.07.071	UD INSTALACIÓN ELÉCTRICA TUBO PVC Instalación eléctrica bajo tubo de PVC rígido o flexible según casos, libre de halógenos, con p.p. de manguera apantallada no propagador de llamas de 2X1,5 mm2 de sección, cajas de derivación, bridas de fijación, bornas de conexión, etc. incluso mano de obra para instalación, programación y pruebas. Red de PCI Inst. eléctrica	1				1,00	
							1,00
APARTADO 02.01.09 ESPESADOR DE FANGOS							
002	M3 EXCAVACIÓN EN ZANJAS Excavación en zanjas y zonas localizadas, en todo tipo de terrenos incluido terrenos en roca con medios mecánicos, incluso rasanteo, nivelación de la superficie de apoyo y transporte a lugar de empleo o vertedero.	1	69,50	59,50	0,85	54,83	(b+c)/2*d
		1	9,90	8,05	0,88	7,90	(b+c)/2*d
							62,73
010	M3 RELLENO ZANJAS, CIMIENTOS Y TRASDOSES DE MATERIAL SELECCIONADO Relleno con material seleccionado en zanjas, cimientos, trasdós de muros, estribos y otras estructuras procedente de la excavación o préstamos incluso carga, transporte y compactación.	1	13,67	0,25		3,42	
							3,42
028	M3 HORMIGÓN DE LIMIPEZA HL-150 Hormigón de limpieza HL-150, de consistencia plástica, árido de tamaño máximo 40 mm y cemento CEM-II-D/42,5/SR, para saneos y encachados, incluyendo fabricación y transporte totalmente colocado. Bajo solera Refuerzo tubería salida	1	59,45		0,10	5,95	
		1	4,72	0,32		1,51	
		1	3,45	0,50	0,50	0,86	
							8,32
032.1	M3 HORMIGÓN HA-30/P/30/IV Hormigón armado HA-30/B/30/IV, con una dosificación de hormigón de 325 kg/m3 de cemento, consistencia plástica, elaborado en central para estructuras, incluso bombeado y medios manuales, vibrado y colocado. Solera Muros exteriores Solera v vertedero Murete v vertedero Pasarela Muretes pasarela	1	59,45		0,40	23,78	
		1	5,31		0,40	2,12	
		1	24,50	0,30	4,00	29,40	
		1	22,00	0,50	0,20	2,20	
		1	21,05	0,20	0,35	1,47	
		1	9,10	1,90	0,25	4,32	63,29
		1	9,10	0,20	1,00	1,82	
		1	8,10	0,20	1,00	1,62	
		2	1,50	0,20	1,00	0,60	4,04
							67,33

MEDICIONES

ABASTECIMIENTO A VARIOS MUNICIPIOS DE LA RIOJA. SISTEMA CIDACOS

CÓDIGO	RESUMEN	UDS	LONGITUD	ANCHURA	ALTURA	PARCIALES	CANTIDAD
026	M2 ENCOFRADO RECTO EN PARAMENTOS VISTOS 1C Encofrado recto en paramentos vistos a una cara, incluso colocación, fijación y desencofrado. Muretes pasarela	1	9,10		1,25	11,38	
		1	8,10		1,25	10,13	
		4	1,50		1,25	7,50	
							29,01
027	M2 ENCOFRADO CURVO EN PARAMENTOS VISTOS Encofrado curvo en paramentos vistos, incluso colocación, fijación y desencofrado. Muros exteriores Murete vertedero	1	25,45		4,00	101,80	
		1	23,57		4,00	94,28	
		1	20,42		0,55	11,23	
		1	21,68		0,35	7,59	
							214,90
027.1	M2 ENCOFRADO CURVO EN PARAMENTOS OCULTOS Encofrado curvo en paramentos ocultos, incluso colocación, fijación y desencofrado. Solera exterior Encofrado poceta	1	27,33		0,40	10,93	
		1	4,08		1,00	4,08	
							15,01
026.1	M2 ENCOFRADO RECTO EN LOSAS VISTOS Encofrado recto en losas vistos, incluso colocación, fijación y desencofrado. Pasarela Solera vertedero	1	9,10	1,90		17,29	
		1	22,00	0,50		11,00	
							28,29
023	KG ACERO CORRUGADO B-500-S Acero redondo corrugado para armar tipo B-500-S elaborado y colocado. Solera 40 cm Muros 30 cm Muros de 20 cm Losa de 25 cm Losa de 20 cm	1	25,90	75,00		1.942,50	
		1	29,40	90,00		2.646,00	
		1	5,51	100,00		551,00	
		1	4,32	90,00		388,80	
		1	2,20	100,00		220,00	
							5.748,30
052	ML JUNTAS DE ESTANQUEIDAD DE PVC 32 CM Junta de trabajo interior de policloruro de vinilo (PVC) 100% virgen, con una fuerza máxima de dilatación > 250 %, de 32 cm de ancho, MASTERFLEX 2000 TI-24 de BASF o equivalente, colocada simétricamente en el eje de la losa o muro, incluso solapes y piezas especiales para cruces o ángulos. Medida la longitud ejecutada. Solera-muro Verticales	1	24,60			24,60	
		2	4,20			8,40	
							33,00
289B	M2 TAPA DE CHAPA LACRIMADA GALVANIZADA e=4mm Tapa de chapa lacrimada de acero galvanizado de 4 mm de espesor, incluyendo el marco, tiradores, aros para cerradura con candado, anclada, totalmente colocada.	1	0,55	0,55		0,30	
							0,30
290BB	M2 ESCALERA Y PASARELAS DE ACERO GALVANIZADO. BARANDILLAS AISI316L Escalera y pasarelas de acceso de forma según planos, ejecutada en perfiles de acero galvanizado en caliente, incluso barandilla tubular del mismo material, de 90 cm de altura en uno o dos lados, rodapié de seguridad del mismo en uno o dos lados, así como entramado metálico de 30x30x3 en descansillos y peldaños, medida según su proyección en planta. Anclada a los muros y/o solera, instalada. Muretes pasarela	1	4,60			4,60	
							4,60

MEDICIONES

ABASTECIMIENTO A VARIOS MUNICIPIOS DE LA RIOJA. SISTEMA CIDACOS

CÓDIGO	RESUMEN	UDS	LONGITUD	ANCHURA	ALTURA	PARCIALES	CANTIDAD
APARTADO 02.01.10 DEPÓSITO FANGOS ESPESADOS							
002	M3 EXCAVACIÓN EN ZANJAS Excavación en zanjas y zonas localizadas, en todo tipo de terrenos incluido terrenos en roca con medios mecánicos, incluso rasanteo, nivelación de la superficie de apoyo y transporte a lugar de empleo o vertedero. Con taludes 1:1	1	338,62	96,90	4,85	1.056,14	(b+c)/2*d 1.056,14
010	M3 RELLENO ZANJAS, CIMIENTOS Y TRASDOSES DE MATERIAL SELECCIONADO Relleno con material seleccionado en zanjas, cimientos, trasdós de muros, estribos y otras estructuras procedente de la excavación o préstamos incluso carga, transporte y compactación. De excavaciones A deducir de bolo A deducir de depósito	1 -1 -1 -1	1.056,14 399,61 10,95 10,15			1.056,14 -399,61 -48,45 -343,17	264,91
006	M3 RELLENOS CON MATERIAL DE BOLO Relleno con material seleccionado de bolo, para eviatar asentaamientos, en trasdós de muros, estribos y otras estructuras procedente de préstamos incluso carga, transporte y extendido. Bajo solera edificio	1 1 1	12,75 13,30 125,30	10,53 10,53		134,26 140,05 125,30	399,61
028	M3 HORMIGÓN DE LIMPEZA HL-150 Hormigón de limpieza HL-150, de consistencia plástica, árido de tamaño máximo 40 mm y cemento CEM-II-D/42,5/SR, para saneos y encachados, incluyendo fabricación y transporte totalmente colocado.	1	10,80	8,90	0,50	48,06	48,06
032.1	M3 HORMIGÓN HA-30/P/30/IV Hormigón armado HA-30/B/30/IV, con una dosificación de hormigón de 325 kg/m3 de cemento, consistencia plástica, elaborado en central para estructuras, incluso bombeado y medios manuales, vibrado y colocado. Solera Muros	1 2 2	10,95 10,15 7,35	8,85 0,40 0,40	0,40 3,75 3,75	38,76 30,45 22,05	38,76 52,50 91,26
025	M2 ENCOFRADO RECTO EN PARAMENTOS OCULTOS Encofrado recto en paramentos ocultos, incluso colocación, fijación y desencofrado. Solera	2 2	10,95 8,85		0,40 0,40	8,76 7,08	15,84
026	M2 ENCOFRADO RECTO EN PARAMENTOS VISTOS 1C Encofrado recto en paramentos vistos a una cara, incluso colocación, fijación y desencofrado. Muros	4 4	10,15 8,05		3,75 3,75	152,25 120,75	273,00
023	KG ACERO CORRUGADO B-500-S Acero redondo corrugado para armar tipo B-500-S elaborado y colocado. Solera 40 cm Muros 40 cm	1 1	38,76 52,50	75,00 90,00		2.907,00 4.725,00	7.632,00

MEDICIONES

ABASTECIMIENTO A VARIOS MUNICIPIOS DE LA RIOJA. SISTEMA CIDACOS

CÓDIGO	RESUMEN	UDS	LONGITUD	ANCHURA	ALTURA	PARCIALES	CANTIDAD
052	ML JUNTAS DE ESTANQUEIDAD DE PVC 32 CM Junta de trabajo interior de policloruro de vinilo (PVC) 100% virgen, con una fuerza máxima de dilatación > 250 % , de 32 cm de ancho, MASTERFLEX 2000 TI-24 de BASF o equivalente, colocada simétricamente en el eje de la losa o muro, incluso solapes y piezas especiales para cruces o ángulos. Medida la longitud ejecutada. Solera-muro Verticales	2 2	9,80 7,70			19,60 15,40	35,00
289B	M2 TAPA DE CHAPA LACRIMADA GALVANIZADA e=4mm Tapa de chapa lacrimada de acero galvanizado de 4 mm de espesor, incluyendo el marco, tiradores, aros para cerradura con candado, anclada, totalmente colocada.	1 1	0,70 1,10	0,70 1,10		0,49 1,21	1,70
290BB	M2 ESCALERA Y PASARELAS DE ACERO GALVANIZADO. BARANDILLAS AISI316L Escalera y pasarelas de acceso de forma según planos, ejecutada en perfiles de acero galvanizado en caliente, incluso barandilla tubular del mismo material, de 90 cm de altura en uno o dos lados, rodapié de seguridad del mismo en uno o dos lados, así como entramado metálico de 30x30x3 en descansillos y peldaños, medida según su proyección en planta. Anclada a los muros y/o solera, instalada.	1	3,75			3,75	3,75
439C	M2 FORJADO PLACA ALVEOLAR 20+5 cm Forjado unidireccional de losas alveolares prefabricadas de 20 cm de espesor y capa de compresión de 5 cm de hormigón HA-25 de 25 N/mm2, incluso armadura de negativos según planos, mallazo de reparto, formación de huecos, y elementos auxiliares. Forjado depósito	1	10,15	8,05		81,71	81,71
APARTADO 02.01.11 SILO DE FANGOS DESHIDRATADOS							
002	M3 EXCAVACIÓN EN ZANJAS Excavación en zanjas y zonas localizadas, en todo tipo de terrenos incluido terrenos en roca con medios mecánicos, incluso rasanteo, nivelación de la superficie de apoyo y transporte a lugar de empleo o vertedero.	1	4,90	4,90	0,60	14,41	14,41
028	M3 HORMIGÓN DE LIMPEZA HL-150 Hormigón de limpieza HL-150, de consistencia plástica, árido de tamaño máximo 40 mm y cemento CEM-II-D/42,5/SR, para saneos y encachados, incluyendo fabricación y transporte totalmente colocado.	1	4,90	4,90	0,10	2,40	2,40
032.1	M3 HORMIGÓN HA-30/P/30/IV Hormigón armado HA-30/B/30/IV, con una dosificación de hormigón de 325 kg/m3 de cemento, consistencia plástica, elaborado en central para estructuras, incluso bombeado y medios manuales, vibrado y colocado. Losa Apoyos	1 4	4,90 0,50	4,90 0,50	0,50 0,50	12,01 0,50	12,51
025	M2 ENCOFRADO RECTO EN PARAMENTOS OCULTOS Encofrado recto en paramentos ocultos, incluso colocación, fijación y desencofrado. Losa	4	4,90		0,50	9,80	9,80
026	M2 ENCOFRADO RECTO EN PARAMENTOS VISTOS 1C Encofrado recto en paramentos vistos a una cara, incluso colocación, fijación y desencofrado. Apoyos	16	0,50		0,50	4,00	4,00

MEDICIONES

ABASTECIMIENTO A VARIOS MUNICIPIOS DE LA RIOJA. SISTEMA CIDACOS

CÓDIGO	RESUMEN	UDS	LONGITUD	ANCHURA	ALTURA	PARCIALES	CANTIDAD
							4,00
023	KG ACERO CORRUGADO B-500-S Acero redondo corrugado para armar tipo B-500-S elaborado y colocado.						
	Solera	1	12,01	65,00			780,65
	Apoyos	1	0,50	85,00			42,50
		0,05	823,15				41,16
							864,31
APARTADO 02.01.12 PARQUE DE OXÍGENO							
002	M3 EXCAVACIÓN EN ZANJAS Excavación en zanjas y zonas localizadas, en todo tipo de terrenos incluido terrenos en roca con medios mecánicos, incluso rasanteo, nivelación de la superficie de apoyo y transporte a lugar de empleo o vertedero.						
		1	6,70	4,20	0,30		8,44
							8,44
028	M3 HORMIGÓN DE LIMPIEZA HL-150 Hormigón de limpieza HL-150, de consistencia plástica, árido de tamaño máximo 40 mm y cemento CEM-II-D/42,5/SR, para saneos y encachados, incluyendo fabricación y transporte totalmente colocado.						
		1	6,70	4,20	0,10		2,81
							2,81
031	M3 HORMIGÓN HA-25/B/20/IIa Hormigón HA-25/B/20/IIa, con cemento CEM II/A-D/42,5/SR, incluyendo fabricación, transporte, puesta en obra y vibrado, totalmente ejecutado, incluso curado y juntas.						
		1	6,70	4,20	0,30		8,44
							8,44
023	KG ACERO CORRUGADO B-500-S Acero redondo corrugado para armar tipo B-500-S elaborado y colocado.						
	Solera (doble mallazo 25x25-12)	1	8,44	17,80			150,23
							150,23
452C	ML CERRAMIENTO MALLA GALVANIZADA Y PLASTIFICADA EN VERDE DE 2,00 m Cerramiento de malla metálica galvanizada plastificada en verde de 2,0 m. de altura, incluso p.p. de puerta de entrada peatonal con cerradura, p.p. de postes de acero galvanizado también plastificados en verde, colocados cada 3,0 m sobre cimentación de hormigón (no incluida), incluso p.p. jabalco-nes, esquinas, tensores, anclajes y resto de accesorios. Colocada y totalmente terminada.						
		2	6,70				13,40
		2	4,20				8,40
							21,80
EXTABC	UD EXTINT. POLVO ABC 6 Kg. EF 21A-113B Ud. Extintor de polvo ABC con eficacia 21A-113B para extinción de fuego de materias sólidas, líquidas, productos gaseosos e incendios de equipos eléctricos, de 6 Kg. de agente extintor con soporte, manómetro y boquilla con difusor según norma UNE-23110, totalmente instalado según CTE/DB-SI 4. Certificado por AENOR.						
	Extintor ABC 6 Kg	1					1,00
							1,00
APARTADO 02.01.13 REDES DE CONDUCCIONES							
SUBAPARTADO 02.01.13.1 LINEA DE AGUA							
002	M3 EXCAVACIÓN EN ZANJAS Excavación en zanjas y zonas localizadas, en todo tipo de terrenos incluido terrenos en roca con medios mecánicos, incluso rasanteo, nivelación de la superficie de apoyo y transporte a lugar de empleo o vertedero.						
	1. Llegada agua bruta	1	36,40	2,03	2,15		158,87
	2. Cámara de ozonización a C-F-D	1	30,00	2,03	2,15		130,94
	3. Decantación a filtración	1	13,50	1,91	2,05		52,86
	4. Reparto a filtración	1	29,00	1,67	1,85		89,60

MEDICIONES

ABASTECIMIENTO A VARIOS MUNICIPIOS DE LA RIOJA. SISTEMA CIDACOS

CÓDIGO	RESUMEN	UDS	LONGITUD	ANCHURA	ALTURA	PARCIALES	CANTIDAD
	Arqueta entrada	1	2,20	1,60			3,52
	6. Entrada a depósito agua tratada	1	4,80	1,91	2,05		18,79
	9. By-pass ozonización	1	25,60	1,91	2,05		100,24
	10. By-pass filtración	1	31,00	1,91	2,05		121,38
							735,33
010	M3 RELLENO ZANJAS, CIMIENTOS Y TRASDOSES DE MATERIAL SELECCIONADO Relleno con material seleccionado en zanjas, cimientos, trasdós de muros, estribos y otras estructuras procedente de la excavación o préstamos incluso carga, transporte y compactación.						
	1. Llegada agua bruta	1	36,40	2,29	0,85		70,85
	2. Cámara de ozonización a C-F-D	1	30,00	2,29	0,85		58,40
	3. Decantación a filtración	1	13,50	2,15	0,85		24,67
	4. Reparto a filtración	1	29,00	1,87	0,85		46,10
	5. Filtración de arena a depósito agua tratada	1	16,00	2,15	0,85		29,24
	6. Entrada a depósito agua tratada	1	4,80	2,15	0,85		8,77
	9. By-pass ozonización	1	25,60	2,15	0,85		46,78
	10. By-pass filtración	1	31,00	2,15	0,85		56,65
							341,46
011	M3 RELLENO DE ARENA Arena para apoyo y protección de tuberías incluso carga, transporte, colocación, compactación y nivelación.						
	1. Llegada agua bruta	1	36,40	1,86	1,30		88,02
		-3,14	36,40	0,50	0,50		-28,57
	2. Cámara de ozonización a C-F-D	1	30,00	1,86	1,30		72,54
		-3,14	30,00	0,50	0,50		-23,55
	3. Decantación a filtración	1	13,50	1,74	1,20		28,19
		-3,14	13,50	0,45	0,45		-8,58
	4. Reparto a filtración	1	29,00	1,50	1,00		43,50
		-3,14	29,00	0,35	0,35		-11,15
	5. Filtración de arena a depósito agua tratada	1	16,00	1,74	1,20		33,41
		-3,14	16,00	0,45	0,45		-10,17
	6. Entrada a depósito agua tratada	1	4,80	1,74	1,20		10,02
		-3,14	4,80	0,45	0,45		-3,05
	9. By-pass ozonización	1	25,60	1,74	1,20		53,45
		-3,14	25,60	0,45	0,45		-16,28
	10. By-pass filtración	1	31,00	1,74	1,20		64,73
		-3,14	31,00	0,45	0,45		-19,71
							272,80
058B	ML TUBERÍA FD 1000 mm Tubería de fundición dúctil de diámetro interior 1000 mm y PFA de 32 bar, revestida interiormente con mortero de cemento y exteriormente con una capa de cinc y otra bituminosa, i/p.p. de junta automática flexible, banda de señalización y medios auxiliares, totalmente colocada y probada.						
	1. Llegada agua bruta	1	36,40				36,40
	2. Cámara de ozonización a C-F-D	1	30,00				30,00
							66,40
058A	ML TUBERÍA FD 900 mm Tubería de fundición dúctil de diámetro interior 900 mm y PFA de 32 bar, revestida interiormente con mortero de cemento y exteriormente con una capa de cinc y otra bituminosa, i/p.p. de junta automática flexible, banda de señalización y medios auxiliares, totalmente colocada y probada.						
	3. Decantación a filtración	1	13,50				13,50
	5. Filtración de arena a depósito agua tratada	1	16,00				16,00
	6. Entrada a depósito agua tratada	1	4,80				4,80
	9. By-pass ozonización	1	25,60				25,60
	10. By-pass filtración	1	31,00				31,00
							90,90

MEDICIONES

ABASTECIMIENTO A VARIOS MUNICIPIOS DE LA RIOJA. SISTEMA CIDACOS

CÓDIGO	RESUMEN	UDS	LONGITUD	ANCHURA	ALTURA	PARCIALES	CANTIDAD
058C	ML TUBERÍA FD 700 mm Tubería de fundición dúctil de diámetro interior 700 mm y PFA de 34 bar, revestida interiormente con mortero de cemento y exteriormente con una capa de cinc y otra bituminosa, i/p.p. de junta automática flexible y medios auxiliares, totalmente colocada y probada. 4. Reparto a filtración	1	29,00			29,00	29,00
							29,00
SUBAPARTADO 02.01.13.2 LINEA DE FANGOS							
002	M3 EXCAVACIÓN EN ZANJAS Excavación en zanjas y zonas localizadas, en todo tipo de terrenos incluido terrenos en roca con medios mecánicos, incluso rasanteo, nivelación de la superficie de apoyo y transporte a lugar de empleo o vertedero. 2. Bombeo de fangos de decantación 3. Fangos a depósito previo a deshidratación 4. Fangos deshidratados 5. Recuperación aguas de lavado de filtros	1	39,00	0,76	1,26	37,35	
		1	12,50	0,75	1,25	11,72	
		1	2,40	0,75	1,25	2,25	
		1	89,00	0,80	1,30	92,56	
							143,88
010	M3 RELLENO ZANJAS, CIMIENTOS Y TRASDOSES DE MATERIAL SELECCIONADO Relleno con material seleccionado en zanjas, cimientos, trasdós de muros, estribos y otras estructuras procedente de la excavación o préstamos incluso carga, transporte y compactación. 2. Bombeo de fangos de decantación 3. Fangos a depósito previo a deshidratación 4. Fangos deshidratados 5. Recuperación aguas de lavado de filtros	1	39,00	0,76	0,90	26,68	
		1	12,50	0,75	0,90	8,44	
		1	2,40	0,75	0,90	1,62	
		1	89,00	0,80	0,90	64,08	
							100,82
011	M3 RELLENO DE ARENA Arena para apoyo y protección de tuberías incluso carga, transporte, colocación, compactación y nivelación. 2. Bombeo de fangos de decantación 3. Fangos a depósito previo a deshidratación 4. Fangos deshidratados 5. Recuperación aguas de lavado de filtros	1	39,00	0,76	0,36	10,67	
		1	12,50	0,75	0,35	3,28	
		1	2,40	0,75	0,35	0,63	
		1	89,00	0,80	0,40	28,48	
							43,06
065	ML TUBERÍA FD 150 mm Tubería de fundición dúctil de diámetro interior 150 mm y PFA de 64 bar, revestida interiormente con mortero de cemento y exteriormente con una capa de cinc y otra bituminosa, i/p.p. de junta automática flexible, banda de señalización y medios auxiliares, totalmente colocada y probada. 3. Fangos a depósito previo a deshidratación 4. Fangos deshidratados	1	12,50			12,50	
		1	2,40			2,40	
							14,90
171	ML TUBERÍA PEAD DN=160 mm PN 16 Tubería de polietileno de alta densidad de 160 mm de diámetro exterior, y PN=16 bar, colocada en zanja incluso p.p. de junta de unión colocada y medios auxiliares, totalmente colocada. 2. Bombeo de fangos de decantación Salida cenrífuga a depósito agua lavado	1	39,00			39,00	
		1	140,00			140,00	
							179,00
171A	ML TUBERÍA PEAD DN=200 mm PN 16 Tubería de polietileno de alta densidad de 200 mm de diámetro exterior, y PN=16 bar, colocada en zanja incluso p.p. de junta de unión colocada y medios auxiliares, totalmente colocada. 5. Recuperación aguas de lavado de filtros	1	89,00			89,00	

MEDICIONES

ABASTECIMIENTO A VARIOS MUNICIPIOS DE LA RIOJA. SISTEMA CIDACOS

CÓDIGO	RESUMEN	UDS	LONGITUD	ANCHURA	ALTURA	PARCIALES	CANTIDAD
							89,00
SUBAPARTADO 02.01.13.3 LINEA DE OZONO							
002	M3 EXCAVACIÓN EN ZANJAS Excavación en zanjas y zonas localizadas, en todo tipo de terrenos incluido terrenos en roca con medios mecánicos, incluso rasanteo, nivelación de la superficie de apoyo y transporte a lugar de empleo o vertedero.	1	100,00	0,50	1,20	60,00	60,00
010	M3 RELLENO ZANJAS, CIMIENTOS Y TRASDOSES DE MATERIAL SELECCIONADO Relleno con material seleccionado en zanjas, cimientos, trasdós de muros, estribos y otras estructuras procedente de la excavación o préstamos incluso carga, transporte y compactación.	1	60,00			60,00	
		-1	25,00			-25,00	
							35,00
011	M3 RELLENO DE ARENA Arena para apoyo y protección de tuberías incluso carga, transporte, colocación, compactación y nivelación.	1	100,00	0,50	0,50	25,00	25,00
ETI316025	ML TUBERÍA DE INOXIDABLE AISI 316L DN25 Tubería de acero inoxidable de diámetro DN25 mm. Construcción: Mediante soldadura. Espesor 1,5 mm. Material: Acero inoxidable AISI -316 L. Material accesorios acero inoxidable AISI - 316L. Acabado: Decapado. Incluso p.p. de uniones, piezas especiales, bridas, codos, tes, injertos para otras tuberías y p.p. de estructuras y elementos de anclajes a solera y/o muros. Montada y probada.	1	100,000			100,000	100,00
APARTADO 02.01.14 URBANIZACIÓN							
SUBAPARTADO 02.01.14.1 PAVIMENTOS Y VIALES							
056	M3 ZAHORRA ARTIFICIAL Zahorra artificial compactada. Bajo viales	1	3.957,26		0,20	791,45	791,45
054	T PAVIMENTO DE MBC AC16 surf S Pavimento de mezcla bituminosa en caliente en capa de rodadura tipo AC 16 surf S de 5 cm de espesor, que incluye riego de imprimación con dotación de 1 Kg/m2, con betún B60/70 en dotación de 70 Kg/Tm, puesto en obra y terminado. Viales	2,35	3.957,26		0,06	557,97	557,97
458B	ML BORDILLO PREFABRICADO DE HORMIGÓN 25x15x12 cm. Bordillo prefabricado de hormigón doble capa, tipo T-2 de dimensiones 25X15X12 cm en chaflán, colocado sobre solera de hormigón HNE-20, de 15 cm de espesor, incluso excavación necesaria, re-juntado y limpieza.	1	1.251,00			1.251,00	1.251,00
452B	M2 ACERA DE BALDOSA HIDRÁULICA EXTERIOR (30x30x4 cm.) Acera de baldosa hidráulica tipo pétreo antideslizante uso exterior de dimensiones 30x30x4 cm., color y dibujo a definir en obra, colocada sobre 3 cm de mortero de agarre M-40 y 12 cm de espesor de hormigón HNE-20, enlechado y limpieza, totalmente terminado.	1	2.267,00			2.267,00	2.267,00
452D	M2 PAVIMENTO DE GRAVILLA 10/20 mm + GEOTEXTIL ANTIHERBA 200gr/m2 Pavimento de gravilla 10/20 extendida de 15 cm. de espesor, dispuesto sobre un geotextil antihierba permeable y con protección UV de 200 gr/m2. Incluso maestreado y refino de la superficie. totalmente terminado.						2.267,00

MEDICIONES

ABASTECIMIENTO A VARIOS MUNICIPIOS DE LA RIOJA. SISTEMA CIDACOS

CÓDIGO	RESUMEN	UDS	LONGITUD	ANCHURA	ALTURA	PARCIALES	CANTIDAD
	Arqueta entrada	1	2,20	1,60		3,52	
							369,00
SUBPARTADO 02.01.14.2 CERRAMIENTO							
002	M3 EXCAVACIÓN EN ZANJAS						
	Excavación en zanjas y zonas localizadas, en todo tipo de terrenos incluido terrenos en roca con medios mecánicos, incluso rasanteo, nivelación de la superficie de apoyo y transporte a lugar de empleo o vertedero.						
	Cimentación	1	753,00	0,40	0,40	120,48	
							120,48
028	M3 HORMIGÓN DE LIMIPEZA HL-150						
	Hormigón de limpieza HL-150, de consistencia plástica, árido de tamaño máximo 40 mm y cemento CEM-II-D/42,5/SR, para saneos y encachados, incluyendo fabricación y transporte totalmente colocado.						
	Cimentación	1	753,00	0,40	0,10	30,12	
							30,12
031	M3 HORMIGÓN HA-25/B/20/IIa						
	Hormigón HA-25/B/20/IIa, con cemento CEM II/A-D/42,5/SR, incluyendo fabricación, transporte, puesta en obra y vibrado, totalmente ejecutado, incluso curado y juntas.						
	Cimentación	1	753,00	0,40	0,30	90,36	
							90,36
023	KG ACERO CORRUGADO B-500-S						
	Acero redondo corrugado para armar tipo B-500-S elaborado y colocado.						
	Cimentación	1	753,00	4,02		3.027,06	
							3.027,06
452C	ML CERRAMIENTO MALLA GALVANIZADA Y PLASTIFICADA EN VERDE DE 2,00 m						
	Cerramiento de malla metálica galvanizada plastificada en verde de 2,0 m. de altura, incluso p.p. de puerta de entrada peatonal con cerradura, p.p. de postes de acero galvanizado también plastificados en verde, colocados cada 3,0 m sobre cimentación de hormigón (no incluida), incluso p.p. jabalco-nes, esquinas, tensores, anclajes y resto de accesorios. Colocada y totalmente terminada.						
		1	753,00			753,00	
							753,00
452E	UD PUERTA DE ACCESO A ETAP DE 5,0 M						
	Puerta de acceso a planta de 5 m de longitud por 2,0 m de altura de apertura manual, construida en perfilera tubular de acero laminado S-275 JR movimiento longitudinal sobre ruedas de carril, zócalo fijo de chapa de 0,75 m de altura, y puerta peatonal de apertura manual, i/obra civil necesaria. Medi-da la unidad terminada y funcionando.						
		1				1,00	
							1,00
SUBPARTADO 02.01.14.3 TRATAMIENTO ZONAS VERDES							
400	M2 SEMBRADO DE TALUDES EN ZONAS DE VARIACIÓN DE NIVEL						
	Sembrado de taludes en zonas de variación de nivel y reposición de cubierta vegetal.						
	Zonas verdes	1	1.665,00			1.665,00	
	REpsoción de taludes	1	1.420,00			1.420,00	
							3.085,00
SUBPARTADO 02.01.14.4 REDES DE AGUA DE SERVICIO Y RIEGO							
459.1	UD BOCA DE RIEGO						
	Boca de riego de cierre elástico de 40 mm de diámetro nominal y 10 atm de PN con arqueta cuero y tapa de fundición gris (GG-25), tapa de fundición nodular (GGG-50) y cierre E.P.D.M. y revesti-miento con doble capa de pintura epoxi conexionada a red, totalmente colocada.						
		15				15,00	
							15,00

MEDICIONES

ABASTECIMIENTO A VARIOS MUNICIPIOS DE LA RIOJA. SISTEMA CIDACOS

CÓDIGO	RESUMEN	UDS	LONGITUD	ANCHURA	ALTURA	PARCIALES	CANTIDAD
174	ML TUBERÍA PEAD DN=63 mm PN 16						
	Tubería de polietileno de alta densidad de 63 mm de diámetro exterior y PN=16 bar, colocada en zanja incluso banda de señalización, p.p. de junta de unión colocada, codos, tes, portabridas, así co-mo piezas especiales y medios auxiliares, totalmente colocada.						
		1	300,00			300,00	
							300,00
002	M3 EXCAVACIÓN EN ZANJAS						
	Excavación en zanjas y zonas localizadas, en todo tipo de terrenos incluido terrenos en roca con medios mecánicos, incluso rasanteo, nivelación de la superficie de apoyo y transporte a lugar de empleo o vertedero.						
		1	300,00	0,60	1,50	270,00	
							270,00
010	M3 RELLENO ZANJAS, CIMIENTOS Y TRASDOSES DE MATERIAL SELECCIONADO						
	Relleno con material seleccionado en zanjas, cimientos, trasdós de muros, estribos y otras estructu-ras procedente de la excavación o préstamos incluso carga, transporte y compactación.						
		1	270,00			270,00	
		-1	60,00			-60,00	
							210,00
011	M3 RELLENO DE ARENA						
	Arena para apoyo y protección de tuberías incluso carga, transporte, colocación, compactación y ni-velación.						
		1	300,00	0,50	0,40	60,00	
							60,00
SUBPARTADO 02.01.14.5 REDES DE SANEAMIENTO Y PLUVILES							
460	UD ARQUETA DE RECOGIDA DE 40x40x40						
	Arqueta de recogida de 40x40x40, colocada.						
	Pluviales	15				15,00	
	Saneamiento	4				4,00	
							19,00
460B	UD SUMIDERO DE FUNDICIÓN 445X375 MM						
	Sumidero sifónico en calzada, de hormigón prefabricado HNE-20/P/20/IIb, con rejilla de fundición re-forzada de 445x375 cm., sobre solera de hormigón, conexionado a colector mediante tubería de PVC 160 mm de diámetro SN-8 J.E. totalmente colocada.						
		22				22,00	
		10				10,00	
							32,00
373	UD POZO DE REGISTRO DE AROS DE HORMIGÓN DN1200						
	Pozo de registro de abastecimiento para válvulas de control de cualquier altura de diámetro interior D=1200 mm, incluso base de hormigón HNE-20, aros de hormigón, cono prefabricado de hormigón, pates y tapa de fundición, totalmente terminado.						
	Pluviales	11				11,00	
	Saneamiento	3				3,00	
							14,00
195	ML TUBERÍA DE PVC 250 mm						
	Tubería de PVC con junta elástica de 250 mm de diámetro exterior y PN=6 bar, incluso banda de señalización, totalmente colocada en zanja.						
	Pluviales	1	170,00			170,00	
	Saneamiento	1	104,00			104,00	
							274,00
196	ML TUBERÍA DE PVC 200 mm						
	Tubería de PVC con junta elástica de 200 mm de diámetro exterior, y PN=6 bar, incluso banda de señalización, totalmente colocada en zanja.						
	Pluviales	1	200,00			200,00	
	Saneamiento	1	46,00			46,00	

MEDICIONES

ABASTECIMIENTO A VARIOS MUNICIPIOS DE LA RIOJA. SISTEMA CIDACOS

CÓDIGO	RESUMEN	UDS	LONGITUD	ANCHURA	ALTURA	PARCIALES	CANTIDAD
							246,00
196B	ML TUBERÍA DE PVC DP SN-8, PARA SANEAMIENTO DE 315 MM Tubería de PVC de doble pared SN8 para saneamiento de 315 mm de diámetro exterior, con junta elástica, totalmente colocada en zanja. Pluviales	1	30,00			30,00	30,00
							30,00
196C	ML TUBERÍA DE PVC DP SN-8, PARA SANEAMIENTO DE 400 MM Tubería de PVC de doble pared SN8 para saneamiento de 400 mm de diámetro exterior, con junta elástica, totalmente colocada en zanja. Pluviales	1	40,00			40,00	40,00
		1	30,00			30,00	30,00
	Saneamiento	1				1,00	1,00
							71,00
002	M3 EXCAVACIÓN EN ZANJAS Excavación en zanjas y zonas localizadas, en todo tipo de terrenos incluido terrenos en roca con medios mecánicos, incluso rasanteo, nivelación de la superficie de apoyo y transporte a lugar de empleo o vertedero.	1	233,00	0,60	1,50	209,70	209,70
							209,70
010	M3 RELLENO ZANJAS, CIMIENTOS Y TRASDOSES DE MATERIAL SELECCIONADO Relleno con material seleccionado en zanjas, cimientos, trasdós de muros, estribos y otras estructuras procedente de la excavación o préstamos incluso carga, transporte y compactación.	1	209,70			209,70	209,70
		-1	46,60			-46,60	-46,60
							163,10
011	M3 RELLENO DE ARENA Arena para apoyo y protección de tuberías incluso carga, transporte, colocación, compactación y nivelación.	1	233,00	0,50	0,40	46,60	46,60
							46,60
460BC	UD CANALETA TIPO ACO-DRAIN Canaleta tipo Aco-drain de hormigón polimérico o equivalente con rejilla de acero galvanizado de 10 cm de ancho, completamente colocada. Entrada	1	5,00			5,00	5,00
	Varios	2	5,00			10,00	10,00
							15,00
APARTADO 02.01.15 ARQUETA DE REPARTO A FILTROS DE ARENA							
002	M3 EXCAVACIÓN EN ZANJAS Excavación en zanjas y zonas localizadas, en todo tipo de terrenos incluido terrenos en roca con medios mecánicos, incluso rasanteo, nivelación de la superficie de apoyo y transporte a lugar de empleo o vertedero.	1	5,20	4,10	2,40	51,17	51,17
							51,17
010	M3 RELLENO ZANJAS, CIMIENTOS Y TRASDOSES DE MATERIAL SELECCIONADO Relleno con material seleccionado en zanjas, cimientos, trasdós de muros, estribos y otras estructuras procedente de la excavación o préstamos incluso carga, transporte y compactación.	1	51,17			51,17	51,17
		-1	4,20	3,10	2,40	-31,25	-31,25
							19,92
028	M3 HORMIGÓN DE LIMPEZA HL-150 Hormigón de limpieza HL-150, de consistencia plástica, árido de tamaño máximo 40 mm y cemento CEM-II-D/42,5/SR, para saneos y encachados, incluyendo fabricación y transporte totalmente colocado.	1	4,20	3,10	0,10	1,30	1,30

MEDICIONES

ABASTECIMIENTO A VARIOS MUNICIPIOS DE LA RIOJA. SISTEMA CIDACOS

CÓDIGO	RESUMEN	UDS	LONGITUD	ANCHURA	ALTURA	PARCIALES	CANTIDAD
							1,30
032.1	M3 HORMIGÓN HA-30/P/30/IV Hormigón armado HA-30/B/30/IV, con una dosificación de hormigón de 325 kg/m3 de cemento, consistencia plástica, elaborado en central para estructuras, incluso bombeado y medios manuales, vibrado y colocado. Solera	1	4,20	3,10	0,40	5,21	5,21
	Muros	2	4,20	0,30	2,60	6,55	6,55
		2	2,50	0,30	2,60	3,90	3,90
		1	1,50	0,30	2,60	1,17	1,17
	Vertederos	2	1,65	0,30	1,63	1,61	13,23
							18,44
025	M2 ENCOFRADO RECTO EN PARAMENTOS OCULTOS Encofrado recto en paramentos ocultos, incluso colocación, fijación y desencofrado. Solera	2	4,20		0,40	3,36	3,36
		2	3,10		0,40	2,48	2,48
							5,84
026	M2 ENCOFRADO RECTO EN PARAMENTOS VISTOS 1C Encofrado recto en paramentos vistos a una cara, incluso colocación, fijación y desencofrado. Muros	2	4,20		2,60	21,84	21,84
		4	2,50		2,60	26,00	26,00
		2	1,50		2,60	7,80	7,80
		1		0,30	2,60	0,78	0,78
	Vertederos	4	1,65		1,63	10,76	10,76
							67,18
023	KG ACERO CORRUGADO B-500-S Acero redondo corrugado para armar tipo B-500-S elaborado y colocado. Solera	1	5,21	75,00		390,75	390,75
	Muros	1	13,23	90,00		1.190,70	1.190,70
	Solapes y despuntes (5%)	0,05	1.581,45			79,07	79,07
							1.660,52
052	ML JUNTAS DE ESTANQUEIDAD DE PVC 32 CM Junta de trabajo interior de policloruro de vinilo (PVC) 100% virgen, con una fuerza máxima de dilatación > 250 %, de 32 cm de ancho, MASTERFLEX 2000 TI-24 de BASF o equivalente, colocada simétricamente en el eje de la losa o muro, incluso solapes y piezas especiales para cruces o ángulos. Medida la longitud ejecutada. 2	2	4,20			8,40	8,40
		2	3,10			6,20	6,20
							14,60
E0A060	UD TRAMEX. ENTRAMADO METÁLICO 30X30X3 Entramado metálico 30x30x3 tipo tramex o equivalente, incluso estructura auxiliar y suministro con parte proporcional de cerco también galvanizado, montaje, recibido y pintado. 1	1	3,70	2,65		9,81	9,81
							9,81
APARTADO 02.01.16 MOBILIARIO, LABORATORIO Y TALLER							
SUBAPARTADO 02.06.01 MOBILIARIO EDIFICIO CONTROL							
ELEMENTO 02.06.01.1 SALA DE CONFERENCIAS							
E00345	ud BUTACA TAP.TELA APOYABR.MAD.C/PALA ABAT. Butaca tapizada con interior metálico instalada con pie central, y constituida con apoyabrazos de madera maciza de haya, tablero contrachapado de haya en el respaldo, bloque de asiento en espuma de poliuretano fundido en frío autobextinguible M-4, abatible automático tapizado con tela ignífuga M-1 al igual que el barnizado. 30	30				30,000	30,000
							30,00

MEDICIONES

ABASTECIMIENTO A VARIOS MUNICIPIOS DE LA RIOJA. SISTEMA CIDACOS

CÓDIGO	RESUMEN	UDS	LONGITUD	ANCHURA	ALTURA	PARCIALES	CANTIDAD
E01940	ud PUESTO TRABAJO RECTANGULAR 1800X800 MM Ud. Puesto de trabajo formado por una mesa rectangular de 1800x800, con ala de 100x600. Con cajonera rodante formada por un cajón y archivo de 550h mm. Los sobres fabricados con tablero de partículas tricapa de espesor 19 mm., rematados con cantos rectos de PVC, fresados y redondeados. Estructura doble fabricada con tubo metálico. Los conjuntos permiten la electrificación horizontal y vertical. La cajonera tendrá los mismos acabados que el sobre de la mesa.	1				1,000	1,00
E00090	ud ARMARIO BALDAS 800x470 MM Ud. Conjunto de 2 armarios medios de 80x47 mm y 1250 de alto. Dotados de puertas batientes de vitrina y dos baldas en el interior. Fabricados en tablero melaminico con un espesor de 19 mm. Es-tantes regulables en altura.	1				1,000	1,00
E02130	ud SILLÓN Ud. Sillón, asiento y respaldo tapizados, con apoyabrazos regulables 3-D. Altura regulable, respaldo regulable en altura. Ajuste sincronizado, regulación dureza del respaldo. Ajuste de la profundidad del asiento.	1				1,000	1,00
ELEMENTO 02.06.01.2 DESPACHOS							
E01940	ud PUESTO TRABAJO RECTANGULAR 1800X800 MM Ud. Puesto de trabajo formado por una mesa rectangular de 1800x800, con ala de 100x600. Con cajonera rodante formada por un cajón y archivo de 550h mm. Los sobres fabricados con tablero de partículas tricapa de espesor 19 mm., rematados con cantos rectos de PVC, fresados y redondeados. Estructura doble fabricada con tubo metálico. Los conjuntos permiten la electrificación horizontal y vertical. La cajonera tendrá los mismos acabados que el sobre de la mesa.	7				7,000	9,00
	Despachos	7				7,000	
	Sala de reuniones	2				2,000	
E00090	ud ARMARIO BALDAS 800x470 MM Ud. Conjunto de 2 armarios medios de 80x47 mm y 1250 de alto. Dotados de puertas batientes de vitrina y dos baldas en el interior. Fabricados en tablero melaminico con un espesor de 19 mm. Es-tantes regulables en altura.	8				8,000	8,00
E02130	ud SILLÓN Ud. Sillón, asiento y respaldo tapizados, con apoyabrazos regulables 3-D. Altura regulable, respaldo regulable en altura. Ajuste sincronizado, regulación dureza del respaldo. Ajuste de la profundidad del asiento.	6				6,000	6,00
E02125	ud SILLA CONFIDENTE Ud. Silla apilable con o sin brazos, estructura de tubo de acero pulido de 20x2 mm pintado en epi-xi-poliéster o cromado, brazos de poliamida-6 reforzada con fibra de vidrio, asiento y respaldo de poli-propileno sin tapizar.	30				30,000	30,00
E01620	ud PAPELERA Ud. Papelera metálica de forma cúbica pintada, con la parte superior y la inferior recubierta de goma.	8				8,000	8,00
E01703	ud PERCHERO Ud. Perchero metálico de pie, pintado, con 8 colgadores.	4				4,000	

MEDICIONES

ABASTECIMIENTO A VARIOS MUNICIPIOS DE LA RIOJA. SISTEMA CIDACOS

CÓDIGO	RESUMEN	UDS	LONGITUD	ANCHURA	ALTURA	PARCIALES	CANTIDAD
E01625	ud PARAGÜERO METÁLICO D-210 Paragüero metálico forrado en vinilo liso de color negro de 210 mm. de diámetro	6				6,000	4,00
E01941	ud MESA REUNIÓN CIRCULAR 900 MM Ud. Mesa de reunión circular de 900 mm de diámetro, fabricada con tablero de partículas tricapa de espesor 19 mm., rematados con cantos rectos de PVC, fresados y redondeados. Estructura doble fabricada con tubo metálico.	7				7,000	9,00
	Despachos	7				7,000	
	Sala de reuniones	2				2,000	
ELEMENTO 02.06.01.3 SALAS DE ESPERA							
E01535	ud MESA RINCÓN Ud. Mesas de rincón. Medidas 60x60 cm. Estructura en acero. Tapa de DM rechapado en madera.	2				2,000	2,00
E00350	ud BUTACA TELA 720x760x770 NS Butaca de una placa tapizado en tela, nivel superior de acabado, de 720x760x770 mm.	3				3,000	3,00
E01625	ud PARAGÜERO METÁLICO D-210 Paragüero metálico forrado en vinilo liso de color negro de 210 mm. de diámetro	2				2,000	2,00
E02135	ud SOFÁ 2 PLAZAS TELA C/BRAZOS Sofá de dos plazas de diseño anatómico con brazos, armazón de poliuretano flexible inyectado, laterales de aluminio pulido y patas de tubo de acero pintado epoxy tapizado en tela, de 805x1200x700 mm.	1				1,000	1,00
SUBAPARTADO 02.06.02 LABORATORIO							
ELEMENTO 02.06.02.1 MOBILIARIO							
E00065.1	ML MESA MURAL DE ALTURA 900 Y 750 MM DE PROFUNDIDAD Mesa mural de altura 900 mm y 750 mm de profundidad, para armarios con zócalo, con tablero Tres-pa Toplab Plus (o de calidad superior) de 20 mm de espesor.	1	4,000			4,000	16,00
	Sala	1	4,000			4,000	
	Laboratorio	1	12,000			12,000	
E00065.5	ML MESA MURAL DE ALTURA 900 Y 1200 MM DE PROFUNDIDAD. GRES Metros lineales de mesa mural de altura 900 mm y 750 mm de profundidad, para armarios con zóca-lo, con tablero de gres sin reborde de 20 mm de espesor.	1	4,000			4,000	4,00
E00065.2	UD ARMARIO INFERIOR CON ZÓCALO DE 600X550X870 MM Armario inferior con zócalo de 600x550x870 mm con cajón superior y 2 puertas abatibles con balda intermedia.	3				3,000	3,00
E00065.3	UD ARMARIO COLGADO DEL SISTEMA DE SERVICIOS DE 600X350X760 MM Armario colgado del sistema de servicios de 600x350x760 mm con 1 puerta abatible parcialmente acristalada.	4				4,000	

MEDICIONES

ABASTECIMIENTO A VARIOS MUNICIPIOS DE LA RIOJA. SISTEMA CIDACOS

CÓDIGO	RESUMEN	UDS	LONGITUD	ANCHURA	ALTURA	PARCIALES	CANTIDAD
							4,00
E00065.4	UD TABURETE DE LABORATORIO Taburete de laboratorio.	6				6,000	6,00
E00065.6	UD FREGADERO MURAL DE GRES CON 1 SENO Y ESCURRIDOR Fregadero mural de gres con 1 seno y escurridor (fregadero a la derecha) de 1200 mm de longitud y 750 mm de profundidad, con grifo monomando mezclador, lavajos de emergencia. Con armario inferior de 1200mm y capacidad para 2 cubos de 15L para recogida de residuos. Con antisalpicaduras sólo lateral derecho y trasero.	3				3,000	3,00
E00065.7	UD CERRAMIENTO DE SOBREMESA (CAPOTAJE) DE 1800X900X1450 MM Cerramiento de sobremesa (capotaje) de 1800x900x1450 mm, con estructura metálica. Puertas correderas delanteras con cristal de seguridad ESG. Con extractor de polipropileno y conectado al conducto de extracción existente. Preinstalación en techo del cerramiento para extracción de dos equipos de microondas.	1				1,000	1,00
E00065.8	UD VITRINA DE GASES DE 1800X900X2700 MM Vitrina de gases de 1800x900x2700 mm para trabajos con ácidos a altas temperatura según EN-14175/7. Con tablero y revestimiento interior de gres técnico. Con servicios en el frontal inferior.	1				1,000	1,00
E00065.9	UD ARMARIO INFERIOR PARA ÁCIDOS Y BASES DE 900X550X640 MM. Armario inferior para ácidos y bases de 900x550x640 mm. Con extractor de polipropileno y conectado al conducto de extracción existente.	3				3,000	3,00
E00065.10	UD EXTRACTOR DE POLIPROPILENO Extractor de polipropileno con conexión al conducto de extracción existente.	3				3,000	3,00
E00065.11	ML TUBOS DE EXTRACCIÓN DE AUTOMUESTREADORES Y ARMARIOS DE RESIDUOS Tubos de extracción de automuestreadores y armarios de residuos independientes instalada por la parte trasera de la mesa y por debajo del tablero. Conexión en pared.	1	3,000			3,000	3,00
ELEMENTO 02.06.02.2 EQUIPAMIENTO							
E00340	UD BOTIQUÍN PRIMEROS AUXILIOS 460x380x130mm Botiquín de primeros auxilios de pared fabricado en chapa de de acero esmaltado, con llave. Dotación incluida: 1 botella de 250 ml de alcohol, 1 botella de 250 ml de agua oxigenada, 1 paquete de algodón de 25 gr, 2 sobres de gasa estéril de 20x20 cm, 1 tijera de de 13 cm , 1 pinza de plástico de 13 cm, 1 caja de tiritas de 10 unidades en diversas medidas, 1 rollo de espaldrapo de 5m x 1,5cm, 2 guantes de latex, 2 vendas de malla de 5m x 10cm, 1 venda de malla de 5m x 10cm, 1 manual de primeros auxilios, de 460x380x 10 cm.	1				1,000	1,00

MEDICIONES

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CÓDIGO	RESUMEN	UDS	LONGITUD	ANCHURA	ALTURA	PARCIALES	CANTIDAD
E00341	UD pH metro/mV metro/termómetro portátil pH metro/mV metro/termómetro portátil de las siguientes características: Instrumento electrónico, digital y portátil. Los caracteres de diseño son: Total impermeabilidad IP-67 hasta 1 m de profundidad. Fabricado en material ABS resistente y ligero. Gran estabilidad en superficies. Como caracteres técnicos destacan: Rango de medición: 0-14 pH/± 399 mV/± 1999 mV/0-100°C. Capacidad de memorización y recuperación de valores de mV y pH. El equipo se presenta con un estuche de transporte que le permite una fácil medición, así como la calibración "in situ". Incluye las siguientes soluciones de calibración: Solución de pH 4,01 (460 cc). Solución de pH 4,01 (25 x 20 ml). Solución de pH 7,01 (460 cc). Solución de pH 10,01 (460 cc). Solución de pH 9,18 (460 cc). Solución de almacenamiento (460 cc). Solución de relleno (4 x 50 ml. Solución electrolito 3,5 M KCl + AgCl). Solución de limpieza para usos generales (460 cc). Solución certificada de pH 4,01 (460 cc). Solución certificada de pH 7,01 (460 cc). Solución certificada de pH 10,01 (460 cc). Solución de pH 7,01 (25 x 20 ml).	1				1,000	1,00
E00342	Ud Oxímetro portátil de las siguientes Medidor de oxígeno disuelto portátil de las siguientes características: Instrumento electrónico y portátil para la medición de la concentración de oxígeno disuelto en agua. Visualización: LCD (Display de cristal líquido) con botón para sobreiluminación. - Medición simultánea de oxígeno (mgr/l. ó % de saturación) y temperatura. - Rango de medición: 0.20 mgr/l. 0-200 % aire saturado. -5 a +45°C. - Resolución: 0,01 mgr/l. 0,1 % . 0,1°C. - Compensación automática de temperatura. - Compensación por presión y salinidad por introducción de los datos. - Cámara de calibración interna para la calibración en campo, transporte y almacenamiento. - Sonda de acero inoxidable. - Cable de 3 metros. de longitud. - Alimentación: 6 pilas tamaño AA para aprox. 100 horas.	1				1,000	1,00
E00343	Ud Estufa de desecación y esterilización Estufa para desecación y esterilización de las siguientes características: Convección natural de aire. Para temperaturas regulables de: 40°C a 250°C. Construidas conforme a normas DIN 12.880. Prueba térmica conforme a normas DIN 50.001. Sistema eléctrico, protección IP-20, según normas DIN 40.050. Homogeneidad de la temperatura: ±1,5%. Estabilidad de la temperatura: ±0,5%. Fabricado según normas comunitarias sobre seguridad. Marcado con el distintivo CE. CARACTERÍSTICAS: Caja interior y cotrapuerta en acero inox. AISI-304 (DIN 1.4301). Mueble exterior metálico pintado al horno con resina epoxi. Junta elástica de silicona en la puerta. Bandejas perforadas en acero inox. AISI-304, ajustables en altura, con dispositivo que permite retirarlas sin que vuelquen. Puerta exterior metálica pintada al horno. Dispositivo de aireación/salida gases, regulable. Calefacción por resistencias eléctricas de gran superficie, distribuidas alrededor de la caja. PANEL DE MANDOS: Interruptor general. Termostato hidráulico regulador de la temperatura con escala graduada en °C. Termómetro analógico de esfera, lector de la temperatura. Piloto de señalización de calefacción. Capacidad: 42 litros. Medidas interiores en cm: (400 x 350 x 300) (alto x ancho x fondo). Medidas exteriores en cm: (710 x 500 x 460) (alto x ancho x fondo). Potencia: 900 W. Peso: 38 kg. Se suministra con dos bandejas perforadas en acero inoxidable.	1				1,000	1,00
E00344	Ud Horno de mufla Horno de mufla de las siguientes características: Equipo con cámara refractario de baja densidad. Temperatura máxima: 1.200°C. Regulación de temperatura: automática con indicador analógico, o si se solicita bajo demanda, indicador digital. Dimensione útiles: 160 x 200 x 230) (alto x ancho x fondo) (mm). Dimensiones exteriores: (490 x 430 x 450) (alto x ancho x fondo) (mm). Potencia: 3.800 W. Tensión: 220. Peso: 41 Kg.	1				1,000	1,00
E00346	Ud Balanza diezmilésimal Balanza diezmilésimal de las siguientes características: Capacidad de rango de Tara (g): 220. Tamaño del plato en (mm): 80 DN. Reproductividad (±): 0,0001 g. Linealidad (±): 0,0003 g. Pesa de calibración (g): 200. Equipamiento incluido: Interface Rs-232. Ganchos para pesada inferior. Alimentador. Conector para batería recargable.	1				1,000	1,00

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ABASTECIMIENTO A VARIOS MUNICIPIOS DE LA RIOJA. SISTEMA CIDACOS

CÓDIGO	RESUMEN	UDS	LONGITUD	ANCHURA	ALTURA	PARCIALES	CANTIDAD
E00347	Ud Turbidímetro portátil microprocesado Turbidímetro portátil microprocesado de las siguientes características: Medidor portátil, para determinar la turbidez en aguas potables y residuales. Con un rango de 0 a 1000 NTU y dos escalas de medición, de 0.00 a 50.00 NTU y de 50 a 1000 NTU, ha sido diseñado de acuerdo con el Standard Internacional ISO 7027. El equipo selecciona automáticamente el rango apropiado, de acuerdo con la turbidez de la muestra. Su funcionamiento está basado en un rayo de luz infrarrojo que atraviesa la cubeta. El sensor, colocado a 90° con respecto a la dirección de la luz, detecta la cantidad de luz dispersada por las partículas en suspensión de la muestra, la cual es transformada en valores NTU por el microprocesador. Su carcasa pesa menos de 400 gramos, aviso de pila baja, auto-apagado. La duración de la fuente de luz del Diodo de Emisión es indefinida, garantizando así el funcionamiento del equipo. Se suministra con dos cubetas de cristal, una tapa de cubeta para transporte, pila de 9 V. e instrucciones. Rango: 0.00 a 50.000 NTU; 50 a 1.000 NTU. Resolución: 0.01 y 1 NTU. Precisión: ±5% de la lectura (0 a 50 NTU); ±10% de la lectura (50 a 1.000 NTU). Fuente de luz: LED de infrarrojos. Duración de la fuente: Vida del instrumento. Detector de luz: Fotocélula de silicón. Pilas: 4 x 1.5 V. Duración de las pilas: 60 horas ó 3.000 lecturas. Auto apagado: Transcurridos 4 minutos. Condiciones de trabajo: 0 a 50°C/0 a 95% HR. Dimensiones: 220 x 83 x 46 mm. Peso: 350 g.	1				1,000	1,00
E00349	Ud Placa calefactora Placa calefactora de 20 x 40 cm.	1				1,000	1,00
E003410	Ud Floculador de 6 brazos Floculador de 6 brazos con iluminación posterior, de las siguientes características: Equipos diseñado para efectuar pruebas de floculación y ensayos afines. Velocidad de giro de los ejes constante durante todo el ensayo. Iluminación inferior con luz blanca fluorescente. Chasis metálico recubierto de una capa de pintura plástica al horno. Varillas agitadoras de acero inoxidable. Equipo con interruptor, fusible y piloto generales, interruptor y piloto de iluminación, mando regulador de la velocidad, mando de ajuste y velocidad mínima VARI-O-MIM, temporizador regulable de 60 minutos y tacómetro digital. CARACTERISTICAS TECNICAS: Alimentación: 220 V.a.c., 50 Hz. Consumo: 30 W. Regulación velocidad: Electrónica digital. Velocidad de agitación: Desde muy lento a 250 r.p.m. Separación entre ejes: 140 mm. Diámetro pala agitadora: 60 mm. Altura útil: 220 mm. Altura de pala de agitación: 10 mm. Dimensiones: 380 cm alto x 900 cm ancho x 190 cm fondo. Peso: 12 Kg.	1				1,000	1,00
E003411	Ud Material fungible. Material fungible. El lote de MATERIAL FUNGIBLE elaborado para un laboratorio de las dimensiones mencionadas está compuesto por: 3 vasos precipitados PYRES de 1.000 ml. 2 vasos precipitados PYRES de 500 ml. 3 vasos precipitados PYRES de 250 ml. 3 vasos precipitados PYRES de 75 ml. 1 probeta de vidrio de 1.000 ml. 2 probetas de vidrio de 500 ml. 2 probetas de vidrio de 250 ml. 3 probetas de vidrio de 100 ml. 6 matraces Erlenmeyer de 250 ml. 4 buretas de 25 ml. 2 soportes para buretas. 2 pinzas para buretas. 4 pipetas graduadas de 0-1,0 ml. 4 pipetas graduadas de 0-2,0 ml. 4 pipetas graduadas de 0-5,0 ml. 4 pipetas graduadas de 0-10,0 ml. 1 soporte para pipetas. 1 termómetro 0-120°C. 1 cuchara-espátula. 1 reloj avisador. 3 vidrios de reloj. 1 micropipeta. 2 conos Inhoff. 1 soporte para conos Inhoff. 1 pinzas para filtros.	1				1,000	1,00
E003412	Ud Frigorífico: 240 l frigorífico. 65 l congelador Frigorífico: 240 l frigorífico. 65 l congelador.	1				1,000	1,00

MEDICIONES

ABASTECIMIENTO A VARIOS MUNICIPIOS DE LA RIOJA. SISTEMA CIDACOS

CÓDIGO	RESUMEN	UDS	LONGITUD	ANCHURA	ALTURA	PARCIALES	CANTIDAD
E003413	Ud Centrífuga ventilada Centrífuga ventilada de las siguientes características: PANEL DE MANDOS compuesto por: Interruptor. Reloj desconector con posibilidad de temporizador hasta 60 min. o para trabajos en continuo. Variador de velocidad. Pulsador indicador de apertura de tapa. Lámpara de señalización de red. Taquímetro eléctrico indicador de velocidad. CARACTERISTICAS TECNICAS: Volumen máximo: 300 ml. Capacidad máx: del tubo: 50 ml. Medidas exteriores: 29 x 39 x 44 (alto x ancho x fondo). Consumo: 190 W. Peso: 19 Kg. Incluye: Cabezal angular para 300 ml de capacidad máxima, mediante 6 tubos 5 de 50 ml cada uno.	1				1,000	1,00
E003414	Ud Conductímetro digital Conductímetro portátil de las siguientes características: Aparato portátil, electrónico para la medición de conductividad en líquidos. Las características principales del mismo son: Rango de medición : 0,0 ÷ 199,9 µS/cm ; 0 ÷ 1999 µS/cm ; 0,00 ÷ 19,99 mS/cm ; 0,0 ÷ 199,9 mS/cm. Calibración: en un punto. Compensación de la temperatura : Automática de +10 a +40°C. Alimentación: Pila de 9 V. Adaptador para suministro de 12 VDC. Se suministra con sonda de conductividad HI 76302 con 1 m de cable y maletín de transporte. Incluyendo las siguientes soluciones de calibración: Solución de conductividad de 1.413 µS (460 cc). Solución de conductividad de 12.880 µS (460 cc). Solución de conductividad de 111.800 µS (460 cc). Solución de conductividad de 80.000 µS (460 cc). Solución de conductividad de 80.000 µS (230 cc). Solución de conductividad de 84 µS (460 cc).	1				1,000	1,00
E003415	Ud Microscopio óptico Microscopio óptico.	1				1,000	1,00
E003416	Ud Equipo de filtración por vacío Equipo de filtración por vacío.	1				1,000	1,00
E003417	Ud Destilador de agua Destilador de agua.	1				1,000	1,00
EDLAV001	UD DUCHA LAVAOJOS Estructura construida en caño de acero galvanizado revestido con pintura epoxi color amarillo. Campana de ducha de diámetro 220 mm construida en acero inoxidable tipo diluvio, con baffle aliviador que produce una campana de agua de diámetro 500 mm. Lavaojos construido con bacha de acero inoxidable de diámetro 250 mm con tapa plástica rebatible automáticamente y rociadores de bronce cromados que producen espuma con efecto de lavaojos y lavacara posee paso calibrado regulador de presión y caudal y capuchones automáticos antipolvo. Accionamiento de la ducha por palanca manual de acero inoxidable con indicador e instructivo de alto impacto y válvula esférica de bronce. Accionamiento del lavaojos por pedal de plástico y palanca manual de acero inoxidable con instructivo e indicador y válvula esférica de bronce. Acometida de agua potable, sumidero de vaciado y conexión a la red de escurridos. Totalmente instalada.	1				1,000	1,00
SUBAPARTADO 02.06.03 TALLER							
2700100	Ud Conjunto de estanterías Estantería metálica desmontable de baldas regulables de las siguientes características: Dimensiones: 2,50 x 2,00 x 0,60 m.						2,00
2700101	Ud Banco de madera Banco de madera de 3.00 x 0.75 m, sujeto con perfiles metálicos.						1,00

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CÓDIGO	RESUMEN	UDS	LONGITUD	ANCHURA	ALTURA	PARCIALES	CANTIDAD
2700124	Ud Tornillo de banco Tornillo de banco con abertura máxima de 150 mm.						1,00
2700103	Ud Taladro portátil Taladro portátil. Capacidad del portabrocas: hasta 12 mm. Con juego de brocas de 1 a 13 mm en acero al carbono.						1,00
2700105	Ud Caja herramientas mecánica Caja de herramientas mecánicas tipo arquilla. Marca: HECO-103. Incluyendo: 1 juego de llaves planas fijas (6/7 ÷ 20/22), 4 llaves inglesas de 18", 12", 15" y 6", 1 juego de llaves boca - estrella acodadas (6/7 ÷ 20/22), 1 destornillador 8/200, 1 destornillador 4/100, 1 destornillador punta plana 6/175, 1 destornillador punta plana 5/150, 1 arco de sierra con 5 hojas de recambio, 1 lima plana de 12" grano basto, 1 lima plana de 8" entrefina, 1 lima de media caña de 10" grano basto, 1 lima triangular de 6" grano basto, 1 lima redonda con mango de 8 mm, 1 martillo de bola de 320 gr, 1 martillo de peña de 320 gr, 1 martillo de plástico de 34 mm, 2 granetes de 115 mm, 1 botador de punta de 4 mm, 1 compás de semicírculo hasta 500 mm, 1 tijera para cortar chapa, 1 cinta métrica de 2 m, 1 alicate universal de 8", 1 Alicate punta plana de 160 mm, 1 alicate de punta redonda de 65 mm, 1 corta alambre oblicuo de 20 cm, 1 lima redonda de 10", 1 cortafíos de 250 mm, 1 juego de llaves ALLEN de 2 ÷ 12 mm, 1 tenaza de carpintería de 250 mm, 1 nivel metálico de 300 mm, 1 escuadra metálica lisa de 250 mm, 1 llave pico largo a presión extensible de 8 x 10" y 1 juego de sacabocados de 6, 8 , 10, 12 y 14 mm.						1,00
2700102	Ud Panel portaherramientas. Panel portaherramientas.						1,00
2700106	Ud Caja de herramientas eléctricas Caja de herramientas eléctricas tipo arquilla. Marca HECO-103. Incluyendo : 1 destornillador buscapolos, 1 destornillador punta plana 8 x 200, 1 destornillador punta plana 4 x 100, 1 estuche destornilladores, 1 corta alambres oblicuo de 8", 1 juego de llaves fijas de 6 x 22, 1 juego de llaves ALLEN de 2 ÷ 12 mm, 1 llave inglesa de 6", 1 navaja de electricista, 1 pelacables de electricista, 2 rollos de cinta aislante, 1 alicate universal de 8", 1 multítester Steinel y 1 pinza amperimétrica.						1,00
2700107	Ud Extractor de 3 garras Extractor universal de acero forjado de 3 garras. Capacidad: 305 mm						3,00
2700110	Ud Elevador Tráctel Elevador Tráctel. Capacidad de elevación: 1.500 Kg. Capacidad de tracción: 2.500 Kg. Con 20 m de cable, gancho y palanca.						1,00
2700112	Ud Bomba de achique Bomba de achique portátil de las siguientes características. Marca: ABS o similar. Ejecución: sumergible. Caudal: 50 m3/h. Altura manométrica: 10 m.c.a. Potencia motor: 1,5 Kw.						1,00
2700114	Ud. Amoladora portátil Amoladora portátil. Potencia motor: 250 w.						1,00
2700117	Ud Taladro fijo Taladro fijo de las siguientes características. Capacidad: hasta brocas de 20 mm. Tensión: 220 V.						1,00
2700118	Ud Piedra de esmeril doble Piedra de esmeril doble, gruesa y fina, sobre un soporte de pie. Potencia motor: 0,55 Kw.						1,00

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CÓDIGO	RESUMEN	UDS	LONGITUD	ANCHURA	ALTURA	PARCIALES	CANTIDAD
2700119	Ud Cizalladora manual Cizalladora manual de palanca para cortar chapa de hasta 5 mm.						1,00
2700128	Ud Gato hidráulico. Gato hidráulico. 10 Ton. Recorrido: 150 mm.						2,00
2700122	Ud Llave dinamétrica. Llave dinamétrica.						1,00
2700121	Ud Radial Radial						2,00
2700125	Ud. Multímetro digital Multímetro digital, incluso pila, juego de fusibles, clavija y estuche.						1,00
2700134	Ud Manguera Menguer						1,00
2700135	Ud Pinza amperimétrica Pinza amperimétrica						1,00
2700136	Ud Telurómetro Telurómetro						1,00
SUBCAPÍTULO 02.02 EQUIPOS ELECTROMECÁNICOS ETAP							
APARTADO 02.02.01 MEDICIÓN AGUA ENTRADA Y BY-PASS							
ETI316900	ML TUBERÍA DE INOXIDABLE AISI 316L DN 900 Tubería de acero inoxidable de diámetro DN 900 mm. Construcción: Mediante soldadura. Espesor 8 mm. Material: Acero inoxidable AISI -316 L. Material accesorios acero inoxidable AISI - 316L. Acabado: Decapado. Incluso p.p. de uniones, piezas especiales, bridas, codos, tes, injertos para otras tuberías y p.p. de estructuras y elementos de anclajes a solera y/o muros. Montada y probada. By-pass 1 13,250 13,250 Tubería caudalímetro 1 12,500 12,500						25,75
EVMM0900	UD VÁLVULA DE MARIPOSA DOBLE EXCENRICIDAD DN 900 mm PN16 MANUAL Válvula de mariposa de doble excentricidad de 900 mm de diámetro y PN16, de accionamiento manual por reductor, incluso mecanismo de accionamiento, maniobra y control, transporte, montaje, juntas, tornillería y pintura totalmente instalada y probada. Resto de características según ET de proyecto. By-pass 1 1,00						1,00
ECD0900	UD CARRETE DE DESMONTAJE DN=900 mm PN16 Carrete telescópico de desmontaje DN900 PN 16, bridas de acero al carbono, virolas de acero inoxidable, protección epoxi, tornillos y tuercas en acero F-114, cincado y posterior baño de cromo-niquel, incluido p.p. de brida enchufe, totalmente instalado y probado en obra. Caudalímetro 2 2,00 By-pass 1 1,00						3,00
EVMMT900	UD VÁLVULA DE MARIPOSA DOBLE EXCENRICID. DN 900 mm PN16 MOTORIZADA Válvula de mariposa de doble excentricidad de 900 mm de diámetro y PN16, de accionamiento motorizado, incluso mecanismo de accionamiento, maniobra y control, transporte, montaje, juntas, tornillería y pintura totalmente instalada y probada. Resto de características según ET de proyecto.						

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ABASTECIMIENTO A VARIOS MUNICIPIOS DE LA RIOJA. SISTEMA CIDACOS

CÓDIGO	RESUMEN	UDS	LONGITUD	ANCHURA	ALTURA	PARCIALES	CANTIDAD
	Arqueta entrada	1	2,20	1,60		3,52	
							2,00
APARTADO 02.02.02 OZONIZACIÓN							
SUBAPARTADO 02.02.02.1 GENERACIÓN Y DESTRUCCIÓN DE OZONO							
EGEOZ01	UD GENERADOR DE OZONO DE 3,0 KG O2/H Equipo de ozonización con sistema de generación de ozono a partir de oxígeno, unidad de generación de ozono SMOevoplus 560 LOX de WEDECO -XYLEM o equivalente, para un caudal de entrada de 3.400 m3/h, y una producción de 3,0 kg O2/h de capacidad máxima, válvula reductora de presión, en acero inoxidable AISI-316TI en cámara de ozonización. Sensor fugas O3 Atmosférico (Seguridad). Cuadro local de control y mando. Pequeño material, manómetros, grifos, etc. Incluido transporte, montaje, conexiones eléctricas y de control, y pruebas de funcionamiento. Resto de características, según ET.						
		2				2,000	
							2,00
EGEOZ02	UD ANALIZADOR OZONO, CONTROL Y COMUNICACIONES Unidad para análisis, formada por 2 analizadores Ozono GAS-DC control HC-400 (1 por generador), 3 controles automático de caudal de O3 a PRE (1 por cámara), 6 controles manuales de caudal de O3 a PRE (2 por cámara), comunicación Profibus// Ethernet para todos, así como el sistema de telecontrol. Incluido transporte, montaje, conexiones eléctricas y de control, y pruebas de funcionamiento. Resto de características, según ET.						
		1				1,000	
							1,00
EGEOZ03	UD REFRIGERADOR CERRADO AGUA-AGUA Equipo de refrigeración cerrado de agua-agua. Presión de entrada 1-3,5 bar. pérdida de carga de 0,15 bar. pH: 6-8. Cloruros menos de 100 mg/l, turbidez 0 NTU. Incluido transporte, montaje, conexiones eléctricas y de control, y pruebas de funcionamiento. Resto de características, según ET.						
		2				2,000	
							2,00
EGEOZ04	UD SISTEMA MAIN PLC Sistema MAIN PLC. Control para la coordinación de todos los elementos adyacentes a los generadores de O3. Incluido transporte, montaje, conexiones eléctricas y de control, y pruebas de funcionamiento. Resto de características, según ET.						
		1				1,000	
							1,00
EGEOZ05	UD PROGRACIÓN, INGENIERIA DE DETALLE Y PUESTA EN MARCHA Ingeniería de detalle, programación de equipos de ozono, así como la puesta en marcha.						
		1				1,000	
							1,00
EGEOZ06	UD EQUIPAMIENTO DE ALARMA Equipamiento de alarma, formado por FH, siema, flash y display. Incluido transporte, montaje, conexiones eléctricas y de control, y pruebas de funcionamiento. Resto de características, según ET.						
		1				1,000	
							1,00
EGEOZ07	UD COMPRESOR DE GAS. 1,35 L/S. 10 BAR, P=0,55 Kw Compresor de aire para dopado de ozonización con secador de aire, modelo LFX 0,7 de ATLAS COPCO o equivalente, de 1,02 l/s. Potencia de 0,55 Kw. Tanque de 90 l. Incluso purga automática de compresor, parte proporcional de válvulas y manguitos de unión a líneas. Incluido transporte, montaje, conexiones eléctricas y de control, y pruebas de funcionamiento. Resto de características, según ET.						
		1				1,000	

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CÓDIGO	RESUMEN	UDS	LONGITUD	ANCHURA	ALTURA	PARCIALES	CANTIDAD
							1,00
EGEOZ08	UD SENSOR TEMPERATURA AIRE Sensor de temperatura en sala. Incluido transporte, montaje, conexiones eléctricas y de control, y pruebas de funcionamiento. Resto de características, según ET.						
		1				1,000	
							1,00
EDOZ001	UD DESTRUCTOR DE OZONO PRE_OZONIZACIÓN 30 Nm3/h Equipo destructor de ozono en pre_ozonización serie COD de WEDECO o equivalente, con un flujo de gas máximo de 30 Nm3/h, montada sobre bancada. Demistor de ozono y embalaje. Conexiones. Incluido transporte, montaje, conexiones eléctricas y de control, y pruebas de funcionamiento. Resto de características, según ET.						
		3				3,000	
							3,00
EDIFOZ01	UD DIFUSORES OZONO CERÁMICOS 120 MM SOBRE PARRILLAS AISI-3616L Difusores de ozono tipo 120 KT o equivalente, de 120 mm de diámetro, con disco cerámico y parte proporcional de parrilla de acero inoxidable 316 L, caudal de 0,20 a 2,0 Nm3/h, totalmente montados, incluso ayuda de albañilería. Incluido transporte, montaje, conexiones de control, y pruebas de funcionamiento. Resto de características, según ET						
		3	11,000			33,000	
							33,00
EVENT01	UD VENTILADOR HELICOIDAL:Q=3.650M3/H Ventilador extractor helicoidal mural marca: SODECA o equivalente. Caudal: 3.650 m3/h. Velocidad: 2.780 rpm. Nivel sonoro: 72 dB(A) . Materiales:marco soporte en chapa de acero, Hélice: poliámida 6 reforzada con fibra de vidrio, Accionamiento: motor electrico. Potencia: 0,18 KW. Accesorios: Rejilla de proteccion. Realización de hueco en muro de bloque, ayudas de albañilería, colocado y funcionando.Totalmente instalado.						
		1				1,000	
							1,00
SUBAPARTADO 02.02.02.2 CAMARA DE PREOZONIZACIÓN							
ECPSM900	UD PASAMUROS INOX AISI-316-L DN-900 mm Carrete pasamuros de acero inoxidable, con brida loca en un extremo y placa de estanqueidad, DN 900, longitud: 500 mm. Materiales:Carrete y placa de estanqueidad: AISI 316 L, brida: aluminio, totalmente instalado y probado en obra. Resto de características según ET.						
	Entrada	1				1,00	
	Salida	1				1,00	
							2,00
APARTADO 02.02.03 COAGULACIÓN-FLOCULACIÓN Y DECANTACIÓN LAMELAR							
SUBAPARTADO 02.02.03.1 CÁMARAS DE COAGULACIÓN Y FLOCULACIÓN							
EAGC001	UD AGITADOR DE MEZCLA RÁPIDA. COAGULACIÓN P=1,5 KW. L=1.700 MM Agitador de mezcla rápida. Marca: MILTON ROY O o equivalente. Modelo: HRGA-080/200/E1,5/A. Potencia motor: 1,5 kW. Velocidad salida: 108 rpm. Diámetro de hélice: 800 mm. Longitud del eje: 1.700 mm. Material eje y hélice: acero AISI-316L. Incluido placa de anclaje, transporte, montaje, conexiones eléctricas y de control, y pruebas de funcionamiento. Resto de características, según ET.						
		3				3,000	
							3,00
EAGFL01	UD AGITADOR DE MEZCLA LENTA. FLOCULACIÓN. P=0,55 KW. L=2.000 MM Agitador de mezcla lenta. Marca: MILTON ROY O o equivalente. Modelo: HR5A-200/350/E0,55/. Potencia motor: 0,55 kW. Velocidad salida: 16 rpm. Diámetro de hélice: 2.000 mm. Longitud del eje: 2.000 mm. Material eje y hélice: acero AISI-316L. Incluido placa de anclaje, transporte, montaje, conexiones eléctricas y de control, y pruebas de funcionamiento. Resto de características, según ET.						
		3				3,000	
							3,00

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CÓDIGO	RESUMEN	UDS	LONGITUD	ANCHURA	ALTURA	PARCIALES	CANTIDAD
ECPSM900	UD PASAMUROS INOX AISI-316-L DN-900 mm Carrete pasamuros de acero inoxidable, con brida loca en un extremo y placa de estanqueidad, DN 900, longitud: 500 mm. Materiales: Carrete y placa de estanqueidad: AISI 316 L, brida: aluminio, totalmente instalado y probado en obra. Resto de características según ET. Entrada canal de reparto	1				1,00	1,00
ECMMT01	UD COMPUERTA MURAL MOTORIZADA DE 500x500 MM. DE HUECO INOX316L Compuerta mural motorizada para hueco de 0,50 m de ancho y 0,50m de altura, con husillo de altura variable. Altura máxima agua según planos. Número de cierres 4. Espesor de chapa de 5 mm (mínimo). Número de husillos 1. Accionamiento motorizado, con rodamiento para absorber el esfuerzo axial. Materiales: Guías, marco, tablero y husillo de acero inoxidable AISI-316L. Incluso transporte, montaje, conexiones eléctricas y pruebas de funcionamiento. Resto de características según E.T. Entrada camaras	4				4,000	4,00
SUBPARTADO 02.02.03.2 DECANTACIÓN LAMELAR							
EMDLAM01	UD MECANISMO DECANTADOR LAMELAR CENTRAL DIÁMETRO 11 M. AISI 316L Mecanismo decantador de tracción central, a instalar en tanque de hormigón, de diámetro interior del tanque de hormigón de 12x12 m, bancada del motorreductor en acero al carbono S275 JR EN 10025., semimangón de acoplamiento en acero al carbono F-114. Eje central AISI-316, brazos inferiores soportarrasquetas y rasquetas de fangos en acero inoxidable AISI-316. Láminas barredoras en EPDM. Accionamiento directo mediante motorreductor eléctrico de 0,12 Kw. Incluye limitador de par electrónico. Incluido transporte, montaje, conexiones eléctricas y pruebas de funcionamiento y de control. Resto de características, según ET.	3				3,000	3,00
EMLAM01	M2 LAMELAS DE PP. 60° Y 1.000 MM Lamelas para decantacion montadas en bloques, de TECNO CONVERTING o equivalente, modelo H-60. Altura de los bloques: 1.000 mm. Separación entre lamelas: 62 mm. Inclinación: 60°. Peso: 70 Kg/m3. Material: Polipropileno alimentario (PPTV). Incluso vigas y perfiles en PRFV pultrusionado., mesulas de soportación y tornillería en AISI-316, sistema antiflotación. Anclajes y tornillería en AISI-316. Totalmente montada y probada. Resto de características según ET.	3	12,000	12,000		432,000	432,00
ECTTH01	M CANALETAS RECOGIDA AGUA TIPO THOMSON 30 CM AISI-316 Canal vertedero tipo Thomson para recogida de agua decantada de 30 cm. de ancho, fabricado en chapa de acero inoxidable AISI 316-L, e= 2 mm, incluso chapa de acometida a entrada a filtros y estructura soporte. Totalmente montada y probada. Resto de características según ET.	30	12,000			360,000	360,00
ECPSM900	UD PASAMUROS INOX AISI-316-L DN-900 mm Carrete pasamuros de acero inoxidable, con brida loca en un extremo y placa de estanqueidad, DN 900, longitud: 500 mm. Materiales: Carrete y placa de estanqueidad: AISI 316 L, brida: aluminio, totalmente instalado y probado en obra. Resto de características según ET. Salida agua decantada By-pass filtros Entrada	1 1 1				1,00 1,00 1,00	3,00
ECMMT01	UD COMPUERTA MURAL MOTORIZADA DE 500x500 MM. DE HUECO INOX316L Compuerta mural motorizada para hueco de 0,50 m de ancho y 0,50m de altura, con husillo de altura variable. Altura máxima agua según planos. Número de cierres 4. Espesor de chapa de 5 mm (mínimo). Número de husillos 1. Accionamiento motorizado, con rodamiento para absorber el esfuerzo axial. Materiales: Guías, marco, tablero y husillo de acero inoxidable AISI-316L. Incluso transporte, montaje, conexiones eléctricas y pruebas de funcionamiento. Resto de características según E.T. Entrada decantadores	3				3,000	3,00

MEDICIONES

ABASTECIMIENTO A VARIOS MUNICIPIOS DE LA RIOJA. SISTEMA CIDACOS

CÓDIGO	RESUMEN	UDS	LONGITUD	ANCHURA	ALTURA	PARCIALES	CANTIDAD
ECCMT01	UD COMPUERTA CANAL MOTORIZADA DE 500x1000 MM. DE HUECO INOX316L Compuerta canal motorizada para hueco de 0,50 m de ancho y 1,0m de altura, con husillo de altura variable. Altura máxima agua según planos. Número de cierres 3. Espesor de chapa de 5 mm (mínimo). Número de husillos 1. Accionamiento motorizado, con rodamiento para absorber el esfuerzo axial. Materiales: Guías, marco, tablero y husillo de acero inoxidable AISI-316L. Incluso transporte, montaje, conexiones eléctricas y pruebas de funcionamiento. Resto de características según E.T. Salida decantadores	4				4,000	4,00
ECMMT02	UD COMPUERTA MURAL MOTORIZADA DE 900x900 MM. DE HUECO INOX316L Compuerta mural motorizada para hueco de 0,90 m de ancho y 0,90m de altura, con husillo de altura variable. Altura máxima agua según planos. Número de cierres 4. Espesor de chapa de 5 mm (mínimo). Número de husillos 1. Accionamiento motorizado, con rodamiento para absorber el esfuerzo axial. Materiales: Guías, marco, tablero y husillo de acero inoxidable AISI-316L. Incluso transporte, montaje, conexiones eléctricas y pruebas de funcionamiento. Resto de características según E.T. Salida a filtros By-pass filtros	1 1				1,000 1,000	2,00
ECCMT02	UD COMPUERTA CANAL MOTORIZADA DE 1000x1400 MM. DE HUECO INOX316L Compuerta canal motorizada para hueco de 1,0m de ancho y 1,4 m de altura, con husillo de altura variable. Altura máxima agua según planos. Número de cierres 3. Espesor de chapa de 5 mm (mínimo). Número de husillos 1. Accionamiento motorizado, con rodamiento para absorber el esfuerzo axial. Materiales: Guías, marco, tablero y husillo de acero inoxidable AISI-316L. Incluso transporte, montaje, conexiones eléctricas y pruebas de funcionamiento. Resto de características según E.T. By-pas desarenado	1				1,000	1,00
SUBPARTADO 02.02.03.3 BOMBEO DE FANGOS DECANTADOS							
EBHFP01	UD BOMBA TORNILLO PURGA DE FANGOS PRIMARIOS 65,0 m3/h y 12 mca Bomba helicoidal, para bombeo de fangos decantados. Marca: MONO o equivalente. Modelo: Z38KC11RMA. Velocidad de trabajo (rpm): 80-307. Caudal a la velocidad de trabajo (m3/h): 17-65. Presión en las condiciones de trabajo (bar): 1,2. - Paso de sólidos duros/deformables (mm): 16 / 53. Detector funcionamiento en vacío. Dimensiones aspiración (mm): DN125. Dimensiones impulsión (mm): DN125. Accionamiento: eléctrico mediante motorreductor. Potencia instalada (kW): 9,2. Velocidad motor (rpm): 1.450. Tensión (V): 400. Frecuencia (Hz): 50. Bancada metálica. Incluso transporte, montaje, conexiones eléctricas y de control, pruebas de funcionamiento. Resto de características según E.T.	6				6,000	6,00
ETI316125	ML TUBERIA DE INOXIDABLE AISI 316L DN 125 Tubería de acero inoxidable de diámetro DN 125 mm. Construcción: Mediante soldadura. Espesor 2 mm. Material: Acero inoxidable AISI -316 L. Material accesorios acero inoxidable AISI - 316L. Acabado: Decapado. Incluso p.p. de uniones, piezas especiales, bridas, codos, tes, injertos para otras tuberías y p.p. de estructuras y elementos de anclajes a solera y/o muros. Montada y probada. Poceta a bombeo	4	10,000			40,000	40,00
EVCM12516	UD VÁLVULA DE COMPUERTA MANUAL DN125 PN16 Válvula de compuerta de cierre elástico de 125 mm. de diámetro nominal y 16 At. de P.N., de accionamiento manual por volante, de cuerpo de fundición nodular GGG-50, con eje de acero inoxidable al 13 % Cr. con rosca conformada por laminación en frío, cierre en fundición nodular, tornillería de acero inoxidable, protegida contra la corrosión mediante aplicación de doble capa de pintura epoxy, totalmente colocada y probada. Resto de características según ET. Aspiración Impulsión Caudalímetros salida llegada a bifurcación de bombas	6 6 3 4				6,00 6,00 3,00 4,00	19,00

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CÓDIGO	RESUMEN	UDS	LONGITUD	ANCHURA	ALTURA	PARCIALES	CANTIDAD
EVRB125	UD VÁLVULA DE RETENCIÓN DE BOLA DN125 Válvula de retención de clapetas tipo Wafer, PN 16 y DN-250, con racores de bridas. Instalada y probada. Resto de características según ET. Impulsión	6				6,00	6,00
EPICJ01	UD PICAJE TUBERÍA CON VÁLVULA ESFERA 1/2" Picaje en tubería para toma de muestra y/o entrada de agua, incluso picaje, válvula de aislamiento de 1/2", instalación y pruebas. Impulsión ASpiración	6 6				6,00 6,00	12,00
EVCMT12516	UD VÁLVULA DE COMPUERTA MOTORIZADA DN125 PN16 Válvula de compuerta de cierre elástico de 125 mm. de diámetro nominal y 16 At. de P.N., de accionamiento motorizado, de cuerpo de fundición nodular GGG-50, con eje de acero inoxidable al 13 % Cr. con roscas conformadas por laminación en frío, cierre en fundición nodular, tornillería de acero inoxidable, protegida contra la corrosión mediante aplicación de doble capa de pintura epox y, totalmente colocada y probada. Resto de características según ET. A floculación A espesador	3 3				3,00 3,00	6,00
EPOLE1000	UD POLIPASTO ELÉCTRICO DE 1.000 KG Polipasto. Servicio: Izado de equipos. Características:- Marca: VINCA, VICINAY o equivalente. Capacidad (kg): 1.000. Tipo de carro: monocarril. Cota mínima del gancho a la viga (mm): 880. Potencia motor elevación (KW): 1,85. Incluye limitador de carga, motor-freno en el carro de traslación. Incluso transporte, montaje, conexiones eléctricas y de control, pruebas de funcionamiento. Resto de características según E.T.	3				3,00	3,00
APARTADO 02.02.04 FILTRACIÓN DE ARENA							
SUBAPARTADO 02.02.04.1 FILTROS DE ARENA							
EFFFA01	M2 FALSOS FONDOS FILTRACIÓN Falsos fondos de filtración tipo LP Block de Apliclor o equivalente, incluyendo placas soporte tipo S o equivalente, de 450 micras, contruidos en polietileno de alta densidad, sellado perimetral, anclajes, dentro del recinto del filtro, montado y probado. Cubiertas en extremos de filas en PE. Juntas tóricas para la interconexión de los bloques. Sellante Sikaflex para la unión "in situ" de los bloques y de las cubiertas en extremos. Cubiertas de papel autoadhesivo para usar como protección durante el proceso de montaje. Herramienta de montaje/ensamblaje de bloques en filas. Placas de orificio para la alimentación de las filas de bloques des del canal central (en AISI 304). Incluye asesoramiento en el dimensionamiento y diseño, y asistencia técnica de montaje y puesta en marcha, así como ingeniería de detalle de la instalación del sistema. Transporte de los materiales a obra, montaje, pruebas, limpieza y puesta en marcha. Resto de características según ET.	10	7,500	5,000			375,000
EFAA01	M2 ARENA SILICEA PARA FILTRO Arena silicea según la especificación de la norma AWWA B100-80 (Revisión de la B100-72), con coeficiente de uniformidad: < 1,6, granulometría: 0,90-1,80 mm, densidad aparente: 1,58 t/m3, sílice contenida: > 98% , exenta de mica y materia orgánica, solubilidad al ácido: inferior al 5% . Obtención de la arena: cantera, lavada y clasificada. Incluso transporte a obra, y colocación y extendido en los filtros por medios mecánicos y manuales.	10	7,500	5,000	1,000		375,000
EVMNE300	UD VÁLVULA DE MARIPOSA DN300 PN16 NEUMÁTICA Válvula de mariposa de 300 mm de diámetro y PN16, de accionamiento neumático, incluso mecanismo de accionamiento, maniobra y control, transporte, montaje, juntas, tornillería y pintura totalmente instalada y probada. Resto de características según ET de proyecto. Entrada de agua Salida de agua	12 1				12,00 1,00	3,00

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CÓDIGO	RESUMEN	UDS	LONGITUD	ANCHURA	ALTURA	PARCIALES	CANTIDAD
ECD0300	UD CARRETE DE DESMONTAJE DN=300 mm PN16 Carrete telescópico de desmontaje DN300 PN16, bridas de acero al carbono, virolas de acero inoxidable, protección epoxi, tornillos y tuercas en acero F-114, cincado y posterior baño de cromo-niquel, incluido p.p. de brida enchufe, totalmente instalado y probado en obra. Entrada de agua Salida de agua	12 10				12,00 10,00	13,00
ECPSM300	UD PASAMUROS INOX AISI-316-L DN-300 mm Carrete pasamuros de acero inoxidable, con brida loca en un extremo y placa de estanqueidad, DN 300, longitud: 500 mm. Materiales:Carrete y placa de estanqueidad: AISI 316 L, brida: aluminio, totalmente instalado y probado en obra. Resto de características según ET. Entrada de agua Salida de agua	12 12 8				12,00 12,00 8,00	22,00
ETI316300	ML TUBERÍA DE INOXIDABLE AISI 316L DN 300 Tubería de acero inoxidable de diámetro DN 300 mm. Construcción: Mediante soldadura. Espesor 2 mm. Material: Acero inoxidable AISI -316 L. Material accesorios acero inoxidable AISI - 316L. Acabado: Decapado. Incluso p.p. de uniones, piezas especiales, bridas, codos, tes, injertos para otras tuberías y p.p. de estructuras y elementos de anclajes a solera y/o muros. Montada y probada. Entrada de agua Salida de agua filtrada	10 10 10	1,000			10,000 10,000 10,000	32,00
ETI316900	ML TUBERÍA DE INOXIDABLE AISI 316L DN 900 Tubería de acero inoxidable de diámetro DN 900 mm. Construcción: Mediante soldadura. Espesor 8 mm. Material: Acero inoxidable AISI -316 L. Material accesorios acero inoxidable AISI - 316L. Acabado: Decapado. Incluso p.p. de uniones, piezas especiales, bridas, codos, tes, injertos para otras tuberías y p.p. de estructuras y elementos de anclajes a solera y/o muros. Montada y probada. Colector de salida	1	32,000			32,000	30,00
ECPSM900	UD PASAMUROS INOX AISI-316-L DN-900 mm Carrete pasamuros de acero inoxidable, con brida loca en un extremo y placa de estanqueidad, DN 900, longitud: 500 mm. Materiales:Carrete y placa de estanqueidad: AISI 316 L, brida: aluminio, totalmente instalado y probado en obra. Resto de características según ET. Depósito de agua salida filtros	2				2,00	2,00
ECPSM700	UD PASAMUROS INOX AISI-316-L DN-700 mm Carrete pasamuros de acero inoxidable, con brida loca en un extremo y placa de estanqueidad, DN 700, longitud: 500 mm. Materiales:Carrete y placa de estanqueidad: AISI 316 L, brida: aluminio, totalmente instalado y probado en obra. Resto de características según ET. Entrada a canal de reparto	2				2,00	2,00
SUBAPARTADO 02.02.04.2 BOMBEO E IMPULSIÓN DE AGUA DE LAVADO DE FILTROS							
EBLF01	M2 BOMBA EJE VERTICAL Q=470 M3/H. H=10 MCA. P=22 KW Bomba centrífuga de eje vertical, marca CAPRARI o equivalente, modelo P16C/10/35/1H, capaz de elevar un caudal unitario de 470 m3/h a 10 m.c.a. Impulsor DN-250 mm. Potencia de la bomba 22 kW. Incluso el colador, la línea de transmisión, grupo de mando. Transporte de los materiales a obra, montaje, pruebas, limpieza y puesta en marcha. Resto de características según ET.	3				3,000	3,00
ECD25016	UD CARRETE DE DESMONTAJE DN=250 mm PN16 Carrete telescópico de desmontaje DN250 PN16, bridas de acero al carbono, virolas de acero inoxidable, protección epoxi, tornillos y tuercas en acero F-114, cincado y posterior baño de cromo-niquel, incluido p.p. de brida enchufe, totalmente instalado y probado en obra.						

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CÓDIGO	RESUMEN	UDS	LONGITUD	ANCHURA	ALTURA	PARCIALES	CANTIDAD
	Arqueta entrada	1	2,20	1,60		3,52	
							3,00
EVMMT250	UD VÁLVULA DE MARIPOSA DN250 PN16 MOTORIZADA Válvula de mariposa de 250 mm de diámetro y PN16, de accionamiento motorizado, incluso mecanismo de accionamiento, maniobra y control, transporte, montaje, juntas, tornillería y pintura totalmente instalada y probada. Resto de características según ET de proyecto. Salida bombas	3				3,00	3,00
EVRW250	UD VALVULA DE RETENCIÓN DE DISCO PARTIDO DN250 PN16 Válvula de retención de disco partido tipo Wafer, PN 16 y DN-250, con racores de bridas. Instalada y probada. Resto de características según ET. Salida bombas	3				3,00	3,00
ETI316250	ML TUBERÍA DE INOXIDABLE AISI 316L DN 250 Tubería de acero inoxidable de diámetro DN 250 mm. Construcción: Mediante soldadura. Espesor 2 mm. Material: Acero inoxidable AISI -316 L. Material accesorios acero inoxidable AISI - 316L. Acabado: Decapado. Incluso p.p. de uniones, piezas especiales, bridas, codos, tes, injertos para otras tuberías y p.p. de estructuras y elementos de anclajes a solera y/o muros. Montada y probada. Salida bombas	3	1,000			3,000	3,00
ETI316400	ML TUBERÍA DE INOXIDABLE AISI 316L DN 400 Tubería de acero inoxidable de diámetro DN 400 mm. Construcción: Mediante soldadura. Espesor 2 mm. Material: Acero inoxidable AISI -316 L. Material accesorios acero inoxidable AISI - 316L. Acabado: Decapado. Incluso p.p. de uniones, piezas especiales, bridas, codos, tes, injertos para otras tuberías y p.p. de estructuras y elementos de anclajes a solera y/o muros. Montada y probada. Colector de salida Entrada/salida filtros Salida de agua de lavado Colector salida agua de lavado a depósito	1 2 10 10 10 1 1	12,500 26,600 2,000 1,200 1,000 28,300 44,300			12,500 53,200 20,000 12,000 10,000 28,300 44,300	180,30
ECPSM400	UD PASAMUROS INOX AISI-316-L DN-400 mm Carrete pasamuros de acero inoxidable, con brida loca en un extremo y placa de estanqueidad, DN 400, longitud: 500 mm. Materiales:Carrete y placa de estanqueidad: AISI 316 L, brida: aluminio, totalmente instalado y probado en obra. Resto de características según ET. Entrada/salida filtros Salidas agua de lavado de filtros Entrada a depósito de agua de recuperación agua lavado	12 12 2				12,00 12,00 2,00	26,00
ECD0400	UD CARRETE DE DESMONTAJE DN=400 mm PN16 Carrete telescópico de desmontaje DN400 PN16, bridas de acero al carbono, virolas de acero inoxidable, protección epoxi, tornillos y tuercas en acero F-114, cincado y posterior baño de cromo-niquel, incluido p.p. de brida enchufe, totalmente instalado y probado en obra. Entrada/salida filtros Caudalímetro agua lavado de filtros Salida de agua de lavado de filtros	10 1 10				10,00 1,00 10,00	21,00
EVMNE400	UD VÁLVULA DE MARIPOSA DOBLE EXCENRICIDAD DN 400 mm PN16 NEUMÁTICA Válvula de mariposa de doble excentricidad de 400 mm de diámetro y PN16, de accionamiento neumático, incluso mecanismo de accionamiento, maniobra y control, transporte, montaje, juntas, tornillería y pintura totalmente instalada y probada. Resto de características según ET de proyecto. Entrada/salida filtros Salida de agua de lavado de filtros	10 10				10,00 10,00	

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CÓDIGO	RESUMEN	UDS	LONGITUD	ANCHURA	ALTURA	PARCIALES	CANTIDAD
							20,00
EVM400	UD VÁLVULA DE MARIPOSA DOBLE EXCENRICIDAD DN 400 mm PN16 MANUAL Válvula de mariposa de doble excentricidad de 400 mm de diámetro y PN16, de accionamiento manual por reductor, incluso mecanismo de accionamiento, maniobra y control, transporte, montaje, juntas, tornillería y pintura totalmente instalada y probada. Resto de características según ET de proyecto. Cadaulímetro	2				2,00	2,00
EPOLE1000	UD POLIPASTO ELÉCTRICO DE 1.000 KG Polipasto. Servicio: Izado de equipos. Características:- Marca: VINCA, VICINAY o equivalente. Capacidad (kg): 1.000. Tipo de carro: monocarril. Cola mínima del gancho a la viga (mm): 880. Potencia motor elevación (KW): 1,85. Incluye limitador de carga, motor-freno en el carro de traslación. Incluso transporte, montaje, conexiones eléctricas y de control, pruebas de funcionamiento. Resto de características según E.T.	1				1,00	1,00
SUBPARTADO 02.02.04.3 BOMBEO DE RECUPERACIÓN DE AGUA DE LAVADO A CABECERA							
EAGF01	UD AGITADOR DEPÓSITO LAVADO DE FILTROS P=5,6 KW Agitador sumergible de hélice. Marca: SULZER o equivalente. Modelo: RW4031-A40/8-EC-D05*10BC.. Número de álabes: 3. Diámetro de la hélice (mm): 400. Potencia de agtación: 2,6 kW. Protección térmica con sensores térmicos en el bobinado. Protección de estanqueidad por sistema DI. Incluye sistema de elevación y giro. Accionamiento: eléctrico. Potencia nominal en eje (kW): 4,0. Potencia nominal en eje (kW): 5,6. Tensión (V): 400. El agitador dispone de protección térmica por TCS con sensores térmicos en el bobinado, protección de estanqueidad por Sistema DI, con sonda en la cámara de aceite y sistema de refrigeración por sumergencia, módulo para supervisión de electrodos de temperatura y humedad. Incluso transporte, montaje, conexiones eléctricas y de control, pruebas de funcionamiento. Resto de características según E.T. Depósito agua recuperación de lavado	1				1,000	1,00
EBSLF01	UD BOMBA SUMERGIBLE Q= 130 m³/h a 6 m.c.a. P=3 kW Bomba sumergible para bombeo de aguas, de SULZER o equivalente modelo XFP100E-CB1.2-PE90/4-D05*10. Caudal: 130 m³/h. Altura manométrica: 6 m.c.a. Potencia nominal en eje: 3,0 kW. Ø Imp: 100 mm. Incluido módulo para supervisión de electrodos de temperatura y humedad, pedestal, anclajes, guía y cadena para izado. Incluso transporte, montaje, conexiones eléctricas y de control, pruebas de funcionamiento. Resto de características según E.T. Depósito agua recuperación de lavado	2				2,000	2,00
ECD010016	UD CARRETE DE DESMONTAJE DN=100 mm PN16 Carrete telescópico de desmontaje DN100 PN16, bridas de acero al carbono, virolas de acero inoxidable, protección epoxi, tornillos y tuercas en acero F-114, cincado y posterior baño de cromo-niquel, incluido p.p. de brida enchufe, totalmente instalado y probado en obra.	2				2,00	2,00
237	UD VÁLVULA DE COMPUERTA MANUAL DN100 PN25 Válvula de compuerta de cierre elástico de 100 mm. de diámetro nominal y 25 At. de P.N., de accionamiento manual por volante, de cuerpo de fundición nodular GGG-50, con eje de acero inoxidable al 13 % Cr. con roscas conformadas por laminación en frío, cierre en fundición nodular, tornillería de acero inoxidable, protegida contra la corrosión mediante aplicación de doble capa de pintura epoxy, totalmente colocada y probada. Resto de características según ET.	2				2,00	2,00
EVRW100	UD VALVULA DE RETENCIÓN DE DISCO PARTIDO DN100 PN16 Válvula de retención de disco partido tipo Wafer, PN 16 y DN-100, con racores de bridas. Instalada y probada. Resto de características según ET.	2				2,00	2,00

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CÓDIGO	RESUMEN	UDS	LONGITUD	ANCHURA	ALTURA	PARCIALES	CANTIDAD
ETI316100	ML TUBERÍA DE INOXIDABLE AISI 316L DN 100 Tubería de acero inoxidable de diámetro DN 100 mm. Construcción: Mediante soldadura. Espesor 1,5 mm. Material: Acero inoxidable AISI -316 L. Material accesorios acero inoxidable AISI - 316L. Acabado: Decapado. Incluso p.p. de uniones, piezas especiales, bridas, codos, tes, injertos para otras tuberías y p.p. de estructuras y elementos de anclajes a solera y/o muros. Montada y probada. Colector individual	2	5,000			10,000	
							10,00
SUBAPARTADO 02.02.04.4 SOPLANTES Y COLECTORES AIRE PARA FILTROS DE ARENA							
ESER01	UD SOPLANTE EMBOLOS Q= 2.100 Nm3/h. Pres.: 0,4 bar. Soplante de eje libre con embolos rotativos de Mapner o equivalente, modelo SEM.15 TRG.GCA, para un caudal de 2.100 Nm³/h. Presión diferencial: 0,4 bar. Ø impulsión: 150 mm. Potencia motor: 45 kW. Bancada - Filtro de aspiración - Válvula de presión - Válvula de retención - Transmisión por correas - Manguito elástico - Soportes antivibratorios, válvula coriolis de arranque sin carga DN80, cabina insonorizante con paneles, ventilación forzada, manómetro y detector de colmatación. Incluido, transporte, conexiones eléctricas y de control, así como el montaje y pruebas de funcionamiento. Resto de características según ET.	2				2,000	
							2,00
EVMM150	UD VÁLVULA DE MARIPOSA DN150 N16 MANUAL Válvula de mariposa de 150 mm de diámetro y PN16, de accionamiento manual por reductor, incluso mecanismo de accionamiento, maniobra y control, transporte, montaje, juntas, tornillería y pintura totalmente instalada y probada. Resto de características según ET de proyecto. Salida soplantes	2				2,00	
							2,00
ECD15016	UD CARRETE DE DESMONTAJE DN=150 mm PN16 Carrete telescópico de desmontaje DN150 PN16, bridas de acero al carbono, virolas de acero inoxidable, protección epoxi, tornillos y tuercas en acero F-114, cincado y posterior baño de cromo-niquel, incluido p.p. de brida enchufe, totalmente instalado y probado en obra. Salida soplantes	2				2,00	
							2,00
ETI316250	ML TUBERÍA DE INOXIDABLE AISI 316L DN 250 Tubería de acero inoxidable de diámetro DN 250 mm. Construcción: Mediante soldadura. Espesor 2 mm. Material: Acero inoxidable AISI -316 L. Material accesorios acero inoxidable AISI - 316L. Acabado: Decapado. Incluso p.p. de uniones, piezas especiales, bridas, codos, tes, injertos para otras tuberías y p.p. de estructuras y elementos de anclajes a solera y/o muros. Montada y probada. Colector general	1	7,200			7,200	
		1	4,600			4,600	
		2	26,500			53,000	
		10	4,450			44,500	
							109,30
ETI316150	ML TUBERÍA DE INOXIDABLE AISI 316L DN 150 Tubería de acero inoxidable de diámetro DN 150 mm. Construcción: Mediante soldadura. Espesor 2 mm. Material: Acero inoxidable AISI -316 L. Material accesorios acero inoxidable AISI - 316L. Acabado: Decapado. Incluso p.p. de uniones, piezas especiales, bridas, codos, tes, injertos para otras tuberías y p.p. de estructuras y elementos de anclajes a solera y/o muros. Montada y probada. Salida soplantes	1	1,000			1,000	
		1	3,000			3,000	
							4,00
EVMNE250	UD VÁLVULA DE MARIPOSA DN250 PN16 NEUMÁTICA Válvula de mariposa de 250 mm de diámetro y PN16, de accionamiento neumático, incluso mecanismo de accionamiento, maniobra y control, transporte, montaje, juntas, tornillería y pintura totalmente instalada y probada. Resto de características según ET de proyecto. Entrada aire	1				1,00	
							1,00

MEDICIONES

ABASTECIMIENTO A VARIOS MUNICIPIOS DE LA RIOJA. SISTEMA CIDACOS

CÓDIGO	RESUMEN	UDS	LONGITUD	ANCHURA	ALTURA	PARCIALES	CANTIDAD
ECD25016	UD CARRETE DE DESMONTAJE DN=250 mm PN16 Carrete telescópico de desmontaje DN250 PN16, bridas de acero al carbono, virolas de acero inoxidable, protección epoxi, tornillos y tuercas en acero F-114, cincado y posterior baño de cromo-niquel, incluido p.p. de brida enchufe, totalmente instalado y probado en obra. Entrada aire	10				10,00	
							10,00
ECPSM250	UD PASAMUROS INOX AISI-316-L DN-250 mm Carrete pasamuros de acero inoxidable, con brida loca en un extremo y placa de estanqueidad, DN 250, longitud: 500 mm. Materiales:Carrete y placa de estanqueidad: AISI 316 L, brida: aluminio, totalmente instalado y probado en obra. Resto de características según ET. Entrada aire	12				12,00	
							12,00
EPOLE1000	UD POLIPASTO ELÉCTRICO DE 1.000 KG Polipasto. Servicio: Izado de equipos. Características:- Marca: VINCA, VICINAY o equivalente. Capacidad (kg): 1.000. Tipo de carro: monocarril. Cota mínima del gancho a la viga (mm): 880. Potencia motor elevación (KW): 1,85. Incluye limitador de carga, motor-freno en el carro de traslación. Incluso transporte, montaje, conexiones eléctricas y de control, pruebas de funcionamiento. Resto de características según E.T.	1				1,00	
							1,00
SUBAPARTADO 02.02.04.5 NEUMÁTICA PARA FILTROS DE ARENA							
ECVNE01	UD CUADRO DE MANDO 6 ELECTROVALVULAS Armario para alojamiento de electroválvulas y elementos de mando neumático, 1 válvula de bola para aislamiento de 1/2". Grupo de tratamiento de aire, comprendiendo filtro, regulador y lubricador. 6 válvulas de bola 1/4" para aislamiento de electroválvulas. 6 electroválvulas 5V/3P 1/4". 3 silenciosos de escape. Conexionado interior de tuberías. Elementos eléctricos de mando. Montado y probado.	5				5,000	
							5,00
ECVNE02	UD CUADRO DE MANDO 4 ELECTROVALVULAS Armario para alojamiento de electroválvulas y elementos de mando neumático, 1 válvula de bola para aislamiento de 1/2". Grupo de tratamiento de aire, comprendiendo filtro, regulador y lubricador. 2 válvulas de bola 1/4" para aislamiento de electroválvulas. 2 electroválvulas 5V/3P 1/4". 2 silenciosos de escape. Conexionado interior de tuberías. Elementos eléctricos de mando. Montado y probado.	5				5,000	
							5,00
ECVNRE01	UD RED DE AIRE Red de aire a presión desde cuadro de EV a actuadores neumáticos de válvulas, ejecutada en poliuretano. Instalada.	1				1,000	
							1,00
SUBAPARTADO 02.02.04.6 ARQUETA DE REPARTO A FILTROS							
ECPSM900	UD PASAMUROS INOX AISI-316-L DN-900 mm Carrete pasamuros de acero inoxidable, con brida loca en un extremo y placa de estanqueidad, DN 900, longitud: 500 mm. Materiales:Carrete y placa de estanqueidad: AISI 316 L, brida: aluminio, totalmente instalado y probado en obra. Resto de características según ET. Entrada	1				1,00	
							1,00
ECPSM700	UD PASAMUROS INOX AISI-316-L DN-700 mm Carrete pasamuros de acero inoxidable, con brida loca en un extremo y placa de estanqueidad, DN 700, longitud: 500 mm. Materiales:Carrete y placa de estanqueidad: AISI 316 L, brida: aluminio, totalmente instalado y probado en obra. Resto de características según ET. Salida	2				2,00	
							2,00

MEDICIONES

ABASTECIMIENTO A VARIOS MUNICIPIOS DE LA RIOJA. SISTEMA CIDACOS

CÓDIGO	RESUMEN	UDS	LONGITUD	ANCHURA	ALTURA	PARCIALES	CANTIDAD
APARTADO 02.02.05 DEPÓSITO DE AGUA TRATADA							
SUBAPARTADO 02.02.05.1 ARQUETA DE REPARTO DE ENTRADA A DEPÓSITO							
ECD0900	UD CARRETE DE DESMONTAJE DN=900 mm PN16 Carrete telescópico de desmontaje DN900 PN 16, bridas de acero al carbono, virolas de acero inoxidable, protección epoxi, tornillos y tuercas en acero F-114, cincado y posterior baño de cromo-niquel, incluido p.p. de brida enchufe, totalmente instalado y probado en obra.	2				2,00	2,00
							2,00
EVMMT900	UD VÁLVULA DE MARIPOSA DOBLE EXCENRICIDAD. DN 900 mm PN16 MOTORIZADA Válvula de mariposa de doble excentricidad de 900 mm de diámetro y PN16, de accionamiento motorizado, incluso mecanismo de accionamiento, maniobra y control, transporte, montaje, juntas, tornillería y pintura totalmente instalada y probada. Resto de características según ET de proyecto.	2				2,00	2,00
							2,00
ECPSM900	UD PASAMUROS INOX AISI-316-L DN-900 mm Carrete pasamuros de acero inoxidable, con brida loca en un extremo y placa de estanqueidad, DN 900, longitud: 500 mm. Materiales:Carrete y placa de estanqueidad: AISI 316 L, brida: aluminio, totalmente instalado y probado en obra. Resto de características según ET. Entrada a depósito	2				2,00	2,00
							2,00
SUBAPARTADO 02.02.05.2 CALDERERÍA Y VÁLVULERÍA SALIDA, ALIVIO Y VACIADOS DEPÓSITO							
ECPSM900	UD PASAMUROS INOX AISI-316-L DN-900 mm Carrete pasamuros de acero inoxidable, con brida loca en un extremo y placa de estanqueidad, DN 900, longitud: 500 mm. Materiales:Carrete y placa de estanqueidad: AISI 316 L, brida: aluminio, totalmente instalado y probado en obra. Resto de características según ET. Salida agua Alivio	2 2				2,00 2,00	4,00
							4,00
ECPSM500	UD PASAMUROS INOX AISI-316-L DN-500 mm Carrete pasamuros de acero inoxidable, con brida loca en un extremo y placa de estanqueidad, DN 500, longitud: 500 mm. Materiales:Carrete y placa de estanqueidad: AISI 316 L, brida: aluminio, totalmente instalado y probado en obra. Resto de características según ET. Vaciados	2				2,00	2,00
							2,00
ECD0900	UD CARRETE DE DESMONTAJE DN=900 mm PN16 Carrete telescópico de desmontaje DN900 PN 16, bridas de acero al carbono, virolas de acero inoxidable, protección epoxi, tornillos y tuercas en acero F-114, cincado y posterior baño de cromo-niquel, incluido p.p. de brida enchufe, totalmente instalado y probado en obra. Salida agua Salida general	2 1				2,00 1,00	3,00
							3,00
ECD0500	UD CARRETE DE DESMONTAJE DN=500 mm PN16 Carrete telescópico de desmontaje DN500 PN 16, bridas de acero al carbono, virolas de acero inoxidable, protección epoxi, tornillos y tuercas en acero F-114, cincado y posterior baño de cromo-niquel, incluido p.p. de brida enchufe, totalmente instalado y probado en obra. Vaciados	2				2,00	2,00
							2,00
143	UD CARRETE DE DESMONTAJE DN=200 mm PN16 Carrete telescópico de desmontaje DN200 PN 16, bridas de acero al carbono, virolas de acero inoxidable, protección epoxi, tornillos y tuercas en acero F-114, cincado y posterior baño de cromo-niquel, incluido p.p. de brida enchufe, totalmente instalado y probado en obra. Vaciados colector salida	1				1,00	1,00
							1,00

MEDICIONES

ABASTECIMIENTO A VARIOS MUNICIPIOS DE LA RIOJA. SISTEMA CIDACOS

CÓDIGO	RESUMEN	UDS	LONGITUD	ANCHURA	ALTURA	PARCIALES	CANTIDAD
EVMMT900	UD VÁLVULA DE MARIPOSA DOBLE EXCENRICIDAD. DN 900 mm PN16 MOTORIZADA Válvula de mariposa de doble excentricidad de 900 mm de diámetro y PN16, de accionamiento motorizado, incluso mecanismo de accionamiento, maniobra y control, transporte, montaje, juntas, tornillería y pintura totalmente instalada y probada. Resto de características según ET de proyecto. Salida de cada vaso Salida general	2 1				2,00 1,00	3,00
							3,00
EVMMT0500	UD VÁLVULA DE MARIPOSA DOBLE EXCENRICIDAD DN 500 mm PN16 MANUAL Válvula de mariposa de doble excentricidad de 500 mm de diámetro y PN16, de accionamiento manual por reductor, incluso mecanismo de accionamiento, maniobra y control, transporte, montaje, juntas, tornillería y pintura totalmente instalada y probada. Resto de características según ET de proyecto. Vaciados	2				2,00	2,00
							2,00
232	UD VÁLVULA DE COMPUERTA MANUAL DN200 PN16 Válvula de compuerta de cierre elástico de 200 mm. de diámetro nominal y 16 At. de P.N., de accionamiento manual por volante, de cuerpo de fundición nodular GGG-50, con eje de acero inoxidable al 13 % Cr. con roscas conformadas por laminación en frío, cierre en fundición nodular, tornillería de acero inoxidable, protegida contra la corrosión mediante aplicación de doble capa de pintura epoxy, totalmente colocada y probada. Resto de características según ET. Vaciados colector salida	1				1,00	1,00
							1,00
EGTM01	UD GRIFO TOMAMUESTRAS PN16/25 Grifo tomamuestras de 3/4" colocado en tubería de acero inoxidable por picaje, incluida la válvula PN16/25, montada y probada.	1				1,00	1,00
							1,00
243.1	UD VENTOSA DN=200 mm PN16 Válvula ventosa de tres funciones de DN=200 mm y PN 16 bar incluido transporte, juntas, válvula de corte DN=200 mm y PN 16 bar y piezas especiales, totalmente colocada y probada.	2				2,00	2,00
							2,00
ETI316900	ML TUBERÍA DE INOXIDABLE AISI 316L DN 900 Tubería de acero inoxidable de diámetro DN 900 mm. Construcción: Mediante soldadura. Espesor 8 mm. Material: Acero inoxidable AISI -316 L. Material accesorios acero inoxidable AISI - 316L. Acabado: Decapado. Incluso p.p. de uniones, piezas especiales, bridas, codos, tes, injertos para otras tuberías y p.p. de estructuras y elementos de anclajes a solera y/o muros. Montada y probada. Alivio Salida general	1 1 1	13,600 1,550 14,000			13,600 1,550 14,000	32,55
							32,55
ETI316200	ML TUBERIA DE INOXIDABLE AISI 316L DN 200 Tubería de acero inoxidable de diámetro DN 200 mm. Construcción: Mediante soldadura. Espesor 2 mm. Material: Acero inoxidable AISI -316 L. Material accesorios acero inoxidable AISI - 316L. Acabado: Decapado. Incluso p.p. de uniones, piezas especiales, bridas, codos, tes, injertos para otras tuberías y p.p. de estructuras y elementos de anclajes a solera y/o muros. Montada y probada. Vaciado colector general	1	1,850			1,850	1,85
							1,85
ETI316500	ML TUBERIA DE INOXIDABLE AISI 316L DN 500 Tubería de acero inoxidable de diámetro DN 500 mm. Construcción: Mediante soldadura. Espesor 2 mm. Material: Acero inoxidable AISI -316 L. Material accesorios acero inoxidable AISI - 316L. Acabado: Decapado. Incluso p.p. de uniones, piezas especiales, bridas, codos, tes, injertos para otras tuberías y p.p. de estructuras y elementos de anclajes a solera y/o muros. Montada y probada. Vaciados depósito	2	1,400			2,800	2,80
							2,80

MEDICIONES

ABASTECIMIENTO A VARIOS MUNICIPIOS DE LA RIOJA. SISTEMA CIDACOS

CÓDIGO	RESUMEN	UDS	LONGITUD	ANCHURA	ALTURA	PARCIALES	CANTIDAD
EPOLE1000	UD POLIPASTO ELÉCTRICO DE 1.000 KG Polipasto. Servicio: Izado de equipos. Características:- Marca: VINCA, VICINAY o equivalente. Capacidad (kg): 1.000. Tipo de carro: monorriel. Cota mínima del gancho a la viga (mm): 880. Potencia motor elevación (KW): 1,85. Incluye limitador de carga, motor-freno en el carro de traslación. Incluso transporte, montaje, conexiones eléctricas y de control, pruebas de funcionamiento. Resto de características según E.T.	1				1,00	1,00
							1,00
APARTADO 02.02.06 ESPESADOR DE FANGOS, FANGOS ESPESADOS Y DOSIFICACIÓN DE CAL							
SUBAPARTADO 02.02.06.1 ESPESADOR DE FANGOS							
EPRFAN01	UD PUENTE RASQUETAS ESPESADOR DE FANGOS Ø 7,5 m Y CAMPANA Mecanismo de puente de rasquetas del espesador de fangos, de 7.500 mm de diámetro, de acero inoxidable AISI-316L. Velocidad del racador 0,15-0,20 rpm., bancada del motorreductor en acero al carbono galvanizado, mangón de acoplamiento en acero al carbono cincado. Eje central AISI-316, campana defectora AISI-316L, brazos inferiores soporta rasquetas y rasquetas de fangos en acero inoxidable AISI-316L. Rascadores de goma en EPDM. Accionamiento directo mediante motorreductor eléctrico de 0,18 Kw. Incluye campana defectora AIAI-316L. limitador de par electrónico. Incluido transporte, montaje, conexiones eléctricas y pruebas de funcionamiento y de control. Resto de características, según ET.	1				1,000	1,00
							1,00
ECUFAN01	UD CAMPANA CUBIERTA ESPESADOR PRFV DE 7.500 MM DE DIÁMETRO Cubierta de PRFV para espesor de fangos de 7,5 m de diámetro de cuba, formada por dos zonas. Pasarela de 1,2 m de anchura. Incluido transporte y montaje. Resto de características, según ET.	1				1,000	1,00
							1,00
EVCM12516	UD VÁLVULA DE COMPUERTA MANUAL DN125 PN16 Válvula de compuerta de cierre elástico de 125 mm. de diámetro nominal y 16 At. de P.N., de accionamiento manual por volante, de cuerpo de fundición nodular GGG-50, con eje de acero inoxidable al 13 % Cr. con roscas conformadas por laminación en frío, cierre en fundición nodular, tomillería de acero inoxidable, protegida contra la corrosión mediante aplicación de doble capa de pintura epoxy, totalmente colocada y probada. Resto de características según ET. Caudalímetro	2				2,00	2,00
							2,00
ECPSM150	UD PASAMUROS INOX AISI-316-L DN-150 mm Carrete pasamuros de acero inoxidable, con brida loca en un extremo y placa de estanqueidad, DN 150, longitud: 500 mm. Materiales:Carrete y placa de estanqueidad: AISI 316 L, brida: aluminio, totalmente instalado y probado en obra. Resto de características según ET. Salida sobrenadantes	1				1,00	1,00
							1,00
ETI316150	ML TUBERÍA DE INOXIDABLE AISI 316L DN 150 Tubería de acero inoxidable de diámetro DN 150 mm. Construcción: Mediante soldadura. Espesor 2 mm. Material: Acero inoxidable AISI -316 L. Material accesorios acero inoxidable AISI - 316L. Acabado: Decapado. Incluso p.p. de uniones, piezas especiales, bridas, codos, tes, injertos para otras tuberías y p.p. de estructuras y elementos de anclajes a solera y/o muros. Montada y probada. Entrada de fangos exterior Salida fangos en refuerzo	1	8,000			8,000	8,000
		1	3,450			3,450	3,450
							11,45
SUBAPARTADO 02.02.06.2 DEPÓSITO DE FANGOS ESPESADOS							

MEDICIONES

ABASTECIMIENTO A VARIOS MUNICIPIOS DE LA RIOJA. SISTEMA CIDACOS

CÓDIGO	RESUMEN	UDS	LONGITUD	ANCHURA	ALTURA	PARCIALES	CANTIDAD
EAGF02	UD AGITADOR DEPÓSITO FANGOS ESPESADOS P=3,5 KW Agitador sumergible de hélice. Marca: SULZER o equivalente. Modelo: XRW3032-PA29/6-EC-D01*10BC. Número de álabes: 3. Diámetro de la hélice (mm): 300. Potencia de agitación: 2,1 kW. Protección térmica con sensores térmicos en el bobinado. Protección de estanqueidad por sistema DI. Incluye sistema de elevación y giro. Accionamiento: eléctrico. Potencia nominal en eje (kW): 2,9. Potencia nominal de red (kW): 3,5.Tensión (V): 400. El agitador dispone de protección térmica por TCS con sensores térmicos en el bobinado, protección de estanqueidad por Sistema DI, con sonda en la cámara de aceite y sistema de refrigeración por sumergencia, módulo para supervisión de electrodos de temperatura y humedad. Incluso transporte, montaje, conexiones eléctricas y de control, pruebas de funcionamiento. Resto de características según E.T.	1				1,000	1,00
							1,00
SUBAPARTADO 02.02.06.3 DOSIFICACIÓN DE CAL							
ESILC01	UD SILO DE CAL DE 42 M3 CON FILTRO DE MANGAS. Silo metálico de cal, de 42 m3 de capacidad, de 2.400 mm de diámetro y 13.55 mm de altura total, dispuesto con filtros de mangas, detector de nivel, sistema de pesaje. Incluso transporte, montaje, conexiones eléctricas y de control, pruebas de funcionamiento. Resto de características según E.T.	2				2,000	2,00
							2,00
EROMC01	UD ROMPEBÓVEDAS DOSIFICADOR DE 2 M. Rompebóvedas-dosificador de cal, para asegurar una extracción continua, para un caudal de 125 a 250 kg/h. Cuerpo del rompebóvedas DN400, motorreductor de 0,55 kW, 1500 rpm. Dosificador de 2 m de longitud, motorreductor de 0,25 kW 1.500 rpm. Soporte orientabel. Mat3erial S-275 JR con protección. Válvula de aislamiento. Incluso transporte, montaje, conexiones eléctricas y de control, pruebas de funcionamiento. Resto de características según E.T.	2				2,000	2,00
							2,00
ECPREC01	UD CUBA DE PREPARACIÓN DE PP DE 2,5 M3 Cuba de preparación de cal de 2,65 m3 de capacidad, realizada en PP, de 1500 mm de diámetro y 1.500 mm de altura total, electroagitador de 1,5 kW. Incluso transporte, montaje, conexiones eléctricas y de control, pruebas de funcionamiento. Resto de características según E.T.	2				2,000	2,00
							2,00
EBDOSC01	UD BOMBAS DOSIFICADORAS DE CAL DE 8 M3/H Y 20 MCA Bombas dosificadoras de lechada de cal de 8.000 l/h y 20 mca. AISI-3616L. Potencia de 1,1 kW. Incluso transporte, montaje, conexiones eléctricas y de control, pruebas de funcionamiento. Resto de características según E.T.	2				2,000	2,00
							2,00
ECELEC01	UD CUADRO ELÉCTRICO DOSIFICACIÓN DE CAL Cuadro eléctrico para el funcionamiento de la dosificación de cal, formado por un armario eléctrico metálico con elementos de potencia y maniobra para los equipos ofertados, con PLC y variador de frecuencia para dosificador. Alimentación cuadro de 230/400 VCA, 50 Hz, 3F+tierra. Incluso transporte, montaje, conexiones eléctricas y de control, pruebas de funcionamiento. Resto de características según E.T.	1				1,000	1,00
							1,00
APARTADO 02.02.07 DESHIDRATACIÓN DE FANGOS							
SUBAPARTADO 02.02.07.1 BOMBEO DE FANGOS A DESHIDRATACIÓN							

MEDICIONES

ABASTECIMIENTO A VARIOS MUNICIPIOS DE LA RIOJA. SISTEMA CIDACOS

CÓDIGO	RESUMEN	UDS	LONGITUD	ANCHURA	ALTURA	PARCIALES	CANTIDAD
EBHFP04	UD BOMBA TORNILLO FANGOS A DESHIDRATACIÓN 16,0 m3/h y 15 mca Bomba helicoidal, para bombeo de fangos decantados. Marca: MONO o equivalente. Modelo: Z35KC11RMA. Velocidad de trabajo (rpm): 80-310. Caudal a la velocidad de trabajo (m3/h): 4,0-16,0. Presión en las condiciones de trabajo (bar): 1,5. - Paso de sólidos duros/deformables (mm): 10 / 35. Detector funcionamiento en vacío. Dimensiones aspiración (mm): DN80. Dimensiones impulsión (mm): DN80. Accionamiento: eléctrico mediante motorreductor. Potencia instalada (kW): 4,0. Velocidad motor (rpm): 1.450. Tensión (V): 400. Frecuencia (Hz): 50. Bancada metálica. Incluso transporte, montaje, conexiones eléctricas y de control, pruebas de funcionamiento. Resto de características según E.T.	2				2,000	2,00
EVC080	UD VÁLVULA DE COMPUERTA MANUAL DN80 PN16 Válvula de compuerta de cierre elástico de 80 mm. de diámetro nominal y 16 At. de P.N., de accionamiento manual por volante, de cuerpo de fundición nodular GGG-50, con eje de acero inoxidable al 13 % Cr. con roscas conformadas por laminación en frío, cierre en fundición nodular, tornillería de acero inoxidable, protegida contra la corrosión mediante aplicación de doble capa de pintura epoxy, totalmente colocada y probada. Resto de características según ET. Aspiración 2 2,00 Impulsión 2 2,00 Caudalímetro 2 2,00						6,00
EVRB080	UD VÁLVULA DE RETENCIÓN DE BOLA DN80 Válvula de retención de bola DN 80 PN16. Cuerpo y tapa: Fundición nodular GGG-40. Bola de aluminio/fundición+Resina fenólica. Tornillería de acero inoxidable AISI 316. Junta de tapa: Nitrilo. Acabados con recubrimiento anticorrosivo interior y exterior con polvo de poliamida Epoxy aplicado electrostáticamente (RAL 5015 Epoxi azul). Instalada y probada. Resto de características según ET. Impulsión 2 2,00						2,00
EPICJ01	UD PICAJE TUBERÍA CON VÁLVULA ESFERA 1/2" Picaje en tubería para toma de muestra y/o entrada de agua, incluso picaje, válvula de aislamiento de 1/2", instalación y pruebas. Impulsión 2 2,00 ASpiración 2 2,00						4,00
SUBPARTADO 02.02.07.2 DESHIDRATACIÓN DE FANGOS							
EDCENT01	UD DECANTADOR CENTRIFUGO 16,0 m3/h Extractor centrifugo para deshidratación de fangos. Marca: ALFA LAVAL o equivalente. Modelo: AL-DEC 45 AT. Capacidad nominal hidráulica: 16,0 m3/h. Potencia motor accionamiento principal: 22 kW. Caja reductora con variador de frecuencia para ambos motores. Potencia motor trasero: 5,5 kW. Incluye cuadro eléctrico con controlador programable, 2 variadores de frecuencia, incluyendo BUS de DC, cuadro eléctrico para integrar VF y aparellaje eléctrico. Material: acero inoxidable AISI-316. Incluso transporte, montaje, conexiones eléctricas y de control, puesta en marcha y pruebas de funcionamiento. Resto de características según E.T.	2				2,000	2,00
EDCENT02	UD TOLVAS EN ACERO INOXIDABLE AISI 316L SALIDA FANGOS Y LÍQUIDOS Tolvas de acero inoxidable AISI 316L de 2 mm de espesor, con p.p. de piezas especiales, totalmente colocadas, una para la salida de fangos deshidratados a tornillo, y otra para salida de agua de deshidratación hasta arqueta de vaciados. Montada.	2				2,000	2,00

MEDICIONES

ABASTECIMIENTO A VARIOS MUNICIPIOS DE LA RIOJA. SISTEMA CIDACOS

CÓDIGO	RESUMEN	UDS	LONGITUD	ANCHURA	ALTURA	PARCIALES	CANTIDAD
ETI316200	ML TUBERÍA DE INOXIDABLE AISI 316L DN 200 Tubería de acero inoxidable de diámetro DN 200 mm. Construcción: Mediante soldadura. Espesor 2 mm. Material: Acero inoxidable AISI -316 L. Material accesorios acero inoxidable AISI - 316L. Acabado: Decapado. Incluso p.p. de uniones, piezas especiales, bridas, codos, tes, injertos para otras tuberías y p.p. de estructuras y elementos de anclajes a solera y/o muros. Montada y probada. Salida escurridos a arqueta 2 2,000						2,00
E3256	UD CONJUNTO TUBERÍAS PARA AGUA INDUST. Y POTABLE. PVC Y/O PE Conjunto de tuberías y válvulas para distribución de agua industrial y potable. Material: PVC y/o PE. Diámetro nominal: según planos mm. Presión nominal: 10 Atm. Incluso p.p. de válvulas, soportes y accesorios. Suministro de agua a decantador 1 1,00						1,00
232	UD VÁLVULA DE COMPUERTA MANUAL DN200 PN16 Válvula de compuerta de cierre elástico de 200 mm. de diámetro nominal y 16 At. de P.N., de accionamiento manual por volante, de cuerpo de fundición nodular GGG-50, con eje de acero inoxidable al 13 % Cr. con roscas conformadas por laminación en frío, cierre en fundición nodular, tornillería de acero inoxidable, protegida contra la corrosión mediante aplicación de doble capa de pintura epoxy, totalmente colocada y probada. Resto de características según ET. Salida escurridos a saneamiento o depósito 2 2,00						2,00
SUBPARTADO 02.02.07.3 BOMBEO Y ALMACENAMIENTO DE FANGOS DESHIDRATADOS							
ETTDF01	UD TORNILLO TRANSPORTADOR DE FANGOS DESHIDRATADOS 5,0 m3/h Tornillo transportador para fangos deshidratados. Capacidad: 5,0 m3/h. Diametro: 260 mm. Material: acero inoxidable AISI-316L. Longitud: 5,0 m. Potencia motor eléctrico: 0,75 kW. Posición de trabajo horizontal. Espiral en acero F1515 o EN10025-S355. Canal y tapas en acero inoxidable AISI-316 L. Zona de compactación en acero inoxidable AISI-316 L. Dos tolvas para acople de las centrifugas, y soportes standard en acero inoxidable AISI-316 L. Sistema de lavado automático con agua. Incluso transporte, montaje, conexiones eléctricas y pruebas de funcionamiento. Resto de características según E.T.	1				1,000	1,00
EBHFP05	UD BOMBA TORNILLO FANGOS DESHIDRATADOS 2,5 m3/h y 9 BAR Bomba helicoidal con alimentación forzada, para bombeo de fangos deshidratados. Marca: MONO o equivalente. Modelo: CW62AL2R1/G412. Velocidad de trabajo (rpm): 35-78. Caudal a la velocidad de trabajo (m3/h): 1,0-2,5. Presión en las condiciones de trabajo (bar): 9,0. - Paso de sólidos duros/deformables (mm): 12 / 40. Detector funcionamiento en vacío. Dimensiones aspiración (mm): 1.000X360. Dimensiones impulsión (mm): DN100. Accionamiento: eléctrico mediante motorreductor. Potencia instalada (kW): 7,5. Velocidad motor (rpm): 1.450. Tensión (V): 400. Frecuencia (Hz): 50. Bancada metálica. Incluso sistema de protección ETI y protección contra sobrepresiones, transporte, montaje, conexiones eléctricas y de control, pruebas de funcionamiento. Resto de características según E.T.	1				1,000	1,00
237	UD VÁLVULA DE COMPUERTA MANUAL DN100 PN25 Válvula de compuerta de cierre elástico de 100 mm. de diámetro nominal y 25 At. de P.N., de accionamiento manual por volante, de cuerpo de fundición nodular GGG-50, con eje de acero inoxidable al 13 % Cr. con roscas conformadas por laminación en frío, cierre en fundición nodular, tornillería de acero inoxidable, protegida contra la corrosión mediante aplicación de doble capa de pintura epoxy, totalmente colocada y probada. Resto de características según ET.	1				1,00	1,00

MEDICIONES

ABASTECIMIENTO A VARIOS MUNICIPIOS DE LA RIOJA. SISTEMA CIDACOS

CÓDIGO	RESUMEN	UDS	LONGITUD	ANCHURA	ALTURA	PARCIALES	CANTIDAD
EVRB100	UD VÁLVULA DE RETENCIÓN DE BOLA DN100 Válvula de retención de bola DN 100 PN16. Cuerpo y tapa: Fundición nodular GGG-40. Bola de aluminio/fundición+Resina fenólica. Tornillería de acero inoxidable AISI 316. Junta de tapa: Nitrilo. Acabados con recubrimiento anticorrosivo interior y exterior con polvo de poliamida Epoxy aplicado electrostáticamente (RAL 5015 Epoxi azul). Instalada y probada. Resto de características según ET.	1				1,00	
							1,00
EPICJ01	UD PICAJE TUBERÍA CON VÁLVULA ESFERA 1/2" Picaje en tubería para toma de muestra y/o entrada de agua, incluso picaje, válvula de aislamiento de 1/2", instalación y pruebas.	1				1,00	
							1,00
ESLF01	UD SILO ALMACENAMIENTO DE FANGOS PRFV 35M3 Tolva para almacenamiento de fango deshidratado de PRFV. Capacidad: 35 m³, incluido vibrador y compuerta tajadera para extracción colocada en la boca de descarga de 400x400 mm y accionamiento eléctrico. Diámetro: 3,0 m. Altura paso de camiones: 3,70 m. Altura total: 11,0 m. Incluso transporte, montaje, conexiones eléctricas y de control, y pruebas de funcionamiento. Resto de características según E.T.	1				1,000	
							1,00
SUBAPARTADO 02.02.07.4 VARIOS							
EPOLE2500	UD POLIPASTO ELÉCTRICO DE 2.500 KG Polipasto. Servicio: Izado de equipos. Marca: VINCA, VICINAY o equivalente. Capacidad (kg): 2.500. Tipo de carro: monocarril. Cota mínima del gancho a la viga (mm): 880. Potencia motor elevación (KW): 1,85. Incluye limitador de carga y motor-freno en el carro de traslación. Incluso transporte, montaje, conexiones eléctricas y de control, pruebas de funcionamiento. Resto de características según E.T.	1				1,00	
							1,00
APARTADO 02.02.08 SALA DE REACTIVOS							
SUBAPARTADO 02.02.08.1 DOSIFICACIÓN DE COAGULANTE. SULFATO DE ALÚMINA							
EBSM01	UD SKID PARA 4 BOMBAS DOSIFICADORAS Qu=235 L/HY 3 BAR Sistema de dosificación para sulfato de alúmina, de MILTON ROY, o equivalente, formado por 4 bombas de 235 l/h – 3 bar cada una. Equipo MRE de la serie DOSAPACK PD®. Modelo: PD-D7A1.D2/E3.B2.E1.BC.1.E1.E3.A1.C4.A1.P1.A1. 4 Bombas dosificadoras GM240 (3+1). Instalación con colectores de aspiración e impulsión, estructura metálica de acero, con soporte para todos los elementos, válvulas, amortiguadores, manómetros, etc, según características definidas en las E.T. de proyecto. Instalado y probado.	1				1,000	
							1,00
EDPRFV25	UD DEPÓSITO DE PRFV DP V=25.000 L Depósito vertical de PRFV de doble pared para almacenamiento de reactivos de 25.000 l de capacidad. Diámetro interior de 2.500 mm, altura 5.885 mm. Forma cilíndrica-vertical con fondo plano, válvula de drenaje, sensor e interruptor de nivel de máximo y mínimo, boca de hombre, detector de fugas, incluso preparación de superficie para colocación del mismo. Instalado y probado. Resto de características según E.T.	2				2,000	
							2,00
EQ70000	Ud CONEXIÓN PARA LIMPIEZA DE CONDUCCIONES Conexión para limpieza de conducciones y baldeos, compuesta por válvulas de bola manual DN-25 y conexión rápida mediante racor.	1				1,000	
							1,00

MEDICIONES

ABASTECIMIENTO A VARIOS MUNICIPIOS DE LA RIOJA. SISTEMA CIDACOS

CÓDIGO	RESUMEN	UDS	LONGITUD	ANCHURA	ALTURA	PARCIALES	CANTIDAD
E3256	UD CONJUNTO TUBERÍAS PARA AGUA INDUST. Y POTABLE. PVC Y/O PE Conjunto de tuberías y válvulas para distribución de agua industrial y potable. Material: PVC y/o PE. Diámetro nominal: según planos mm. Presión nominal: 10 Atm. Incluso p.p. de válvulas, soportes y accesorios.	1				1,00	
							1,00
E3257	Ud CONJUNTO TUBERÍAS DISTRIBUCIÓN REACTIVOS PVC Y/O PP Conjunto de tuberías y válvulas para distribución de reactivos. Material: PVC y/o PP. Diámetro nominal: según planos mm. Presión nominal: 10 Atm. Incluso p.p. de válvulas, soportes y accesorios. A bombas y equipos De trasiego	3 1				3,000 1,000	
							4,00
EBSSA01	UD BOMBA TRASIEGO SULFATO ALUMINA. 25M3/H. 15 MCA Grupo motobomba centrífuga horizontal para trasiego de sulfato de alúmina. Marca: STÚBBE o equivalente. Modelo: SHM 50-40L 9VDF/FPM. Caudal: 25 m³/h. Altura manométrica: 15 m.c.a. Potencia motor: 4,0 kW. Velocidad del motor: 2.950 r.p.m. Resto de características según ET. Incluso placa de anclaje, transporte, montaje, conexiones eléctricas y de control, y pruebas de funcionamiento.	1				1,000	
							1,00
SUBAPARTADO 02.02.08.2 DOSIFICACIÓN DE FLOCULANTE. ALMIDON MODIFICADO							
EEPPOL02	UD EQUIPO PREPARACIÓN POLIELECTROLITO 1200 L/H Equipo de preparación de polielectrolito. Marca: POLITECH o equivalente. Modelo: POLIBASIC AP 12 PPH. Tipo: unidad compacta. Capacidad de preparación (l/h): 1200. Dosificador de poli en polvo: tornillo+motorvariador reductor de 0,18 kW. Tolva de alimentación de capacidad 60 litros. Depósito con tres compartimentos y tapas, de 1.350 l. de capacidad útil. Dos electroagitadores de eje vertical y amarre por brida. Potencia electroagitador (kW): 0,55+0,37. Sonda de nivel ultrasónico. Armario de control. Materiales: Cuba en PPH, electroagitadores y tobera: AISI 316. Dosificador volumétrico: PPH. Cuadro eléctrico. Incluso transporte, montaje, conexiones eléctricas y de control, pruebas de funcionamiento. Resto de características según E.T.	1				1,000	
							1,00
EBHFP03	UD BOMBA TORNILLO DOSIFICACIÓN DE ALMIDON MODIF. 425 L/H y 25 mca Bomba helicoidal, para dosificación de almidón modificado. Marca: MONO o equivalente. Modelo: C22AC80MA. Velocidad de trabajo (rpm): 55-283. Caudal a la velocidad de trabajo (l/h): 80-425. Presión en las condiciones de trabajo (bar): 2,5. - Paso de sólidos duros/deformables (mm): 3,5 / 10. Detector funcionamiento en vacío. Dimensiones aspiración: 1 1/4" rosca BP. Dimensiones impulsión: 1 1/4" rosca BP. Accionamiento: eléctrico mediante motorreductor. Potencia instalada (kW): 0,37. Velocidad motor (rpm): 1.450. Tensión (V): 400. Frecuencia (Hz): 50. Bancada metálica. Incluso transporte, montaje, conexiones eléctricas y de control, pruebas de funcionamiento. Resto de características según E.T.	4				4,000	
							4,00
EQ70000	Ud CONEXIÓN PARA LIMPIEZA DE CONDUCCIONES Conexión para limpieza de conducciones y baldeos, compuesta por válvulas de bola manual DN-25 y conexión rápida mediante racor.	1				1,000	
							1,00
E3256	UD CONJUNTO TUBERÍAS PARA AGUA INDUST. Y POTABLE. PVC Y/O PE Conjunto de tuberías y válvulas para distribución de agua industrial y potable. Material: PVC y/o PE. Diámetro nominal: según planos mm. Presión nominal: 10 Atm. Incluso p.p. de válvulas, soportes y accesorios.	1				1,00	
							1,00

MEDICIONES

ABASTECIMIENTO A VARIOS MUNICIPIOS DE LA RIOJA. SISTEMA CIDACOS

CÓDIGO	RESUMEN	UDS	LONGITUD	ANCHURA	ALTURA	PARCIALES	CANTIDAD
E3257	Ud CONJUNTO TUBERÍAS DISTRIBUCIÓN REACTIVOS PVC Y/O PP Conjunto de tuberías y válvulas para distribución de reactivos. Material: PVC y/o PP. Diámetro nominal: según planos mm. Presión nominal: 10 Atm. Incluso p.p. de válvulas, soportes y accesorios.	1				1,000	1,00
EROT01	UD ROTÁMETRO PARA MEDIDA DE AGUA DE APORTE. Rotámetro para medida de agua de aporte. Rango de medida: 200 -2000 l/h. Instalación en línea. Material: acero inoxidable AISI-316 Poli deshidratación	1				1,000	1,00
EVBI0032	UD VÁLVULA BOLA INOX DN=32 mm. / 16 atm. Válvula de bola de 32 mm. de diámetro nominal y 16 At. de P.N., de acero inoxidable, tornillería de acero inoxidable, totalmente colocada. Aspiración bombas Impulsión	4 4				4,000 4,000	8,00
SUBPARTADO 02.02.08.3 DOSIFICACIÓN DE ÁCIDO CLORHÍDRICO							
EBSM02	UD SKID PARA 2 BOMBAS DOSIFICADORAS Qu=11 L/HY 3 BAR Sistema de dosificación para ácido clorhídrico, de MILTON ROY, o equivalente, formado por 2 bombas de 11 l/h – 3 bar cada una. Equipo MRE de la serie DOSAPACK PD®. Modelo: PD-D3A1.B2/B1.B2.B1.BA.1.B1.B1.A1.C4.A1.P1.A1. 2 Bombas dosificadoras GA25 (1+1). Instalación con colectores de aspiración e impulsión, estructura plástica de PEHD, con soporte para todos los elementos, válvulas, amortiguadores, manómetros, etc, según características definidas en las E.T. de proyecto. Instalado y probado.	1				1,000	1,00
EDPRFV2.5	UD DEPÓSITO DE PRFV DP V=2.500 L Depósito vertical de PRFV de doble pared para almacenamiento de reactivos de 2.500 l de capacidad. Diámetro interior de 1.380 mm, altura 2.280 mm. Forma cilíndrica-vertical con fondo plano, válvula de drenaje, sensor e interruptor de nivel de máximo y mínimo, boca de hombre, detector de fugas, incluso preparación de superficie para colocación del mismo. Instalado y probado. Resto de características según E.T.	1				1,000	1,00
EQ70000	Ud CONEXIÓN PARA LIMPIEZA DE CONDUCCIONES Conexión para limpieza de conducciones y baldeos, compuesta por válvulas de bola manual DN-25 y conexión rápida mediante racor.	1				1,000	1,00
E3256	UD CONJUNTO TUBERÍAS PARA AGUA INDUST. Y POTABLE. PVC Y/O PE Conjunto de tuberías y válvulas para distribución de agua industrial y potable. Material: PVC y/o PE. Diámetro nominal: según planos mm. Presión nominal: 10 Atm. Incluso p.p. de válvulas, soportes y accesorios.	1				1,00	1,00
E3257	Ud CONJUNTO TUBERÍAS DISTRIBUCIÓN REACTIVOS PVC Y/O PP Conjunto de tuberías y válvulas para distribución de reactivos. Material: PVC y/o PP. Diámetro nominal: según planos mm. Presión nominal: 10 Atm. Incluso p.p. de válvulas, soportes y accesorios. A bombas y equipos De trasiego	2 1				2,000 1,000	3,00

MEDICIONES

ABASTECIMIENTO A VARIOS MUNICIPIOS DE LA RIOJA. SISTEMA CIDACOS

CÓDIGO	RESUMEN	UDS	LONGITUD	ANCHURA	ALTURA	PARCIALES	CANTIDAD
EBSSA02	UD BOMBA TRASIEGO ÁCIDO CLORHÍDRICO. 25M3/H. 15 MCA Grupo motobomba centrífuga horizontal para trasiego de ácido clorhídrico. Marca: STÜBBE o equivalente. Modelo: SHM 40-40L PP/EPDM. Caudal: 25 m³/h. Altura manométrica: 15 m.c.a. Potencia motor: 1,1 kW. Velocidad del motor: 2.880 r.p.m. Resto de características según ET. Incluido placa de anclaje, transporte, motaje, conexiones eléctricas y de control, y pruebas de funcionamiento.	1				1,000	1,00
SUBPARTADO 02.02.08.4 DOSIFICACIÓN DE HIPOCLORITO SÓDICO							
EDPRFV15	UD DEPÓSITO DE PRFV DP V=15.000 L Depósito vertical de PRFV de doble pared para almacenamiento de reactivos de 15.000 l de capacidad. Diámetro interior de 2.325 mm, altura 4.295 mm. Forma cilíndrica-vertical con fondo plano, válvula de drenaje, sensor e interruptor de nivel de máximo y mínimo, boca de hombre, detector de fugas, incluso preparación de superficie para colocación del mismo. Instalado y probado. Resto de características según E.T.	2				2,000	2,00
EBSM03	UD SKID PARA 4 BOMBAS DOSIFICADORAS Qu=25 L/HY 3 BAR Sistema de dosificación para hipoclorito sódico, de MILTON ROY, o equivalente, formado por 4 bombas de 25 l/h – 3 bar cada una. Equipo MRE de la serie DOSAPACK PD®. Modelo: PD-D7A1.D2/B1.B2.B1.BA.1.B1.B1.A1.C4.A1.P1.A1. 4 Bombas dosificadoras GA25 (3+1). Instalación con colectores de aspiración e impulsión, estructura metálica de acero, con soporte para todos los elementos, válvulas, amortiguadores, manómetros, etc, según características definidas en las E.T. de proyecto. Instalado y probado. Preoxidación	1				1,000	1,00
EBSM04	UD SKID PARA 2 BOMBAS DOSIFICADORAS Qu=40 L/HY 3 BAR Sistema de dosificación para hipoclorito sódico, de MILTON ROY, o equivalente, formado por 2 bombas de 40 l/h – 3 bar cada una. Equipo MRE de la serie DOSAPACK PD®. Modelo: PD-A3A1.B2/B1.B2.A1.BA.1.B1.B1.A1.C2.A1.A1. 2 Bombas dosificadoras GA45 (1+1). Instalación con colectores de aspiración e impulsión, estructura plástica de PEHD, con soporte para todos los elementos, válvulas, amortiguadores, manómetros, etc, según características definidas en las E.T. de proyecto. Instalado y probado. Desinfección	1				1,000	1,00
EQ70000	Ud CONEXIÓN PARA LIMPIEZA DE CONDUCCIONES Conexión para limpieza de conducciones y baldeos, compuesta por válvulas de bola manual DN-25 y conexión rápida mediante racor.	1				1,000	1,00
E3256	UD CONJUNTO TUBERÍAS PARA AGUA INDUST. Y POTABLE. PVC Y/O PE Conjunto de tuberías y válvulas para distribución de agua industrial y potable. Material: PVC y/o PE. Diámetro nominal: según planos mm. Presión nominal: 10 Atm. Incluso p.p. de válvulas, soportes y accesorios.	1				1,00	1,00
E3257	Ud CONJUNTO TUBERÍAS DISTRIBUCIÓN REACTIVOS PVC Y/O PP Conjunto de tuberías y válvulas para distribución de reactivos. Material: PVC y/o PP. Diámetro nominal: según planos mm. Presión nominal: 10 Atm. Incluso p.p. de válvulas, soportes y accesorios. A bombas y equipos De trasiego	3 1				3,000 1,000	4,00
EBSSA03	UD BOMBA TRASIEGO HIPOCLORITO SÓDICO. 25M3/H. 15 MCA Grupo motobomba centrífuga horizontal para trasiego de hipoclorito sódico. Marca: STÜBBE o equivalente. Modelo: SHM 50-40L PP/EPDM. Caudal: 25 m³/h. Altura manométrica: 15 m.c.a. Potencia motor: 3,0 kW. Velocidad del motor: 2.920 r.p.m. Resto de características según ET. Incluido placa de anclaje, transporte, motaje, conexiones eléctricas y de control, y pruebas de funcionamiento.						

MEDICIONES

ABASTECIMIENTO A VARIOS MUNICIPIOS DE LA RIOJA. SISTEMA CIDACOS

CÓDIGO	RESUMEN	UDS	LONGITUD	ANCHURA	ALTURA	PARCIALES	CANTIDAD
	Arqueta entrada	1	2,20	1,60		3,52	
							1,00
SUBAPARTADO 02.02.08.5 DOSIFICACIÓN DE REACTIVOS DE POLI. DESHIDRATACIÓN.							
EBHFP02	UD BOMBA TORNILLO DOSIFICACIÓN DE POLI 400 L/H y 25 mca Bomba helicoidal, para dosificación de poli. Marca: MONO o equivalente. Modelo: C22AC11RMA. Velocidad de trabajo (rpm): 50-215. Caudal a la velocidad de trabajo (l/h): 80-400. Presión en las condiciones de trabajo (bar): 2,5. - Paso de sólidos duros/deformables (mm): 3,5 / 10. Detector funcionamiento en vacío. Dimensiones aspiración: 1 1/4" rosca BP. Dimensiones impulsión: 1 1/4" rosca BP. Accionamiento: eléctrico mediante motorreductor. Potencia instalada (kW): 0,55. Velocidad motor (rpm): 1.450. Tensión (V): 400. Frecuencia (Hz): 50. Bancada metálica. Incluso transporte, montaje, conexiones eléctricas y de control, pruebas de funcionamiento. Resto de características según E.T.						
	Deshidratación de fangos	2				2,000	
							2,00
EPPPOL01	UD EQUIPO PREPARACIÓN POLIELECTROLITO 550 L/H Equipo de preparación de polielectrolito. Marca: POLITECH o equivalente. Modelo: POLIBASIC AP 5 PPH. Tipo: unidad compacta. Capacidad de preparación (l/h): 550. Dosificador de poli en polvo: tornillo+motorvariador reductor de 0,18 kW. Torna de alimentación de capacidad 60 litros. Depósito con dos compartimentos y tapas, de 650 l. de capacidad útil. Dos electroagitadores de eje vertical y amarre por brida. Potencia electroagitador (kW): 0,37+0,37. Sonda de nivel ultrasónico. Armario de control. Materiales: Cuba en PPH, electroagitadores y tobera: AISI 316. Dosificador volumétrico: PPH. Cuadro eléctrico. Incluso transporte, montaje, conexiones eléctricas y de control, pruebas de funcionamiento. Resto de características según E.T.						
		1				1,000	
							1,00
EQ70000	Ud CONEXIÓN PARA LIMPIEZA DE CONDUCCIONES Conexión para limpieza de conducciones y baldeos, compuesta por válvulas de bola manual DN-25 y conexión rápida mediante racor.						
		1				1,000	
							1,00
E3256	UD CONJUNTO TUBERÍAS PARA AGUA INDUST. Y POTABLE. PVC Y/O PE Conjunto de tuberías y válvulas para distribución de agua industrial y potable. Material: PVC y/o PE. Diámetro nominal: según planos mm. Presión nominal: 10 Atm. Incluso p.p. de válvulas, soportes y accesorios.						
		1				1,00	
							1,00
E3257	Ud CONJUNTO TUBERÍAS DISTRIBUCIÓN REACTIVOS PVC Y/O PP Conjunto de tuberías y válvulas para distribución de reactivos. Material: PVC y/o PP. Diámetro nominal: según planos mm. Presión nominal: 10 Atm. Incluso p.p. de válvulas, soportes y accesorios.						
		1				1,000	
							1,00
EROT01	UD ROTÁMETRO PARA MEDIDA DE AGUA DE APORTE. Rotámetro para medida de agua de aporte. Rango de medida: 200 -2000 l/h. Instalación en línea. Material: acero inoxidable AISI-316 Poli deshidratación						
		1				1,000	
							1,00
EVBI0032	UD VÁLVULA BOLA INOX DN=32 mm. / 16 atm. Válvula de bola de 32 mm. de diámetro nominal y 16 At. de P.N., de acero inoxidable, tornillería de acero inoxidable, totalmente colocada. Caudalímetro Aspiración bombas Impulsión						
		2				2,000	
		2				2,000	
		2				2,000	
							6,00

MEDICIONES

ABASTECIMIENTO A VARIOS MUNICIPIOS DE LA RIOJA. SISTEMA CIDACOS

CÓDIGO	RESUMEN	UDS	LONGITUD	ANCHURA	ALTURA	PARCIALES	CANTIDAD
SUBAPARTADO 02.02.08.6 VARIOS							
EDLAV001	UD DUCHA LAVAOJOS Estructura construida en caño de acero galvanizado rev estido con pintura epoxi color amarillo. Campana de ducha de diámetro 220 mm construida en acero inoxidable tipo diluvio, con bañe aliviador que produce una campana de agua de diámetro 500 mm. Lavaojos construido con bacha de acero Inoxidable de diámetro 250 mm con tapa plástica rebatible automáticamente y rociadores de bronce cromados que producen espuma con efecto de lavaojos y lavacara posee paso calibrado regulador de presión y caudal y capuchones automáticos antipolvo. Accionamiento de la ducha por palanca manual de acero inoxidable con indicador e instructivo de alto impacto y válvula esférica de bronce. Accionamiento del lavaojos por pedal de plástico y palanca manual de acero inoxidable con instructivo e indicador y válvula esférica de bronce. Acometida de agua potable, sumidero de vaciado y conexión a la red de escurridos. Totalmente instalada.						
		1				1,000	
							1,00
EVENT01	UD VENTILADOR HELICOIDAL:Q=3.650M3/H Ventilador extractor helicoidal marca: SODECA o equivalente. Caudal: 3.650 m3/h. Velocidad: 2.780 rpm. Nivel sonoro: 72 dB(A) . Materiales:marco soporte en chapa de acero, Helice: poliámidada 6 reforzada con fibra de vidrio, Accionamiento: motor electrico. Potencia: 0,18 KW. Accesorios: Rejilla de proteccion. Realización de hueco en muro de bloque, ayudas de albañilería, colocado y funcionando. Totalmente instalado.						
		1				1,000	
							1,00
EPOLE1000	UD POLIPASTO ELÉCTRICO DE 1.000 KG Polipasto. Servicio: Izado de equipos. Características:- Marca: VINCA, VICINAY o equivalente. Capacidad (kg): 1.000. Tipo de carro: monocarril. Cota mínima del gancho a la viga (mm): 880. Potencia motor elevación (KW): 1,85. Incluye limitador de carga, motor-freno en el carro de traslación. Incluso transporte, montaje, conexiones eléctricas y de control, pruebas de funcionamiento. Resto de características según E.T.						
		1				1,00	
							1,00
EPOLM500	UD POLIPASTO MANUAL DE 500 KG Polipasto. Servicio: Izado de equipos. Características: Marca: VINCA, VICINAY o equivalente. Capacidad (kg): 500. Tipo de carro: monocarril. Cota mínima del gancho a la viga (mm): 880. Incluso transporte, montaje, pruebas de funcionamiento. Resto de características según E.T. Almacén						
		1				1,00	
							1,00
APARTADO 02.02.09 INSTRUMENTACIÓN							
ECELM900	UD CAUDALÍMETRO ELECTROMAGNÉTICO DN 900 mm Equipo medidor de caudal de DN900 mm. tipo electromagnético y PN=10 atm. con salida 4/20 mA, tensión 220 V y escala 0-240 m3/h, totalmente instalado y probado. Incluido transporte, montaje, conexiones eléctricas y pruebas de funcionamiento. Resto de características, según ET. Caudal de entrada Salida general						
		1				1,00	
		1				1,00	
							2,00
ECELM400	UD CAUDALÍMETRO ELECTROMAGNÉTICO DN 400 mm Equipo medidor de caudal de DN400 mm. tipo electromagnético y PN=10 atm. con salida 4/20 mA, tensión 220 V y escala 0-240 m3/h, totalmente instalado y probado. Incluido transporte, montaje, conexiones eléctricas y pruebas de funcionamiento. Resto de características, según ET. Agua lavado de filtros						
		1				1,00	
							1,00
ECELM125	UD CAUDALÍMETRO ELECTROMAGNÉTICO DN 125 mm PN10 Equipo medidor de caudal de DN125 mm. tipo electromagnético y PN=10 atm. con salida 4/20 mA, tensión 220 V y escala 0-240 m3/h, totalmente instalado y probado. Incluido transporte, montaje, conexiones eléctricas y pruebas de funcionamiento. Resto de características, según ET. Bombeo de fangos primarios Entrada espesador						
		3				3,00	
		1				1,00	
							4,00

MEDICIONES

ABASTECIMIENTO A VARIOS MUNICIPIOS DE LA RIOJA. SISTEMA CIDACOS

CÓDIGO	RESUMEN	UDS	LONGITUD	ANCHURA	ALTURA	PARCIALES	CANTIDAD
ECELM100	UD CAUDALÍMETRO ELECTROMAGNÉTICO DN 100 mm Equipo medidor de caudal de DN100 mm. tipo electromagnético y PN=10 atm. con salida 4/20 mA, tensión 220 V y escala 0-240 m3/h, totalmente instalado y probado. Incluido transporte, montaje, conexiones eléctricas y pruebas de funcionamiento. Resto de características, según ET. Salida de grupo de presión de servicios	1				1,00	
							1,00
ECELM080	UD CAUDALÍMETRO ELECTROMAGNÉTICO DN 80 mm PN10 Equipo medidor de caudal de DN80 mm. tipo electromagnético y PN=10 atm. con salida 4/20 mA, tensión 220 V y escala 0-240 m3/h, totalmente instalado y probado. Incluido transporte, montaje, conexiones eléctricas y pruebas de funcionamiento. Resto de características, según ET. Enrada fangos a centrifuga	1				1,00	
							1,00
ECELM032	UD CAUDALÍMETRO ELECTROMAGNÉTICO POLI ELECT. DN 32 mm Equipo medidor de caudal de DN32 mm. tipo electromagnético para reactivos, con salida 4/20 mA, tensión 220 V, totalmente instalado y probado. Incluido transporte, montaje, conexiones eléctricas y pruebas de funcionamiento. Resto de características, según ET. Poli a deshidratación	1				1,00	
							1,00
EMANGL01	UD MANÓMETRO DE ESFERA TIPO MUELLE TUBULAR DN100 Manómetro de esfera DN 100 tipo muelle tubular con accesorios, sifón, válvula de aislamiento y purga. Incluso instalación y pruebas. Resto de características según E.T de proyecto. Bombeo de fangos primarios Bombeo de fangos a deshidratación Bombeo de fangos deshidratados Bombeo de poli a deshidratación Bombeo almidón modificado Soplantes lavado de filtros Bombeo lavado de filtros Bombeo recuperación agua lavado	6 2 1 2 4 2 3 2				6,00 2,00 1,00 2,00 4,00 2,00 3,00 2,00	
							22,00
EMRAD01	UD MEDIDOR NIVEL DE RADAR Medidor de nivel por radar. Marca: ENDRESS-HAUSER o equivalente. Modelo: Micropilot M FMR231. Antena y longitud inactiva: PPS antiestático 360 mm (14"). Señal de salida (mA): 4..20. Precisión (%): +/- 0,2. Resolución (mm): 1. Sin efecto de la temperatura ambiente sobre el valor medido. Material convertidor: fundición de aluminio con recubrimiento epoxy. Incluso instalación y pruebas. Resto de características según E.T de proyecto. Silo de fangos	1				1,00	
							1,00
EMUSO01	UD MEDIDOR DE NIVEL POR ULTRASONIDOS Medidor de nivel por ultrasonidos. Pértiga en PP con brida. Incluso instalación y pruebas. Resto de características según E.T de proyecto. Depósito de fangos espesados Depósito de agua tratada	1 2				1,000 2,000	
							3,00
EMUSO02	UD MEDIDOR DE NIVEL POR ULTRASONIDOS TANQUES REACTIVOS Medidor de nivel por ultrasonidos para tanque e reactivos. Medios auxiliares y de sujeción y/o anclaje. Incluso instalación y pruebas. Resto de características según E.T de proyecto. Sulfato de alúmina Acido clorhídrico Hipoclorito sódico Permanganato potásico	2 1 2 1				2,000 1,000 2,000 1,000	
							6,00

MEDICIONES

ABASTECIMIENTO A VARIOS MUNICIPIOS DE LA RIOJA. SISTEMA CIDACOS

CÓDIGO	RESUMEN	UDS	LONGITUD	ANCHURA	ALTURA	PARCIALES	CANTIDAD
EMFAR01	UD MEDIDOR PERDIDA DE CARGA EN FILTROS DE ARENA Medidor pérdida de carga en filtros de arena, Electronica de medida de nivel , sensor de nivel ultrasónico, tuerca con brida y programador manual. Incluso instalación y pruebas. Resto de características según E.T de proyecto. Filtros de arena	12				12,000	
							12,00
EMNBY01	UD MEDIDOR POR BOYAS DE NIVEL MÁXIMO-MINIMO-SEGURIDAD Conjunto de boyas para el control de maximo, minimo y seguridad, incluso mecanismos de regulación y control, conexión y cableado desde cuadro a deposito. Medios auxiliares y de sujeción y/o anclaje. Incluso instalación y pruebas. Resto de características según E.T de proyecto. Depósito previo de agua filtrada Depósito de agua de lavado de filtros Depósito de agua tratada	1 1 2				1,000 1,000 2,000	
							4,00
EMTURB01	UD MEDIDOR DE TURBIDEZ Equipo para medida de turbidez compuesto por: Sistema de turbidez en PVC, rango 0-4000 ppm, por luz dispersada a 90°, temperatura -5° a 60°, presión máxima 6 bares, cable en longitud necesaria, conexión NPT 3/4". Portaelectrodos de PVC, longitud aproximada 1500 mm, fijación V4/A. Transmisor para montaje en pared, protección IP-65, en aluminio y poliéster, indicación digital en NTU, ppm, escala de salida programable, alimentación 220 V , salida 0/4-20 mA, temperatura 0-50° , señal de salida para temperatura, error máximo 0,5% FS, con dos relés de salida, instalado y conectado. Medios auxiliares y de sujeción y/o anclaje. Incluso instalación y pruebas. Resto de características según E.T de proyecto. En entrada a filtros Entrada preozonización Depósito de agua de lavado de filtros	2 1 1				2,000 1,000 1,000	
							4,00
EMPH01	UD MEDIDOR DE PH Y TEMPERATURA Equipo de medida de pH para montaje en línea con electrónica mural, con display y teclado, según E.T, instalado con soporte de acero AISI 316, totalmente cableado. Medios auxiliares y de sujeción y/o anclaje. Incluso instalación y pruebas. Resto de características según E.T de proyecto. Entrada preozonización	1				1,000	
							1,00
EMCLL01	UD MEDIDOR CONTROLADOR CLORO Medidor controlador de cloro libre controlado por microprocesador, incluido soporte para toma de muestras, p.p. de piezas de conexión, sujeción y/o anclaje. Incluso instalación y pruebas. Resto de características según E.T de proyecto. Salida preozonización Depósito agua tratada Salida colector agua tratada	1 2 1				1,000 2,000 1,000	
							4,00
EMCONT01	UD CONTROLADOR UNIVERSAL 1 CANAL Controlador universal SC200 de HACH o equivalent o equivalente, de 1 o 2 sondas. 2 salidas 4-20 mA, 4 relés de alarma. Alimentación 100-240 Vca. Resto de características según E.T de proyecto. Medios auxiliares y de sujeción y/o anclaje. Incluso instalación y pruebas. Resto de características según E.T de proyecto. En entrada a filtros Preozonización Depósito agua tratada	2 2 2				2,000 2,000 2,000	
							6,00
EANOZ01	UD ANALIZADOR DE OZONO Analizador de ozono en el agua ATI Q45/64H. Incluso instalación y pruebas. Resto de características según E.T de proyecto. Uno a cada cámara	3				3,000	
							3,00

MEDICIONES

ABASTECIMIENTO A VARIOS MUNICIPIOS DE LA RIOJA. SISTEMA CIDACOS

CÓDIGO	RESUMEN	UDS	LONGITUD	ANCHURA	ALTURA	PARCIALES	CANTIDAD
ERE0201	UD REGULADOR DE O2 Regulador de O2, con válvulas, manómetros, reguladores. Incluso instalación y pruebas. Resto de características según E.T de proyecto. Uno por generador	2				2,000	2,00
APARTADO 02.02.10 VARIOS							
SUBAPARTADO 02.02.10.1 AGUA DE SERVICIO							
EGRPR01	UD GRUPO DE PRESIÓN DOS BOMBAS 50,0 m3/h 4 bar. Grupo de Presión de CAPRARI o equivalente de dos (1+1) bombas 50,0 m³/h 3 bar. Fluido a bombear: Agua industrial. Caudal unitario: 50 m3/h. Presión: 4 bar. Formado por 2 Uds. Electrobomba centrífuga vertical multicelular 10 C.V. Cuerpo y rodetes AISI-316L, eje motor AISI-420. Depósito acumulador 500 l, válvula de esfera, manguitos flexibles de conexión. Bancada de chapa de acero plegado. Colector de impulsión para las dos bombas. Válvulas de corte, carretes, válvulas de retención. Cuadro eléctrico, transductor de presión, boya de nivel. Manómetro y presostatos. Incluido, transporte, conexiones eléctricas y de control, así como el montaje y pruebas de funcionamiento. Resto de características según ET.	1				1,000	1,00
EGRPR02	UD RED DE AGUA Red de agua a presión para llenado de depósitos de reactivos, y otros, desde salida de grupo de presión hasta cubas y puntos de consumo, ejecutada en tubería de PE soldado. Instalada.	1				1,000	1,00
ETI316100	ML TUBERÍA DE INOXIDABLE AISI 316L DN 100 Tubería de acero inoxidable de diámetro DN 100 mm. Construcción: Mediante soldadura. Espesor 1,5 mm. Material: Acero inoxidable AISI -316 L. Material accesorios acero inoxidable AISI - 316L. Acabado: Decapado. Incluso p.p. de uniones, piezas especiales, bridas, codos, tes, injertos para otras tuberías y p.p. de estructuras y elementos de anclajes a solera y/o muros. Montada y probada. Colector de toma	1	0,400			0,400	8,25
		1	0,850			0,850	
		2	1,000			2,000	
	Colector de salida hasta muro edificio	1	5,000			5,000	
237	UD VÁLVULA DE COMPUERTA MANUAL DN100 PN25 Válvula de compuerta de cierre elástico de 100 mm. de diámetro nominal y 25 At. de P.N., de accionamiento manual por volante, de cuerpo de fundición nodular GGG-50, con eje de acero inoxidable al 13 % Cr. con rosca conformada por laminación en frío, cierre en fundición nodular, tomillería de acero inoxidable, protegida contra la corrosión mediante aplicación de doble capa de pintura epoxy, totalmente colocada y probada. Resto de características según ET.	1				1,00	1,00
ECD010016	UD CARRETE DE DESMONTAJE DN=100 mm PN16 Carrete telescópico de desmontaje DN100 PN16, bridas de acero al carbono, virolas de acero inoxidable, protección epoxy, tornillos y tuercas en acero F-114, cincado y posterior baño de cromo-niquel, incluido p.p. de brida enchufe, totalmente instalado y probado en obra.	1				1,00	1,00
SUBAPARTADO 02.02.10.2 AIRE DE SERVICIO							
ECOMA01	UD COMPRESOR DE AIRE. 1.300 L/MIN 7,5 BAR. P=7,5 Kw Compresor de aire de tornillo lubricado de velocidad fija, modelo L07e de ATLAS COPCO o equivalente, de 1.300 l/min y 7,5 bar, con una potencia de 7,5 Kw. Tanque de 270 l. Incluso parte proporcional de válvulas y manguitos de unión a líneas, manómetro, separador de agua-acerite. Incluido, transporte, conexiones eléctricas y de control, así como el montaje y pruebas de funcionamiento. Resto de características según ET.	2				2,000	2,00

MEDICIONES

ABASTECIMIENTO A VARIOS MUNICIPIOS DE LA RIOJA. SISTEMA CIDACOS

CÓDIGO	RESUMEN	UDS	LONGITUD	ANCHURA	ALTURA	PARCIALES	CANTIDAD
ECOMA02	UD SECADOR DE AIRE. 1.400 L/MIN 7 BAR. Secador frigorífico para aire, modelo F014S de ATLAS COPCO o equivalente, de 1.400 l/min. Incluso parte proporcional de válvulas y manguitos de unión a líneas, prefiltro de 1.800 l/min, postfiltro de 1.800 l/min. Incluido, transporte, conexiones eléctricas y de control, así como el montaje y pruebas de funcionamiento. Resto de características según ET.	1				1,000	1,00
ECVNEA01	UD ACOMETIDA AIRE Acometida de aire desde compresor a todos los cuadros de accionamiento de EV. Instalada.	1				1,000	1,00
APARTADO 02.02.11 MEDICIÓN AGUA SALIDA AGUA DEPÓSITO							
ETI316900	ML TUBERÍA DE INOXIDABLE AISI 316L DN 900 Tubería de acero inoxidable de diámetro DN 900 mm. Construcción: Mediante soldadura. Espesor 8 mm. Material: Acero inoxidable AISI -316 L. Material accesorios acero inoxidable AISI - 316L. Acabado: Decapado. Incluso p.p. de uniones, piezas especiales, bridas, codos, tes, injertos para otras tuberías y p.p. de estructuras y elementos de anclajes a solera y/o muros. Montada y probada. By-pass	1	13,250			13,250	25,75
	Tubería caudalímetro	1	12,500			12,500	
EVMM0900	UD VÁLVULA DE MARIPOSA DOBLE EXCENRICIDAD DN 900 mm PN16 MANUAL Válvula de mariposa de doble excentricidad de 900 mm de diámetro y PN16, de accionamiento manual por reductor, incluso mecanismo de accionamiento, maniobra y control, transporte, montaje, juntas, tomillería y pintura totalmente instalada y probada. Resto de características según ET de proyecto. By-pass	1				1,00	1,00
ECD0900	UD CARRETE DE DESMONTAJE DN=900 mm PN16 Carrete telescópico de desmontaje DN900 PN 16, bridas de acero al carbono, virolas de acero inoxidable, protección epoxy, tornillos y tuercas en acero F-114, cincado y posterior baño de cromo-niquel, incluido p.p. de brida enchufe, totalmente instalado y probado en obra. Caudalímetro	2				2,00	3,00
	By-pass	1				1,00	
EVMMT900	UD VÁLVULA DE MARIPOSA DOBLE EXCENRICID. DN 900 mm PN16 MOTORIZADA Válvula de mariposa de doble excentricidad de 900 mm de diámetro y PN16, de accionamiento motorizado, incluso mecanismo de accionamiento, maniobra y control, transporte, montaje, juntas, tomillería y pintura totalmente instalada y probada. Resto de características según ET de proyecto. Caudalímetro	2				2,00	2,00
SUBCAPÍTULO 02.03 INSTALACIONES ELÉCTRICAS ETAP							
APARTADO 02.03.01 CENTRO DE CONTROL DE MOTORES							
CCMLA	UD C.C.M. 1. EDIFICIO DESHIDRATACIÓN Y REACTIVOS Cuadro general con apartamentación y envolvente de Schneider, compartimentación mínima 3B, formado por envolvente metálico con puertas montado sobre zócalo y conteniendo interruptor general automático NSX 400A regulable, limitador de sobretensiones, analizador de redes, variadores de frecuencia, protecciones magnetotérmicas y diferenciales según esquema unifilar, incluso cableado interior, perfiles omega y regletas de conexión.	1				1,00	1,00
CCMLA2	UD C.C.M. 2. EDIFICIO DE CONTROL Cuadro general con apartamentación y envolvente de Schneider, compartimentación mínima 3B, formado por envolvente metálico con puertas montado sobre zócalo y conteniendo interruptor general automático NSX 250A regulable, limitador de sobretensiones, analizador de redes, variadores de frecuencia, protecciones magnetotérmicas y diferenciales según esquema unifilar, incluso cableado interior, perfiles omega y regletas de conexión.						1,00

MEDICIONES

ABASTECIMIENTO A VARIOS MUNICIPIOS DE LA RIOJA. SISTEMA CIDACOS

CÓDIGO	RESUMEN	UDS	LONGITUD	ANCHURA	ALTURA	PARCIALES	CANTIDAD
	Arqueta entrada	1	2,20	1,60		3,52	
							1,00
CCMLA3	UD C.C.M. 3. DEPÓSITO DE AGUA TRATADA						
	Cuadro general con apartamentación y envolvente de Schneider, compartimentación mínima 3B, formado por envolvente metálico con puertas montado sobre zócalo y conteniendo interruptor general automático NSX 100A regulable, limitador de sobretensiones, analizador de redes, variadores de frecuencia, protecciones magnetotérmicas y diferenciales según esquema unifilar, incluso cableado interior, perfiles omega y regletas de conexión.	1				1,00	
							1,00
	APARTADO 02.03.02 CUADROS ELÉCTRICOS, ELECTRIFICACIÓN, CABLEADO						
ELE013525	ML LINEA 3x4mm2 Cu 0.6/1kV RZ1-K (AS)						
	Línea de alimentación con conductores unipolares 3x4 mm2 Cu 0.6/1kV RZ1-K (AS) en canalización existente, incluso conexionado en inicio y final de línea.						
	E. CONTROL 1º	1	50,000			50,000	
	E. CONTROL 1º PLANTA	1	50,000			50,000	
	E. CONTROL 2º PLANTA	1	50,000			50,000	
	USOS VARIOS 1	3	0,300			0,900	
	USOS VARIOS 2	3	0,300			0,900	
							151,80
EL3623	ML LINEA 4x2.5mm2 Cu 0.6/1kV RZ1-K (AS)						
	Línea eléctrica con conductor multipolar 4x2.5mm2 RZ1-K (AS) en canalización existente, incluso conexionado en inicio y final de línea.						
	VCC01	1	50,000			50,000	
	CMEN01	1	60,000			60,000	
	CMBYPASS01	1	60,000			60,000	
	CMOZ01	1	70,000			70,000	
	CMOZ02	1	74,000			74,000	
	CMOZ03	1	78,000			78,000	
	DO01	1	74,000			74,000	
	DO02	1	78,000			78,000	
	DO03	1	82,000			82,000	
	VOZ01	1	30,000			30,000	
	CMBYPASSDEC01	1	40,000			40,000	
	CMBYPASSDEC02	1	70,000			70,000	
	CMBYPASSDEC03	1	85,000			85,000	
	CMCOAG01	1	35,000			35,000	
	CMCOAG02	1	30,000			30,000	
	CMCOAG03	1	45,000			45,000	
	AGC01	1	35,000			35,000	
	AGC02	1	35,000			35,000	
	AGC03	1	45,000			45,000	
	CMDEC01	1	60,000			60,000	
	CMDEC02	1	60,000			60,000	
	CMDEC03	1	60,000			60,000	
	CMF01	1	60,000			60,000	
	BTMAB01	1	65,000			65,000	
	BTMAAD01	1	60,000			60,000	
	ROMCAL01	1	30,000			30,000	
	ROMCAL02	1	30,000			30,000	
	VRE01	1	20,000			20,000	
	PREAC01	1	20,000			20,000	
	BTRASCOAG01	1	30,000			30,000	
	BTRASHP01	1	30,000			30,000	
	BTRASCLH01	1	30,000			30,000	
	AGFE01	1	30,000			30,000	
	PES01	1	60,000			60,000	
	TTF	1	30,000			30,000	
	SILOFA01	1	35,000			35,000	
	VF01	1	30,000			30,000	

MEDICIONES

ABASTECIMIENTO A VARIOS MUNICIPIOS DE LA RIOJA. SISTEMA CIDACOS

CÓDIGO	RESUMEN	UDS	LONGITUD	ANCHURA	ALTURA	PARCIALES	CANTIDAD
	Arqueta entrada	1	2,20	1,60		3,52	
	CMFIL01	1	75,000			75,000	
	CMFIL02	1	110,000			110,000	
	BRAL01	1	25,000			25,000	
	BRAL02	1	25,000			25,000	
	AGALAV01	1	15,000			15,000	
	BTMAD01	1	90,000			90,000	
	BTMAT01	1	30,000			30,000	
	VMOTE01	1	60,000			60,000	
	VMOTE02	1	60,000			60,000	
	PSOP01	1	20,000			20,000	
	POBOM01	1	30,000			30,000	
	CAS01	1	10,000			10,000	
	CAS02	1	10,000			10,000	
	SAS01	1	10,000			10,000	
	GPSAT01	1	22,000			22,000	
	GPSAT02	1	22,000			22,000	
	VMOTS01	1	20,000			20,000	
	VMOTS02	1	20,000			20,000	
	PMAN01	1	20,000			20,000	
							2.525,00
EL3801	ML LINEA 5x1.5mm2 Cu 0.6/1kV RZ1-K (AS)						
	Línea eléctrica con conductores unipolares 5x1.5mm2 RZ1-K (AS) en canalización existente, incluso conexionado en inicio y final de línea.						
	ALUMBRADO E. REACTIVOS Y ALMACÉN	1	5,000			5,000	
							5,00
EL362	ML LINEA 5x2.5mm2 Cu 0.6/1kV RZ1-K (AS)						
	Línea eléctrica con conductor multipolar 5x2.5mm2 RZ1-K (AS) en canalización existente, incluso conexionado en inicio y final de línea.						
	AAOZ01	1	32,000			32,000	
	EPF01	1	15,000			15,000	
	EQCAL01	1	30,000			30,000	
	EQCAL02	1	30,000			30,000	
	EPP01	1	20,000			20,000	
	FUERZA E. REACTIVOS Y ALMACÉN	1	5,000			5,000	
	E. REACTIVOS	1	20,000			20,000	
	ALMACÉN-TALLER	1	35,000			35,000	
	T.F. USO GENERAL	1	30,000			30,000	
	TOMA TRIFÁSICA 16 A	1	10,000			10,000	
	T.F. USO GENERAL	1	40,000			40,000	
	CASETA DE DEPURACIÓN DE AGUA TRATADA	1	20,000			20,000	
							287,00
EL36232	ML LINEA 5x2.5mm2 Cu 0.6/1kV RZ1KZ1-K (AS)						
	Línea eléctrica con conductores unipolares 4x2.5mm2 RZ1KZ1-K (AS) en canalización existente, incluso conexionado en inicio y final de línea.						
	AGF01	1	35,000			35,000	
	AGF02	1	35,000			35,000	
	AGF03	1	50,000			50,000	
	PDEC01	1	50,000			50,000	
	PDEC02	1	50,000			50,000	
	PDEC03	1	60,000			60,000	
	BDSA01	1	20,000			20,000	
	BDSA02	1	20,000			20,000	
	BDSA03	1	20,000			20,000	
	BDSA04	1	20,000			20,000	
	BDAS01	1	20,000			20,000	
	BDAS02	1	20,000			20,000	

MEDICIONES

ABASTECIMIENTO A VARIOS MUNICIPIOS DE LA RIOJA. SISTEMA CIDACOS

CÓDIGO	RESUMEN	UDS	LONGITUD	ANCHURA	ALTURA	PARCIALES	CANTIDAD
	Arqueta entrada	1	2,20	1,60		3,52	
	BDHPR02	1	20,000			20,000	
	BDHPR03	1	20,000			20,000	
	BDHPR04	1	20,000			20,000	
	BDHPO01	1	20,000			20,000	
	BDHPO02	1	20,000			20,000	
	BDF01	1	20,000			20,000	
	BDF02	1	20,000			20,000	
	BDF03	1	20,000			20,000	
	BDF04	1	20,000			20,000	
	DOSCAL01	1	30,000			30,000	
	DOSCAL02	1	30,000			30,000	
	BDOSCSL01	1	30,000			30,000	
	BDOSCSL02	1	30,000			30,000	
	BDOSCSL03	1	30,000			30,000	
	BRF01	1	45,000			45,000	
	BRF02	1	45,000			45,000	
	BRF03	1	45,000			45,000	
	BRF04	1	45,000			45,000	
	BRF05	1	60,000			60,000	
	BRF06	1	60,000			60,000	
	BDPD01	1	20,000			20,000	
	BDPD02	1	20,000			20,000	
	BFDES01	1	20,000			20,000	
	BFDES02	1	20,000			20,000	
	BTFD01	1	30,000			30,000	
							1.160,00
EL362321	ML LINEA 5x2.5mm2 Cu 0.6/1kV RZ1-K (AS+) Línea eléctrica con conductores unipolares 4x2.5mm2 RZ1KZ1-K (AS) en canalización existente, incluso conexiónado en inicio y final de línea.						
	ASCENSOR	1	50,000			50,000	
							50,00
ELE0133211	ML LINEA 5x10mm2 Cu 0.6/1kV RZ1-K (AS) Línea de alimentación con conductores unipolares 5x10 mm2 Cu 0.6/1kV RZ1-K (AS) en canalización existente, incluso conexiónado en inicio y final de línea.						
	EQO01	1	30,000			30,000	
	EQO02	1	32,000			32,000	
							62,00
ELE0133212	ML LINEA 5x10mm2 Cu 0.6/1kV RZ1KZ1-K (AS) Línea de alimentación con conductores unipolares 5x10 mm2 Cu 0.6/1kV RZ1KZ1-K (AS) en canalización existente, incluso conexiónado en inicio y final de línea.						
	CF01	1	30,000			30,000	
	CF02	1	30,000			30,000	
	AAED01	1	50,000			50,000	
							110,00
ELE0133215	ML LINEA 5x16mm2 Cu 0.6/1kV RZ1-K (AS) Línea de alimentación con conductores unipolares 5x16 mm2 Cu 0.6/1kV RZ1-K (AS) en canalización existente, incluso conexiónado en inicio y final de línea.						
	ACO3	1	70,000			70,000	
	CCM3	1	220,000			220,000	
							290,00
ELE01332151	ML LINEA 4x16mm2 Cu 0.6/1kV RZ1KZ1-K (AS) Línea de alimentación con conductores unipolares 5x16 mm2 Cu 0.6/1kV RZ1KZ1-K (AS) en canalización existente, incluso conexiónado en inicio y final de línea.						
	BAR01	1	20,000			20,000	
	BAR02	1	20,000			20,000	
							40,00

MEDICIONES

ABASTECIMIENTO A VARIOS MUNICIPIOS DE LA RIOJA. SISTEMA CIDACOS

CÓDIGO	RESUMEN	UDS	LONGITUD	ANCHURA	ALTURA	PARCIALES	CANTIDAD
EL380	ML LINEA 3x1.5mm2 Cu 0.6/1kV RZ1-K (AS) Línea eléctrica con conductor multipolares 3x1.5mm2 RZ1-K (AS) en canalización existente, incluso conexiónado en inicio y final de línea.						
	ALUM. E. REACTIVOS	1	20,000			20,000	
	ALUM. E. TALLER-ALMACÉN	1	35,000			35,000	
	MANDO	3	10,000			30,000	
	AUTÓMATA	3	10,000			30,000	
	ALUM. INTERIOR CUADRO	3	10,000			30,000	
							145,00
EL3621	ML LINEA 3x2.5mm2 Cu 0.6/1kV RZ1-K (AS) Línea eléctrica con conductores unipolares 3x2.5mm2 RZ1-K (AS) en canalización existente, incluso conexiónado en inicio y final de línea.						
	TOMA MONOFÁSICA N°1	3	10,000			30,000	
	TOMA MONOFÁSICA N°2	3	10,000			30,000	
	TRANSFORMADOR	3	10,000			30,000	
	RESISTENCIA CALDEO	3	10,000			30,000	
	VENTILADOR CUADRO	3	10,000			30,000	
	T.C. CARRIL CUADRO	3	10,000			30,000	
	E. CONTROL 1º PLANTA	1	50,000			50,000	
							230,00
ELAR69865	ML LÍNEA 3x35/16 mm2 Cu 0.6/1 kV RZ1-K(AS) Línea eléctrica con conductores unipolares de 4x35/16mm2 RZ1KZ1-K(AS) en canalización existente, incluso conexiónado en inicio y final de línea.						
	SLF01	1	25,00			25,00	
	SLF02	1	25,00			25,00	
							50,00
ELAR698651	ML LÍNEA 4x35/16 mm2 Cu 0.6/1 kV RZ1-K(AS) Línea eléctrica con conductores unipolares de 4x35/16mm2 RZ1KZ1-K(AS) en canalización existente, incluso conexiónado en inicio y final de línea.						
	E. CONTROL	1	25,00			25,00	
							25,00
ELE013322	ML LINEA 5x6mm2 Cu 0.6/1kV RZ1KZ1-K (AS) Línea eléctrica con conductores unipolares 5x6 mm2 Cu 0.6/1kV RZ1KZ1-K (AS) en canalización existente, incluso conexiónado en inicio y final de línea.						
	BIL01	1	30,000			30,000	
	BIL02	1	30,000			30,000	
	BIL03	1	30,000			30,000	
							90,00
ELAR69866	ML LÍNEA 4x50/25 mm2 Cu 0.6/1 kV RZ1-K(AS) Línea eléctrica con conductores unipolares de 4x50/25mm2 RZ1-K(AS) en canalización existente, incluso conexiónado en inicio y final de línea.						
	CCM2	1	200,00			200,00	
							200,00
ELAR698631	ML LÍNEA 2(4x240/120) mm2 AI 0.6/1 kV RV-AI (AS) Línea eléctrica con conductores unipolares 2(4x240/120)mm2 RV-AI (AS) en canalización existente, incluso conexiónado en inicio y final de línea.						
	BATERÍA DE CONDENSADORES	1	10,00			10,00	
	GRUPO ELECTRÓGENO 250 KVA	1	60,00			60,00	
							70,00
ELE02141	ML LÍNEA 3(3x240/120mm2)AI 0.6/1 kV RZ1-AL(AS) Línea general de alimentación con 9 conductores unipolares de 1x240mm2 AI 0.6/1kV RZ1-AL y 3 conductores unipolares de 1x120mm2 AL 0.6/1kV RZ1-AL (AS) instalada en canalización subterránea bajo calzada bajo tubo compuesta por 6 tubos de PEAD de 160mm. Incluido reposición de pavimento existente.						
	CGBT	10				10,000	

MEDICIONES

ABASTECIMIENTO A VARIOS MUNICIPIOS DE LA RIOJA. SISTEMA CIDACOS

CÓDIGO	RESUMEN	UDS	LONGITUD	ANCHURA	ALTURA	PARCIALES	CANTIDAD
							10,00
ELE02142	ML LÍNEA 2(4x120/70mm2)AI 0,6/1 kV RZ1-AL(AS) Línea general de alimentación con 8 conductores unipolares de 1x120mm2 AI 0.6/1kV RZ1-AL y 2 conductores unipolares de 1x70mm2 AL 0.6/1kV RZ1-AL (AS) instalada en canalización subterránea bajo calzada bajo tubo compuesta por 6 tubos de PEAD de 160mm. Incluido reposición de pavimento existente. CCM1	1	70,000			70,000	70,00
ELAR698632	ML LÍNEA 4x240/120 mm2 AI 0.6/1 kV RV-AI (AS) Línea eléctrica con conductores unipolares de 4x240/120 mm2 RV-AI (AS) en canalización existente, incluso conexionado en inicio y final de línea. CCM1	1	70,00			70,00	70,00
ELAR698633	ML LÍNEA 4x70/35 mm2 AI 0.6/1 kV RV-AI (AS) Línea eléctrica con conductores unipolares de 4x70/35 mm2 RV-AI (AS) en canalización existente, incluso conexionado en inicio y final de línea. CCM3	1	220,00			220,00	220,00
ELAR698635	ML LÍNEA 4x150/95 mm2 AI 0.6/1 kV RV-AI (AS) Línea eléctrica con conductores unipolares de 4x120/95 mm2 RV-AI (AS) en canalización existente, incluso conexionado en inicio y final de línea. CCM2	1	200,00			200,00	200,00
EL210	ML CANALIZACION ELÉCTRICA 1T PE DP 110 Canalización subterránea para red de baja tensión y constituida por zanja de dimensiones 0.40x1.00 (anchura x profundidad), lecho de hormigón, 1 tubo de PE DP d=110mm, cinta señalizadora y relleno con material procedente de la excavación.	1	35,000			35,000	35,000
		1	10,000			10,000	10,000
		1	15,000			15,000	15,000
		1	15,000			15,000	15,000
		1	60,000			60,000	60,000
		1	15,000			15,000	15,000
EL220	ML CANALIZACION ELÉCTRICA 2T PE DP 110 Canalización subterránea para red de baja tensión y constituida por zanja de dimensiones 0.40x1.00 (anchura x profundidad), lecho de hormigón, 2 tubos de PE DP d=110mm, cinta señalizadora y relleno con material procedente de la excavación.	1	20,000			20,000	20,000
		1	60,000			60,000	60,000
		1	110,000			110,000	110,000
EL2301	ML CANALIZACION ELÉCTRICA 4T PE DP 110 Canalización subterránea para red de baja tensión y constituida por zanja de dimensiones 0.40x1.00 (anchura x profundidad), lecho de hormigón, 4 tubos de PE DP d=110mm, cinta señalizadora y relleno con material procedente de la excavación.	1	15,000			15,000	15,000
ELA0491	ML CANALIZACIÓN ELÉCTRICA 2T PE DP 160 Canalización subterránea para red de baja tensión y constituida por zanja de dimensiones 0.40x1.00 (anchura x profundidad), lecho de hormigón, 2 tubos de PE DP d=160mm, cinta señalizadora y relleno con material procedente de la excavación.	1	170,000			170,000	170,000
							170,00

MEDICIONES

ABASTECIMIENTO A VARIOS MUNICIPIOS DE LA RIOJA. SISTEMA CIDACOS

CÓDIGO	RESUMEN	UDS	LONGITUD	ANCHURA	ALTURA	PARCIALES	CANTIDAD
ELA0492	ML CANALIZACIÓN ELÉCTRICA 3T PE DP 160 Canalización subterránea para red de baja tensión y constituida por zanja de dimensiones 0.40x1.00 (anchura x profundidad), lecho de hormigón, 3 tubos de PE DP d=160mm, cinta señalizadora y relleno con material procedente de la excavación.	1	180,000			180,000	180,00
ELA0493	ML CANALIZACIÓN ELÉCTRICA 4T PE DP 160 Canalización subterránea para red de baja tensión y constituida por zanja de dimensiones 0.40x1.00 (anchura x profundidad), lecho de hormigón, 4 tubos de PE DP d=160mm, cinta señalizadora y relleno con material procedente de la excavación.	1	50,000			50,000	50,00
ELA0494	ML CANALIZACIÓN ELÉCTRICA 6T PE DP 160 Canalización subterránea para red de baja tensión y constituida por zanja de dimensiones 0.40x1.00 (anchura x profundidad), lecho de hormigón, 6 tubos de PE DP d=160mm, cinta señalizadora y relleno con material procedente de la excavación.	1	10,000			10,000	10,00
ELE0118	UD ARQUETA ELÉCTRICA FÁBRICA 100x100 CM Arqueta de paso de líneas construida en fábrica de ladrillo de 12 cm. de espesor y enfoscado en paredes, dimensiones interiores 100 x 100 y 100 cm. de profundidad, incluso marco y tapa de fundición.	35				35,000	35,00
BT0505	ML CANALIZACION REJIBAND 100 mm CON PAT Canalización aérea constituida por bandeja tipo Rejiband de 100 mm. Incluso soportes (cada 80 cm como máximo) y puesta a tierra con conductor desnudo de cobre de 35 mm2. E. REACTIVOS E. CONTROL CASETA DE DEPÓSITO DE AGUA TRATADA	1	50,000			50,000	50,000
		1	170,000			170,000	170,000
		1	30,000			30,000	30,000
							250,00
APARTADO 02.03.03 RED DE TIERRAS							
BT23031	UD PUESTA A TIERRA DE EDIFICIO REACTIVOS Puesta a tierra de edificio de reactivos con 130 metros de conductor de cobre desnudo de 50mm2 y 4 picas de acero cobrizado de 2 metros.	1				1,000	1,00
BT23032	UD PUESTA A TIERRA DE ZONA ENTRADA DE AGUA BRUTA Puesta a tierra de zona entrada de agua bruta con 80 metros de conductor de cobre desnudo de 50mm2 y 4 picas de acero cobrizado de 2 metros.	1				1,000	1,00
BT23033	UD PUESTA A TIERRA DE ZONA DECANTADORES Puesta a tierra de zona decantadores con 160 metros de conductor de cobre desnudo de 50mm2 y 4 picas de acero cobrizado de 2 metros.	1				1,000	1,00
BT23034	UD PUESTA A TIERRA DE EDIFICIO DE CONTROL Y ZONA DE FILTRACIÓN Puesta a tierra de edificio de control y zona de filtración con 190 metros de conductor de cobre desnudo de 50mm2 y 4 picas de acero cobrizado de 2 metros.	1				1,000	1,00

MEDICIONES

ABASTECIMIENTO A VARIOS MUNICIPIOS DE LA RIOJA. SISTEMA CIDACOS

CÓDIGO	RESUMEN	UDS	LONGITUD	ANCHURA	ALTURA	PARCIALES	CANTIDAD
BT23035	UD PUESTA A TIERRA DE CASETA DE DEPÓSITO DE AGUA TRATADA Puesta a tierra de caseta de depósito de agua tratada con 400 metros de conductor de cobre desnudo de 50mm ² y 8 picas de acero cobrizado de 2 metros.	1				1,00	
							1,00
APARTADO 02.03.04 CENTRO DE TRANSFORMACIÓN							
EE120201	ud Edificio Transformación PFU-4/20 Ud.- Envolvente prefabricada de hormigón tipo PFU-4/20 de Ormazábal o similar, que incluye el edificio y todos sus elementos interiores, incluyendo el transporte, montaje y accesorios. Totalmente instalado.	1				1,00	
							1,00
EE0201	ud Celda de línea entrada/salida Ud.- Celda de línea, marca Ormazábal o similar, modelo CGM24-CML, de corte y aislamiento en SF6, Vn=24kV., In=400A., con interruptor-seccionador, seccionador de puesta a tierra y aisladores testigo de presencia de tensión. Totalmente instalada.	1				1,00	
							1,00
EE070120	ud Celda de Medida CGM-CMM Ud.- Celda de Medida con envolvente metálica, formada por un módulo de Vn=24KV., y co medidas 800 mm. de ancho por 1025 mm. de fondo por 1800 mm de alto. Se incluyen en la celda, para la medición de la energía eléctrica consumida dos transformadores de tensión y dos transformadores de intensidad, incluyendo su montaje y conexión.	1				1,00	
							1,00
EE0202	ud Celda de protección transformador Ud.-Celda de protección de transformador, marca Ormazábal, modelo CGM24-CML, de corte y aislamiento en SF6, Vn=24kV., In=400A., con interruptor seccionador, cartuchos fusibles, bobina de disparo, contactos auxiliares, relé de protección de sobreintensidad de fase y homopolar tipo RPTA, doble seccionador de puesta a tierra y aisladores testigo de presencia de tensión.	1				1,00	
							1,00
EE070123	ud Interruptor automático Ud.- Interruptor automático de Baja Tensión incluido en envolvente metálica.	1				1,00	
							1,00
EE0203	ud Interconexión M.T. Borna/Cono Ud.- Interconexión M.T. Borna/Cono (longitud máxima aproximada por fase de 9 metros).	3				3,00	
							3,00
EE120209	ud Puentes de B.T. 380 V-Trafo Ud.- Juego de puentes de cables de Baja Tensión, de sección y material 1 x 240 Al. (Etileno-Propileno) sin armadura, y todos los accesorios para la conexión, formados por un grupo de cables en la cantidad de 2 x fase + 1 x neutro de 3 metros de longitud.	1				1,00	
							1,00
EE120211	ud Tierras exteriores Ud.- Instalación de tierras exteriores formada po tierra de protección de transformación, instalación de puesta a tierra de protección, debidamente montada y conexionada, empleando conductor de cobre desnudo, unido a picas de acero cobreado de 14mm. de diámetro, con las siguientes características, geometría anillo rectangular. Profundidad 0,5 metros. Número de picas seis. Longitud de picas 8 metros. Diámetro rectángulo 4.0 x 3.0 metros. Tierra de servicio o neutro del transformador. Instalación exterior realizada con cobre aislado con el mismo tipo de materiales que las de las tierras de protección.	1				1,00	

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CÓDIGO	RESUMEN	UDS	LONGITUD	ANCHURA	ALTURA	PARCIALES	CANTIDAD
							1,00
EE120212	ud Tierras interiores Ud.- Instalación de tierras interiores formadas por instalación interior de tierra de protección en el edificio de transformación, con el conductor de cobre desnudo grapado en la pared, y conectado a las celdas y demás apartamento de este edificio, así como a una caja general de tierra de protección según las normas de la Compañía Suministradora. Instalación interior de tierra de servicio en el edificio de transformación, con el conductor de cobre aislado, grapado en la pared, y conectado al neutro de Baja Tensión, así como a una caja general de tierra de servicio, según las normas de la Compañía Suministradora.	1				1,00	
							1,00
EE120213	ud Defensa del Transformador Ud.- Defensa del transformador formada por una rejilla metálica, con una cerradura enclavada con la celda de protección correspondiente.	1				1,00	
							1,00
EE080114	ud Transformador 630 KVA - 13,2/24 KV Ud.- Transformador trifásico en baño de aceite de 630 kVA y relación 13,2/24kV/380-220V., con indicación del nivel de aceite, incluido el puente de conexión, bornas enchufables y la rejilla de protección así como el transporte y la colocación del mismo. Normativa Unesa 5201-D	1				1,00	
							1,00
EE120214	ud Iluminación C.T. Ud.- Equipo de iluminación del Centro de Transformación formado por un equipo de alumbrado que permita la suficiente visibilidad para ejecutar las maniobras y revisiones necesarias en las celdas de A.T.	1				1,00	
							1,00
EE120215	ud Equipo de maniobra Ud.- Realización de las maniobras con aislamiento suficiente para proteger al personal durante la ejecución de las maniobras y operaciones de mantenimiento, compuesto por Banquillo aislante, par de guantes de amianto y extintor de eficacia 89B.	1				1,00	
							1,00
EE070125	ud Equipo de Medida Ud.- Conjunto de medida de energía en A.T., que incluye el tubo de acero galvanizado y sus fijaciones, el conductor para los circuitos de intensidad y tensión, y el módulo de medida de tarifa triple, con un maxímetro y un contador de reactiva, así como un reloj para la discriminación de las tarifas. Totalmente instalado y funcionando.	1				1,00	
							1,00
ELE0214	ML LÍNEA DE ALIMENTACIÓN DE 4(3x240/120mm ²)Al 0,6/1 kV RZ1-AL(AS) Línea general de alimentación con 12 conductores unipolares de 1x240mm ² Al 0.6/1kV RZ1-AL y 4 conductores unipolares de 1x120mm ² AL 0.6/1kV RZ1-AL (AS) instalada en canalización subterránea bajo calzada bajo tubo compuesta por 6 tubos de PEAD de 160mm. Incluido reposición de pavimento existente.	10				10,000	
							10,00
CGBT	UD Cuadro C.G.B.T. EDAR Cuadro general de Baja Tensión de la ETAP con apartamento y envolvente de Schneider, compartimentación mínima 3B, formado por envolvente metálico con puertas montado sobre zócalo y conteniendo interruptor general automático NS 1000A regulable, limitador de sobretensiones, analizador de redes y protecciones magnetotérmicas y diferenciales según esquema unifilar, incluso cableado interior, perfiles omega y regletas de conexión.	1				1,00	

MEDICIONES

ABASTECIMIENTO A VARIOS MUNICIPIOS DE LA RIOJA. SISTEMA CIDACOS

CÓDIGO	RESUMEN	UDS	LONGITUD	ANCHURA	ALTURA	PARCIALES	CANTIDAD
							1,00
001	M3 EXCAVACIÓN A CIELO ABIERTO Excavación a cielo abierto en todo tipo de terrenos incluido terrenos en roca, incluso agotamiento y transporte a lugar de empleo o vertedero.	1	6,00	4,00	0,50	12,00	12,00
010	M3 RELLENO ZANJAS, CIMIENTOS Y TRASDOSES DE MATERIAL SELECCIONADO Relleno con material seleccionado en zanjas, cimientos, trasdós de muros, estribos y otras estructuras procedente de la excavación o préstamos incluso carga, transporte y compactación.	1	6,00	4,00	0,30	7,20	7,20
APARTADO 02.03.05 SISTEMA FOTOVOLTAICO							
PF0335	UD PANEL FOTOVOLTAICO 335W Suministro e instalación de módulo solar JINKO SOLAR JKM335PP-72 o similar, de células de silicio policristalino, potencia máxima (Wp) 335 W, tensión a máxima potencia (Vmp= 38 V, intensidad a máxima potencia (Imp) 8,82 A, tensión de circuito abierto (Voc) 47,2 V, intensidad de cortocircuito (Isc) 9,18 A, eficiencia 17,26%, 72 células, vidrio exterior templado de 3,2 mm de espesor, capa adhesiva de etilvinilacetato (EVA), marco de aluminio anodizado, temperatura de trabajo -40°C hasta 85°C, dimensiones 1956x992x40 mm, máxima tensión del sistema 1000V, resistencia a la carga del viento 245 kg/m2, resistencia a la carga de nieve 551 kg/m2, peso 0,8 kg, con caja de conexiones IP68 con 3 diodos, cables y conectores. Incluso accesorios de montaje y material de conexionado eléctrico, sin incluir la estructura soporte. Totalmente montado, conexionado y probado.	74				74,00	74,00
ESTMF3	UD ESTRUCTURA DE FIJACIÓN MÓDULOS FOTOVOLTAICOS Ud. Soporte inclinado abierto para módulos solares en instalación sobre cubierta plana fabricado en perflería de aluminio y tornillería de acero inoxidable, válido para módulos fotovoltaicos de 2000x1000 mm con resistencia a la carga del viento 245 kg/m2, resistencia a la carga de nieve 551 kg/m2. Incluso fijaciones y tornillería de anclaje a cubierta. Totalmente instalado y conectado.	1				1,00	1,00
ELE0512	ML CANALIZACION BANDEJA PERFORADA CON TAPA (100x60 mm) Bandeja de U23X (PVC-M1 RoHS) serie 66 de Unex o equivalente de color gris, perforada, de 100x60 mm, con separador fuerza-control, con tapa y parte proporcional de accesorios, elementos de acabado y soportes. INSTALACIÓN FOTOVOLTAICA	1	40,000			40,000	40,00
CCMFANG12	UD CAJA DE COENXIONES C.C. Caja de conexiones en C.C. con aparamenta y envolvente de Schneider, según esquema unifilar. Completamente conexionado y en funcionamiento.	1				1,00	1,00
CCMFANG	UD CUADRO INSTALACIÓN FOTOVOLTAICA Cuadro de protección y control de instalación fotovoltaica de Schneider o equivalente formado por: - Envolvente metálico para locales húmedos, modelo Prisma P montado sobre zócalo con accesorios, puertas, placas de montaje, intalado, montado y conexionado. - Compartimentación mínima 2b. - Descargador de sobretensiones tipos I y II. - Poder de corte según las características de la instalación. - Interruptor general de 250 A IV. - Interruptor general de 40 A IV. - Protección diferencial de 40 A y 300 mA - Inversor fotovoltaico 20 kW - Contador de energía fotovoltaica con sistema antivertido. Completamente conexionado y en funcionamiento.	1				1,00	1,00

MEDICIONES

ABASTECIMIENTO A VARIOS MUNICIPIOS DE LA RIOJA. SISTEMA CIDACOS

CÓDIGO	RESUMEN	UDS	LONGITUD	ANCHURA	ALTURA	PARCIALES	CANTIDAD
ELE01356	ML LINEA 3x4mm2 Cu 0.6/1kV RZ1-K (AS) Línea de alimentación con conductores unipolares 3x4 mm2 Cu 0.6/1kV RZ1-K (AS) en canalización existente, incluso conexionado en inicio y final de línea. MODULOS FOTOVOLTAICOS	1	120,000			120,000	120,00
ELE013312	ML LINEA 5x4mm2 Cu 0.6/1kV RZ1-K (AS) Línea de alimentación con conductores unipolares 5x4 mm2 Cu 0.6/1kV RZ1-K (AS) en canalización existente, incluso conexionado en inicio y final de línea.	1	40,000			40,000	40,00
ELAR852	mI CONDUCTOR 1x25 PARA PAT Conductor de cobre desnudo de 1x25mm2 para puesta a tierra con p/p de conexión entre conductores.	1	120,000			120,000	120,00
APARTADO 02.03.06 GRUPO ELECTRÓGENO							
ELEGE250	UD Grupo electrógeno 250 kVA Ud. Grupo electrógeno fijo sobre bancada de funcionamiento automático, trifásico de 230/400 V de tensión, de 250 kVA de potencia, compuesto por alternador sin escobillas de 50 Hz de frecuencia; motor diesel de 1500 r.p.m. refrigerado por agua, con silenciador y depósito de combustible; cuadro eléctrico de control; y cuadro de conmutación con contactores de accionamiento manual calibrados a 500 A.	1				1,00	1,00
APARTADO 02.03.07 ALUMBRADO EXTERIOR							
AL140	m LINEA SUBTERRÁNEA 4x6 mm2 + 1x16 mm2 Línea de alimentación para alumbrado formada por conductor multipolar de cobre de 4x6 mm2 con aislamiento RV 0,6/1 kV y conductor de puesta a tierra 1x16 mm2 750 V, colocado en tendido subterráneo bajo tubo en canalización existente, instalada, transporte, montaje y conexionado, medida la longitud en funcionamiento.	1	550,00			550,00	550,00
BT181	UD LUMINARIA EXTERIOR NAVE Campana industrial BGP 307 T25 1xLED99-4S/740 DM11 de Philips o equivalente, instalada y conexiónada.	19				19,000	19,00
AL071	UD COLUMNA h=8m Suministro y colocación de columna metálica de chapa de acero galvanizada en caliente con altura 8 metros con puerta registrable incluso excavación y cimentación.	19				19,000	19,00
AL130	UD ARQUETA PASO DERIVACIÓN 40x40x60 Arqueta prefabricada 40x40x60 cm libres, para paso, derivación o toma de tierra, con marco y tapa cuadrada 40x40 cm en fundición, medida la unidad ejecutada en obra.	19				19,00	19,00

MEDICIONES

ABASTECIMIENTO A VARIOS MUNICIPIOS DE LA RIOJA. SISTEMA CIDACOS

CÓDIGO	RESUMEN	UDS	LONGITUD	ANCHURA	ALTURA	PARCIALES	CANTIDAD
APARTADO 02.03.08 INSTALACIÓN ELÉCTRICA EDIFICIO DE CONTROL							
BT030A	UD PUNTO DE LUZ SENCILLO Punto de luz sencillo con parte proporcional de circuito general, bajo tubo corrugado d=16mm, cajas de registro con tapa atomillada, y conductores de cobre para una tensión de 750 V de sección 1.5 mm ² , y p/p de mecanismo compuesto por interruptor, caja para empotrar y placa con bastidor, medida la unidad en funcionamiento. Canalización y conductores según ITC-BT-28 para locales de pública concurrencia.	22				22,00	
							22,00
BT040A	UD PUNTO DE LUZ CONMUTADO Punto de luz conmutado con parte proporcional de circuito general, bajo tubo corrugado d=16mm, cajas de registro con tapa atomillada, y conductores de cobre para una tensión de 750 V de sección 1.5 mm ² , y p/p de mecanismo compuesto por interruptor, caja para empotrar y placa con bastidor, medida la unidad en funcionamiento. Canalización y conductores según ITC-BT-28 para locales de pública concurrencia.	8				8,00	
							8,00
BT050A	UD PANTALLA ESTANCA Pantalla estanca WT120C L1200 1xLED40S/840 de Philips o equivalente, instalada y conexionada.	32				32,000	
							32,00
BT060A	UD PANTALLA LED EMPOTRADA 60x60 Pantalla empotrada RC 132V 1xLED20S/840 W60L60 de Philips o equivalente, instalada y conexionada.	41				41,00	
							41,00
BT070A	UD DOWNLIGHT LED Downlight DN 130B D217 1xLED20S/840 de Philips o equivalente, instalado y conexionado.	26				26,00	
							26,00
BT090A	UD LUMINARIA EMERGENCIA 100 LM Emergencia Basic Led serie L de Luznor, modelo LL-100-T o equivalente de 100 lúmenes, instalada y conexionada.	7				7,000	
							7,00
BT100A	UD LUMINARIA EMERGENCIA 300 LM Emergencia Basic Led serie L de Luznor, modelo LL-300-T o equivalente de 300 lúmenes, instalada y conexionada.	62				62,000	
							62,00
BT110A	ML CABLE TRANSMISION DATOS Cable eléctrico para transmisión de datos en red marca AMP, tipo U/UTP, categoría 5e, clase D, de 4 pares trenzados con conductores de cobre rígido, con cubierta de policloruro de vinilo (PVC), bajo tubo flexible aislante, incluso parte proporcional de cajas de registro y regletas de conexión.	1	180,00			180,00	
							180,00
BT120A	ML CABLE CIRCUITO ALUMBRADO 3x1.5 mm² Circuito de alumbrado realizado con conductor unipolar de cobre rígido, con aislamiento 700 V. y una sección de 3x1.5 mm ² , bajo tubo flexible aislante corrugado de PVC, de diámetro 16 mm. y grado de protección 7, en sistema monofásico (fase y neutro), incluso parte proporcional de cajas de registro y regletas de conexión. Canalización y conducciones según ITC-BT-28 para locales de pública concurrencia.	1	600,00			600,00	
							600,00

MEDICIONES

ABASTECIMIENTO A VARIOS MUNICIPIOS DE LA RIOJA. SISTEMA CIDACOS

CÓDIGO	RESUMEN	UDS	LONGITUD	ANCHURA	ALTURA	PARCIALES	CANTIDAD
BT130A	ML CABLE CIRCUITO FUERZA 3x2.5 mm² M.I. Circuito de fuerza realizado con conductor unipolar de cobre rígido, con aislamiento 700 V. y una sección de 3x2.5 mm ² , bajo tubo flexible aislante corrugado de PVC, de diámetro 20 mm. y grado de protección 7, (fase +neutro+tierra), incluso parte proporcional de cajas de registro y regletas de conexión.	1	400,00			400,00	
							400,00
BT140A	ML CABLE CIRCUITO FUERZA 5x2.5 mm² M.I. Circuito de fuerza realizado con conductor unipolar de cobre rígido, con aislamiento 700 V. y una sección de 5x2.5 mm ² , bajo tubo flexible aislante corrugado de PVC, de diámetro 20 mm. y grado de protección 7, (3 fases +neutro+tierra), incluso parte proporcional de cajas de registro y regletas de conexión.	1	80,00			80,00	
							80,00
BT150A	UD BASE ENCHUFE MONOFÁSICA Ud. Base enchufe monofásica modelo a elegir, con toma de tierra lateral realizada bajo tubo según ITC-BT-21, tipo Aiscan CR (forroplast) o similar, empotrado en canalizaciones ordinarias en obra de fábrica (paredes, techos o falsos techos), D=20 mm no propagador de la llama UNE-EN 50085-1 y UNE EN 50086-1 y conductores de cobre unipolares aislados para una tensión nominal de 750 V y sección 2.5 mm ² , (activo, neutro y protección), incluido caja registro, caja mecanismos especial con tornillo, base enchufe (II+T.T.), totalmente montado e instalado.	40				40,00	
							40,00
BT160A	UD BASE ENCHUFE TRIFÁSICA Ud. Base enchufe 2P+T 16A 380V modelo a elegir, con toma de tierra lateral realizada bajo tubo según ITC-BT-21, tipo Aiscan CR (forroplast) o similar, empotrado en canalizaciones ordinarias en obra de fábrica (paredes, techos o falsos techos), D=20 mm no propagador de la llama UNE-EN 50085-1 y UNE EN 50086-1 y conductores de cobre unipolares aislados para una tensión nominal de 750 V y sección 2.5 mm ² , (activo, neutro y protección), incluido caja registro, caja mecanismos especial con tornillo, base enchufe de 16 A (II+T.T.), totalmente montado e instalado.	4				4,00	
							4,00
BT170A	UD CAJA EMP. TOMAS 2 RED + MOD. RJ45 + MOD. RJ11 Ud. Suministro, colocación y conexionado de caja de empotrar en pared, mampara o pladur de 2 módulos dobles con marcado CE según normativa UNE 20 451:1997 fabricado en material autoextinguible y libre de halógenos, modelo CA2E + MB2E (incluye cubeta, marco y separador energía-datos) de color a elegir por la dirección facultativa y formada por 2 tomas de corriente tipo schuko 2P+TT 16A con led y obturador de seguridad y placa de 4 conectores RJ11 - RJ45.	18				18,00	
							18,00
BT180A	UD DETECTOR PRESENCIA Ud. Detector de presencia de montaje sobre techo, con ajustes de temporización, distancia de detección y nivel de luminosidad, para accionamiento de puntos de luz, realizado bajo tubo según ITC-BT-21, tipo Aiscan CR (forroplast) o similar, empotrado en canalizaciones ordinarias en obra de fábrica (paredes, techos o falsos techos), D=20 mm no propagador de la llama UNE-EN 50085-1 y UNE EN 50086-1 y conductor de cobre unipolar aislado, para una tensión nominal de 750 V y sección 1,5 mm ² , incluyendo caja de registro, detector de presencia, accesorios para montaje, instalado y conexionado.	10				10,00	
							10,00
BT190A	UD EQUIPOTENCIAL BAÑOS UD. Tierra equipotencial para baños, realizado con conductor de 4 mm ² . sin protección mecánica y 2,5 mm ² . con protección mecánica, conexionando las canalizaciones metálicas existentes y las masas de los aparatos sanitarios metálicos y todos los demás elementos conductores accesibles de acuerdo al Reglamento Electrotécnico para Baja Tensión actualmente en vigor.	4				4,00	
							4,00

MEDICIONES

ABASTECIMIENTO A VARIOS MUNICIPIOS DE LA RIOJA. SISTEMA CIDACOS

CÓDIGO	RESUMEN	UDS	LONGITUD	ANCHURA	ALTURA	PARCIALES	CANTIDAD
EL310	UD SUBCUADRO TOMAS DE CORRIENTE Subcuadro para tomas de corriente de Schneider o equivalente con una salida trifásica protegida (32A y 16A) y dos salidas monofásicas también protegidas.	1				1,000	1,00
BT0505	ML CANALIZACION REJIBAND 100 mm CON PAT Canalización aérea constituida por bandeja tipo Rejiband de 100 mm. Incluso soportes (cada 80 cm como máximo) y puesta a tierra con conductor desnudo de cobre de 35 mm2. E. CONTROL	1	170,000			170,000	170,00
APARTADO 02.03.09 INSTALACIÓN ELÉCTRICA CASETA DE DEPÓSITO DE AGUA TRATADA							
BT030A	UD PUNTO DE LUZ SENCILLO Punto de luz sencillo con parte proporcional de circuito general, bajo tubo corrugado d=16mm, cajas de registro con tapa atornillada, y conductores de cobre para una tensión de 750 V de sección 1.5 mm2, y p/p de mecanismo compuesto por interruptor, caja para empotrar y placa con bastidor, medida la unidad en funcionamiento. Canalización y conductores según ITC-BT-28 para locales de pública concurrencia.	1				1,00	1,00
BT050A	UD PANTALLA ESTANCA Pantalla estanca WT120C L1200 1xLED40S/840 de Philips o equivalente, instalada y conexionada.	3				3,000	49,00
BT090A	UD LUMINARIA EMERGENCIA 100 LM Emergencia Basic Led serie L de Luznor, modelo LL-100-T o equivalente de 100 lúmenes, instalada y conexionada.	1				1,000	8,00
BT100A	UD LUMINARIA EMERGENCIA 300 LM Emergencia Basic Led serie L de Luznor, modelo LL-300-T o equivalente de 300 lúmenes, instalada y conexionada.	1				1,000	29,00
EL310	UD SUBCUADRO TOMAS DE CORRIENTE Subcuadro para tomas de corriente de Schneider o equivalente con una salida trifásica protegida (32A y 16A) y dos salidas monofásicas también protegidas.	1				1,000	1,00
BT120A	ML CABLE CIRCUITO ALUMBRADO 3x1.5 mm ² Circuito de alumbrado realizado con conductor unipolar de cobre rígido, con aislamiento 700 V. y una sección de 3x1.5 mm ² , bajo tubo flexible aislante corrugado de PVC, de diámetro 16 mm. y grado de protección 7, en sistema monofásico (fase y neutro), incluso parte proporcional de cajas de registro y regletas de conexión. Canalización y conducciones según ITC-BT-28 para locales de pública concurrencia.	1	50,00			50,00	50,00
BT0505	ML CANALIZACION REJIBAND 100 mm CON PAT Canalización aérea constituida por bandeja tipo Rejiband de 100 mm. Incluso soportes (cada 80 cm como máximo) y puesta a tierra con conductor desnudo de cobre de 35 mm2. CASETA DE DEPÓSITO DE AGUA TRATADA	1	30,000			30,000	30,00

MEDICIONES

ABASTECIMIENTO A VARIOS MUNICIPIOS DE LA RIOJA. SISTEMA CIDACOS

CÓDIGO	RESUMEN	UDS	LONGITUD	ANCHURA	ALTURA	PARCIALES	CANTIDAD
APARTADO 02.03.10 INSTALACIÓN ELÉCTRICA EDIFICIO DE DESHIDRATACIÓN Y REACTIVOS							
BT030A	UD PUNTO DE LUZ SENCILLO Punto de luz sencillo con parte proporcional de circuito general, bajo tubo corrugado d=16mm, cajas de registro con tapa atornillada, y conductores de cobre para una tensión de 750 V de sección 1.5 mm2, y p/p de mecanismo compuesto por interruptor, caja para empotrar y placa con bastidor, medida la unidad en funcionamiento. Canalización y conductores según ITC-BT-28 para locales de pública concurrencia.	6				6,00	6,00
BT040A	UD PUNTO DE LUZ CONMUTADO Punto de luz conmutado con parte proporcional de circuito general, bajo tubo corrugado d=16mm, cajas de registro con tapa atornillada, y conductores de cobre para una tensión de 750 V de sección 1.5 mm2, y p/p de mecanismo compuesto por interruptor, caja para empotrar y placa con bastidor, medida la unidad en funcionamiento. Canalización y conductores según ITC-BT-28 para locales de pública concurrencia.	2				2,00	2,00
BT050A	UD PANTALLA ESTANCA Pantalla estanca WT120C L1200 1xLED40S/840 de Philips o equivalente, instalada y conexionada.	49				49,000	49,00
BT090A	UD LUMINARIA EMERGENCIA 100 LM Emergencia Basic Led serie L de Luznor, modelo LL-100-T o equivalente de 100 lúmenes, instalada y conexionada.	8				8,000	8,00
BT100A	UD LUMINARIA EMERGENCIA 300 LM Emergencia Basic Led serie L de Luznor, modelo LL-300-T o equivalente de 300 lúmenes, instalada y conexionada.	29				29,000	29,00
BT120A	ML CABLE CIRCUITO ALUMBRADO 3x1.5 mm ² Circuito de alumbrado realizado con conductor unipolar de cobre rígido, con aislamiento 700 V. y una sección de 3x1.5 mm ² , bajo tubo flexible aislante corrugado de PVC, de diámetro 16 mm. y grado de protección 7, en sistema monofásico (fase y neutro), incluso parte proporcional de cajas de registro y regletas de conexión. Canalización y conducciones según ITC-BT-28 para locales de pública concurrencia.	1	200,00			200,00	200,00
BT130A	ML CABLE CIRCUITO FUERZA 3x2.5 mm ² M.I. Circuito de fuerza realizado con conductor unipolar de cobre rígido, con aislamiento 700 V. y una sección de 3x2.5 mm ² , bajo tubo flexible aislante corrugado de PVC, de diámetro 20 mm. y grado de protección 7, (fase +neutro+tierra), incluso parte proporcional de cajas de registro y regletas de conexión.	1	200,00			200,00	200,00
BT160A	UD BASE ENCHUFE TRIFÁSICA Ud. Base enchufe 2P+T 16A 380V modelo a elegir, con toma de tierra lateral realizada bajo tubo según ITC-BT-21, tipo Aiscan CR (forroplast) o similar, empotrado en canalizaciones ordinarias en obra de fábrica (paredes, techos o falsos techos), D=20 mm no propagador de la llama UNE-EN 50085-1 y UNE EN 50086-1 y conductores de cobre unipolares aislados para una tensión nominal de 750 V y sección 2.5 mm2, (activo, neutro y protección), incluido caja registro, caja mecanismos especial con tornillo, base enchufe de 16 A (II+T.T.), totalmente montado e instalado.	2				2,00	2,00

MEDICIONES

ABASTECIMIENTO A VARIOS MUNICIPIOS DE LA RIOJA. SISTEMA CIDACOS

CÓDIGO	RESUMEN	UDS	LONGITUD	ANCHURA	ALTURA	PARCIALES	CANTIDAD
	Arqueta entrada	1	2,20	1,60		3,52	
		4	1,70		1,70	11,56	
		2	0,85		1,70	2,89	
							86,18
023	KG ACERO CORRUGADO B-500-S Acero redondo corrugado para armar tipo B-500-S elaborado y colocado.						
	Solera	1	4,85	75,00		363,75	
	Muros	1	11,13	75,00		834,75	
	Solapes y despuntes (5%)	0,05	1.198,50			59,93	
							1.258,43
052	ML JUNTAS DE ESTANQUEIDAD DE PVC 32 CM Junta de trabajo interior de policloruro de vinilo (PVC) 100% virgen, con una fuerza máxima de dilatación > 250 % , de 32 cm de ancho, MASTERFLEX 2000 TI-24 de BASF o equivalente, colocada simétricamente en el eje de la losa o muro, incluso solapes y piezas especiales para cruces o ángulos. Medida la longitud ejecutada.						
		4	2,30			9,20	
							9,20
290	UD PATE POLIPROPILENO Pate de polipropileno de dimensiones 30x25 cm, incluyendo fabricación, transporte a obra, perforación de anclajes y relleno con aportación de material de agarre, completamente colocado.						
		10				10,00	
		5				5,00	
							15,00
289B	M2 TAPA DE CHAPA LACRIMADA GALVANIZADA e=4mm Tapa de chapa lacrimada de acero galvanizado de 4 mm de espesor, incluyendo el marco, tiradores, aros para cerradura con candado, anclada, totalmente colocada.						
		1	2,10	2,10		4,41	
		1	3,05	1,30		3,97	
							8,38
APARTADO 05.05.02 IMPULSIÓN AGUAS SUCIAS							
172	ML TUBERÍA PEAD DN=110 mm PN 16 Tubería de polietileno de alta densidad de 110 mm de diámetro exterior y PN=16 bar, colocada en zanja incluso banda de señalización, p.p. de junta de unión colocada, codos, tes, portabridas, así como piezas especiales y medios auxiliares, totalmente colocada.						
		1	825,00			825,00	
							825,00
011	M3 RELLENO DE ARENA Arena para apoyo y protección de tuberías incluso carga, transporte, colocación, compactación y nivelación.						
		1	825,00	0,40	0,40	132,00	
		-1	2.945,00	0,01		-29,45	
							102,55
244.2	UD VENTOSA DN=100 (4") mm PN16 RESIDUALES Válvula ventosa de tres funciones para aguas residuales de DN=100 mm y PN 16 bar incluido transporte, juntas, válvula de corte DN=100 mm y PN 16 bar y piezas especiales, totalmente colocada y probada.						
	Colector salida	1				1,00	
	Tubería	1				1,00	
							2,00
176	UD "T" PEAD TRES BOCAS 110 mm "T" en polietileno de alta densidad de tres bocas iguales de 110 mm de diámetro, colocada en zanja incluso p.p. de junta de unión colocada y medios auxiliares, totalmente colocada y probada.						
	Ventosas	2				2,00	
	Desagües	1				1,00	
							3,00

MEDICIONES

ABASTECIMIENTO A VARIOS MUNICIPIOS DE LA RIOJA. SISTEMA CIDACOS

CÓDIGO	RESUMEN	UDS	LONGITUD	ANCHURA	ALTURA	PARCIALES	CANTIDAD
373	UD POZO DE REGISTRO DE AROS DE HORMIGÓN DN1200 Pozo de registro de abastecimiento para válvulas de control de cualquier altura de diámetro interior D=1200 mm, incluso base de hormigón HNE-20, aros de hormigón, cono prefabricado de hormigón, pates y tapa de fundición, totalmente terminado.						
	Ventosas	1				1,00	
	Desagües	1				1,00	
							2,00
EVC080	UD VÁLVULA DE COMPUERTA MANUAL DN80 PN16 Válvula de compuerta de cierre elástico de 80 mm. de diámetro nominal y 16 At. de P.N., de accionamiento manual por volante, de cuerpo de fundición nodular GGG-50, con eje de acero inoxidable al 13 % Cr. con roscas conformadas por laminación en frío, cierre en fundición nodular, tornillería de acero inoxidable, protegida contra la corrosión mediante aplicación de doble capa de pintura epoxy, totalmente colocada y probada. Resto de características según ET.						
	Desagües	1				1,00	
							1,00
366	ML HINCA TUBO ACERO 355 mm TIERRAS Hinca de tubo de acero, de 355 mm de diámetro interior, bajo viales, en tierra o roca alterada, incluso p.p. de instalación de tubería de fundición dúctil comprendida entre 250 y 150 mm de diámetro interior y sus anclajes y apoyos; muros de reacción y contención; y todos los elementos necesarios para su montaje y desmontaje.						
	Cruce rrio Cidacos	1	40,00			40,00	
							40,00
002	M3 EXCAVACIÓN EN ZANJAS Excavación en zanjas y zonas localizadas, en todo tipo de terrenos incluido terrenos en roca con medios mecánicos, incluso rasanteo, nivelación de la superficie de apoyo y transporte a lugar de empleo o vertedero.						
		1	4,00	4,00	3,50	56,00	
							56,00
010	M3 RELLENO ZANJAS, CIMIENTOS Y TRASDOSES DE MATERIAL SELECCIONADO Relleno con material seleccionado en zanjas, cimientos, trasdós de muros, estribos y otras estructuras procedente de la excavación o préstamos incluso carga, transporte y compactación.						
		1	56,00			56,00	
		-1	3,00	3,00	0,50	-4,50	
		-1	2,60	2,60	3,00	-20,28	
							31,22
APARTADO 05.05.03 EQUIPOS BOMBEO AGUAS SUCIAS							
EBSLF02	UD BOMBA SUMERGIBLE Q= 16,0 m³/h a 14 m.c.a. P=1,7 kW Bomba sumergible para bombeo de aguas, de SULZER o equivalente modelo AS-0631D. Caudal: 16,0 m³/h. Altura manométrica: 14 m.c.a. Potencia nominal en eje: 1,7 kW. Ø Imp: 65 mm. Incluido módulo para supervisión de electrodos de temperatura y humedad, pedestal, anclajes, guía y cadena para izado. Incluso transporte, montaje, conexiones eléctricas y de control, pruebas de funcionamiento. Resto de características según E.T.						
		2				2,00	
							2,00
ETI316065	ML TUBERÍA DE INOXIDABLE AISI 316L DN 65 Tubería de acero inoxidable de diámetro DN 65 mm. Construcción: Mediante soldadura. Espesor 2 mm. Material: Acero inoxidable AISI -316 L. Material accesorios acero inoxidable AISI - 316L. Acabado: Decapado. Incluso p.p. de uniones, piezas especiales, bridas, codos, tes, injertos para otras tuberías y p.p. de estructuras y elementos de anclajes a solera y/o muros. Montada y probada.						
		2	2,600			5,200	
							5,20

MEDICIONES

ABASTECIMIENTO A VARIOS MUNICIPIOS DE LA RIOJA. SISTEMA CIDACOS

CÓDIGO	RESUMEN	UDS	LONGITUD	ANCHURA	ALTURA	PARCIALES	CANTIDAD
EVC06516	UD VÁLVULA DE COMPUERTA MANUAL DN65 PN16 Válvula de compuerta de cierre elástico de 65 mm. de diámetro nominal y 16 At. de P.N., de accionamiento manual por volante, de cuerpo de fundición nodular GGG-50, con eje de acero inoxidable al 13 % Cr. con rosas conformadas por laminación en frío, cierre en fundición nodular, tornillería de acero inoxidable, protegida contra la corrosión mediante aplicación de doble capa de pintura epoxy, totalmente colocada y probada. Resto de características según ET.	2				2,00	2,00
EVRB065	UD VÁLVULA DE RETENCIÓN DE BOLA DN65 Válvula de retención de bola DN 65 PN16. Cuerpo y tapa: Fundición nodular GGG-40. Bola de aluminio/fundición+Resina fenólica. Tornillería de acero inoxidable AISI 316. Junta de tapa: Nitrilo. Acabados con recubrimiento anticorrosivo interior y exterior con polvo de poliamida Epoxy aplicado electrostáticamente (RAL 5015 Epoxi azul). Instalada y probada. Resto de características según ET.	2				2,00	2,00
ECELM100	UD CAUDALÍMETRO ELECTROMAGNÉTICO DN 100 mm Equipo medidor de caudal de DN100 mm. tipo electromagnético y PN=10 atm. con salida 4/20 mA, tensión 220 V y escala 0-240 m3/h, totalmente instalado y probado. Incluido transporte, montaje, conexiones eléctricas y pruebas de funcionamiento. Resto de características, según ET.	1				1,00	1,00
300	UD BOYA DE NIVEL DE MÁXIMO Y MÍNIMO Boya de nivel cableada con la válvula de llenado, incluso montaje y pruebas.	1				1,00	1,00
ECD010016	UD CARRETE DE DESMONTAJE DN=100 mm PN16 Carrete telescópico de desmontaje DN100 PN16, bridas de acero al carbono, virolas de acero inoxidable, protección epoxy, tornillos y tuercas en acero F-114, cincado y posterior baño de cromo-niquel, incluido p.p. de brida enchufe, totalmente instalado y probado en obra.	1				1,00	1,00
244.2	UD VENTOSA DN=100 (4") mm PN16 RESIDUALES Válvula ventosa de tres funciones para aguas residuales de DN=100 mm y PN 16 bar incluido transporte, juntas, válvula de corte DN=100 mm y PN 16 bar y piezas especiales, totalmente colocada y probada.	1				1,00	1,00
ETI316100	ML TUBERÍA DE INOXIDABLE AISI 316L DN 100 Tubería de acero inoxidable de diámetro DN 100 mm. Construcción: Mediante soldadura. Espesor 1,5 mm. Material: Acero inoxidable AISI -316 L. Material accesorios acero inoxidable AISI - 316L. Acabado: Decapado. Incluso p.p. de uniones, piezas especiales, bridas, codos, tes, injertos para otras tuberías y p.p. de estructuras y elementos de anclajes a solera y/o muros. Montada y probada.	1	2,600			2,600	2,600
							2,60
SUBCAPÍTULO 02.06 COLECTOR AGUAS SUCIAS							
010	M3 RELLENO ZANJAS, CIMIENTOS Y TRASDOSES DE MATERIAL SELECCIONADO Relleno con material seleccionado en zanjas, cimientos, trasdós de muros, estribos y otras estructuras procedente de la excavación o préstamos incluso carga, transporte y compactación.	1	384,00			384,00	384,00
		-1	27,60			-27,60	
		-3,14	96,00	0,20	0,20	-12,06	
							344,34

MEDICIONES

ABASTECIMIENTO A VARIOS MUNICIPIOS DE LA RIOJA. SISTEMA CIDACOS

CÓDIGO	RESUMEN	UDS	LONGITUD	ANCHURA	ALTURA	PARCIALES	CANTIDAD
003	M3 EXCAVACIÓN EN ZANJAS CON AGOTAMIENTO Excavación en zanjas y zonas localizadas, en todo tipo de terrenos incluido terrenos en roca con medios mecánicos, incluso rasanteo, nivelación de la superficie de apoyo, agotamiento y transporte a lugar de empleo o vertedero.	1	96,00	2,50	1,60	384,00	384,00
008	M2 DESPEJE Y DESBROCE Despeje y desbroce de capa de tierra vegetal con un espesor medio de 50 cm, incluso corte de árboles, extracción de tocones, nivelación de zona adyacente para el paso de maquinaria, transporte a lugar de acopio independiente para posterior reposición de tierra vegetal tras las obras y despedregado de las parcelas, así como transporte a vertedero de tierras sobrantes.	1	96,00	5,00		480,00	480,00
030	M3 HORMIGÓN HNE-20/B/40 Hormigón HNE-20/B/40, con cemento CEM III/A-D/42,5/SR (UNE 80303:96), en masa o ligeramente armado, colocado en cualquier tipo de obra, incluso fabricación, carga y transporte, totalmente colocado.	1	96,00	1,15	0,25	27,60	
		1	2.121,00	1,00	0,20	424,20	
							451,80
148A	ML TUBERÍA DE HORMIGÓN EN MASA (D=400 mm.) CLASE 180 Tubería de hormigón en masa de 400 mm. de diámetro clase 180, de enchufe campana y junta de goma de enchufe rápido, con fresado de macho para acanaladura en alojamiento de junta, puesta en obra y colocada en zanja, incluso pruebas.	1	2.217,000			2.217,000	2.217,00
373A	UD POZO DE REGISTRO DE AROS DE HORMIGÓN DN1000 Pozo de registro de abastecimiento o saneamiento de cualquier altura de diámetro interior D=1000 mm, incluso base de hormigón HNE-20, aros de hormigón, cono prefabricado de hormigón, pates y tapa de fundición, totalmente terminado.	48				48,00	48,00
							48,00
CAPÍTULO 03 RAMAL PRINCIPAL: ETAP - ARQUETA P190							
SUBCAPÍTULO 03.01 EJE 3: ETAP - ACOMETIDA ARNEDO							
APARTADO 03.01.01 MOVIMIENTO DE TIERRAS							
010	M3 RELLENO ZANJAS, CIMIENTOS Y TRASDOSES DE MATERIAL SELECCIONADO Relleno con material seleccionado en zanjas, cimientos, trasdós de muros, estribos y otras estructuras procedente de la excavación o préstamos incluso carga, transporte y compactación.	1	56.206,00			56.206,00	56.206,00
	Según medición auxiliar	1	56.206,00			56.206,00	
	Desagües	1	115,00	0,80	0,90	82,80	
							56.288,80
011	M3 RELLENO DE ARENA Arena para apoyo y protección de tuberías incluso carga, transporte, colocación, compactación y nivelación.	1	17.466,20			17.466,20	17.466,20
	Según medición auxiliar	1	17.466,20			17.466,20	
	Desagües	1	165,00	0,80	0,40	52,80	
	A descontar hormigón	-1	424,20			-424,20	
							17.094,80
007	M2 ENTIBACIÓN MÓDULOS METÁLICOS Entibación a dos caras mediante módulos metálicos y articulados, en zonas de protección de zanja, medida la superficie efectiva.	1	37,00	2,00		74,00	74,00
	P.K. 2+862 - 2+899	1	37,00	2,00		74,00	
	P.K. 2+964 - 4+570	1	1.606,00	2,50		4.015,00	
	P.K. 5+214 - FIN	1	2.186,34	2,50		5.465,85	
							9.554,85

MEDICIONES

ABASTECIMIENTO A VARIOS MUNICIPIOS DE LA RIOJA. SISTEMA CIDACOS

CÓDIGO	RESUMEN	UDS	LONGITUD	ANCHURA	ALTURA	PARCIALES	CANTIDAD
003	M3 EXCAVACIÓN EN ZANJAS CON AGOTAMIENTO Excavación en zanjas y zonas localizadas, en todo tipo de terrenos incluido terrenos en roca con medios mecánicos, incluso rasanteo, nivelación de la superficie de apoyo, agotamiento y transporte a lugar de empleo o vertedero. Según medición auxiliar Desagües	1 1	78.465,40			78.465,40	119,60
							78.585,00
008	M2 DESPEJE Y DESBROCE Despeje y desbroce de capa de tierra vegetal con un espesor medio de 50 cm, incluso corte de árboles, extracción de tocones, nivelación de zona adyacente para el paso de maquinaria, transporte a lugar de acopio independiente para posterior reposición de tierra vegetal tras las obras y despedregado de las parcelas, así como transporte a vertedero de tierras sobrantes. P.K. 0+000 - 0+034 P.K. 0+477 - 0+490 P.K. 0+510 - 2+862	1 1 1	34,00 13,00 2.352,00	10,50 10,00 10,00		357,00 130,00 23.520,00	24.007,00
030	M3 HORMIGÓN HNE-20/B/40 Hormigón HNE-20/B/40, con cemento CEM III/A-D/42,5/SR (UNE 80303:96), en masa o ligeramente armado, colocado en cualquier tipo de obra, incluso fabricación, carga y transporte, totalmente colocado. P.K. 3+714 - 3+754 P.K. 5+204 - 5+219 p.k. 6+134 - 6+174	1 1 1	40,00 15,00 40,00	1,70 2,70 1,20	1,20	81,60 48,60 81,60	211,80
APARTADO 03.01.02 OBRA CIVIL							
030	M3 HORMIGÓN HNE-20/B/40 Hormigón HNE-20/B/40, con cemento CEM III/A-D/42,5/SR (UNE 80303:96), en masa o ligeramente armado, colocado en cualquier tipo de obra, incluso fabricación, carga y transporte, totalmente colocado. Anclaje codos A mayores	1 2 13 2 10 3 1 1 2 2 11	1,27 1,66 4,73 5,88 7,54 9,66 11,13 12,83 18,49 20,51 6,50			1,27 3,32 61,49 11,76 75,40 28,98 11,13 12,83 36,98 41,02 71,50	355,68
023	KG ACERO CORRUGADO B-500-S Acero redondo corrugado para armar tipo B-500-S elaborado y colocado. Anclaje codos A mayores	1 2 13 2 10 3 1 1 2 2 11	83,58 107,38 216,47 249,13 298,16 345,89 387,46 403,52 529,87 574,35 260,00			83,58 214,76 2.814,11 498,26 2.981,60 1.037,67 387,46 403,52 1.059,74 1.148,70 2.860,00	13.489,40

MEDICIONES

ABASTECIMIENTO A VARIOS MUNICIPIOS DE LA RIOJA. SISTEMA CIDACOS

CÓDIGO	RESUMEN	UDS	LONGITUD	ANCHURA	ALTURA	PARCIALES	CANTIDAD
034.1	UD ARQUETA HORMIGÓN DE 3,0x3,0 M Y HASTA 2,50 m DE PROFUNDIDAD Arqueta de hormigón armado HA-25/P/40/IIa para alojamiento de válvulas de tuberías de dimensiones interiores 3,0x3,0 m y una altura de hasta 2,50 m, con solera de 30 cm de canto, muros de 25 cm de espesor y tapa de 25 cm de canto, armado con parilla de 20x20 cm con redondos de 12 mm, incluso excavación, relleno posterior, encofrado, ganchos de elevación de tapa, totalmente terminada. Arqueta tras derivación Sta Eulalia Arqueta tras derivación Herce	1 1				1,00 1,00	2,00
373	UD POZO DE REGISTRO DE AROS DE HORMIGÓN DN1200 Pozo de registro de abastecimiento para válvulas de control de cualquier altura de diámetro interior D=1200 mm, incluso base de hormigón HNE-20, aros de hormigón, cono prefabricado de hormigón, pates y tapa de fundición, totalmente terminado. Ventosas Desagües	14 8				14,00 8,00	22,00
APARTADO 03.01.03 TUBERÍAS							
058A	ML TUBERÍA FD 900 mm Tubería de fundición dúctil de diámetro interior 900 mm y PFA de 32 bar, revestida interiormente con mortero de cemento y exteriormente con una capa de cinc y otra bituminosa, i/p.p. de junta automática flexible, banda de señalización y medios auxiliares, totalmente colocada y probada.	1 -1	7.401,00 86,10			7.401,00 -86,10	7.314,90
058RA	ML TUBERÍA FD 900 mm CON JUNTA ACERROJADA Tubería de fundición dúctil de diámetro interior 900 mm y PFA de 32 bar, revestida interiormente con mortero de cemento y exteriormente con una capa de cinc y otra bituminosa, i/p.p. de junta acerrojada, cinta señalizadora y medios auxiliares, totalmente colocada y probada.	1	86,10			86,10	86,10
068A	UD CODO FD 1/32 900 mm Codo de fundición dúctil de 1/32 de diámetro interior 900 mm y PFA 25 bar, con revestimiento interior y exterior epoxi, incluso p.p. de juntas y medios auxiliares, totalmente colocado y probado. A mayores	26 11				26,00 11,00	37,00
069A	UD CODO FD 1/16 900 mm Codo de fundición dúctil de 1/16 de diámetro interior 900 mm y PFA 25 bar, con revestimiento interior y exterior epoxi, incluso p.p. de juntas y medios auxiliares, totalmente colocado y probado.	7				7,00	7,00
070A	UD CODO FD 1/8 900 mm Codo de fundición dúctil de 1/8 de diámetro interior 900 mm y PFA 25 bar, con revestimiento interior y exterior epoxi, incluso p.p. de juntas y medios auxiliares, totalmente colocado y probado.	7				7,00	7,00
070RA	UD CODO FD 1/4 900 mm Codo de fundición dúctil de 1/4 de diámetro interior 900 mm y PFA 25 bar, con revestimiento interior y exterior epoxi, incluso p.p. de juntas y medios auxiliares, totalmente colocado y probado.	2				2,00	2,00
196	ML TUBERÍA DE PVC 200 mm Tubería de PVC con junta elástica de 200 mm de diámetro exterior, y PN=6 bar, incluso banda de señalización, totalmente colocada en zanja. Desagües						2,00

MEDICIONES

ABASTECIMIENTO A VARIOS MUNICIPIOS DE LA RIOJA. SISTEMA CIDACOS

CÓDIGO	RESUMEN	UDS	LONGITUD	ANCHURA	ALTURA	PARCIALES	CANTIDAD
	Arqueta entrada	1	2,20	1,60		3,52	
	P.K. 2+894	1	50,00			50,00	
	P.K. 3+732,486	1	5,00			5,00	
	P.K. 5+860	1	20,00			20,00	
	P.K. 5+980	1	20,00			20,00	
	P.K. 7+220	1	15,00			15,00	
							115,00
APARTADO 03.01.04 VÁLVULAS Y ACCESORIOS							
114.1	UD BRIDA LISO FD 900 mm PN16						
	Brida lisa de fundición dúctil de PFA 16 bar para tubería de 900 mm, con un revestimiento interior y exterior epoxi, i/p.p. de junta de unión y medios auxiliares, totalmente colocada y probada.						
	Tras derivación Sata Eulalia	1				1,00	
	Tras derivación Herce	1				1,00	
	pk 5+854	1				1,00	
							3,00
115.1	UD BRIDA ENCHUFE FD 900 mm PN16						
	Brida enchufe de fundición dúctil de PFA 16 bar para tubería de 900 mm, con un revestimiento interior y exterior epoxi, i/p.p. de junta de unión y medios auxiliares, totalmente colocada y probada.						
	Tras derivación Sata Eulalia	1				1,00	
	Tras derivación Herce	1				1,00	
	pk 5+854	1				1,00	
							3,00
EVMM0900	UD VÁLVULA DE MARIPOSA DOBLE EXCENRICIDAD DN 900 mm PN16 MANUAL						
	Válvula de mariposa de doble excentricidad de 900 mm de diámetro y PN16, de accionamiento manual por reductor, incluso mecanismo de accionamiento, maniobra y control, transporte, montaje, juntas, tornillería y pintura totalmente instalada y probada. Resto de características según ET de proyecto.						
	Tras derivación Sata Eulalia	1				1,00	
	Tras derivación Herce	1				1,00	
	pk 5+854	1				1,00	
							3,00
ECD0900	UD CARRETE DE DESMONTAJE DN=900 mm PN16						
	Carrete telescópico de desmontaje DN900 PN 16, bridas de acero al carbono, virolas de acero inoxidable, protección epoxi, tornillos y tuercas en acero F-114, cincado y posterior baño de cromo-níquel, incluido p.p. de brida enchufe, totalmente instalado y probado en obra.						
	Tras derivación Sata Eulalia	1				1,00	
	Tras derivación Herce	1				1,00	
	pk 5+854	1				1,00	
							3,00
244.1	UD VENTOSA DN=100 (4") mm PN16						
	Válvula ventosa de tres funciones de DN=100 mm y PN 16 bar incluido transporte, juntas, válvula de corte DN=100 mm y PN 16 bar y piezas especiales, totalmente colocada y probada.						
	P.K. 0+500	1				1,00	
	P.K. 1+020	1				1,00	
	P.K. 1+408,682	1				1,00	
	P.K. 1+933,558	1				1,00	
	P.K. 2+446,518	1				1,00	
	P.K. 3+000	1				1,00	
	P.K. 3+760	1				1,00	
	P.K. 4+420	1				1,00	
	P.K. 5+220	1				1,00	
	P.K. 5+880	1				1,00	
	P.K. 6+020	1				1,00	
	P.K. 6+700	1				1,00	
	P.K. 7+240	1				1,00	
							13,00

MEDICIONES

ABASTECIMIENTO A VARIOS MUNICIPIOS DE LA RIOJA. SISTEMA CIDACOS

CÓDIGO	RESUMEN	UDS	LONGITUD	ANCHURA	ALTURA	PARCIALES	CANTIDAD
243.1	UD VENTOSA DN=200 mm PN16						
	Válvula ventosa de tres funciones de DN=200 mm y PN 16 bar incluido transporte, juntas, válvula de corte DN=200 mm y PN 16 bar y piezas especiales, totalmente colocada y probada.						
	P.K. 0+000	1				1,00	
							1,00
116A	UD TE FD EEB DN900 mm PN16 SALIDA HASTA DN200						
	"T" de fundición dúctil de PFA 16 bar, con dos enchufes y derivación con brida para tubería de 900 mm con salida comprendida entre 900 y 200 mm, con un revestimiento interior y exterior epoxi, i/p.p. de junta de unión y medios auxiliares, totalmente colocada y probada.						
	Ventosas	14				14,00	
	Desagües	8				8,00	
							22,00
109	UD REDUCCIÓN FD 200 A 150/100 mm PN16						
	Reducción en fundición dúctil de 200 mm a 150-125-100 mm con dos bridas PN 16 bar, con un revestimiento interior y exterior epoxi, i/p.p. de junta de unión y medios auxiliares, totalmente colocada y probada.						
	Ventosas	13				13,00	
							13,00
232	UD VÁLVULA DE COMPUERTA MANUAL DN200 PN16						
	Válvula de compuerta de cierre elástico de 200 mm. de diámetro nominal y 16 At. de P.N., de accionamiento manual por volante, de cuerpo de fundición nodular GGG-50, con eje de acero inoxidable al 13 % Cr. con rosca conformada por laminación en frío, cierre en fundición nodular, tornillería de acero inoxidable, protegida contra la corrosión mediante aplicación de doble capa de pintura epoxy, totalmente colocada y probada. Resto de características según ET.						
	Desagües						
	P.K. 0+470	1				1,00	
	P.K. 1+331,719	1				1,00	
	P.K. 2+894	1				1,00	
	P.K. 3+732,486	1				1,00	
	P.K. 4+400	1				1,00	
	P.K. 5+860	1				1,00	
	P.K. 5+980	1				1,00	
	P.K. 7+220	1				1,00	
							8,00
109A	UD RACORD TIPO BARCELONA SALIDAS 80-200 mm						
	Rosca Racord tipo Barcelona con salida entre 80 y 200 mm para enchufe de manguera, totalmente instalado y terminado.						
	Desagües						
	P.K. 1+331,719	1				1,00	
	P.K. 4+400	1				1,00	
							2,00
APARTADO 03.01.05 HINCAS							
370	ML HINCA TUBO ACERO 1100 mm TIERRAS						
	Hinca de tubo de acero, de 1100 mm de diámetro interior, bajo viales, en tierra o roca alterada, incluso p.p. de instalación de tubería de fundición dúctil entre 600 y 900 mm de diámetro interior y sus anclajes y apoyos; muros de reacción y contención; y todos los elementos necesarios para su montaje y desmontaje.						
		1	40,00			40,00	
							40,00

MEDICIONES

ABASTECIMIENTO A VARIOS MUNICIPIOS DE LA RIOJA. SISTEMA CIDACOS

CÓDIGO	RESUMEN	UDS	LONGITUD	ANCHURA	ALTURA	PARCIALES	CANTIDAD
APARTADO 03.01.06 OBRAS ACCESORIAS Y REPOSICIONES DE SERVICIOS							
389	ML REPOSICIÓN DE ACEQUIA Reposición de acequia con tubo de hormigón hasta 1 m de diámetro.	3	5,00				15,00
							15,00
383	ML REPOSICIÓN DE CERRAMIENTO EXISTENTE Reposición de cerramiento existente hasta 2,00 m de altura.	4	5,00				20,00
							20,00
387	ML REPOSICIÓN OBRA DE DRENAJE HASTA DN 1,00 m Reposición de obra de drenaje hasta 1,00 de diámetro, p.p. de boquilla de entrada y salida, excavación, hormigón de recubrimiento y relleno compactado, totalmente terminada.	3	5,00				15,00
							15,00
388	ML REPOSICIÓN DE ACEQUIA HASTA 1 m ANCHURA Reposición de acequia prefabricada de hormigón hasta 1,00 m de anchura.	1	12,00				12,00
							12,00
056	M3 ZAHORRA ARTIFICIAL Zahorra artificial compactada.						
	P.K. 0+770 - 1+332	7	5,00	3,00	0,20		21,00
	P.K. 2+862 - 2+899	1	37,00	3,00	0,20		22,20
	P.K. 2+964 - 4+570	1	1.606,00	3,00	0,20		963,60
	P.K. 5+514 - FIN	1	2.186,34	3,00	0,20		1.311,80
							2.318,60
ELA0491	ML CANALIZACIÓN ELÉCTRICA 2T PE DP 160 Canalización subterránea para red de baja tensión y constituida por zanja de dimensiones 0.40x1.00 (anchura x profundidad), lecho de hormigón, 2 tubos de PE DP d=160mm, cinta señalizadora y relleno con material procedente de la excavación.	5	10,00				50,000
							50,00
174A	ML REPOSICIÓN TUBERÍA DE RIEGO Reposición de tubería en riego, colocada en zanja incluso banda de señalización, p.p. de junta de unión colocada así como piezas especiales y medios auxiliares, totalmente colocada.	2	10,00				20,00
		67	10,00				670,00
							690,00
SUBCAPITULO 03.02 EJE 4: ACOMETIDA ARNEDO - P190							
APARTADO 03.02.01 MOVIMIENTO DE TIERRAS							
010	M3 RELLENO ZANJAS, CIMIENTOS Y TRASDOSES DE MATERIAL SELECCIONADO Relleno con material seleccionado en zanjas, cimientos, trasdós de muros, estribos y otras estructuras procedente de la excavación o préstamos incluso carga, transporte y compactación.						
	Según medición auxiliar	1	17.962,10				17.962,10
	Desagües	1	243,00	0,80	0,90		174,96
							18.137,06
011	M3 RELLENO DE ARENA Arena para apoyo y protección de tuberías incluso carga, transporte, colocación, compactación y nivelación.						
	Según medición auxiliar	1	9.188,10				9.188,10
	Desagües	1	243,00	0,80	0,40		77,76
							9.265,86

MEDICIONES

ABASTECIMIENTO A VARIOS MUNICIPIOS DE LA RIOJA. SISTEMA CIDACOS

CÓDIGO	RESUMEN	UDS	LONGITUD	ANCHURA	ALTURA	PARCIALES	CANTIDAD
019	M2 DEMOLICIÓN DE FIRMES Demolición de firmes de cualquier tipo, incluso precorte, carga y transporte a vertedero, posterior perfilado y compactación del terreno.						
	P.K. 0+000 - 1+360	1	1.360,00	3,00			4.080,00
	P.K. 1+360 - 1+725	1	365,00	3,00			1.095,00
	P.K. 1+860 - 2+426	1	566,00	3,00			1.698,00
	P.K. 2+482 - 2+502	1	20,00	3,00			60,00
	P.K. 2+606 - 2+715	1	109,00	3,00			327,00
	P.K. 3+060 - 3+148	1	88,00	3,00			264,00
	P.K. 3+227 - 3+310	1	83,00	3,00			249,00
	P.K. 3+595 - 3+724,76	1	129,76	3,00			389,28
	P.K. 3+755 - 3+838	1	83,00	3,00			249,00
	P.K. 3+910 - 4+959	1	1.049,00	3,00			3.147,00
	P.K. 5+140 - 5+295	1	155,00	3,00			465,00
	P.K. 5+372 - 5+722,92	1	350,92	3,00			1.052,76
	P.K. 5+800 - 5+825	1	25,00	3,00			75,00
							13.151,04
007	M2 ENTIBACIÓN MÓDULOS METÁLICOS Entibación a dos caras mediante módulos metálicos y articulados, en zonas de protección de zanja, medida la superficie efectiva.						
	P.K. 0+208 - 1+204	1	996,00	2,00			1.992,00
	P.K. 1+860 - 2+426	1	566,00	2,00			1.132,00
	P.K. 2+482 - 2+720	1	238,00	2,00			476,00
	P.K. 3+060 - 3+148	1	88,00	2,00			176,00
	P.K. 3+227 - 3+724,76	1	497,76	2,00			995,52
	P.K. 3+755 - 3+838	1	83,00	2,00			166,00
	P.K. 3+910 - 4+959	1	1.049,00	2,00			2.098,00
	P.K. 5+052 - 5+295	1	243,00	2,00			486,00
	P.K. 5+372 - 5+722,92	1	350,92	2,00			701,84
	P.K. 5+745 - 5+800	1	55,00	2,00			110,00
	P.K. 5+825 - 5+900	1	75,00	2,00			150,00
							8.483,36
003	M3 EXCAVACIÓN EN ZANJAS CON AGOTAMIENTO Excavación en zanjas y zonas localizadas, en todo tipo de terrenos incluido terrenos en roca con medios mecánicos, incluso rasanteo, nivelación de la superficie de apoyo, agotamiento y transporte a lugar de empleo o vertedero.						
	Según medición auxiliar	1	30.343,30				30.343,30
	Desagües	1	243,00	0,80	1,30		252,72
							30.596,02
008	M2 DESPEJE Y DESBROCE Despeje y desbroce de capa de tierra vegetal con un espesor medio de 50 cm, incluso corte de árboles, extracción de tocones, nivelación de zona adyacente para el paso de maquinaria, transporte a lugar de acopio independiente para posterior reposición de tierra vegetal tras las obras y despedregado de las parcelas, así como transporte a vertedero de tierras sobrantes.						
	P.K. 0+208 - 1+204	1	996,00	3,00			2.988,00
	P.K. 1+725 - 1+860	1	135,00	13,00			1.755,00
	P.K. 2+426 - 2+482	1	56,00	13,00			728,00
	P.K. 2+502 - 2+606	1	104,00	13,00			1.352,00
	P.K. 2+720 - 3+060	1	340,00	13,00			4.420,00
	P.K. 3+128 - 3+227	1	99,00	13,00			1.287,00
	P.K. 3+838 - 3+910	1	72,00	13,00			936,00
	P.K. 4+959 - 5+052	1	93,00	13,00			1.209,00
	P.K. 5+295 - 5+372	1	77,00	13,00			1.001,00
	P.K. 5+745 - 5+800	1	55,00	3,00			165,00
	P.K. 5+900 - FIN	1	134,00	4,50			603,00
							16.444,00

MEDICIONES

ABASTECIMIENTO A VARIOS MUNICIPIOS DE LA RIOJA. SISTEMA CIDACOS

CÓDIGO	RESUMEN	UDS	LONGITUD	ANCHURA	ALTURA	PARCIALES	CANTIDAD
030	M3 HORMIGÓN HNE-20/B/40 Hormigón HNE-20/B/40, con cemento CEM III/A-D/42,5/SR (UNE 80303:96), en masa o ligeramente armado, colocado en cualquier tipo de obra, incluso fabricación, carga y transporte, totalmente colocado. P.K. 1+725 - 1+780 P.K. 4+959 - 4+995	1 -3,14 1 -3,14	55,00 55,00 36,00 36,00	3,60 0,40 3,60 0,40	1,10 0,40 1,10 0,40	217,80 -27,63 142,56 -18,09	
							314,64
014	M3 ESCOLLERA D50 =1,00 m Escollera caliza pesada de D50 = 1,00 m colocada en protección de cauces, incluido suministro y preparación de la superficie de apoyo, perfectamente rasanteada y terminada. P.K. 2+055 - 2+251 P.K. 4+595 - 4+665	1 1	196,00 70,00	19,80 19,80		3.880,80 1.386,00	
							5.266,80
APARTADO 03.02.02 OBRA CIVIL							
030	M3 HORMIGÓN HNE-20/B/40 Hormigón HNE-20/B/40, con cemento CEM III/A-D/42,5/SR (UNE 80303:96), en masa o ligeramente armado, colocado en cualquier tipo de obra, incluso fabricación, carga y transporte, totalmente colocado. Anclaje codos P.K. 1+360 - 1+725 P.K. 1+860 - 2+426 P.K. 2+482 - 2+502 P.K. 2+606 - 2+650 P.K. 3+060 - 3+148 P.K. 3+227 - 3+310 P.K. 3+595 - 3+724,76 P.K. 3+755 - 3+838 P.K. 3+910 - 4+959 P.K. 5+140 - 5+295 P.K. 5+372 - 5+722,92	2 3 9 2 3 1 2 1 1 1 1 1 1 1 1 1 1	6,73 7,43 14,80 26,19 29,66 48,22 53,82 365,00 566,00 20,00 44,00 88,00 83,00 129,76 83,00 1.049,00 155,00 350,92	3,00 0,20 3,00 0,20 3,00 0,20 3,00 0,20 3,00 0,20 3,00 0,20 3,00 0,20 3,00 0,20 3,00 0,20 3,00 0,20	0,20 0,20 0,20 0,20 0,20 0,20 0,20 0,20 0,20 0,20 0,20 0,20 0,20 0,20 0,20 0,20 0,20 0,20 0,20 0,20	13,46 22,29 133,20 52,38 88,98 48,22 107,64 219,00 339,60 12,00 26,40 52,80 49,80 77,86 49,80 629,40 93,00 210,55	
							2.226,38
023	KG ACERO CORRUGADO B-500-S Acero redondo corrugado para armar tipo B-500-S elaborado y colocado. Anclaje codos P.K. 2+700 Válvulas de corte	2 3 9 2 3 1 2	274,47 292,49 457,34 665,95 722,38 1.005,36 1.083,40			548,94 877,47 4.116,06 1.331,90 2.167,14 1.005,36 2.166,80	
							12.213,67
034.1	UD ARQUETA HORMIGÓN DE 3,0x3,0 M Y HASTA 2,50 m DE PROFUNDIDAD Arqueta de hormigón armado HA-25/P/40/IIa para alojamiento de válvulas de tuberías de dimensiones interiores 3,0x3,0 m y una altura de hasta 2,50 m, con solera de 30 cm de canto, muros de 25 cm de espesor y tapa de 25 cm de canto, armado con parrilla de 20x20 cm con redondos de 12 mm, incluso excavación, relleno posterior, encofrado, ganchos de elevación de tapa, totalmente terminada. Tras derivación a Quel pk 2+700 Válvulas de corte	1 1 6				1,00 1,00 6,00	

MEDICIONES

ABASTECIMIENTO A VARIOS MUNICIPIOS DE LA RIOJA. SISTEMA CIDACOS

CÓDIGO	RESUMEN	UDS	LONGITUD	ANCHURA	ALTURA	PARCIALES	CANTIDAD
							8,00
373	UD POZO DE REGISTRO DE AROS DE HORMIGÓN DN1200 Pozo de registro de abastecimiento para válvulas de control de cualquier altura de diámetro interior D=1200 mm, incluso base de hormigón HNE-20, aros de hormigón, cono prefabricado de hormigón, pates y tapa de fundición, totalmente terminado. Ventosas Desagües	10 5				10,00 5,00	
							15,00
APARTADO 03.02.03 TUBERÍAS							
058	ML TUBERÍA FD 800 mm Tubería de fundición dúctil de diámetro interior 800 mm y PFA de 32 bar, revestida interiormente con mortero de cemento y exteriormente con una capa de cinc y otra bituminosa, i/p.p. de junta automática flexible, cinta señalizadora y medios auxiliares, totalmente colocada y probada. 1 6.034,00 -1 1.184,00					6.034,00 -1.184,00	
							4.850,00
058R	ML TUBERÍA FD 800 mm CON JUNTA ACEROJADA Tubería de fundición dúctil de diámetro interior 800 mm y PFA de 32 bar, revestida interiormente con mortero de cemento y exteriormente con una capa de cinc y otra bituminosa, i/p.p. de junta acerrojada, cinta señalizadora y medios auxiliares, totalmente colocada y probada. 1 1.184,00					1.184,00	
							1.184,00
068	UD CODO FD 1/32 800 mm Codo de fundición dúctil de 1/32 de diámetro interior 800 mm y PFA 25 bar, con revestimiento interior y exterior epoxi, incluso p.p. de juntas y medios auxiliares, totalmente colocado y probado. 71 71,00 Alzado a mayores 10 10,00					71,00 10,00	
							81,00
069	UD CODO FD 1/16 800 mm Codo de fundición dúctil de 1/16 de diámetro interior 800 mm y PFA 25 bar, con revestimiento interior y exterior epoxi, incluso p.p. de juntas y medios auxiliares, totalmente colocado y probado. 22 22,00					22,00	
							22,00
070	UD CODO FD 1/8 800 mm Codo de fundición dúctil de 1/8 de diámetro interior 800 mm y PFA 25 bar, con revestimiento interior y exterior epoxi, incluso p.p. de juntas y medios auxiliares, totalmente colocado y probado. 13 13,00					13,00	
							13,00
070R	UD CODO FD 1/4 800 mm Codo de fundición dúctil de 1/4 de diámetro interior 800 mm y PFA 25 bar, con revestimiento interior y exterior epoxi, incluso p.p. de juntas y medios auxiliares, totalmente colocado y probado. 3 3,00					3,00	
							3,00
196	ML TUBERÍA DE PVC 200 mm Tubería de PVC con junta elástica de 200 mm de diámetro exterior, y PN=6 bar, incluso banda de señalización, totalmente colocada en zanja. Desagües P.K. 2+200,712 P.K. 3+060 P.K. 5+000	1 1 1	5,00 228,00 10,00			5,00 228,00 10,00	
							243,00

MEDICIONES

ABASTECIMIENTO A VARIOS MUNICIPIOS DE LA RIOJA. SISTEMA CIDACOS

CÓDIGO	RESUMEN	UDS	LONGITUD	ANCHURA	ALTURA	PARCIALES	CANTIDAD
APARTADO 03.02.04 VÁLVULAS Y ACCESORIOS							
245.2	UD VENTOSA DN=80 (3") mm PN16 Válvula ventosa de tres funciones de DN=80 mm (3") y PN 16 bar incluido transporte, juntas, válvula de corte DN=80 mm y PN 16y piezas especiales, totalmente colocada y probada. P.K. 0+760	1				1,00	1,00
245.5	UD VENTOSA DN=80 (3") mm PN25 Válvula ventosa de tres funciones de DN=80 mm (3") y PN 25 bar incluido transporte, juntas, válvula de corte DN=80 mm y PN 25 y piezas especiales, totalmente colocada y probada. P.K. 1+520 P.K. 2+323,418 P.K. 2+869,672 P.K. 3+305,203 P.K. 4+062,151 P.K. 4+760 P.K. 5+682.804 P.K. 4+950	1 1 1 1 1 1 1 1				1,00 1,00 1,00 1,00 1,00 1,00 1,00 1,00	8,00
244.1	UD VENTOSA DN=100 (4") mm PN16 Válvula ventosa de tres funciones de DN=100 mm y PN 16 bar incluido transporte, juntas, válvula de corte DN=100 mm y PN 16 ba y piezas especiales, totalmente colocada y probada. P.K. 6+033,844	1				1,00	1,00
116	UD TE FD BBB 800 mm PN25 SALIDA DN800/150 "T" de fundición dúctil de PFA 25 bar, con dos enchufes y derivación con brida para tubería de 800 mm con salida comprendida entre 800 y 150 mm, con un revestimiento interior y exterior epoxi, i/p.p. de junta de unión y medios auxiliares, totalmente colocada y probada. P.K. 1+520 P.K. 2+323,418 P.K. 2+869,672 P.K. 3+305,203 P.K. 4+062,151 P.K. 4+760 P.K. 5+682.804 P.K. 0+760 P.K. 6+033,844 P.K. 4+950 Desagües P.K. 2+200,712 P.K. 2+700 P.K. 3+060 P.K. 5+000 Derivación Quel	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1				1,00 1,00 1,00 1,00 1,00 1,00 1,00 1,00 1,00 1,00 1,00 1,00 1,00 1,00 1,00 1,00 1,00 1,00 1,00	16,00
111	UD REDUCCIÓN FD 150 A 125/50 mm PN16/25 Reducción en fundición dúctil de 150 mm a 125-100-80-65-60-50 mm con dos bridas PN 16/25 bar, con un revestimiento interior y exterior epoxi, i/p.p. de junta de unión y medios auxiliares, totalmente colocada y probada. P.K. 0+760 P.K. 1+520 P.K. 2+323,418 P.K. 2+869,672 P.K. 3+305,203 P.K. 4+062,151 P.K. 4+760 P.K. 5+682.804 P.K. 6+033,844 P.K. 4+950	1 1 1 1 1 1 1 1 1 1				1,00 1,00 1,00 1,00 1,00 1,00 1,00 1,00 1,00 1,00	

MEDICIONES

ABASTECIMIENTO A VARIOS MUNICIPIOS DE LA RIOJA. SISTEMA CIDACOS

CÓDIGO	RESUMEN	UDS	LONGITUD	ANCHURA	ALTURA	PARCIALES	CANTIDAD
231	UD VÁLVULA DE COMPUERTA MANUAL DN200 PN25 Válvula de compuerta de cierre elástico de 200 mm. de diámetro nominal y 25 At. de P.N., de accionamiento manual por volante, de cuerpo de fundición nodular GGG-50, con eje de acero inoxidable al 13 % Cr. con rosca conformada por laminación en frío, cierre en fundición nodular, tomillería de acero inoxidable, protegida contra la corrosión mediante aplicación de doble capa de pintura epoxy, totalmente colocada y probada. Resto de características según ET. Desagües P.K. 2+200,712 P.K. 2+700 P.K. 3+060 P.K. 5+000	1 2 1 1				1,00 2,00 1,00 1,00	10,00
109A	UD RACORD TIPO BARCELONA SALIDAS 80-200 mm Rosca Racord tipo Barcelona con salida entre 80 y 200 mm para enchufe de manguera, totalmente instalado y terminado. Desagües P.K. 2+700	2				2,00	5,00
114.5	UD BRIDA LISO FD 800 mm PN25/40 Brida lisa de fundición dúctil de PFA 25/40 bar para tubería de 800 mm, con un revestimiento interior y exterior epoxi, i/p.p. de junta de unión y medios auxiliares, totalmente colocada y probada. Tras derivación Quel	1				1,00	2,00
EVMM800P	UD VÁLVULA DE MARIPOSA DOBLE EXCENRICIDAD DN 800 mm PN25 MANUAL Válvula de mariposa de doble excentricidad de 800 mm de diámetro y PN25, de accionamiento manual por reductor, incluso mecanismo de accionamiento, maniobra y control, transporte, montaje, juntas, tomillería y pintura totalmente instalada y probada. Resto de características según ET de proyecto. Tras derivación a Quel pk 2+700 Cruces carreteras	1 1 6				1,00 1,00 6,00	8,00
ECD0800P	UD CARRETE DE DESMONTAJE DN=800 mm PN25 Carrete telescópico de desmontaje DN800 PN25, bridas de acero al carbono, virolas de acero inoxidable, protección epoxi, tornillos y tuercas en acero F-114, cincado y posterior baño de cromo-niquel, incluido p.p. de brida enchufe, totalmente instalado y probado en obra. Tras derivación a Quel pk 2+700 Cruces carreteras	1 1 6				1,00 1,00 6,00	8,00
115.2	UD BRIDA ENCHUFE FD 800 mm PN25 Brida enchufe de fundición dúctil de PFA 25 bar para tubería de 800 mm, con un revestimiento interior y exterior epoxi, i/p.p. de junta de unión y medios auxiliares, totalmente colocada y probada. Tras derivación a Quel pk 2+700	1 2				1,00 2,00	3,00
APARTADO 03.02.05 HINCAS							
370	ML HINCA TUBO ACERO 1100 mm TIERRAS Hinca de tubo de acero, de 1100 mm de diámetro interior, bajo viales, en tierra o roca alterada, incluso p.p. de instalación de tubería de fundición dúctil entre 600 y 900 mm de diámetro interior y sus anclajes y apoyos; muros de reacción y contención; y todos los elementos necesarios para su montaje y desmontaje. P.K. 3+724,76 - 3+755 P.K. 5+722,92 - 5+745	1 1	30,24 22,08			30,24 22,08	52,32

MEDICIONES

ABASTECIMIENTO A VARIOS MUNICIPIOS DE LA RIOJA. SISTEMA CIDACOS

CÓDIGO	RESUMEN	UDS	LONGITUD	ANCHURA	ALTURA	PARCIALES	CANTIDAD
APARTADO 03.02.06 OBRAS ACCESORIAS Y REPOSICIONES DE SERVICIOS							
030	M3 HORMIGÓN HNE-20/B/40 Hormigón HNE-20/B/40, con cemento CEM III/A-D/42,5/SR (UNE 80303:96), en masa o ligeramente armado, colocado en cualquier tipo de obra, incluso fabricación, carga y transporte, totalmente colocado. Protección tubería gas P.K. 5+170	1	5,00	5,49	0,20	5,49	5,49
389	ML REPOSICIÓN DE ACEQUIA Reposición de acequia con tubo de hormigón hasta 1 m de diámetro. P.K. 3+070 P.K. 5+160 P.K. 5+757	1	5,00			5,00	5,00
381	M2 REPOSICIÓN DE FIRME DE AGLOMERADO Reposición de firme de aglomerado en caliente en zonas afectadas por las obras. P.K. 0+000 - 1+360 P.K. 1+360 - 1+725 P.K. 1+860 - 2+426 P.K. 2+482 - 2+502 P.K. 2+606 - 2+715 P.K. 3+060 - 3+148 P.K. 3+227 - 3+310 P.K. 3+595 - 3+724,76 P.K. 3+755 - 3+838 P.K. 3+910 - 4+959 P.K. 5+140 - 5+295 P.K. 5+372 - 5+722,92 P.K. 5+800 - 5+825	1	1.360,00	3,00		4.080,00	13.151,04
056	M3 ZAHORRA ARTIFICIAL Zahorra artificial compactada. P.K. 2+650 - 2+720 P.K. 3+310 - 3+595 P.K. 5+052 - 5+295 P.K. 5+825 - 5+900	1	70,00	2,50	0,20	35,00	336,50
383	ML REPOSICIÓN DE CERRAMIENTO EXISTENTE Reposición de cerramiento existente hasta 2,00 m de altura. P.K. 2+150 P.K. 5+736	1	10,00			10,00	25,00
387	ML REPOSICIÓN OBRA DE DRENAJE HASTA DN 1,00 m Reposición de obra de drenaje hasta 1,00 de diámetro, p.p. de boquilla de entrada y salida, excavación, hormigón de recubrimiento y relleno compactado, totalmente terminada. P.K. 1+615 P.K. 5+689 P.K. 5+380 - 5+680	1	5,00			5,00	40,00
619	PA REPOSICIÓN DE PARQUE EXISTENTE Partida Alzada de Abono Íntegro para la reposición de parque existente. 1	1				1,00	1,00
385	M2 REPOSICIÓN DE JARDÍN EXISTENTE Reposición de jardín existente.						

MEDICIONES

ABASTECIMIENTO A VARIOS MUNICIPIOS DE LA RIOJA. SISTEMA CIDACOS

CÓDIGO	RESUMEN	UDS	LONGITUD	ANCHURA	ALTURA	PARCIALES	CANTIDAD
	Arqueta entrada	1	2,20	1,60		3,52	37,50
393	ML CANALIZACIÓN TELEFÓNICA FIBRA ÓPTICA Canalización telefónica en zanja bajo calzada, para reposición de cable de fibra óptica de 12 a 16 fibras, incluso p.p. de arquetas y caja de empalmes, totalmente terminado. P.K. 5+750	1	20,00			20,00	20,00
395	ML CANALIZACIÓN TELEFÓNICA BAJO CALZADA 4 TUBOS Canalización telefónica en zanja bajo calzada, de 0,45x1,01 m para 4 conductos, en base 2, de PVC de 110 mm de diámetro, embebidos en prisma de hormigón HM-20 de central de 8 cm de recubrimiento superior e inferior y 10 cm lateralmente, incluso excavación de tierras a máquina en terrenos flojos, tubos, soportes distanciadores cada 70 cm, cuerda guía para cables, hormigón y relleno en la capa superior con tierras procedentes de la excavación, en tongadas < 25 cm, compactada al 95% del P.N., totalmente terminado. P.K. 1+340 P.K. 5+750	1	20,00			20,00	40,00
SUBCAPÍTULO 03.03 EJES 14 Y 24: ACOMETIDA SANTA EULALIA S Y B							
APARTADO 03.03.01 MOVIMIENTO DE TIERRAS							
019	M2 DEMOLICIÓN DE FIRMES Demolición de firmes de cualquier tipo, incluso precorte, carga y transporte a vertedero, posterior perfilado y compactación del terreno. EJE 14 P.K. 0+578 - 0+598 P.K. 0+626 - 0+760	1	20,00	3,00		60,00	462,00
010	M3 RELLENO ZANJAS, CIMIENTOS Y TRASDOSES DE MATERIAL SELECCIONADO Relleno con material seleccionado en zanjas, cimientos, trasdós de muros, estribos y otras estructuras procedente de la excavación o préstamos incluso carga, transporte y compactación. Eje 14 según medición auxiliar Eje 24 según medición auxiliar	1	1.087,70			1.087,70	1.139,30
011	M3 RELLENO DE ARENA Arena para apoyo y protección de tuberías incluso carga, transporte, colocación, compactación y nivelación. Eje 14 según medición auxiliar Eje 24 según medición auxiliar	1	188,20			188,20	203,60
002	M3 EXCAVACIÓN EN ZANJAS Excavación en zanjas y zonas localizadas, en todo tipo de terrenos incluido terrenos en roca con medios mecánicos, incluso rasanteo, nivelación de la superficie de apoyo y transporte a lugar de empleo o vertedero. Eje 14 según medición auxiliar A descontar con agotamiento P.K. 0+314 - 0+578 Eje 24 según medición auxiliar	1	1.277,60			1.277,60	294,80
003	M3 EXCAVACIÓN EN ZANJAS CON AGOTAMIENTO Excavación en zanjas y zonas localizadas, en todo tipo de terrenos incluido terrenos en roca con medios mecánicos, incluso rasanteo, nivelación de la superficie de apoyo, agotamiento y transporte a lugar de empleo o vertedero. Eje 14 Con agotamiento P.K. 0+314 - 0+578	1	1.050,00			1.050,00	1.050,00

MEDICIONES

ABASTECIMIENTO A VARIOS MUNICIPIOS DE LA RIOJA. SISTEMA CIDACOS

CÓDIGO	RESUMEN	UDS	LONGITUD	ANCHURA	ALTURA	PARCIALES	CANTIDAD
008	M2 DESPEJE Y DESBROCE Despeje y desbroce de capa de tierra vegetal con un espesor medio de 50 cm, incluso corte de árboles, extracción de tocones, nivelación de zona adyacente para el paso de maquinaria, transporte a lugar de acopio independiente para posterior reposición de tierra vegetal tras las obras y despedregado de las parcelas, así como transporte a vertedero de tierras sobrantes. Eje 14 P.K. 0+800 - FIN Eje 24						
		1	7,24	3,00			21,72
		1	53,00	3,00			159,00
							180,72
APARTADO 03.03.02 OBRA CIVIL							
373	UD POZO DE REGISTRO DE AROS DE HORMIGÓN DN1200 Pozo de registro de abastecimiento para válvulas de control de cualquier altura de diámetro interior D=1200 mm, incluso base de hormigón HNE-20, aros de hormigón, con prefabricado de hormigón, pates y tapa de fundición, totalmente terminado. Ventosas Desagües	2					2,00
		1					1,00
							3,00
APARTADO 03.03.03 TUBERÍAS							
174	ML TUBERÍA PEAD DN=63 mm PN 16 Tubería de polietileno de alta densidad de 63 mm de diámetro exterior y PN=16 bar, colocada en zanja incluso banda de señalización, p.p. de junta de unión colocada, codos, tes, portabridas, así como piezas especiales y medios auxiliares, totalmente colocada. Eje 14 Eje 24	1	808,00				808,00
		1	53,00				53,00
							861,00
APARTADO 03.03.04 VALVULERÍA Y ACCESORIOS							
116A	UD TE FD EEB DN900 mm PN16 SALIDA HASTA DN200 "T" de fundición dúctil de PFA 16 bar, con dos enchufes y derivación con brida para tubería de 900 mm con salida comprendida entre 900 y 200 mm, con un revestimiento interior y exterior epoxi, i/p.p. de junta de unión y medios auxiliares, totalmente colocada y probada. Derivación reducción a DN200	1					1,00
							1,00
109	UD REDUCCIÓN FD 200 A 150/100 mm PN16 Reducción en fundición dúctil de 200 mm a 150-125-100 mm con dos bridas PN 16 bar, con un revestimiento interior y exterior epoxi, i/p.p. de junta de unión y medios auxiliares, totalmente colocada y probada. Reducción a DN100	1					1,00
							1,00
114	UD REDUCCIÓN FD 100 A 80/50 mm PN16/25 Reducción en fundición dúctil de 100 mm a 80-65-60-50 mm con dos bridas PN 16/25 bar, con un revestimiento interior y exterior epoxi, i/p.p. de tomillería y medios auxiliares, totalmente colocada y probada. Reducción a 65	1					1,00
							1,00
EVCM06516	UD VÁLVULA DE COMPUERTA MANUAL DN65 PN16 Válvula de compuerta de cierre elástico de 65 mm. de diámetro nominal y 16 At. de P.N., de accionamiento manual por volante, de cuerpo de fundición nodular GGG-50, con eje de acero inoxidable al 13 % Cr. con roscas conformadas por laminación en frío, cierre en fundición nodular, tomillería de acero inoxidable, protegida contra la corrosión mediante aplicación de doble capa de pintura epoxy, totalmente colocada y probada. Resto de características según ET.	1					1,00
							1,00
245.1	UD VENTOSA DN=25 mm (1") PN16 Válvula ventosa de tres funciones de 1" (DN=25 mm) y PN 16 bar incluido transporte, juntas, válvula de corte DN=25 mm y PN 16 bar y piezas especiales, totalmente colocada y probada. Eje 14						

MEDICIONES

ABASTECIMIENTO A VARIOS MUNICIPIOS DE LA RIOJA. SISTEMA CIDACOS

CÓDIGO	RESUMEN	UDS	LONGITUD	ANCHURA	ALTURA	PARCIALES	CANTIDAD
	Arqueta entrada Eje 24 p.k. 0+053	1	2,20	1,60			3,52
		1					1,00
							2,00
175	UD "T" PEAD DN 140 A 63 mm PN16 "T" de derivación en polietileno de alta densidad de 140 mm de diámetro exterior a 63 mm y PN=16 bar, colocada en zanja incluso p.p. de junta de unión colocada y medios auxiliares, totalmente colocada y probada. Ventosas Eje 14 P.K. 0+807,244 Eje 24 p.k. 0+053 Desagües	1					1,00
		1					1,00
		1					1,00
							3,00
177.1	UD REDUCCIÓN PEAD 63 A 50 mm DIÁMETRO Reducción en polietileno de alta densidad de 63 mm a 50 mm de diámetro, totalmente colocada y probada. Ventosas Eje 14 P.K. 0+807,244 Eje 24 p.k. 0+053 Desagües	1					1,00
		1					1,00
		1					1,00
							3,00
242	UD VÁLVULA DE COMPUERTA MANUAL DN50 PN16 Válvula de compuerta de accionamiento manual de diámetro nominal DN=50 mm de 16 bares de presión máxima admisible, con tomillería y juntas, totalmente instalada y probada, incluso volante de accionamiento. Desagües Eje 24 P.K. 0+020	1					1,00
							1,00
109A	UD RACORD TIPO BARCELONA SALIDAS 80-200 mm Rosca Racord tipo Barcelona con salida entre 80 y 200 mm para enchufe de manguera, totalmente instalado y terminado. Desagües Eje 24 P.K. 0+020	1					1,00
							1,00
APARTADO 03.03.05 OBRAS ACCESORIAS Y REPOSICIONES DE SERVICIOS							
056	M3 ZAHORRA ARTIFICIAL Zahorra artificial compactada. P.K. 0+314 + 0+578 P.K. 0+760 - 0+800	1	264,00	5,00	0,20		264,00
		1	40,00	3,00	0,20		24,00
							288,00
381	M2 REPOSICIÓN DE FIRME DE AGLOMERADO Reposición de firme de aglomerado en caliente en zonas afectadas por las obras. P.K. 0+578 - 0+598 P.K. 0+626 - 0+760	1	20,00	3,00			60,00
		1	134,00	3,00			402,00
							462,00
391	ML REPOSICIÓN DE POZO DE REGISTRO Reposición de pozo de registro para saneamiento o abastecimiento, incluso base de hormigón HM-20, p.p. de cono prefabricado de hormigón y tapa, totalmente terminado. P.K. 0+337	1					1,00

MEDICIONES

ABASTECIMIENTO A VARIOS MUNICIPIOS DE LA RIOJA. SISTEMA CIDACOS

CÓDIGO	RESUMEN	UDS	LONGITUD	ANCHURA	ALTURA	PARCIALES	CANTIDAD
							1,00
393	ML CANALIZACIÓN TELEFÓNICA FIBRA ÓPTICA Canalización telefónica en zanja bajo calzada, para reposición de cable de fibra óptica de 12 a 16 fibras, incluso p.p. de arquetas y caja de empalmes, totalmente terminado. P.K. 0+529	1	20,00			20,00	
							20,00
SUBCAPÍTULO 03.04 EJE 15: ACOMETIDA HERCE							
APARTADO 03.04.01 MOVIMIENTO DE TIERRAS							
002	M3 EXCAVACIÓN EN ZANJAS Excavación en zanjas y zonas localizadas, en todo tipo de terrenos incluido terrenos en roca con medios mecánicos, incluso rasanteo, nivelación de la superficie de apoyo y transporte a lugar de empleo o vertedero. Según medición auxiliar A descontar con agotamiento P.K. 0+000 - 0+140	1	611,60			611,60	
		-1	111,20			-111,20	
							500,40
003	M3 EXCAVACIÓN EN ZANJAS CON AGOTAMIENTO Excavación en zanjas y zonas localizadas, en todo tipo de terrenos incluido terrenos en roca con medios mecánicos, incluso rasanteo, nivelación de la superficie de apoyo, agotamiento y transporte a lugar de empleo o vertedero. Según medición auxiliar P.K. 0+000 - 0+140	1	111,20			111,20	
							111,20
008	M2 DESPEJE Y DESBROCE Despeje y desbroce de capa de tierra vegetal con un espesor medio de 50 cm, incluso corte de árboles, extracción de tocones, nivelación de zona adyacente para el paso de maquinaria, transporte a lugar de acopio independiente para posterior reposición de tierra vegetal tras las obras y despedregado de las parcelas, así como transporte a vertedero de tierras sobrantes. P.K. 0+340 - 0+470 P.K. 0+510 - FIN	1	130,00	3,00		390,00	
		1	65,61	3,00		196,83	
							586,83
010	M3 RELLENO ZANJAS, CIMIENTOS Y TRASDOSES DE MATERIAL SELECCIONADO Relleno con material seleccionado en zanjas, cimientos, trasdós de muros, estribos y otras estructuras procedente de la excavación o préstamos incluso carga, transporte y compactación. Según medición auxiliar	1	454,10			454,10	
							454,10
011	M3 RELLENO DE ARENA Arena para apoyo y protección de tuberías incluso carga, transporte, colocación, compactación y nivelación. Según medición auxiliar	1	154,50			154,50	
							154,50
019	M2 DEMOLICIÓN DE FIRMES Demolición de firmes de cualquier tipo, incluso precorte, carga y transporte a vertedero, posterior perfilado y compactación del terreno. P.K. 0+000 - 0+116 P.K. 0+134 - 0+340 P.K. 0+470 - 0+510	1	116,00	3,00		348,00	
		1	206,00	3,00		618,00	
		1	40,00	3,00		120,00	
							1.086,00
007	M2 ENTIBACIÓN MÓDULOS METÁLICOS Entibación a dos caras mediante módulos metálicos y articulados, en zonas de protección de zanja, medida la superficie efectiva. P.K. 0+000 - 0+116 P.K. 0+134 - 0+340	1	116,00	1,50		174,00	
		1	206,00	1,50		309,00	
							483,00

MEDICIONES

ABASTECIMIENTO A VARIOS MUNICIPIOS DE LA RIOJA. SISTEMA CIDACOS

CÓDIGO	RESUMEN	UDS	LONGITUD	ANCHURA	ALTURA	PARCIALES	CANTIDAD
APARTADO 03.04.02 OBRA CIVIL							
373	UD POZO DE REGISTRO DE AROS DE HORMIGÓN DN1200 Pozo de registro de abastecimiento para válvulas de control de cualquier altura de diámetro interior D=1200 mm, incluso base de hormigón HNE-20, aros de hormigón, cono prefabricado de hormigón, pates y tapa de fundición, totalmente terminado.	3				3,00	
							3,00
APARTADO 03.04.03 TUBERÍAS							
173R	ML TUBERÍA PEAD DN=75 mm PN 16 Tubería de polietileno de alta densidad de 75 mm de diámetro exterior y PN=16 bar, colocada en zanja incluso p.p. de junta de unión colocada, cinta señalizadora, piezas especiales y medios auxiliares, totalmente colocada.	1	576,00			576,00	
							576,00
APARTADO 03.04.04 VALVULERÍA Y ACCESORIOS							
116A	UD TE FD EEB DN900 mm PN16 SALIDA HASTA DN200 "T" de fundición dúctil de PFA 16 bar, con dos enchufes y derivación con brida para tubería de 900 mm con salida comprendida entre 900 y 200 mm, con un revestimiento interior y exterior epoxi, i/p.p. de junta de unión y medios auxiliares, totalmente colocada y probada. Derivación reducción a DN200	1				1,00	
							1,00
109	UD REDUCCIÓN FD 200 A 150/100 mm PN16 Reducción en fundición dúctil de 200 mm a 150-125-100 mm con dos bridas PN 16 bar, con un revestimiento interior y exterior epoxi, i/p.p. de junta de unión y medios auxiliares, totalmente colocada y probada. Reducción a DN100	1				1,00	
							1,00
111	UD REDUCCIÓN FD 150 A 125/50 mm PN16/25 Reducción en fundición dúctil de 150 mm a 125-100-80-65-60-50 mm con dos bridas PN 16/25 bar, con un revestimiento interior y exterior epoxi, i/p.p. de junta de unión y medios auxiliares, totalmente colocada y probada. Reducción a DN80	1				1,00	
							1,00
EVC080	UD VÁLVULA DE COMPUERTA MANUAL DN80 PN16 Válvula de compuerta de cierre elástico de 80 mm. de diámetro nominal y 16 At. de P.N., de accionamiento manual por volante, de cuerpo de fundición nodular GGG-50, con eje de acero inoxidable al 13 % Cr. con roscas conformadas por laminación en frío, cierre en fundición nodular, tornillería de acero inoxidable, protegida contra la corrosión mediante aplicación de doble capa de pintura epoxy, totalmente colocada y probada. Resto de características según ET.	3				3,00	
							3,00
APARTADO 03.04.05 HINCAS							
366	ML HINCA TUBO ACERO 355 mm TIERRAS Hinca de tubo de acero, de 355 mm de diámetro interior, bajo viales, en tierra o roca alterada, incluso p.p. de instalación de tubería de fundición dúctil comprendida entre 250 y 150 mm de diámetro interior y sus anclajes y apoyos; muros de reacción y contención; y todos los elementos necesarios para su montaje y desmontaje. P.K. 0+116 - 0+134	1	18,00			18,00	
							18,00

MEDICIONES

ABASTECIMIENTO A VARIOS MUNICIPIOS DE LA RIOJA. SISTEMA CIDACOS

CÓDIGO	RESUMEN	UDS	LONGITUD	ANCHURA	ALTURA	PARCIALES	CANTIDAD
APARTADO 03.04.06 OBRAS ACCESORIAS Y REPOSICIONES DE SERVICIOS							
380	M2 REPOSICIÓN DE PAVIMENTO DE HORMIGÓN Reposición de pavimento de hormigón HM-20/B/40/IIa+Qa de 15 cm de espesor, totalmente terminado. P.K. 0+134 - 0+340 P.K. 0+470 - 0+510	1 1	206,00 40,00	3,00 3,00		618,00 120,00	738,00
381	M2 REPOSICIÓN DE FIRME DE AGLOMERADO Reposición de firme de aglomerado en caliente en zonas afectadas por las obras. P.K. 0+000 - 0+116	1	116,00	3,00		348,00	348,00
382	ML REPOSICIÓN DE MURO DE HORMIGÓN EXISTENTE Reposición de muro de hormigón existente hasta 2,00 m de altura. P.K. 0+335	1	2,00			2,00	2,00
391	ML REPOSICIÓN DE POZO DE REGISTRO Reposición de pozo de registro para saneamiento o abastecimiento, incluso base de hormigón HM-20, p.p. de cono prefabricado de hormigón y tapa, totalmente terminado. P.K. 0+150 P.K. 0+177 P.K. 0+285	1 1 1				1,00 1,00 1,00	3,00
393	ML CANALIZACIÓN TELEFÓNICA FIBRA ÓPTICA Canalización telefónica en zanja bajo calzada, para reposición de cable de fibra óptica de 12 a 16 fibras, incluso p.p. de arquetas y caja de empalmes, totalmente terminado. P.K. 0+086	1	20,00			20,00	20,00
395	ML CANALIZACIÓN TELEFÓNICA BAJO CALZADA 4 TUBOS Canalización telefónica en zanja bajo calzada, de 0,45x1,01 m para 4 conductos, en base 2, de PVC de 110 mm de diámetro, embebidos en prisma de hormigón HM-20 de central de 8 cm de recubrimiento superior e inferior y 10 cm lateralmente, incluso excavación de tierras a máquina en terrenos flojos, tubos, soportes distanciadores cada 70 cm, cuerda guía para cables, hormigón y relleno en la capa superior con tierras procedentes de la excavación, en tongadas < 25 cm, compactada al 95% del P.N., totalmente terminado. P.K. 0+086	1	20,00			20,00	20,00
SUBCAPÍTULO 03.05 EJE 16: ACOMETIDA ARNEDO							
APARTADO 03.05.01 MOVIMIENTO DE TIERRAS							
008	M2 DESPEJE Y DESBROCE Despeje y desbroce de capa de tierra vegetal con un espesor medio de 50 cm, incluso corte de árboles, extracción de tocones, nivelación de zona adyacente para el paso de maquinaria, transporte a lugar de acopio independiente para posterior reposición de tierra vegetal tras las obras y despedregado de las parcelas, así como transporte a vertedero de tierras sobrantes. P.K. 0+475 - 0+536 P.K. 0+780 - 1+016 P.K. 1+500 - 1+566 P.K. 1+694 - 2+268 P.K. 2+290 - 2+324	1 1 1 1 1	61,00 236,00 66,00 574,00 34,00	3,00 3,00 3,00 3,00 3,00		183,00 708,00 198,00 1.722,00 102,00	2.913,00
003	M3 EXCAVACIÓN EN ZANJAS CON AGOTAMIENTO Excavación en zanjas y zonas localizadas, en todo tipo de terrenos incluido terrenos en roca con medios mecánicos, incluso rasanteo, nivelación de la superficie de apoyo, agotamiento y transporte a lugar de empleo o vertedero. Según medición auxiliar Desagües	1 1	4.582,20 55,00			4.582,20 52,67	

MEDICIONES

ABASTECIMIENTO A VARIOS MUNICIPIOS DE LA RIOJA. SISTEMA CIDACOS

CÓDIGO	RESUMEN	UDS	LONGITUD	ANCHURA	ALTURA	PARCIALES	CANTIDAD
							4.634,87
010	M3 RELLENO ZANJAS, CIMIENTOS Y TRASDOSES DE MATERIAL SELECCIONADO Relleno con material seleccionado en zanjas, cimientos, trasdós de muros, estribos y otras estructuras procedente de la excavación o préstamos incluso carga, transporte y compactación. Según medición auxiliar Desagües	1 1	2.740,90 55,00		0,76 0,90	2.740,90 37,62	2.778,52
011	M3 RELLENO DE ARENA Arena para apoyo y protección de tuberías incluso carga, transporte, colocación, compactación y nivelación. Según medición auxiliar Desagües	1 1	1.510,20 55,00		0,36	1.510,20 15,05	1.525,25
019	M2 DEMOLICIÓN DE FIRMES Demolición de firmes de cualquier tipo, incluso precorte, carga y transporte a vertedero, posterior perfilado y compactación del terreno. P.K. 0+290 - 0+460 P.K. 0+620 - 0+680 P.K. 0+696 - 0+780 P.K. 2+324 - FIN	1 1 1 1	170,00 60,00 84,00 5,96	3,00 3,00 3,00 3,00		510,00 180,00 252,00 17,88	959,88
007	M2 ENTIBACIÓN MÓDULOS METÁLICOS Entibación a dos caras mediante módulos metálicos y articulados, en zonas de protección de zanja, medida la superficie efectiva. P.K. 0+000 - 0+460 P.K. 0+536 - 0+680	1 1	460,00 144,00	2,00 2,00		920,00 288,00	1.208,00
APARTADO 03.05.02 OBRA CIVIL							
023	KG ACERO CORRUGADO B-500-S Acero redondo corrugado para armar tipo B-500-S elaborado y colocado. Anclaje codos	28 36 15 17 6 8 1 6	82,56 103,17 132,31 158,08 204,95 244,89 302,48 371,38			2.311,68 3.714,12 1.984,65 2.687,36 1.229,70 1.959,12 302,48 2.228,28	16.417,39
030	M3 HORMIGÓN HNE-20/B/40 Hormigón HNE-20/B/40, con cemento CEM III/A-D/42,5/SR (UNE 80303:96), en masa o ligeramente armado, colocado en cualquier tipo de obra, incluso fabricación, carga y transporte, totalmente colocado. Anclaje codos	28 36 15 17 6 8 1 6	1,12 1,58 2,25 2,96 4,38 5,88 8,05 10,84			31,36 56,88 33,75 50,32 26,28 47,04 8,05 65,04	
	P.K. 0+290 - 0+460 P.K. 0+696 - 0+780 P.K. 0+620 - 0+680 P.K. 2+324 - FIN	1 1 1 1	170,00 84,00 60,00 5,96	3,00 3,00 3,00 3,00	0,20 0,20 0,20 0,20	102,00 50,40 36,00 3,58	510,70

MEDICIONES

ABASTECIMIENTO A VARIOS MUNICIPIOS DE LA RIOJA. SISTEMA CIDACOS

CÓDIGO	RESUMEN	UDS	LONGITUD	ANCHURA	ALTURA	PARCIALES	CANTIDAD
373	UD POZO DE REGISTRO DE AROS DE HORMIGÓN DN1200 Pozo de registro de abastecimiento para válvulas de control de cualquier altura de diámetro interior D=1200 mm, incluso base de hormigón HNE-20, aros de hormigón, cono prefabricado de hormigón, pates y tapa de fundición, totalmente terminado. Ventosas Desagües	7 6				7,00 6,00	13,00
034.2	UD ARQUETA HORMIGÓN DE 3,00x2,50 M Y HASTA 2,50 m DE PROFUNDIDAD Arqueta de hormigón armado HA-25/P/40/IIa para alojamiento de válvulas de tuberías de dimensiones interiores 3,0x2,5 m y una altura de hasta 2,50 m, con solera de 30 cm de canto, muros de 25 cm de espesor y tapa de 25 cm de canto, armado con parrilla de 20x20 cm con redondos de 12 mm, incluso excavación, relleno posterior, encofrado, totalmente terminada. Cruces carretera	4				4,00	4,00
APARTADO 03.05.03 TUBERÍAS							
061	ML TUBERÍA FD 400 mm Tubería de fundición dúctil de diámetro interior 400 mm y PFA de 42 bar, revestida interiormente con mortero de cemento y exteriormente con una capa de cinc y otra bituminosa, i/p.p. de junta automática flexible, banda de señalización y medios auxiliares, totalmente colocada y probada.	1	2.330,00			2.330,00	2.330,00
078	UD CODO FD 1/16 A 1/32 400 mm Codo de fundición dúctil de 1/16 a 1/32 de diámetro interior 400 mm y PFA 30 bar, con revestimiento interior y exterior epoxi, incluso p.p. de juntas y medios auxiliares, totalmente colocado y probado.	96				96,00	96,00
077	UD CODO FD 1/8 400 mm Codo de fundición dúctil de 1/8 de diámetro interior 400 mm y PFA 30 bar, con revestimiento interior y exterior epoxi, incluso p.p. de juntas y medios auxiliares, totalmente colocado y probado.	14				14,00	14,00
079	UD CODO FD 1/4 400 mm Codo de fundición dúctil de 1/4 de diámetro interior 400 mm y PFA 30 bar, con revestimiento interior y exterior epoxi, incluso p.p. de juntas y medios auxiliares, totalmente colocado y probado.	7				7,00	7,00
197	ML TUBERÍA DE PVC 160 mm Tubería de PVC con junta elástica de 160 mm de diámetro exterior, y PN=6 bar, incluso banda de señalización, totalmente colocada en zanja. Desagües P.K. 1+240 P.K. 1+437 P.K. 1+860 P.K. 2+000	1 1 1 1	10,00 20,00 15,00 10,00			10,00 20,00 15,00 10,00	55,00
APARTADO 03.05.04 VALVULERÍA Y ACCESORIOS							
244.1	UD VENTOSA DN=100 (4") mm PN16 Válvula ventosa de tres funciones de DN=100 mm y PN 16 bar incluido transporte, juntas, válvula de corte DN=100 mm y PN 16 bar y piezas especiales, totalmente colocada y probada. P.K. 1+000	1				1,00	1,00
245.2	UD VENTOSA DN=80 (3") mm PN16 Válvula ventosa de tres funciones de DN=80 mm (3") y PN 16 bar incluido transporte, juntas, válvula de corte DN=80 mm y PN 16y piezas especiales, totalmente colocada y probada. P.K. 0+779,238	1				1,00	1,00

MEDICIONES

ABASTECIMIENTO A VARIOS MUNICIPIOS DE LA RIOJA. SISTEMA CIDACOS

CÓDIGO	RESUMEN	UDS	LONGITUD	ANCHURA	ALTURA	PARCIALES	CANTIDAD
	Arqueta entrada P.K. 1+540 P.K. 1+693,666 P.K. 1+915,778 P.K. 2+282,547	1 1 1 1 1	2,20	1,60		3,52 1,00 1,00 1,00 1,00	6,00
121	UD TE FD EEB 400 mm PN16/25 SALIDA DN400/80 "T" de fundición dúctil de PFA 16/25 bar, con dos enchufes y derivación con brida para tubería de 400 mm con salida comprendida entre 400 y 80 mm, con un revestimiento interior y exterior epoxi, i/p.p. de junta de unión y medios auxiliares, totalmente colocada y probada. Ventosas P.K. 1+000 P.K. 0+779,238 P.K. 1+320 P.K. 1+540 P.K. 1+693,666 P.K. 1+915,778 P.K. 2+282,547 Desagües	1 1 1 1 1 1 1 6				1,00 1,00 1,00 1,00 1,00 1,00 1,00 6,00	13,00
235	UD VÁLVULA DE COMPUERTA MANUAL DN150 PN16 Válvula de compuerta de accionamiento manual de diámetro nominal DN=150 mm de 16 bares de presión máxima admisible, con tornillería y juntas, totalmente instalada y probada, incluso volante de accionamiento. Desagües P.K. 0+837,247 P.K. 1+240 P.K. 1+440 P.K. 1+566,077 P.K. 1+860 P.K. 2+000	1 1 1 1 1 1				1,00 1,00 1,00 1,00 1,00 1,00	6,00
109A	UD RACORD TIPO BARCELONA SALIDAS 80-200 mm Rosca Racord tipo Barcelona con salidad entre 80 y 200 mm para enchufe de manguera, totalmente instalado y terminado.	2				2,00	2,00
EVMM400.1	UD VÁLVULA DE MARIPOSA DOBLE EXCENRICIDAD DN 400 mm PN25 MANUAL Válvula de mariposa de doble excentricidad de 400 mm de diámetro y PN25, de accionamiento manual por reductor, incluso mecanismo de accionamiento, maniobra y control, transporte, montaje, juntas, tornillería y pintura totalmente instalada y probada. Resto de características según ET de proyecto. Cruces carretera	4				4,00	4,00
APARTADO 03.05.05 HINCAS							
368	ML HINCA TUBO ACERO 609 mm TIERRAS Hinca de tubo de acero, de 609 mm de diámetro interior, bajo viales, en tierra o roca alterada, incluso p.p. de instalación de tubería de fundición dúctil comprendida entre 400 mm y 250 mm de diámetro interior y sus anclajes y apoyos; muros de reacción y contención; y todos los elementos necesarios para su montaje y desmontaje. P.K. 0+460 - 0+475 P.K. 0+680 - 0+696	1 1	15,00 16,00			15,00 16,00	31,00

MEDICIONES

ABASTECIMIENTO A VARIOS MUNICIPIOS DE LA RIOJA. SISTEMA CIDACOS

CÓDIGO	RESUMEN	UDS	LONGITUD	ANCHURA	ALTURA	PARCIALES	CANTIDAD
APARTADO 03.05.06 OBRAS ACCESORIAS Y REPOSICIONES DE SERVICIOS							
381	M2 REPOSICIÓN DE FIRME DE AGLOMERADO Reposición de firme de aglomerado en caliente en zonas afectadas por las obras. P.K. 0+290 - 0+460 P.K. 0+696 - 0+780	1 1	170,00 84,00	3,00 3,00		510,00 252,00	762,00
380	M2 REPOSICIÓN DE PAVIMENTO DE HORMIGÓN Reposición de pavimento de hormigón HM-20/B/40/IIa+Qa de 15 cm de espesor, totalmente terminado. P.K. 0+620 - 0+680 P.K. 2+324 - FIN	1 1	60,00 5,96	3,00 3,00		180,00 17,88	197,88
056	M3 ZAHORRA ARTIFICIAL Zahorra artificial compactada. P.K. 0+000 - 0+290 P.K. 0+536 - 0+620 P.K. 1+016 - 1+500 P.K. 1+566 - 1+694 P.K. 2+268 - 2+290	1 1 1 1 1	290,00 84,00 484,00 128,00 22,00	3,00 3,00 3,00 3,00 3,00	0,20 0,20 0,20 0,20	174,00 50,40 290,40 76,80 13,20	604,80
SUBCAPÍTULO 03.06 EJE 17: ACOMETIDA QUEL							
APARTADO 03.06.01 MOVIMIENTO DE TIERRAS							
003	M3 EXCAVACIÓN EN ZANJAS CON AGOTAMIENTO Excavación en zanjas y zonas localizadas, en todo tipo de terrenos incluido terrenos en roca con medios mecánicos, incluso rasanteo, nivelación de la superficie de apoyo, agotamiento y transporte a lugar de empleo o vertedero. Según medición auxiliar Desagües	1 1	6.504,10 26,00			6.504,10 21,35	6.525,45
007	M2 ENTIBACIÓN MÓDULOS METÁLICOS Entibación a dos caras mediante módulos metálicos y articulados, en zonas de protección de zanja, medida la superficie efectiva. P.K. 1+000 - FIN	1	311,06	1,50		466,59	466,59
008	M2 DESPEJE Y DESBROCE Despeje y desbroce de capa de tierra vegetal con un espesor medio de 50 cm, incluso corte de árboles, extracción de tocones, nivelación de zona adyacente para el paso de maquinaria, transporte a lugar de acopio independiente para posterior reposición de tierra vegetal tras las obras y despedregado de las parcelas, así como transporte a vertedero de tierras sobrantes. P.K. 0+695 - 0+765	1	70,00	3,00		210,00	210,00
010	M3 RELLENO ZANJAS, CIMIENTOS Y TRASDOSES DE MATERIAL SELECCIONADO Relleno con material seleccionado en zanjas, cimientos, trasdós de muros, estribos y otras estructuras procedente de la excavación o préstamos incluso carga, transporte y compactación. Según medición auxiliar Desagües	1 1	5.593,30 26,00		0,90	5.593,30 16,15	5.609,45
011	M3 RELLENO DE ARENA Arena para apoyo y protección de tuberías incluso carga, transporte, colocación, compactación y nivelación. Según medición auxiliar Desagües	1 1	881,00 26,00		0,29	881,00 5,20	886,20

MEDICIONES

ABASTECIMIENTO A VARIOS MUNICIPIOS DE LA RIOJA. SISTEMA CIDACOS

CÓDIGO	RESUMEN	UDS	LONGITUD	ANCHURA	ALTURA	PARCIALES	CANTIDAD
019	M2 DEMOLICIÓN DE FIRMES Demolición de firmes de cualquier tipo, incluso precorte, carga y transporte a vertedero, posterior perfilado y compactación del terreno. P.K. 0+000 - 0+695 P.K. 0+765 - 1+000 P.K. 1+000 - FIN	1 1 1	695,00 235,00 311,06	3,00 3,00 3,00		2.085,00 705,00 933,18	3.723,18
APARTADO 03.06.02 OBRA CIVIL							
023	KG ACERO CORRUGADO B-500-S Acero redondo corrugado para armar tipo B-500-S elaborado y colocado. Anclaje codos	2 11 2 1 1 1	51,15 54,94 78,89 88,92 124,55 184,28			102,30 604,34 157,78 88,92 124,55 184,28	1.262,17
030	M3 HORMIGÓN HNE-20/B/40 Hormigón HNE-20/B/40, con cemento CEM III/A-D/42,5/SR (UNE 80303:96), en masa o ligeramente armado, colocado en cualquier tipo de obra, incluso fabricación, carga y transporte, totalmente colocado. Anclaje codos	2 11 2 1 1 1	0,52 0,61 1,09 1,22 2,15 3,82			1,04 6,71 2,18 1,22 2,15 3,82	761,76
373	UD POZO DE REGISTRO DE AROS DE HORMIGÓN DN1200 Pozo de registro de abastecimiento para válvulas de control de cualquier altura de diámetro interior D=1200 mm, incluso base de hormigón HNE-20, aros de hormigón, cono prefabricado de hormigón, pates y tapa de fundición, totalmente terminado. Ventosas Desagües	2 1				2,00 1,00	3,00
APARTADO 03.06.03 TUBERÍAS							
065	ML TUBERÍA FD 150 mm Tubería de fundición dúctil de diámetro interior 150 mm y PFA de 64 bar, revestida interiormente con mortero de cemento y exteriormente con una capa de cinc y otra bituminosa, i/p.p. de junta automática flexible, banda de señalización y medios auxiliares, totalmente colocada y probada.	1	1.312,00			1.312,00	1.312,00
085	UD CODO FD 1/8 A 1/32 150 mm Codo de fundición dúctil de 1/8 a 1/32 de diámetro interior 150 mm y PFA 40 bar, con un revestimiento interior exterior epoxi, incluso p.p. de juntas y medios auxiliares, totalmente colocado y probado.	18				18,00	18,00
199	ML TUBERÍA DE PVC 90 mm Tubería de PVC con junta elástica de 90 mm de diámetro exterior, y PN=6 bar, incluso banda de señalización, totalmente colocada en zanja. Desagües P.K. 0+940	1	26,00			26,00	26,00

MEDICIONES

ABASTECIMIENTO A VARIOS MUNICIPIOS DE LA RIOJA. SISTEMA CIDACOS

CÓDIGO	RESUMEN	UDS	LONGITUD	ANCHURA	ALTURA	PARCIALES	CANTIDAD
							26,00
APARTADO 03.06.04 VÁLVULAS Y ACCESORIOS							
116	UD TE FD BBB 800 mm PN25 SALIDA DN800/150 "T" de fundición dúctil de PFA 25 bar, con dos enchufes y derivación con brida para tubería de 800 mm con salida comprendida entre 800 y 150 mm, con un revestimiento interior y exterior epoxi, i/p.p. de junta de unión y medios auxiliares, totalmente colocada y probada.	1				1,00	
							1,00
162	UD MANGUITO FD DN100 A DN250 mm PN16/25 Manguito de fundición dúctil con bridas diámetros de 100 a 250 mm, longitud comprendida entre 0,20 y 1,00 m y PN 16/25, incluso p.p. de tornillería y medios auxiliares, totalmente colocado y probado.	1				1,00	
							1,00
234	UD VÁLVULA DE COMPUERTA MANUAL DN150 PN25 Válvula de compuerta de cierre elástico de 150 mm. de diámetro nominal y 25 At. de P.N., de accionamiento manual por volante, de cuerpo de fundición nodular GGG-50, con eje de acero inoxidable al 13 % Cr. con roscas conformadas por laminación en frío, cierre en fundición nodular, tornillería de acero inoxidable, protegida contra la corrosión mediante aplicación de doble capa de pintura epoxy, totalmente colocada y probada. Resto de características según ET.	1				1,00	
							1,00
145	UD CARRETE DE DESMONTAJE DN=150 mm PN25 Carrete telescópico de desmontaje DN 150 PN25, bridas de acero al carbono, virolas de acero inoxidable, protección epoxi, tornillos y tuercas en acero F-114, cincado y posterior baño de cromo-niquel, incluido p.p. de brida enchufe, totalmente instalado y probado en obra.	1				1,00	
							1,00
114.4	UD BRIDA LISO FD DN<150 mm PN16/25/40 Brida lisa de fundición dúctil de PFA 16/25/40 bar para tubería de diámetro menor o igual de 150 mm, con un revestimiento interior y exterior epoxi, i/p.p. de junta de unión y medios auxiliares, totalmente colocada y probada.	1				1,00	
							1,00
245.3	UD VENTOSA DN=50 (2") mm PN25 Válvula ventosa de tres funciones de DN=50 mm (2") y PN 25 bar incluido transporte, juntas, válvula de corte DN=50 mm y PN 25 y piezas especiales, totalmente colocada y probada. P.K. 1+311.062	1				1,00	
							1,00
245.8	UD VENTOSA DN=25 mm (1") PN25 Válvula ventosa de tres funciones de 1" (DN=25 mm) y PN 25 bar incluido transporte, juntas, válvula de corte DN=25 mm y PN 25 bar y piezas especiales, totalmente colocada y probada. P.K. 0+988,468	1				1,00	
							1,00
129.1	UD TE FD EEB 150 mm PN16/25 SALIDA DN150/40 "T" de fundición dúctil de PFA 16/25 bar, con dos enchufes y derivación con brida para tubería de 150 mm y salida comprendida entre 150 y 40 mm, con un revestimiento interior y exterior epoxi, i/p.p. de junta de unión y medios auxiliares, totalmente colocada y probada. Ventosas P.K. 0+988,468 P.K. 1+311.062 Desagües	1 1 1				1,00 1,00 1,00	
							3,00

MEDICIONES

ABASTECIMIENTO A VARIOS MUNICIPIOS DE LA RIOJA. SISTEMA CIDACOS

CÓDIGO	RESUMEN	UDS	LONGITUD	ANCHURA	ALTURA	PARCIALES	CANTIDAD
114.8	UD REDUCCIÓN FD 50 A 40/25 mm PN16/25 Reducción en fundición dúctil de 50 mm a 40-25 mm con dos bridas PN 16/25 bar, con un revestimiento interior y exterior epoxi, i/p.p. de tornillería y medios auxiliares, totalmente colocada y probada. Ventosas P.K. 0+988,468	1				1,00	
							1,00
240	UD VÁLVULA DE COMPUERTA MANUAL DN80 PN25 Válvula de compuerta de accionamiento manual de diámetro nominal DN=80 mm de 25 bares de presión máxima admisible, con tornillería y juntas, totalmente instalada y probada, incluso volante de accionamiento. Desagües P.K. 0+940	1				1,00	
							1,00
APARTADO 03.06.05 OBRAS ACCESORIAS Y REPOSICIONES DE SERVICIOS							
380	M2 REPOSICIÓN DE PAVIMENTO DE HORMIGÓN Reposición de pavimento de hormigón HM-20/B/40/IIa+Qa de 15 cm de espesor, totalmente terminado. P.K. 0+000 - 0+695 P.K. 0+765 - 1+000	1 1	695,00 235,00	3,00 3,00		2.085,00 705,00	
							2.790,00
381	M2 REPOSICIÓN DE FIRME DE AGLOMERADO Reposición de firme de aglomerado en caliente en zonas afectadas por las obras. P.K. 1+000 - FIN	1	311,06	3,00		933,18	
							933,18
387	ML REPOSICIÓN OBRA DE DRENAJE HASTA DN 1,00 m Reposición de obra de drenaje hasta 1,00 de diámetro, p.p. de boquilla de entrada y salida, excavación, hormigón de recubrimiento y relleno compactado, totalmente terminada.	1	5,00			5,00	
							5,00
SUBCAPÍTULO 03.07 DERIVACIÓN ARNEDO Y VÁLVULA ANTIINUNDACIÓN DN500.							
APARTADO 03.07.01 OBRA CIVIL							
008	M2 DESPEJE Y DESBROCE Despeje y desbroce de capa de tierra vegetal con un espesor medio de 50 cm, incluso corte de árboles, extracción de tocones, nivelación de zona adyacente para el paso de maquinaria, transporte a lugar de acopio independiente para posterior reposición de tierra vegetal tras las obras y despedregado de las parcelas, así como transporte a vertedero de tierras sobrantes.	1	7,40	4,00		29,60	
							29,60
002	M3 EXCAVACIÓN EN ZANJAS Excavación en zanjas y zonas localizadas, en todo tipo de terrenos incluido terrenos en roca con medios mecánicos, incluso rasanteo, nivelación de la superficie de apoyo y transporte a lugar de empleo o vertedero.	1	7,40	4,00	3,00	88,80	
							88,80
010	M3 RELLENO ZANJAS, CIMIENTOS Y TRASDOSES DE MATERIAL SELECCIONADO Relleno con material seleccionado en zanjas, cimientos, trasdós de muros, estribos y otras estructuras procedente de la excavación o préstamos incluso carga, transporte y compactación.	1 -1 -1	88,00 7,80 7,40	4,40 4,40	0,50 2,50	88,00 -17,16 -81,40	
							-10,56

MEDICIONES

ABASTECIMIENTO A VARIOS MUNICIPIOS DE LA RIOJA. SISTEMA CIDACOS

CÓDIGO	RESUMEN	UDS	LONGITUD	ANCHURA	ALTURA	PARCIALES	CANTIDAD
028	M3 HORMIGÓN DE LIMPIEZA HL-150 Hormigón de limpieza HL-150, de consistencia plástica, árido de tamaño máximo 40 mm y cemento CEM-II-D/42,5/SR, para saneos y encachados, incluyendo fabricación y transporte totalmente colocado.	1	7,80	4,40	0,10	3,43	3,43
031	M3 HORMIGÓN HA-25/B/20/IIa Hormigón HA-25/B/20/IIa, con cemento CEM II/A-D/42,5/SR, incluyendo fabricación, transporte, puesta en obra y vibrado, totalmente ejecutado, incluso curado y juntas.	1	7,80	4,40	0,40	13,73	13,73
	Solera	2	7,40	0,25	2,75	10,18	
	Muros	2	3,40	0,25	2,75	4,68	14,86
	Pilares	2	0,25	0,25	2,94	0,37	
		2	0,25	0,25	2,60	0,33	
	Vigas	2	7,40	0,25	0,25	0,93	
		2	3,40	0,25	0,25	0,43	
							30,65
023	KG ACERO CORRUGADO B-500-S Acero redondo corrugado para armar tipo B-500-S elaborado y colocado.	1	13,75	65,00		893,75	
	Solera doble parrilla de 150x150 y 12 mm	1	14,86	60,00		891,60	
	Muros doble parrilla de 150x150 y 10 mm	1	84,00			84,00	
	Pilares	1	121,00			121,00	
	Vigas	0,05	1.990,35			99,52	
	Solapes y despuentes (5%)						2.089,87
020	KG ACERO S 275 J PERFILES LAMINADOS Acero S 275 J en perfiles laminados elaborado y colocado.	3	7,00	8,10		170,10	
	Correas 2 IPE-100	4	3,50	18,80		263,20	
	Vigas IPE-180	1	8,00	18,80		150,40	
	Carril IPE-180	4	2,60	20,40		212,16	
	Pilares HEB-100	4	2,95	20,40		240,72	
							1.036,58
025	M2 ENCOFRADO RECTO EN PARAMENTOS OCULTOS Encofrado recto en paramentos ocultos, incluso colocación, fijación y desencofrado.	2	7,80	0,40	0,40	6,24	6,24
	Solera	2	4,40	0,40	0,40	3,52	
							9,76
026	M2 ENCOFRADO RECTO EN PARAMENTOS VISTOS 1C Encofrado recto en paramentos vistos a una cara, incluso colocación, fijación y desencofrado.	4	7,40	2,75	2,75	81,40	
	Muros	4	3,40	2,75	2,75	37,40	118,80
							118,80
026.2	M2 ENCOFRADO RECTO EN PILARES VISTOS Encofrado recto en pilares vistos, incluso colocación, fijación y desencofrado.	8	0,25	2,94	2,94	5,88	
	Pilares	8	0,25	2,60	2,60	5,20	
							11,08
026.3	M2 ENCOFRADO RECTO EN VIGAS VISTOS Encofrado recto en vigas vistos, incluso colocación, fijación, apuntalamiento o cimbras, y desencofrado.	6	7,40	0,25	0,25	11,10	
	Vigas	6	3,40	0,25	0,25	5,10	

MEDICIONES

ABASTECIMIENTO A VARIOS MUNICIPIOS DE LA RIOJA. SISTEMA CIDACOS

CÓDIGO	RESUMEN	UDS	LONGITUD	ANCHURA	ALTURA	PARCIALES	CANTIDAD
052	ML JUNTAS DE ESTANQUEIDAD DE PVC 32 CM Junta de trabajo interior de policloruro de vinilo (PVC) 100% virgen, con una fuerza máxima de dilatación > 250 % , de 32 cm de ancho, MASTERFLEX 2000 TI-24 de BASF o equivalente, colocada simétricamente en el eje de la losa o muro, incluso solapes y piezas especiales para cruces o ángulos. Medida la longitud ejecutada.	2	7,00			14,00	16,20
		2	4,00			8,00	
							22,00
462	M2 FÁBRICA BLOQUES 40x20x20 cm TIPO SPLIT COLOR Fábrica de bloques de hormigón tipo Split, de medidas 40x20x20 cm color i/relleno de hormigón y colocación de armaduras s/normativa y recibido con mortero de cemento y arena de río 1/6 i/p.p. de piezas especiales para dinteles y materialización de jambas, roturas, nivelados, aplomados, llagueados y limpieza, todo ello según normativa.	2	74,00	3,64	538,72		
		2	4,00	3,64	29,12		
		-1	0,80	2,20	-1,76		
		-2	0,80	0,60	-0,96		
							565,12
520	M2 CUBIERTA PANEL SANDWICH (E=50 mm.) Cubierta con panel tipo sandwich espesor 50 cm., con doble chapa prelacada de 0,4 mm de espesor, y aislamiento térmico de poliuretano, fijada con gancho de acero galvanizado, incluso p.p de piezas de remate, totalmente colocada.	1	7,40	4,00	29,60		
							29,60
519	ML REMATE DE CHAPA PRELACADA CUBIERTA Remate de chapa prelacada en color, para cubrir parte superior de bloque o panel, hasta el panel sandwich de la cubierta por el interior del peto, fijado mediante tacos y/o ganchos anclado a muro y o cubierta, dispuesto según planos.	2	7,40		14,80		
		1	4,00		4,00		
							18,80
465.1	M2 PUERTA DOBLE CHAPA ACERO CON LAMAS Puerta de paso hojas abatibles de doble chapa lisa de acero de 1 mm de espesor, con aislamiento interno de fibra de vidrio, engatillada, realizada en dos bandejas, con rigidizadores de tubo rectangular, i/manillas de acero inoxidable y cerradura, con dos o cuatro rejillas de ventilación con malla anti insectos interior, patillas para recibir en fábricas, herrajes de colgar y de seguridad, imprimación antióxido y pintura al esmalte, totalmente colocada incluyendo el recibido de fábricas.	1	0,80	2,20	1,76		
							1,76
464cf	M2 CARPINTERÍA FIJA ALUMINIO m². Carpintería fija con junquillos para la fijación del vidrio, de aluminio modelo con rotura de puente térmico, Alfil A54RPT de SAPAGROUP con un ancho de marco de 54 mm y con un ancho de hoja de 61 mm, medida del frente de 96,3 mm, con sistema de cámara europea, con espesor de perfil de 1,5 mm, con sistema de cierre por junta central de estanqueidad en EPDM, coplanar exteriormente y con resalte de hoja sobre el marco al interior, para un acristalamiento con altura de galce de 22 mm y anchura hasta 44 mm en marcos y 51 mm en hojas, lacado (entre 60-100 micras) en color estándar (RAL estándar: blanco, gris...), herrajes de colgar, p.p. de cerradura Tesa o similar y costes indirectos. Homologada con Clase 4 en el ensayo de permeabilidad al aire según norma UNE-EN 1026:2000. La transmitancia máxima del marco es de 2,90 W/m² K, y cumple en las zonas A, B, C, D y E, según el CTE/DB-HE 1.	1	0,80	0,60	0,48		
							0,48

MEDICIONES

ABASTECIMIENTO A VARIOS MUNICIPIOS DE LA RIOJA. SISTEMA CIDACOS

CÓDIGO	RESUMEN	UDS	LONGITUD	ANCHURA	ALTURA	PARCIALES	CANTIDAD
464V3	M2 VIDRIO SEGURIDAD STADIP 44.1 INCOLORO (2B2) m². Acristalamiento de vidrio laminar de seguridad Stadip compuesto por dos vidrios de 4 mm de espesor unidos mediante lámina de butiral de polivinilo incolora de 0,38 mm, clasificado 2B2 según UNE-EN 12600, fijado sobre carpintería con acuíñado mediante calzos de apoyo perimetrales y laterales y sellado en frío con silicona neutra, incluso colocación de junquillos, según UNE 85222:1985.	1	0,80	0,60		0,48	0,48
521	M2 CELOSIA FIJA VENTILACIÓN Celosía metálica fija para ventilación, formada por cerco con empanelado de lamas de acero de 60 mm, con abertura mínima de 1 cm entre lamas, malla de 2 mm para evitar entrada de insectos, garras de sujeción a soporte de 10 cm, elaborada en taller y montada en obra, totalmente colocada.	1	0,80	0,60		0,48	0,48
474.1	ML CANALON CHAPA PRELACADA 50cm Canalón de chapa prelacada en color, de 50 cm. de desarrollo fijado mediante ganchos ocultos con tornillo autoroscante 40 cm., incluso p.p. de embocadura de bajante, codos y piezas especiales.	1	4,00			4,00	4,00
474.2	ML BAJANTE DE CHAPA PRELACADA DN110 Bajante de chapa prelacada en color, DN110, fijado mediante ganchos con tornillo autoroscante 20 cm., incluso p.p. de embocadura de bajante, codos y piezas especiales.	1	3,00			3,00	3,00
290B	M2 ESCALERA Y PASARELAS DE ACERO GALVANIZADO. BARANDILLAS GALVANIZ Escalera y pasarelas de acceso de forma según planos, ejecutada en perfiles de acero galvanizado en caliente, incluso barandilla tubular del mismo material, de 90 cm de altura en uno o dos lados, rodapié de seguridad del mismo en uno o dos lados, así como entramado metálico de 30x30x3 en descansillos y peldaños, medida según su proyección en planta. Anclada a los muros y/o solera, instalada. Pasarela	1	4,00	0,80		3,20	3,20
620	UD APOYOS DE TUBERÍA Y VÁLVULAS SOBRE SOLERA Apoyos de tuberías y válvulas en soleras, mediante dado de hormigón HA-25/P/20/11a, ligeramente armado y anclado a la solera, así como cintas o eslingas de acero con material de protección de tubería para sujeción de las mismas, incluyendo el hormigón, encofrados, acero, eslingas, material de PE de protección, montado.	2				2,00	2,00
290AA	ML ESCALERA TUBULAR GALVANIZADO CON ELEMENTOS ANTICAIDA Formación de escalera tubular de 50 mm de diámetro, de acero galvanizado, incluso protecciones circulares contra caídas según normativa, anclada a la pared y/o muros, totalmente ejecutada.	2		3,10		6,20	6,20
APARTADO 03.07.02 VÁLVULAS Y ACCESORIOS							
116A	UD TE FD EEB DN900 mm PN16 SALIDA HASTA DN200 "T" de fundición dúctil de PFA 16 bar, con dos enchufes y derivación con brida para tubería de 900 mm con salida comprendida entre 900 y 200 mm, con un revestimiento interior y exterior epoxi, i/p.p. de junta de unión y medios auxiliares, totalmente colocada y probada. Derivación Amedo DN400	1				1,00	1,00

MEDICIONES

ABASTECIMIENTO A VARIOS MUNICIPIOS DE LA RIOJA. SISTEMA CIDACOS

CÓDIGO	RESUMEN	UDS	LONGITUD	ANCHURA	ALTURA	PARCIALES	CANTIDAD
225	UD VÁLVULA DE COMPUERTA MANUAL DN400 PN16 Válvula de compuerta de accionamiento manual de diámetro nominal DN=400 mm de 16 bares de presión máxima admisible, con tornillería y juntas, totalmente instalada y probada, incluso volante de accionamiento. Derivación Amedo DN400	1				1,00	1,00
ECD0400	UD CARRETE DE DESMONTAJE DN=400 mm PN16 Carrete telescópico de desmontaje DN400 PN16, bridas de acero al carbono, virolas de acero inoxidable, protección epoxi, tornillos y tuercas en acero F-114, cincado y posterior baño de cromo-niquel, incluido p.p. de brida enchufe, totalmente instalado y probado en obra. Derivación Amedo DN400	1				1,00	1,00
115.5	UD BRIDA ENCHUFE FD 400 mm PN16/25 Brida enchufe de fundición dúctil de PFA 16/25 bar para tubería de 400 mm, con un revestimiento interior y exterior epoxi, i/p.p. de junta de unión y medios auxiliares, totalmente colocada y probada. Derivación Amedo DN400	1				1,00	1,00
114.1	UD BRIDA LISO FD 900 mm PN16 Brida lisa de fundición dúctil de PFA 16 bar para tubería de 900 mm, con un revestimiento interior y exterior epoxi, i/p.p. de junta de unión y medios auxiliares, totalmente colocada y probada.	1				1,00	1,00
EVMM0900	UD VÁLVULA DE MARIPOSA DOBLE EXCENRICIDAD DN 900 mm PN16 MANUAL Válvula de mariposa de doble excentricidad de 900 mm de diámetro y PN16, de accionamiento manual por reductor, incluso mecanismo de accionamiento, maniobra y control, transporte, montaje, juntas, tornillería y pintura totalmente instalada y probada. Resto de características según ET de proyecto.	2				2,00	2,00
ECD0900	UD CARRETE DE DESMONTAJE DN=900 mm PN16 Carrete telescópico de desmontaje DN900 PN16, bridas de acero al carbono, virolas de acero inoxidable, protección epoxi, tornillos y tuercas en acero F-114, cincado y posterior baño de cromo-niquel, incluido p.p. de brida enchufe, totalmente instalado y probado en obra.	2				2,00	2,00
088	UD REDUCCIÓN FD 900 A 800 mm Reducción en fundición dúctil de 900 mm a 800 mm con enchufes y PN 16-25 bar, con un revestimiento interior y exterior epoxi, i/p.p. de junta de unión y medios auxiliares, totalmente colocada y probada.	1				1,00	1,00
115.3	UD BRIDA ENCHUFE FD 800 mm PN16 Brida enchufe de fundición dúctil de PFA 16 bar para tubería de 800 mm, con un revestimiento interior y exterior epoxi, i/p.p. de junta de unión y medios auxiliares, totalmente colocada y probada. Derivación Amedo DN400	1				1,00	1,00
271.1	UD VÁLVULA ANTIINUNDACIÓN DN 500 mm PN16 Válvula antiinundación DN-500 mm, bridas PN16, incluido montaje y carrete de desmontaje.	1				1,00	1,00

MEDICIONES

ABASTECIMIENTO A VARIOS MUNICIPIOS DE LA RIOJA. SISTEMA CIDACOS

CÓDIGO	RESUMEN	UDS	LONGITUD	ANCHURA	ALTURA	PARCIALES	CANTIDAD
SUBCAPÍTULO 03.08 ARQUETA DERIVACIÓN P-190							
APARTADO 03.08.01 OBRA CIVIL							
008	M2 DESPEJE Y DESBROCE Despeje y desbroce de capa de tierra vegetal con un espesor medio de 50 cm, incluso corte de árboles, extracción de tocones, nivelación de zona adyacente para el paso de maquinaria, transporte a lugar de acopio independiente para posterior reposición de tierra vegetal tras las obras y despedregado de las parcelas, así como transporte a vertedero de tierras sobrantes.	1	210,00			210,00	210,00
002	M3 EXCAVACIÓN EN ZANJAS Excavación en zanjas y zonas localizadas, en todo tipo de terrenos incluido terrenos en roca con medios mecánicos, incluso rasanteo, nivelación de la superficie de apoyo y transporte a lugar de empleo o vertedero.	1	210,00		2,90	609,00	609,00
010	M3 RELLENO ZANJAS, CIMIENTOS Y TRASDOSES DE MATERIAL SELECCIONADO Relleno con material seleccionado en zanjas, cimientos, trasdós de muros, estribos y otras estructuras procedente de la excavación o préstamos incluso carga, transporte y compactación.	1	609,00			609,00	609,00
		-1	175,00		0,60	-105,00	
		-1	162,48		2,30	-373,70	
							130,30
028	M3 HORMIGÓN DE LIMPIEZA HL-150 Hormigón de limpieza HL-150, de consistencia plástica, árido de tamaño máximo 40 mm y cemento CEM-II-D/42,5/SR, para saneos y enchachados, incluyendo fabricación y transporte totalmente colocado.	1	175,52		0,10	17,55	17,55
031	M3 HORMIGÓN HA-25/B/20/IIa Hormigón HA-25/B/20/IIa, con cemento CEM II/A-D/42,5/SR, incluyendo fabricación, transporte, puesta en obra y vibrado, totalmente ejecutado, incluso curado y juntas.	1	175,52		0,50	87,76	87,76
	Solera	1	13,20	0,30	2,50	9,90	
	Muros	1	19,00	0,30	2,50	14,25	
		1	6,80	0,30	2,50	5,10	
		1	13,80	0,30	2,50	10,35	
		1	6,40	0,30	2,50	4,80	
		1	5,20	0,30	2,50	3,90	48,30
	Pilares	15	0,25	0,25	3,22	3,02	
	Vigas	1	64,40	0,25	0,25	4,03	
							143,11
023	KG ACERO CORRUGADO B-500-S Acero redondo corrugado para armar tipo B-500-S elaborado y colocado.	1	87,76	70,00		6.143,20	
	Solera	1	48,30	85,00		4.105,50	
	Muros	1	3,02	120,00		362,40	
	Pilares	1	4,03	100,00		403,00	
	Vigas	0,05	11.014,10			550,71	
	Solapes y despuntes (5%)						
							11.564,81
025	M2 ENCOFRADO RECTO EN PARAMENTOS OCULTOS Encofrado recto en paramentos ocultos, incluso colocación, fijación y desencofrado.	1	66,00		0,50	33,00	33,00
	Solera						33,00

MEDICIONES

ABASTECIMIENTO A VARIOS MUNICIPIOS DE LA RIOJA. SISTEMA CIDACOS

CÓDIGO	RESUMEN	UDS	LONGITUD	ANCHURA	ALTURA	PARCIALES	CANTIDAD
026	M2 ENCOFRADO RECTO EN PARAMENTOS VISTOS 1C Encofrado recto en paramentos vistos a una cara, incluso colocación, fijación y desencofrado.	1	64,40		2,50	161,00	
	Muros	1	62,00		2,50	155,00	316,00
026.2	M2 ENCOFRADO RECTO EN PILARES VISTOS Encofrado recto en pilares vistos, incluso colocación, fijación y desencofrado.	60	0,25		3,30	49,50	49,50
026.3	M2 ENCOFRADO RECTO EN VIGAS VISTOS Encofrado recto en vigas vistos, incluso colocación, fijación, apuntalamiento o cimbras, y desencofrado.	2	64,40		0,25	32,20	
		1	64,40	0,25		16,10	
							48,30
052	ML JUNTAS DE ESTANQUEIDAD DE PVC 32 CM Junta de trabajo interior de policloruro de vinilo (PVC) 100% virgen, con una fuerza máxima de dilatación > 250 %, de 32 cm de ancho, MASTERFLEX 2000 TI-24 de BASF o equivalente, colocada simétricamente en el eje de la losa o muro, incluso solapes y piezas especiales para cruces o ángulos. Medida la longitud ejecutada.	1	64,40			64,40	64,40
462	M2 FÁBRICA BLOQUES 40x20x20 cm TIPO SPLIT COLOR Fábrica de bloques de hormigón tipo Split, de medidas 40x20x20 cm color i/relleno de hormigón y colocación de armaduras s/normativa y recibido con mortero de cemento y arena de río 1/6 i/p.p. de piezas especiales para dinteles y materialización de jambas, roturas, nivelados, aplomados, llagueados y limpieza, todo ello según normativa.	1	64,40		3,75	241,50	
	Muros	-1	1,00		2,20	-2,20	
	A deducir puerta	-9	0,80		0,60	-4,32	
	A deducir ventanas						234,98
520	M2 CUBIERTA PANEL SANDWICH (E=50 mm.) Cubierta con panel tipo sandwich espesor 50 cm., con doble chapa prelacada de 0,4 mm de espesor, y aislamiento térmico de poliuretano, fijada con gancho de acero galvanizado, incluso p.p de piezas de remate, totalmente colocada.	1	64,40			64,40	64,40
519	ML REMATE DE CHAPA PRELACADA CUBIERTA Remate de chapa prelacada en color, para cubrir parte superior de bloque o panel, hasta el panel sandwich de la cubierta por el interior del peto, fijado mediante tacos y/o ganchos anclado a muro y o cubierta, dispuesto según planos.	1	40,00			40,00	40,00
465.1	M2 PUERTA DOBLE CHAPA ACERO CON LAMAS Puerta de paso hojas abatibles de doble chapa lisa de acero de 1 mm de espesor, con aislamiento interno de fibre de vidrio, engatillada, realizada en dos bandejas, con rigidizadores de tubo rectangular, i/manillas de acero inoxidable y cerradura, con dos o cuatro rejillas de ventilación con malla anti insectos interior, patillas para recibir en fábricas, herrajes de colgar y de seguridad, imprimación antióxido y pintura al esmalte, totalmente colocada incluyendo el recibido de fábricas.	1	1,00		2,20	2,20	2,20

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ABASTECIMIENTO A VARIOS MUNICIPIOS DE LA RIOJA. SISTEMA CIDACOS

CÓDIGO	RESUMEN	UDS	LONGITUD	ANCHURA	ALTURA	PARCIALES	CANTIDAD
464cf	M2 CARPINTERÍA FIJA ALUMINIO m². Carpintería fija con junquillos para la fijación del vidrio, de aluminio modelo con rotura de puente térmico, Alfil A54RPT de SAPAGROUP con un ancho de marco de 54 mm y con un ancho de hoja de 61 mm, medida del frente de 96,3 mm, con sistema de cámara europea, con espesor de perfil de 1,5 mm, con sistema de cierre por junta central de estanqueidad en EPDM, coplanar exteriormente y con resalte de hoja sobre el marco al interior, para un acristalamiento con altura de galce de 22 mm y anchura hasta 44 mm en marcos y 51 mm en hojas, lacado (entre 60-100 micras) en color estándar (RAL estándar: blanco, gris...), herrajes de colgar, p.p. de cerradura Tesa o similar y costes indirectos. Homologada con Clase 4 en el ensayo de permeabilidad al aire según norma UNE-EN 1026:2000. La transmitancia máxima del marco es de 2,90 W/m² K, y cumple en las zonas A, B, C, D y E, según el CTE/DB-HE 1.	8	0,80		0,60	3,84	
							3,84
464V3	M2 VIDRIO SEGURIDAD STADIP 44.1 INCOLORO (2B2) m². Acristalamiento de vidrio laminar de seguridad Stadip compuesto por dos vidrios de 4 mm de espesor unidos mediante lámina de butiral de polivinilo incolora de 0,38 mm, clasificado 2B2 según UNE-EN 12600, fijado sobre carpintería con acuíado mediante calzos de apoyo perimetrales y laterales y sellado en frío con silicona neutra, incluso colocación de junquillos, según UNE 85222:1985.	8	0,80		0,60	3,84	
							3,84
521	M2 CELOSIA FIJA VENTILACIÓN Celosía metálica fija para ventilación, formada por cerco con empanelado de lamas de acero de 60 mm, con abertura mínima de 1 cm entre lamas, malla de 2 mm para evitar entrada de insectos, garras de sujeción a soporte de 10 cm, elaborada en taller y montada en obra, totalmente colocada.	2	0,80		0,60	0,96	
							0,96
020	KG ACERO S 275 J PERFILES LAMINADOS Acero S 275 J en perfiles laminados elaborado y colocado.						
	Correas IPE-120	1	9,90	10,80		106,92	
		1	7,95	10,80		85,86	
		1	4,50	10,80		48,60	
		1	4,75	10,80		51,30	
	Vigas IPE-160	2	4,05	15,80		127,98	
		1	6,05	15,80		95,59	
		1	6,95	15,80		109,81	
	Pilar HEB-120	1	3,30	26,70		88,11	
	Polipasto IPE-180	1	25,00	18,80		470,00	
							1.184,17
474.1	ML CANALON CHAPA PRELACADA 50cm Canalón de chapa prelacada en color, de 50 cm. de desarrollo fijado mediante ganchos ocultos con tornillo autoroscante 40 cm., incluso p.p. de embocadura de bajante, codos y piezas especiales.	1	32,20			32,20	
							32,20
474.2	ML BAJANTE DE CHAPA PRELACADA DN110 Bajante de chapa prelacada en color, DN110, fijado mediante ganchos con tornillo autoroscante 20 cm., incluso p.p. de embocadura de bajante, codos y piezas especiales.	5			3,30	16,50	
							16,50
290B	M2 ESCALERA Y PASARELAS DE ACERO GALVANIZADO. BARANDILLAS GALVANIZ Escalera y pasarelas de acceso de forma según planos, ejecutada en perfiles de acero galvanizado en caliente, incluso barandilla tubular del mismo material, de 90 cm de altura en uno o dos lados, rodapié de seguridad del mismo en uno o dos lados, así como entramado metálico de 30x30x3 en descansillos y peldaños, medida según su proyección en planta. Anclada a los muros y/o solera, instalada.						

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ABASTECIMIENTO A VARIOS MUNICIPIOS DE LA RIOJA. SISTEMA CIDACOS

CÓDIGO	RESUMEN	UDS	LONGITUD	ANCHURA	ALTURA	PARCIALES	CANTIDAD
	Arqueta entrada	1	2,20	1,60		3,52	
	Pasarela	1	3,20	0,60		1,92	
		1	1,50	0,60		0,90	
		2	1,00	0,60		1,20	
							7,43
620	UD APOYOS DE TUBERÍA Y VÁLVULAS SOBRE SOLERA Apoyos de tuberías y válvulas en soleras, mediante dado de hormigón HA-25/P/20/IIa, ligeramente armado y anclado a la solera, así como cintas o eslingas de acero con material de protección de tubería para sujeción de las mismas, incluyendo el hormigón, encofrados, acero, eslingas, material de PE de protección, montado.	22				22,00	
							22,00
290	UD PATE POLIPROPILENO Pate de polipropileno de dimensiones 30x25 cm, incluyendo fabricación, transporte a obra, perforación de anclajes y relleno con aportación de material de agarre, completamente colocado.	12				12,00	
							12,00
APARTADO 03.08.02 VÁLVULAS Y ACCESORIOS							
115.2	UD BRIDA ENCHUFE FD 800 mm PN25 Brida enchufe de fundición dúctil de PFA 25 bar para tubería de 800 mm, con un revestimiento interior y exterior epoxi, i/p.p. de junta de unión y medios auxiliares, totalmente colocada y probada.	1				1,00	
	Entrada						1,00
							1,00
115.4	UD BRIDA ENCHUFE FD 500 mm PN16/25 Brida enchufe de fundición dúctil de PFA 16 bar para tubería de 500 mm, con un revestimiento interior y exterior epoxi, i/p.p. de junta de unión y medios auxiliares, totalmente colocada y probada.	1				1,00	
	Salida ramal Calahorra						1,00
	Salida Ramal Alfaro						1,00
							2,00
115.5	UD BRIDA ENCHUFE FD 400 mm PN16/25 Brida enchufe de fundición dúctil de PFA 16/25 bar para tubería de 400 mm, con un revestimiento interior y exterior epoxi, i/p.p. de junta de unión y medios auxiliares, totalmente colocada y probada.	1				1,00	
	Salida Ramal a Alcanadre						1,00
							1,00
116	UD TE FD BBB 800 mm PN25 SALIDA DN800/150 "T" de fundición dúctil de PFA 25 bar, con dos enchufes y derivación con brida para tubería de 800 mm con salida comprendida entre 800 y 150 mm, con un revestimiento interior y exterior epoxi, i/p.p. de junta de unión y medios auxiliares, totalmente colocada y probada.	1				1,00	
	Derivación Alcanadre DN400						1,00
	Ventosa inicio DN150						1,00
							2,00
138	UD TE FD BBB 150 mm PN16/25 SALIDA DN150/40 "T" de fundición dúctil de PFA 16 bar, con tres bridas para tubería de 150 mm con salida comprendida entre 150 y 40 mm, con un revestimiento interior y exterior epoxi, i/p.p. de junta de unión y medios auxiliares, totalmente colocada y probada.	2				2,00	
							2,00
125	UD TE FD BBB 300 mm PN16/25 SALIDA DN300/40 "T" de fundición dúctil de PFA 16/25 bar, con tres bridas para tubería de 300 mm con salida comprendida entre 300 y 40 mm, con un revestimiento interior y exterior epoxi, i/p.p. de junta de unión y medios auxiliares, totalmente colocada y probada.	1				1,00	
	Ventosas Alcanadre						1,00
							1,00

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ABASTECIMIENTO A VARIOS MUNICIPIOS DE LA RIOJA. SISTEMA CIDACOS

CÓDIGO	RESUMEN	UDS	LONGITUD	ANCHURA	ALTURA	PARCIALES	CANTIDAD
121	UD TE FD EEB 400 mm PN16/25 SALIDA DN400/80 "T" de fundición dúctil de PFA 16/25 bar, con dos enchufes y derivación con brida para tubería de 400 mm con salida comprendida entre 400 y 80 mm, con un revestimiento interior y exterior epoxi, i/p.p. de junta de unión y medios auxiliares, totalmente colocada y probada. Ventosas Alcanadre 1 1,00 Ventosas y alivio 4 4,00						5,00
121.1	UD TE FD BBB 400 mm PN16/25 SALIDA DN400/80 "T" de fundición dúctil de PFA 16/25 bar, con tres bridas para tubería de 400 mm con salida comprendida entre 400 y 80 mm, con un revestimiento interior y exterior epoxi, i/p.p. de junta de unión y medios auxiliares, totalmente colocada y probada. Derivación VR DN400 2 2,00 Derivación VR DN150 2 2,00						4,00
133	UD TE FD BBB 500 mm PN16/25 SALIDA DN500/100 "T" de fundición dúctil de PFA 16/25 bar, con tres bridas para tubería de 500 mm con salida comprendida entre 400 y 100 mm, con un revestimiento interior y exterior epoxi, i/p.p. de junta de unión y medios auxiliares, totalmente colocada y probada. Derivación a Calahorra 1 1,00 Ventosa Calahorra 1 1,00 Ventosa Alfaro 1 1,00						3,00
092	UD REDUCCIÓN FD 800 A 700/500 mm PN16/25 Reducción en fundición dúctil de 800 mm a 700-600-500 mm con dos bridas PN 16/25 bar, con un revestimiento interior y exterior epoxi, i/p.p. de junta de unión y medios auxiliares, totalmente colocada y probada. Entrada 1 1,00						1,00
089	UD REDUCCIÓN FD 600 A 500/400 mm PN16/25 Reducción en fundición dúctil de 600 mm a 500-450-400 mm con dos bridas PN 16/25 bar, con un revestimiento interior y exterior epoxi, i/p.p. de junta de unión y medios auxiliares, totalmente colocada y probada. Entrada 1 1,00						1,00
097	UD REDUCCIÓN FD 500 A 450/350 mm PN16/25 Reducción en fundición dúctil de 500 mm a 450-400-350 mm con dos bridas PN 16/25 bar, con un revestimiento interior y exterior epoxi, i/p.p. de junta de unión y medios auxiliares, totalmente colocada y probada. Calahorra 2 2,00 TRas reductoras 3 3,00						5,00
098	UD REDUCCIÓN FD 400 A 350/250 mm PN16/25 Reducción en fundición dúctil de 400 mm a 350-300-250 mm con dos bridas PN 16/25 bar, con un revestimiento interior y exterior epoxi, i/p.p. de junta de unión y medios auxiliares, totalmente colocada y probada. Derivación a Alcanadre 2 2,00						2,00
105	UD REDUCCIÓN FD 300 A 250/150 mm PN16 Reducción en fundición dúctil de 300 mm a 250-200-150 mm con dos bridas PN 16 bar, con un revestimiento interior y exterior epoxi, i/p.p. de junta de unión y medios auxiliares, totalmente colocada y probada. Alcanadre 2 2,00						2,00

MEDICIONES

ABASTECIMIENTO A VARIOS MUNICIPIOS DE LA RIOJA. SISTEMA CIDACOS

CÓDIGO	RESUMEN	UDS	LONGITUD	ANCHURA	ALTURA	PARCIALES	CANTIDAD
162.1	UD MANGUITO FD DN300 A DN400 mm PN16/25 Manguito de fundición dúctil con bridas diámetros de 300 a 400 mm, longitud comprendida entre 0,20 y 1,00 m y PN16/25, incluso p.p. de tornillería y medios auxiliares, totalmente colocado y probado. Reductoras 8 8,00						8,00
250.3	UD FILTRO COLADOR EN Y DN=400 mm PN25 Filtro colador en "Y" de diámetro nominal DN=400 mm y brida PN=25 bar de presión, incluso juntas de unión y tornillería, totalmente instalado. 2 2,00						2,00
249	UD FILTRO COLADOR EN Y DN=150 mm PN25 Filtro colador en "Y" de diámetro nominal DN=150 mm y brida PN=25 bar de presión, incluso juntas de unión y tornillería, totalmente instalado. 1 1,00						1,00
250.2	UD FILTRO COLADOR EN Y DN=300 mm PN25 Filtro colador en "Y" de diámetro nominal DN=300 mm y brida PN=25 bar de presión, incluso juntas de unión y tornillería, totalmente instalado. 1 1,00						1,00
255.4	UD VÁLVULA REDUCTORA DE PRESIÓN DN=400 mm PN25 Válvula reductora de presión de diámetro DN=400 mm y PN 25 bar, incluso juntas de unión y tornillería, totalmente colocada y probada. 2 2,00						2,00
259	UD VÁLVULA REDUCTORA DE PRESIÓN DN=150 mm PN25 Válvula reductora de presión de diámetro DN=150 mm y PN 25 bar, incluso juntas de unión y tornillería, totalmente colocada y probada. 1 1,00						1,00
234	UD VÁLVULA DE COMPUERTA MANUAL DN150 PN25 Válvula de compuerta de cierre elástico de 150 mm. de diámetro nominal y 25 At. de P.N., de accionamiento manual por volante, de cuerpo de fundición nodular GGG-50, con eje de acero inoxidable al 13 % Cr. con rosca conformada por laminación en frío, cierre en fundición nodular, tornillería de acero inoxidable, protegida contra la corrosión mediante aplicación de doble capa de pintura epoxi, totalmente colocada y probada. Resto de características según ET. 1 1,00						1,00
235	UD VÁLVULA DE COMPUERTA MANUAL DN150 PN16 Válvula de compuerta de accionamiento manual de diámetro nominal DN=150 mm de 16 bares de presión máxima admisible, con tornillería y juntas, totalmente instalada y probada, incluso volante de accionamiento. 1 1,00						1,00
229.2	UD VÁLVULA DE COMPUERTA MANUAL DN300 PN25 Válvula de compuerta de accionamiento manual de diámetro nominal DN=300 mm de 25 bares de presión máxima admisible, con tornillería y juntas, totalmente instalada y probada, incluso volante de accionamiento. Alcanadre 2 2,00						2,00
225.1	UD VÁLVULA DE COMPUERTA MANUAL DN400 PN25 Válvula de compuerta de accionamiento manual de diámetro nominal DN=400 mm de 25 bares de presión máxima admisible, con tornillería y juntas, totalmente instalada y probada, incluso volante de accionamiento.						2,00

MEDICIONES

ABASTECIMIENTO A VARIOS MUNICIPIOS DE LA RIOJA. SISTEMA CIDACOS

CÓDIGO	RESUMEN	UDS	LONGITUD	ANCHURA	ALTURA	PARCIALES	CANTIDAD
	Arqueta entrada	1	2,20	1,60		3,52	
							2,00
225	UD VÁLVULA DE COMPUERTA MANUAL DN400 PN16 Válvula de compuerta de accionamiento manual de diámetro nominal DN=400 mm de 16 bares de presión máxima admisible, con tornillería y juntas, totalmente instalada y probada, incluso volante de accionamiento. TRas reductoras A calahorra	2 2				2,00 2,00	4,00
EVMM0450	UD VÁLVULA DE MARIPOSA DOBLE EXCENRICIDAD DN 450 mm PN16 MANUAL Válvula de mariposa de doble excentricidad de 450 mm de diámetro y PN16, de accionamiento manual por reductor, incluso mecanismo de accionamiento, maniobra y control, transporte, montaje, juntas, tornillería y pintura totalmente instalada y probada. Resto de características según ET de proyecto. Alfaro	1				1,00	1,00
EVMM0450.1	UD VÁLVULA DE MARIPOSA DOBLE EXCENRICID. DN 450 mm PN16 MOTORIZADA Válvula de mariposa de doble excentricidad de 450 mm de diámetro y PN16, de accionamiento motorizado, incluso mecanismo de accionamiento, maniobra y control, transporte, montaje, juntas, tornillería y pintura totalmente instalada y probada. Resto de características según ET de proyecto.	1				1,00	1,00
ECD0400.1	UD CARRETE DE DESMONTAJE DN=400 mm PN25 Carrete telescópico de desmontaje DN400 PN25, bridas de acero al carbono, virolas de acero inoxidable, protección epoxi, tornillos y tuercas en acero F-114, cincado y posterior baño de cromo-niquel, incluido p.p. de brida enchufe, totalmente instalado y probado en obra.	2				2,00	2,00
ECD0400	UD CARRETE DE DESMONTAJE DN=400 mm PN16 Carrete telescópico de desmontaje DN400 PN16, bridas de acero al carbono, virolas de acero inoxidable, protección epoxi, tornillos y tuercas en acero F-114, cincado y posterior baño de cromo-niquel, incluido p.p. de brida enchufe, totalmente instalado y probado en obra. Antes reductora Calahorra	2 1				2,00 1,00	3,00
ECD0300.1	UD CARRETE DE DESMONTAJE DN=300 mm PN25 Carrete telescópico de desmontaje DN300 PN25, bridas de acero al carbono, virolas de acero inoxidable, protección epoxi, tornillos y tuercas en acero F-114, cincado y posterior baño de cromo-niquel, incluido p.p. de brida enchufe, totalmente instalado y probado en obra.	1				1,00	1,00
274.1	UD VÁLVULA ALIVIO DE PRESIÓN 2" PN 25 Válvula de alivio de presión de 2" brida PN 25 bar, incluso incluso válvula de corte de 2", juntas de unión, collarín de toma y tornillería, totalmente colocada y probada.	1				1,00	1,00
273.2	UD VÁLVULA ALIVIO DE PRESIÓN 4" PN 16 Válvula de alivio de presión de 4" brida PN 16 bar, incluso válvula de corte de 4", juntas de unión, y tornillería, totalmente colocada y probada. REductora DN400	2				2,00	2,00
245.3	UD VENTOSA DN=50 (2") mm PN25 Válvula ventosa de tres funciones de DN=50 mm (2") y PN 25 bar incluido transporte, juntas, válvula de corte DN=50 mm y PN 25 y piezas especiales, totalmente colocada y probada. REductora DN150	1				1,00	1,00

MEDICIONES

ABASTECIMIENTO A VARIOS MUNICIPIOS DE LA RIOJA. SISTEMA CIDACOS

CÓDIGO	RESUMEN	UDS	LONGITUD	ANCHURA	ALTURA	PARCIALES	CANTIDAD
							1,00
244	UD VENTOSA DN=100 (4") mm PN25 Válvula ventosa de tres funciones de DN=100 mm y PN 25 bar incluido transporte, juntas, válvula de corte DN=100 mm y PN 25 bar y piezas especiales, totalmente colocada y probada. A Alcanadre Reductoras DN400 Alfaro Calahorra	2 2 1 1				2,00 2,00 1,00 1,00	6,00
243	UD VENTOSA DN=150 mm PN25 Válvula ventosa de tres funciones de DN=150 mm y PN 25 bar incluido transporte, juntas, válvula de corte DN=150 mm y PN 25 bar y piezas especiales, totalmente colocada y probada.	1				1,00	1,00
079	UD CODO FD 1/4 400 mm Codo de fundición dúctil de 1/4 de diámetro interior 400 mm y PFA 30 bar, con revestimiento interior y exterior epoxi, incluso p.p. de juntas y medios auxiliares, totalmente colocado y probado.	2				2,00	2,00
074R	UD CODO FD 1/4 500 mm Codo de fundición dúctil de 1/8 de diámetro interior 500 mm y PFA 30 bar, con revestimiento interior y exterior epoxi, incluso p.p. de juntas y medios auxiliares, totalmente colocado y probado.	2				2,00	2,00
162.3	UD MANGUITO FD DN450 A DN600 mm PN16/25 Manguito de fundición dúctil con bridas diámetros de 450 a 600 mm, longitud comprendida entre 0,20 y 1,00 m y PN16/25, incluso p.p. de tornillería y medios auxiliares, totalmente colocado y probado.	2				2,00	2,00
060	ML TUBERÍA FD 500 mm Tubería de fundición dúctil de diámetro interior 500 mm y PFA de 38 bar, revestida interiormente con mortero de cemento y exteriormente con una capa de cinc y otra bituminosa, i/p.p. de junta automática flexible, banda de señalización y medios auxiliares, totalmente colocada y probada. Calahorra	1	3,00			3,00	3,00
062	ML TUBERÍA FD 300 mm Tubería de fundición dúctil de diámetro interior 300 mm y PFA de 49 bar, revestida interiormente con mortero de cemento y exteriormente con una capa de cinc y otra bituminosa, i/p.p. de junta automática flexible, banda de señalización y medios auxiliares, totalmente colocada y probada. Alcanadre	1	1,50			1,50	1,50
		1	0,90			0,90	2,40
061	ML TUBERÍA FD 400 mm Tubería de fundición dúctil de diámetro interior 400 mm y PFA de 42 bar, revestida interiormente con mortero de cemento y exteriormente con una capa de cinc y otra bituminosa, i/p.p. de junta automática flexible, banda de señalización y medios auxiliares, totalmente colocada y probada. Calahorra Alfaro	1 1 1 1	2,00 1,20 2,25 1,35			2,00 1,20 2,25 1,35	6,80

MEDICIONES

ABASTECIMIENTO A VARIOS MUNICIPIOS DE LA RIOJA. SISTEMA CIDACOS

CÓDIGO	RESUMEN	UDS	LONGITUD	ANCHURA	ALTURA	PARCIALES	CANTIDAD
APARTADO 03.08.03 INSTRUMENTACIÓN Y CONTROL							
280.2	UD CAUDALÍMETRO ELECTROMAGNÉTICO DN 300 mm PN10 Equipo medidor de caudal de DN300mm. tipo electromagnético y PN=10 atm. con salida 4/20 mA, tensión 220 V y escala 0-240 m3/h, totalmente instalado y probado. Incluido transporte, montaje, conexiones eléctricas y pruebas de funcionamiento. Resto de características, según ET. Alcanadre	1				1,00	1,00
ECD0400	UD CARRETE DE DESMONTAJE DN=400 mm PN16 Carrete telescópico de desmontaje DN400 PN16, bridas de acero al carbono, virolas de acero inoxidable, protección epoxi, tornillos y tuercas en acero F-114, cincado y posterior baño de cromo-niquel, incluido p.p. de brida enchufe, totalmente instalado y probado en obra. Calahorra	1				1,00	1,00
ECD0450	UD CARRETE DE DESMONTAJE DN=450 mm PN16 Carrete telescópico de desmontaje DN450 PN16, bridas de acero al carbono, virolas de acero inoxidable, protección epoxi, tornillos y tuercas en acero F-114, cincado y posterior baño de cromo-niquel, incluido p.p. de brida enchufe, totalmente instalado y probado en obra. Alfaro	1				1,00	1,00
APARTADO 03.08.04 INSTALACIÓN ELÉCTRICA DE BT							
563.1	ud PANTALLA ESTANCA LED Luminaria estanca WT120C LED80S/840 de Philips o equivalente para montaje en superficie de dimensiones 1515x80, carcasa de policarbonato, óptica de polimetacrilato de metilo, flujo luminoso 8.000 lm, potencia 68 W, Tª color 4000 K, rango de Tª de 10°C a 35°C, protección IP-65 Clase I. Incluso p.p. de canalización y cableado, completamente instalado.	3				3,000	3,00
524.1	m LINEA 3x1.5mm2 Cu 0.6/1kV RZ1-K (AS) Línea eléctrica con conductor multipolares 3x1.5mm2 RZ1-K (AS) en canalización existente, incluso conexionado en inicio y final de línea.	1	50,000			50,000	50,00
571	ud INTERRUPTOR EMPOTRAR SIMO 32 BLANCO. Interruptor empotrar blanco, totalmente instalado.	1				1,000	1,00
204	m TUBO DE PVC RÍGIDO DE 25 MM DIÁMETRO Tubo rígido de PVC d=25mm para canalización de conductores, incluso soportes y anclajes a pared, instalado.	1	50,000			50,000	50,00
APARTADO 03.08.05 VARIOS							
617.4	PA CONEXIÓN ALIVIOS CON POZO EXTERIOR Y DESAGÜE Partida Alzada de Abono Íntegro para conexión de la salida de los alivios de la nueva caseta de válvulas con pozo exterior y salida a cuneta y/o cauce, incluyendo, excavaciones, tuberías de PEAD DN de salida de alivio, rellenos, ayudas de albanilería, demoliciones, relleno de huecos con morteros sin retracción, anclaje de tuberías, así como todos los medios auxiliares necesarios para la conexión entre ambas tuberías.	1				1,00	1,00

MEDICIONES

ABASTECIMIENTO A VARIOS MUNICIPIOS DE LA RIOJA. SISTEMA CIDACOS

CÓDIGO	RESUMEN	UDS	LONGITUD	ANCHURA	ALTURA	PARCIALES	CANTIDAD
CAPÍTULO 04 IMPULSIÓN A ARNEDILLO							
SUBCAPÍTULO 04.01 EJE 2: IMPULSIÓN ETAP - ARNEDILLO							
APARTADO 04.01.01 MOVIMIENTO DE TIERRAS							
019	M2 DEMOLICIÓN DE FIRMES Demolición de firmes de cualquier tipo, incluso precorte, carga y transporte a vertedero, posterior perfilado y compactación del terreno. P.K. 5+454 - 5+521,31 P.K. 5+531,82 - 5+588 P.K. 5+588 - 5+735 P.K. 5+735 - 5+832	1	67,31	3,00		201,93	1.102,47
010	M3 RELLENO ZANJAS, CIMIENTOS Y TRASDOSES DE MATERIAL SELECCIONADO Relleno con material seleccionado en zanjas, cimientos, trasdós de muros, estribos y otras estructuras procedente de la excavación o préstamos incluso carga, transporte y compactación. Según medición auxiliar Desagües	1	268,60			268,60	293,44
011	M3 RELLENO DE ARENA Arena para apoyo y protección de tuberías incluso carga, transporte, colocación, compactación y nivelación. Según medición auxiliar Desagües	1	107,40			107,40	115,40
007	M2 ENTIBACIÓN MÓDULOS METÁLICOS Entibación a dos caras mediante módulos metálicos y articulados, en zonas de protección de zanja, medida la superficie efectiva. P.K. 5+436 - 5+521,31 P.K. 5+531,82 - 5+735	1	85,31	1,50		127,97	432,74
002	M3 EXCAVACIÓN EN ZANJAS Excavación en zanjas y zonas localizadas, en todo tipo de terrenos incluido terrenos en roca con medios mecánicos, incluso rasanteo, nivelación de la superficie de apoyo y transporte a lugar de empleo o vertedero. Según medición auxiliar Desagües	1	382,90			382,90	415,74
008	M2 DESPEJE Y DESBROCE Despeje y desbroce de capa de tierra vegetal con un espesor medio de 50 cm, incluso corte de árboles, extracción de tocones, nivelación de zona adyacente para el paso de maquinaria, transporte a lugar de acopio independiente para posterior reposición de tierra vegetal tras las obras y despedregado de las parcelas, así como transporte a vertedero de tierras sobrantes. P.K. 5+436 - 5+445 P.K. 5+832 - 5+863	1	9,00	3,00		27,00	120,00
APARTADO 04.01.02 OBRA CIVIL							
030	M3 HORMIGÓN HNE-20/B/40 Hormigón HNE-20/B/40, con cemento CEM III/A-D/42,5/SR (UNE 80303:96), en masa o ligeramente armado, colocado en cualquier tipo de obra, incluso fabricación, carga y transporte, totalmente colocado. Anclaje codos	12	0,15			1,80	
		7	0,28			1,96	
		7	0,52			3,64	
		2	0,96			1,92	
	P.K. 5+454 - 5+521,31	1	67,31	1,50	0,20	20,19	
	P.K. 5+588 - 5+735	1	147,00	1,50	0,20	44,10	
	P.K. 5+531,82 - 5+588	1	56,18	1,50	0,20	16,85	

MEDICIONES

ABASTECIMIENTO A VARIOS MUNICIPIOS DE LA RIOJA. SISTEMA CIDACOS

CÓDIGO	RESUMEN	UDS	LONGITUD	ANCHURA	ALTURA	PARCIALES	CANTIDAD
	Arqueta entrada	1	2,20	1,60		3,52	
							129,26
023	KG ACERO CORRUGADO B-500-S Acero redondo corrugado para armar tipo B-500-S elaborado y colocado.						
	Anclaje codos	12	19,38			232,56	
		7	32,14			224,98	
		7	51,15			358,05	
		2	74,30			148,60	
							964,19
373	UD POZO DE REGISTRO DE AROS DE HORMIGÓN DN1200 Pozo de registro de abastecimiento para válvulas de control de cualquier altura de diámetro interior D=1200 mm, incluso base de hormigón HNE-20, aros de hormigón, con prefabricado de hormigón, pates y tapa de fundición, totalmente terminado.						
	Ventosas	11				11,00	
	Desagües	8				8,00	
							19,00
034.2	UD ARQUETA HORMIGÓN DE 3,00x2,50 M Y HASTA 2,50 m DE PROFUNDIDAD Arqueta de hormigón armado HA-25/P/40/IIa para alojamiento de válvulas de tuberías de dimensiones interiores 3,0x2,5 m y una altura de hasta 2,50 m, con solera de 30 cm de canto, muros de 25 cm de espesor y tapa de 25 cm de canto, armado con parilla de 20x20 cm con redondos de 12 mm, incluso excavación, relleno posterior, encofrado, totalmente terminada.						
	Hinca LR-115 5+530	2				2,00	
							2,00
APARTADO 04.01.03 TUBERÍA							
065	ML TUBERÍA FD 150 mm Tubería de fundición dúctil de diámetro interior 150 mm y PFA de 64 bar, revestida interiormente con mortero de cemento y exteriormente con una capa de cinc y otra bituminosa, i/p.p. de junta automática flexible, banda de señalización y medios auxiliares, totalmente colocada y probada.						
		1	5.875,00			5.875,00	
							5.875,00
085	UD CODO FD 1/8 A 1/32 150 mm Codo de fundición dúctil de 1/8 a 1/32 de diámetro interior 150 mm y PFA 40 bar, con un revestimiento interior y exterior epoxi, incluso p.p. de juntas y medios auxiliares, totalmente colocado y probado.						
		111				111,00	
	A mayores	10				10,00	
							121,00
199	ML TUBERÍA DE PVC 90 mm Tubería de PVC con junta elástica de 90 mm de diámetro exterior, y PN=6 bar, incluso banda de señalización, totalmente colocada en zanja.						
	Desagües						
	P.K. 0+470	1	5,00			5,00	
	P.K. 0+514,436	1	5,00			5,00	
	P.K. 1+381,338	1	5,00			5,00	
	P.K. 1+580	1	5,00			5,00	
	P.K. 2+960	1	5,00			5,00	
	P.K. 3+247,800	1	5,00			5,00	
	P.K. 3+790	1	5,00			5,00	
	P.K. 4+673	1	5,00			5,00	
							40,00

MEDICIONES

ABASTECIMIENTO A VARIOS MUNICIPIOS DE LA RIOJA. SISTEMA CIDACOS

CÓDIGO	RESUMEN	UDS	LONGITUD	ANCHURA	ALTURA	PARCIALES	CANTIDAD
APARTADO 04.01.04 VÁLVULAS Y ACCESORIOS							
245.4	UD VENTOSA DN=50 (2") mm PN16 Válvula ventosa de tres funciones de DN=50 mm (2") y PN 16 bar incluido transporte, juntas, válvula de corte DN=50 mm y PN 16 y piezas especiales, totalmente colocada y probada.						
	P.K. 0+000	1				1,00	
	P.K. 2+940	1				1,00	
	P.K. 3+190	1				1,00	
	P.K. 3+774,254	1				1,00	
	P.K. 4+350	1				1,00	
	P.K. 5+080	1				1,00	
	P.K. 5+874,516	1				1,00	
							7,00
245.3	UD VENTOSA DN=50 (2") mm PN25 Válvula ventosa de tres funciones de DN=50 mm (2") y PN 25 bar incluido transporte, juntas, válvula de corte DN=50 mm y PN 25 y piezas especiales, totalmente colocada y probada.						
	P.K. 0+500	1				1,00	
	P.K. 1+339.546	1				1,00	
	P.K. 1+560	1				1,00	
	P.K. 2+200	1				1,00	
							4,00
129.1	UD TE FD EEB 150 mm PN16/25 SALIDA DN150/40 "T" de fundición dúctil de PFA 16/25 bar, con dos enchufes y derivación con brida para tubería de 150 mm y salida comprendida entre 150 y 40 mm, con un revestimiento interior y exterior epoxi, i/p.p. de junta de unión y medios auxiliares, totalmente colocada y probada.						
	Ventosas						
	P.K. 0+000	1				1,00	
	P.K. 0+500	1				1,00	
	P.K. 1+339.546	1				1,00	
	P.K. 1+560	1				1,00	
	P.K. 2+200	1				1,00	
	P.K. 2+940	1				1,00	
	P.K. 3+190	1				1,00	
	P.K. 3+774,254	1				1,00	
	P.K. 4+350	1				1,00	
	P.K. 5+080	1				1,00	
	P.K. 5+874,516	1				1,00	
	Desagües	8				8,00	
							19,00
EVC080	UD VÁLVULA DE COMPUERTA MANUAL DN80 PN16 Válvula de compuerta de cierre elástico de 80 mm. de diámetro nominal y 16 At. de P.N., de accionamiento manual por volante, de cuerpo de fundición nodular GGG-50, con eje de acero inoxidable al 13 % Cr. con roscas conformadas por laminación en frío, cierre en fundición nodular, tornillería de acero inoxidable, protegida contra la corrosión mediante aplicación de doble capa de pintura epoxy, totalmente colocada y probada. Resto de características según ET.						
	Desagües						
	P.K. 2+960	1				1,00	
	P.K. 3+247,800	1				1,00	
	P.K. 3+790	1				1,00	
	P.K. 4+673	1				1,00	
							4,00
240	UD VÁLVULA DE COMPUERTA MANUAL DN80 PN25 Válvula de compuerta de accionamiento manual de diámetro nominal DN=80 mm de 25 bares de presión máxima admisible, con tornillería y juntas, totalmente instalada y probada, incluso volante de accionamiento.						
	Desagües						
	P.K. 0+470	1				1,00	
	P.K. 0+514,436	1				1,00	
	P.K. 1+381,338	1				1,00	

MEDICIONES

ABASTECIMIENTO A VARIOS MUNICIPIOS DE LA RIOJA. SISTEMA CIDACOS

CÓDIGO	RESUMEN	UDS	LONGITUD	ANCHURA	ALTURA	PARCIALES	CANTIDAD
	Arqueta entrada	1	2,20	1,60		3,52	
							4,00
152	UD ADAPTADOR BRIDA-ENCHUFE FD DN 100-200 PN16 Adaptador brida-enchufe, brida-liso o enchufe-enchufe de FD de diámetros 100 a 200 mm y PN 16 bar, incluso juntas de unión y tornillería, totalmente colocado y probado.	2				2,00	
							2,00
235	UD VÁLVULA DE COMPUERTA MANUAL DN150 PN16 Válvula de compuerta de accionamiento manual de diámetro nominal DN=150 mm de 16 bares de presión máxima admisible, con tornillería y juntas, totalmente instalada y probada, incluso volante de accionamiento.	1				1,00	
	pk 2+940	1				1,00	
	Hinca LR-115 5+530	2				2,00	
							3,00
ECD15016	UD CARRETE DE DESMONTAJE DN=150 mm PN16 Carrete telescópico de desmontaje DN150 PN16, bridas de acero al carbono, virolas de acero inoxidable, protección epoxi, tornillos y tuercas en acero F-114, cincado y posterior baño de cromo-niquel, incluido p.p. de brida enchufe, totalmente instalado y probado en obra.	1				1,00	
	pk 2+940	1				1,00	
	Hinca LR-115 5+530	2				2,00	
							3,00
APARTADO 04.01.05 HINCAS							
367	ML HINCA TUBO ACERO 455 mm TIERRAS Hinca de tubo de acero, de 455 mm de diámetro interior, bajo viales, en tierra o roca alterada, incluso p.p. de instalación de tubería de fundición dúctil comprendida entre 250 y 150 mm de diámetro interior y sus anclajes y apoyos; muros de reacción y contención; y todos los elementos necesarios para su montaje y desmontaje.	1	12,00			12,00	
							12,00
APARTADO 04.01.06 OBRAS ACCESORIAS Y REPOSICIONES DE SERVICIOS							
380	M2 REPOSICIÓN DE PAVIMENTO DE HORMIGÓN Reposición de pavimento de hormigón HM-20/B/40/IIa+Qa de 15 cm de espesor, totalmente terminado.	1	67,31	3,00		201,93	
	P.K. 5+454 - 5+521,31	1	67,31	3,00		201,93	
	P.K. 5+588 - 5+735	1	147,00	3,00		441,00	
							642,93
381	M2 REPOSICIÓN DE FIRME DE AGLOMERADO Reposición de firme de aglomerado en caliente en zonas afectadas por las obras.	1	56,18	3,00		168,54	
	P.K. 5+531,82 - 5+588	1	56,18	3,00		168,54	
	P.K. 5+735 - 5+832	1	97,00	3,00		291,00	
							459,54
056	M3 ZAHORRA ARTIFICIAL Zahorra artificial compactada.	1	9,00	3,00	0,20	5,40	
	P.K. 5+436 - 5+445	1	9,00	3,00	0,20	5,40	
	P.K. 5+832 - 5+863	1	31,00	3,00	0,20	18,60	
							24,00
SUBCAPÍTULO 04.02 BOMBEO ETAP - ARNEDILLO							
EBMV01	UD BOMBA MONOBLOCK VERTICAL Q=18,32 l/s H=130 mca Bomba multietapa monoblock vertical tipo HVU50/4A+V30370221-V de Caprari o equivalente para bombeo de un caudal de 66 m3/h (16,82 l/s) y una altura de 130 m.c.a. Aspiración DN65 e impulsión DN50. Cuerpo de fundición, rodete en acero inoxidable. Motor eléctrico asincrónico, trifásico, cerrado, estandarizado según normas UNEL-IEC de 37 kW-4P-50Hz-400V-IP-55, estructura de soporte en perfiles de acero electrosoldado. Transmisor de presión inteligente. Resto de características según E.T. de Proyecto. Instalada y probada en obra.	2				2,00	

MEDICIONES

ABASTECIMIENTO A VARIOS MUNICIPIOS DE LA RIOJA. SISTEMA CIDACOS

CÓDIGO	RESUMEN	UDS	LONGITUD	ANCHURA	ALTURA	PARCIALES	CANTIDAD
							2,00
ETI316150	ML TUBERÍA DE INOXIDABLE AISI 316L DN 150 Tubería de acero inoxidable de diámetro DN 150 mm. Construcción: Mediante soldadura. Espesor 2 mm. Material: Acero inoxidable AISI -316 L. Material accesorios acero inoxidable AISI - 316L. Acabado: Decapado. Incluso p.p. de uniones, piezas especiales, bridas, codos, tes, injertos para otras tuberías y p.p. de estructuras y elementos de anclajes a solera y/o muros. Montada y probada.	1	2,500			2,500	
	Colector de toma	1	2,500			2,500	
	Colector de salida	1	2,000			2,000	
	Colector hasta muro de salida	1	7,500			7,500	
	Tubería a calderín	1	5,000			5,000	
							17,00
ETI316050	ML TUBERÍA DE INOXIDABLE AISI 316L DN 50 Tubería de acero inoxidable de diámetro DN 50 mm. Construcción: Mediante soldadura. Espesor 2 mm. Material: Acero inoxidable AISI -316 L. Material accesorios acero inoxidable AISI - 316L. Acabado: Decapado. Incluso p.p. de uniones, piezas especiales, bridas, codos, tes, injertos para otras tuberías y p.p. de estructuras y elementos de anclajes a solera y/o muros. Montada y probada.	2	1,000			2,000	
	Impulsión	2	1,000			2,000	
							2,00
ETI316065	ML TUBERÍA DE INOXIDABLE AISI 316L DN 65 Tubería de acero inoxidable de diámetro DN 65 mm. Construcción: Mediante soldadura. Espesor 2 mm. Material: Acero inoxidable AISI -316 L. Material accesorios acero inoxidable AISI - 316L. Acabado: Decapado. Incluso p.p. de uniones, piezas especiales, bridas, codos, tes, injertos para otras tuberías y p.p. de estructuras y elementos de anclajes a solera y/o muros. Montada y probada.	2	1,000			2,000	
	Aspiración	2	1,000			2,000	
							2,00
242.1	UD VÁLVULA DE COMPUERTA MANUAL DN50 PN25 Válvula de compuerta de accionamiento manual de diámetro nominal DN=50 mm de 25 bares de presión máxima admisible, con tornillería y juntas, totalmente instalada y probada, incluso volante de accionamiento.	2				2,00	
	Impulsión	2				2,00	
							2,00
EVRC050.1	UD VÁLVULA DE RETENCIÓN DE DISCO PARTIDO DN50 PN25 Válvula de retención de disco partido PN 25 y DN-50, con racores de bridas, totalmente instalada. Resto de características según E.T de Proyecto.	2				2,00	
	Impulsión	2				2,00	
							2,00
EVCM06516	UD VÁLVULA DE COMPUERTA MANUAL DN65 PN16 Válvula de compuerta de cierre elástico de 65 mm. de diámetro nominal y 16 At. de P.N., de accionamiento manual por volante, de cuerpo de fundición nodular GGG-50, con eje de acero inoxidable al 13 % Cr. con roscas conformadas por laminación en frío, cierre en fundición nodular, tornillería de acero inoxidable, protegida contra la corrosión mediante aplicación de doble capa de pintura epoxy, totalmente colocada y probada. Resto de características según ET.	2				2,00	
							2,00
234	UD VÁLVULA DE COMPUERTA MANUAL DN150 PN25 Válvula de compuerta de cierre elástico de 150 mm. de diámetro nominal y 25 At. de P.N., de accionamiento manual por volante, de cuerpo de fundición nodular GGG-50, con eje de acero inoxidable al 13 % Cr. con roscas conformadas por laminación en frío, cierre en fundición nodular, tornillería de acero inoxidable, protegida contra la corrosión mediante aplicación de doble capa de pintura epoxy, totalmente colocada y probada. Resto de características según ET.	1				1,00	
	Tras caudalímetro	1				1,00	
	En calderín	1				1,00	
							2,00

MEDICIONES

ABASTECIMIENTO A VARIOS MUNICIPIOS DE LA RIOJA. SISTEMA CIDACOS

CÓDIGO	RESUMEN	UDS	LONGITUD	ANCHURA	ALTURA	PARCIALES	CANTIDAD
145	UD CARRETE DE DESMONTAJE DN=150 mm PN25 Carrete telescópico de desmontaje DN150 PN25, bridas de acero al carbono, virolas de acero inoxidable, protección epoxi, tornillos y tuercas en acero F-114, cincado y posterior baño de cromo-níquel, incluido p.p. de brida enchufe, totalmente instalado y probado en obra. Tras caudalímetro En calderín	1 1				1,00 1,00	2,00
ECAH1500	UD EQUIPO ANTIARIEETE HIDRONEUMÁTICO 1.500 I PN25 Equipo antiarriete hidroneumático con membrana, marca Ibaiondo o equivalente modelo 1500 AHN PN25. Consistente en un calderín cilíndrico de 1.500 l, con presión máxima de servicio de 25 bares. Construido en chapa soldada de acero S-275JR s/EN-10025. Membrana interior de EPDM calidad alimentaria. Incluso llaves de aislamiento, indicador de nivel del agua, válvula de inflado, manómetro, boca de hombre y brida de conexión de agua DN 150. Acabado exterior granallado Sa 2 1/2, con imprimación de 10 micras de epoxi de dos componentes y acabado con 60 micras de esmalte de poliuretano; acabado interior granallado Sa 2 1/2. Incluido bancada con patas de apoyo. Según Directiva 2014/68/UE. Resto de características según E.T. de Proyecto. Totalmente instalado y en funcionamiento, incluso piezas especiales de acoplamiento a la tubería de entrada.	1				1,00	1,00
CAPÍTULO 05 RAMAL DESDE ARQUETA P190 - CALAHORRA							
SUBCAPÍTULO 05.01 EJE 7: P190 - CALAHORRA							
APARTADO 05.01.01 EJE 7: TRAMO P-190 - SEPARACIÓN EJE 8							
SUBAPARTADO 05.01.01.01 MOVIMIENTO DE TIERRAS							
010	M3 RELLENO ZANJAS, CIMIENTOS Y TRASDOSES DE MATERIAL SELECCIONADO Relleno con material seleccionado en zanjas, cimientos, trasdós de muros, estribos y otras estructuras procedente de la excavación o préstamos incluso carga, transporte y compactación. Según medición auxiliar Tramo común con eje 8 (P.K. 0+000 - 0+442,83)	1	1.404,60			1.404,60	1.404,60
011	M3 RELLENO DE ARENA Arena para apoyo y protección de tuberías incluso carga, transporte, colocación, compactación y nivelación. Según medición auxiliar Tramo común con eje 8 (P.K. 0+000 - 0+442,83)	1	703,60			703,60	703,60
019	M2 DEMOLICIÓN DE FIRMES Demolición de firmes de cualquier tipo, incluso precorte, carga y transporte a vertedero, posterior perfilado y compactación del terreno. Tramo común con eje 8 (P.K. 0+000 - 0+442,83) P.K. 0+263 - 0+275	1	12,00	3,00		36,00	36,00
002	M3 EXCAVACIÓN EN ZANJAS Excavación en zanjas y zonas localizadas, en todo tipo de terrenos incluido terrenos en roca con medios mecánicos, incluso rasanteo, nivelación de la superficie de apoyo y transporte a lugar de empleo o vertedero. Según medición auxiliar Tramo común con eje 8 (P.K. 0+000 - 0+442,83)	1	2.206,60			2.206,60	2.206,60

MEDICIONES

ABASTECIMIENTO A VARIOS MUNICIPIOS DE LA RIOJA. SISTEMA CIDACOS

CÓDIGO	RESUMEN	UDS	LONGITUD	ANCHURA	ALTURA	PARCIALES	CANTIDAD
SUBAPARTADO 05.01.01.02 OBRA CIVIL							
030	M3 HORMIGÓN HNE-20/B/40 Hormigón HNE-20/B/40, con cemento CEM III/A-D/42,5/SR (UNE 80303:96), en masa o ligeramente armado, colocado en cualquier tipo de obra, incluso fabricación, carga y transporte, totalmente colocado. Anclaje codos Tramo común con eje 8 (P.K. 0+000 - 0+442,83) Hormigón en zanjas Tramo común con eje 8 (P.K. 0+000 - 0+442,83) P.K. 0+263 - 0+275	9 9 1 1 1	1,70 3,37 6,62 12,47 12,00			15,30 30,33 6,62 12,47 7,20	71,92
023	KG ACERO CORRUGADO B-500-S Acero redondo corrugado para armar tipo B-500-S elaborado y colocado. Anclaje codos Tramo común con eje 8 (P.K. 0+000 - 0+442,83)	9 9 1 1	112,32 172,55 267,26 403,88			1.010,88 1.552,95 267,26 403,88	3.234,97
373	UD POZO DE REGISTRO DE AROS DE HORMIGÓN DN1200 Pozo de registro de abastecimiento para válvulas de control de cualquier altura de diámetro interior D=1200 mm, incluso base de hormigón HNE-20, aros de hormigón, cono prefabricado de hormigón, pates y tapa de fundición, totalmente terminado. Ventosas Tramo común con eje 8 (P.K. 0+000 - 0+442,83) Desagües Tramo común con eje 8 (P.K. 0+000 - 0+442,83)	1 1				1,00 1,00	2,00
SUBAPARTADO 05.01.01.03 TUBERÍAS							
060	ML TUBERÍA FD 500 mm Tubería de fundición dúctil de diámetro interior 500 mm y PFA de 38 bar, revestida interiormente con mortero de cemento y exteriormente con una capa de cinc y otra bituminosa, i/p.p. de junta automática flexible, banda de señalización y medios auxiliares, totalmente colocada y probada. Tramo común con eje 8 (P.K. 0+000 - 0+442,83)	1	443,00			443,00	443,00
076	UD CODO FD 1/32 500 mm Codo de fundición dúctil de 1/32 de diámetro interior 500 mm y PFA 30 bar, con revestimiento interior y exterior epoxi, incluso p.p. de juntas y medios auxiliares, totalmente colocado y probado. Tramo común con eje 8 (P.K. 0+000 - 0+442,83)	9				9,00	9,00
075	UD CODO FD 1/16 500 mm Codo de fundición dúctil de 1/16 de diámetro interior 500 mm y PFA 30 bar, con revestimiento interior y exterior epoxi, incluso p.p. de juntas y medios auxiliares, totalmente colocado y probado. Tramo común con eje 8 (P.K. 0+000 - 0+442,83)	9				9,00	9,00

MEDICIONES

ABASTECIMIENTO A VARIOS MUNICIPIOS DE LA RIOJA. SISTEMA CIDACOS

CÓDIGO	RESUMEN	UDS	LONGITUD	ANCHURA	ALTURA	PARCIALES	CANTIDAD
074	UD CODO FD 1/8 500 mm Codo de fundición dúctil de 1/8 de diámetro interior 500 mm y PFA 30 bar, con revestimiento interior y exterior epoxi, incluso p.p. de juntas y medios auxiliares, totalmente colocado y probado. Tramo común con eje 8 (P.K. 0+000 - 0+442,83)	1				1,00	1,00
							1,00
074R	UD CODO FD 1/4 500 mm Codo de fundición dúctil de 1/8 de diámetro interior 500 mm y PFA 30 bar, con revestimiento interior y exterior epoxi, incluso p.p. de juntas y medios auxiliares, totalmente colocado y probado. Tramo común con eje 8 (P.K. 0+000 - 0+442,83)	1				1,00	1,00
							1,00
SUBPARTADO 05.01.01.04 VALVULERÍA Y ACCESORIOS							
245.2	UD VENTOSA DN=80 (3") mm PN16 Válvula ventosa de tres funciones de DN=80 mm (3") y PN 16 bar incluido transporte, juntas, válvula de corte DN=80 mm y PN 16y piezas especiales, totalmente colocada y probada. Tramo común con eje 8 (P.K. 0+000 - 0+442,83) P.K. 0+280	1				1,00	1,00
							1,00
119	UD TE FD 500 mm PN25 "T" de fundición dúctil de PFA 25 bar, con dos enchufes y derivación con brida para tubería de 500 mm con salida comprendida entre 500 y 100 mm, con un revestimiento interior y exterior epoxi, i/p.p. de junta de unión y medios auxiliares, totalmente colocada y probada. Ventosas Tramo común con eje 8 (P.K. 0+000 - 0+442,83) P.K. 0+280 Desagües Tramo común con eje 8 (P.K. 0+000 - 0+442,83)	1				1,00	1,00
							1,00
							2,00
114	UD REDUCCIÓN FD 100 A 80/50 mm PN16/25 Reducción en fundición dúctil de 100 mm a 80-65-60-50 mm con dos bridas PN 16/25 bar, con un revestimiento interior y exterior epoxi, i/p.p. de tornillería y medios auxiliares, totalmente colocada y probada. Ventosas Tramo común con eje 8 (P.K. 0+000 - 0+442,83) P.K. 0+280	1				1,00	1,00
							1,00
235	UD VÁLVULA DE COMPUERTA MANUAL DN150 PN16 Válvula de compuerta de accionamiento manual de diámetro nominal DN=150 mm de 16 bares de presión máxima admisible, con tornillería y juntas, totalmente instalada y probada, incluso volante de accionamiento. Desagües Tramo común con eje 8 (P.K. 0+000 - 0+442,83) P.K. 0+260	1				1,00	1,00
							1,00
109A	UD RACORD TIPO BARCELONA SALIDAS 80-200 mm Rosca Racord tipo Barcelona con salidas entre 80 y 200 mm para enchufe de manguera, totalmente instalado y terminado. Desagües Tramo común con eje 8 (P.K. 0+000 - 0+442,83) P.K. 0+260	1				1,00	1,00

MEDICIONES

ABASTECIMIENTO A VARIOS MUNICIPIOS DE LA RIOJA. SISTEMA CIDACOS

CÓDIGO	RESUMEN	UDS	LONGITUD	ANCHURA	ALTURA	PARCIALES	CANTIDAD
							1,00
SUBPARTADO 05.01.01.05 OBRAS ACCESORIAS Y REPOSICIONES DE SERVICIOS							
381	M2 REPOSICIÓN DE FIRME DE AGLOMERADO Reposición de firme de aglomerado en caliente en zonas afectadas por las obras. Tramo común con eje 8 (P.K. 0+000 - 0+442,83) P.K. 0+263 - 0+275	1	12,00	3,00		36,00	36,00
							36,00
056	M3 ZAHORRA ARTIFICIAL Zahorra artificial compactada. Tramo común con eje 8 (P.K. 0+000 - 0+442,83) P.K. 0+000 - 0+263 P.K. 0+275 - 0+443	1	263,00	3,00	0,20	157,80	157,80
		1	168,00	3,00	0,20	100,80	100,80
							258,60
APARTADO 05.01.02 EJE 7: SEPARACIÓN EJE 8 - FIN TM QUEL							
SUBPARTADO 05.01.02.01 MOVIMIENTO DE TIERRAS							
010	M3 RELLENO ZANJAS, CIMIENTOS Y TRASDOSES DE MATERIAL SELECCIONADO Relleno con material seleccionado en zanjas, cimientos, trasdós de muros, estribos y otras estructuras procedente de la excavación o préstamos incluso carga, transporte y compactación. Según medición auxiliar Hasta final TM Quel (P.K. 0+442,83 - 4+928,39) Desagües Hasta final TM Quel (P.K. 0+442,83 - 4+928,39)	1	9.580,60			9.580,60	9.580,60
		1	351,00	0,76	0,90	240,08	240,08
							9.820,68
011	M3 RELLENO DE ARENA Arena para apoyo y protección de tuberías incluso carga, transporte, colocación, compactación y nivelación. Según medición auxiliar Hasta final TM Quel (P.K. 0+442,83 - 4+928,39) Desagües Hasta final TM Quel (P.K. 0+442,83 - 4+928,39)	1	4.331,60			4.331,60	4.331,60
		1	351,00	0,76	0,36	96,03	96,03
							4.427,63
002	M3 EXCAVACIÓN EN ZANJAS Excavación en zanjas y zonas localizadas, en todo tipo de terrenos incluido terrenos en roca con medios mecánicos, incluso rasanteo, nivelación de la superficie de apoyo y transporte a lugar de empleo o vertedero. Según medición auxiliar Hasta final TM Quel (P.K. 0+442,83 - 4+928,39) A descontar con agotamiento	1	14.907,80			14.907,80	14.907,80
		-1	12.286,80			-12.286,80	-12.286,80
							2.621,00
003	M3 EXCAVACIÓN EN ZANJAS CON AGOTAMIENTO Excavación en zanjas y zonas localizadas, en todo tipo de terrenos incluido terrenos en roca con medios mecánicos, incluso rasanteo, nivelación de la superficie de apoyo, agotamiento y transporte a lugar de empleo o vertedero. Según medición auxiliar Hasta final TM Quel (P.K. 0+442,83 - 4+928,39) P.K. 1+220 - 2+060 P.K. 2+180 - 4+928,39 Desagües Hasta final TM Quel (P.K. 0+442,83 - 4+928,39)	1	2.995,50			2.995,50	2.995,50
		1	9.291,30			9.291,30	9.291,30
		1	351,00	0,76	1,26	336,12	336,12

MEDICIONES

ABASTECIMIENTO A VARIOS MUNICIPIOS DE LA RIOJA. SISTEMA CIDACOS

CÓDIGO	RESUMEN	UDS	LONGITUD	ANCHURA	ALTURA	PARCIALES	CANTIDAD
							12.622,92
008	M2 DESPEJE Y DESBROCE Despeje y desbroce de capa de tierra vegetal con un espesor medio de 50 cm, incluso corte de árboles, extracción de tocones, nivelación de zona adyacente para el paso de maquinaria, transporte a lugar de acopio independiente para posterior reposición de tierra vegetal tras las obras y despedregado de las parcelas, así como transporte a vertedero de tierras sobrantes. Hasta final TM Quel (P.K. 0+442,83 - 4+928,39) P.K. 4+767 - 4+929	1	162,00	3,00		486,00	486,00
							486,00
	SUBAPARTADO 05.01.02.02 OBRA CIVIL						
030	M3 HORMIGÓN HNE-20/B/40 Hormigón HNE-20/B/40, con cemento CEM II/A-D/42,5/SR (UNE 80303:96), en masa o ligeramente armado, colocado en cualquier tipo de obra, incluso fabricación, carga y transporte, totalmente colocado. Anclaje codos Hasta final TM Quel (P.K. 0+442,83 - 4+928,39)	12	1,70			20,40	
		3	2,15			6,45	
		31	2,84			88,04	
		11	3,37			37,07	
		1	4,22			4,22	
		2	5,38			10,76	
		1	6,62			6,62	
		3	6,73			20,19	
		1	10,55			10,55	
							204,30
023	KG ACERO CORRUGADO B-500-S Acero redondo corrugado para armar tipo B-500-S elaborado y colocado. Anclaje codos Hasta final TM Quel (P.K. 0+442,83 - 4+928,39)	12	112,32			1.347,84	
		3	126,68			380,04	
		31	151,94			4.710,14	
		11	172,55			1.898,05	
		1	197,95			197,95	
		2	233,39			466,78	
		1	267,26			267,26	
		3	271,75			815,25	
		1	361,97			361,97	
							10.445,28
034.2	UD ARQUETA HORMIGÓN DE 3,00x2,50 M Y HASTA 2,50 m DE PROFUNDIDAD Arqueta de hormigón armado HA-25/P/40/IIa para alojamiento de válvulas de tuberías de dimensiones interiores 3,0x2,5 m y una altura de hasta 2,50 m, con solera de 30 cm de canto, muros de 25 cm de espesor y tapa de 25 cm de canto, armado con parrilla de 20x20 cm con redondos de 12 mm, incluso excavación, relleno posterior, encofrado, totalmente terminada. Hasta final TM Quel (P.K. 0+442,83 - 4+928,39) PK 3+130	1				1,00	
							1,00
373	UD POZO DE REGISTRO DE AROS DE HORMIGÓN DN1200 Pozo de registro de abastecimiento para válvulas de control de cualquier altura de diámetro interior D=1200 mm, incluso base de hormigón HNE-20, aros de hormigón, con prefabricado de hormigón, pates y tapa de fundición, totalmente terminado. Ventosas Hasta final TM Quel (P.K. 0+442,83 - 4+928,39) Desagües	4				4,00	

MEDICIONES

ABASTECIMIENTO A VARIOS MUNICIPIOS DE LA RIOJA. SISTEMA CIDACOS

CÓDIGO	RESUMEN	UDS	LONGITUD	ANCHURA	ALTURA	PARCIALES	CANTIDAD
	Arqueta entrada	1	2,20	1,60		3,52	6,00
							6,00
	SUBAPARTADO 05.01.02.03 TUBERÍAS						
060	ML TUBERÍA FD 500 mm Tubería de fundición dúctil de diámetro interior 500 mm y PFA de 38 bar, revestida interiormente con mortero de cemento y exteriormente con una capa de cinc y otra bituminosa, i/p.p. de junta automática flexible, banda de señalización y medios auxiliares, totalmente colocada y probada. Hasta final TM Quel (P.K. 0+442,83 - 4+928,39)	1	4.486,00			4.486,00	4.486,00
076	UD CODO FD 1/32 500 mm Codo de fundición dúctil de 1/32 de diámetro interior 500 mm y PFA 30 bar, con revestimiento interior y exterior epoxi, incluso p.p. de juntas y medios auxiliares, totalmente colocado y probado. Hasta final TM Quel (P.K. 0+442,83 - 4+928,39)	50				50,00	50,00
075	UD CODO FD 1/16 500 mm Codo de fundición dúctil de 1/16 de diámetro interior 500 mm y PFA 30 bar, con revestimiento interior y exterior epoxi, incluso p.p. de juntas y medios auxiliares, totalmente colocado y probado. Hasta final TM Quel (P.K. 0+442,83 - 4+928,39)	13				13,00	13,00
074	UD CODO FD 1/8 500 mm Codo de fundición dúctil de 1/8 de diámetro interior 500 mm y PFA 30 bar, con revestimiento interior y exterior epoxi, incluso p.p. de juntas y medios auxiliares, totalmente colocado y probado. Hasta final TM Quel (P.K. 0+442,83 - 4+928,39)	2				2,00	2,00
197	ML TUBERÍA DE PVC 160 mm Tubería de PVC con junta elástica de 160 mm de diámetro exterior, y PN=6 bar, incluso banda de señalización, totalmente colocada en zanja. Desagües Hasta final TM Quel (P.K. 0+442,83 - 4+928,39) P.K. 1+101,574 P.K. 3+130,550	1 1	270,00 81,00			270,00 81,00	351,00
							351,00
	SUBAPARTADO 05.01.02.04 VALVULERÍA Y ACCESORIOS						
245.5	UD VENTOSA DN=80 (3") mm PN25 Válvula ventosa de tres funciones de DN=80 mm (3") y PN 25 bar incluido transporte, juntas, válvula de corte DN=80 mm y PN 25 y piezas especiales, totalmente colocada y probada. Hasta final TM Quel (P.K. 0+442,83 - 4+928,39) P.K. 2+600 P.K. 3+420 P.K. 4+320	1 1 1				1,00 1,00 1,00	3,00
244.1	UD VENTOSA DN=100 (4") mm PN16 Válvula ventosa de tres funciones de DN=100 mm y PN 16 bar incluido transporte, juntas, válvula de corte DN=100 mm y PN 16 bar y piezas especiales, totalmente colocada y probada. Hasta final TM Quel (P.K. 0+442,83 - 4+928,39) P.K. 1+400	1				1,00	1,00

MEDICIONES

ABASTECIMIENTO A VARIOS MUNICIPIOS DE LA RIOJA. SISTEMA CIDACOS

CÓDIGO	RESUMEN	UDS	LONGITUD	ANCHURA	ALTURA	PARCIALES	CANTIDAD
119	UD TE FD 500 mm PN25 "T" de fundición dúctil de PFA 25 bar, con dos enchufes y derivación con brida para tubería de 500 mm con salida comprendida entre 500 y 100 mm, con un revestimiento interior y exterior epoxi, i/p.p. de junta de unión y medios auxiliares, totalmente colocada y probada. Ventosas Hasta final TM Quel (P.K. 0+442,83 - 4+928,39) P.K. 1+400 P.K. 2+600 P.K. 3+420 P.K. 4+320 Desagües Hasta final TM Quel (P.K. 0+442,83 - 4+928,39)	1 1 1 1 2				1,00 1,00 1,00 1,00 2,00	6,00
113	UD REDUCCIÓN FD 100 A 80/50 mm PN25 Reducción en fundición dúctil de 100 mm a 80-65-60-50 mm con dos bridas PN 25 bar, con un revestimiento interior y exterior epoxi, i/p.p. de tornillería y medios auxiliares, totalmente colocada y probada. Ventosas Hasta final TM Quel (P.K. 0+442,83 - 4+928,39) P.K. 2+600 P.K. 3+420 P.K. 4+320	1 1 1				1,00 1,00 1,00	3,00
235	UD VÁLVULA DE COMPUERTA MANUAL DN150 PN16 Válvula de compuerta de accionamiento manual de diámetro nominal DN=150 mm de 16 bares de presión máxima admisible, con tornillería y juntas, totalmente instalada y probada, incluso volante de accionamiento. Desagües Hasta final TM Quel (P.K. 0+442,83 - 4+928,39) P.K. 1+101,574	1				1,00	1,00
234	UD VÁLVULA DE COMPUERTA MANUAL DN150 PN25 Válvula de compuerta de cierre elástico de 150 mm. de diámetro nominal y 25 At. de P.N., de accionamiento manual por volante, de cuerpo de fundición nodular GGG-50, con eje de acero inoxidable al 13 % Cr. con roscas conformadas por laminación en frío, cierre en fundición nodular, tornillería de acero inoxidable, protegida contra la corrosión mediante aplicación de doble capa de pintura epoxy, totalmente colocada y probada. Resto de características según ET. Desagües Hasta final TM Quel (P.K. 0+442,83 - 4+928,39) P.K. 3+130,550	1				1,00	1,00
EVMM0500.1	UD VÁLVULA DE MARIPOSA DOBLE EXCENTRICIDAD DN 500 mm PN25 MANUAL Válvula de mariposa de doble excentricidad de 500 mm de diámetro y PN25, de accionamiento manual por reductor, incluso mecanismo de accionamiento, maniobra y control, transporte, montaje, juntas, tornillería y pintura totalmente instalada y probada. Resto de características según ET de proyecto. Hasta final TM Quel (P.K. 0+442,83 - 4+928,39) PK 3+130	1				1,00	1,00
ECD0500.1	UD CARRETE DE DESMONTAJE DN=500 mm PN25 Carrete telescópico de desmontaje DN500 PN 25, bridas de acero al carbono, virolas de acero inoxidable, protección epoxi, tornillos y tuercas en acero F-114, cincado y posterior baño de cromo-niquel, incluido p.p. de brida enchufe, totalmente instalado y probado en obra.						1,00

MEDICIONES

ABASTECIMIENTO A VARIOS MUNICIPIOS DE LA RIOJA. SISTEMA CIDACOS

CÓDIGO	RESUMEN	UDS	LONGITUD	ANCHURA	ALTURA	PARCIALES	CANTIDAD
	Arqueta entrada PK 3+130	1 1	2,20	1,60		3,52 1,00	1,00
115.4	UD BRIDA ENCHUFE FD 500 mm PN16/25 Brida enchufe de fundición dúctil de PFA 16 bar para tubería de 500 mm, con un revestimiento interior y exterior epoxi, i/p.p. de junta de unión y medios auxiliares, totalmente colocada y probada. Hasta final TM Quel (P.K. 0+442,83 - 4+928,39) PK 3+130	1				1,00	1,00
114.2	UD BRIDA LISO FD 500 mm PN16/25 Brida lisa de fundición dúctil de PFA 16 bar para tubería de 500 mm, con un revestimiento interior y exterior epoxi, i/p.p. de junta de unión y medios auxiliares, totalmente colocada y probada. Hasta final TM Quel (P.K. 0+442,83 - 4+928,39) PK 3+130	1				1,00	1,00
SUBPARTADO 05.01.02.05 OBRAS ACCESORIAS Y REPOSICIONES DE SERVICIOS							
172	ML TUBERIA PEAD DN=110 mm PN 16 Tubería de polietileno de alta densidad de 110 mm de diámetro exterior y PN=16 bar, colocada en zanja incluso banda de señalización, p.p. de junta de unión colocada, codos, tes, portabridas, así como piezas especiales y medios auxiliares, totalmente colocada. Reposición abastecimiento Hasta final TM Quel (P.K. 0+442,83 - 4+928,39) P.K. 1+450	1	6,00			6,00	6,00
030	M3 HORMIGÓN HNE-20/B/40 Hormigón HNE-20/B/40, con cemento CEM III/A-D/42,5/SR (UNE 80303:96), en masa o ligeramente armado, colocado en cualquier tipo de obra, incluso fabricación, carga y transporte, totalmente colocado. Protección cruce línea eléctrica Hasta final TM Quel (P.K. 0+442,83 - 4+928,39) P.K. 0+480	1	3,00	0,60	0,50	0,90	0,90
388	ML REPOSICIÓN DE ACEQUIA HASTA 1 m ANCHURA Reposición de acequia prefabricada de hormigón hasta 1,00 m de anchura. Hasta final TM Quel (P.K. 0+442,83 - 4+928,39) P.K. 1+320 P.K. 2+710 P.K. 2+830	1 1 1	5,00 5,00 5,00			5,00 5,00 5,00	15,00
056	M3 ZAHORRA ARTIFICIAL Zahorra artificial compactada. Hasta final TM Quel (P.K. 0+442,83 - 4+928,39) P.K. 0+443 - 4+767	1	4.324,00	3,00	0,20	2.594,40	2.594,40
383	ML REPOSICIÓN DE CERRAMIENTO EXISTENTE Reposición de cerramiento existente hasta 2,00 m de altura. Hasta final TM Quel (P.K. 0+442,83 - 4+928,39) P.K. 1+450	1	5,00			5,00	5,00

MEDICIONES

ABASTECIMIENTO A VARIOS MUNICIPIOS DE LA RIOJA. SISTEMA CIDACOS

CÓDIGO	RESUMEN	UDS	LONGITUD	ANCHURA	ALTURA	PARCIALES	CANTIDAD
387	ML REPOSICIÓN OBRA DE DRENAJE HASTA DN 1,00 m Reposición de obra de drenaje hasta 1,00 de diámetro, p.p. de boquilla de entrada y salida, excavación, hormigón de recubrimiento y relleno compactado, totalmente terminada. Hasta final TM Quel (P.K. 0+442,83 - 4+928,39) P.K. 0+730	1	5,00				5,00
							5,00
APARTADO 05.01.03 EJE 7: FIN TM QUEL - CALAHORRA							
SUBAPARTADO 05.01.03.01 MOVIMIENTO DE TIERRAS							
010	M3 RELLENO ZANJAS, CIMIENTOS Y TRASDOSES DE MATERIAL SELECCIONADO Relleno con material seleccionado en zanjas, cimientos, trasdós de muros, estribos y otras estructuras procedente de la excavación o préstamos incluso carga, transporte y compactación. Según medición auxiliar Hasta Calahorra (P.K. 4+928,39 - fin) Desagües Hasta Calahorra (P.K. 4+928,39 - fin)	1	12.735,20				12.735,20
		1	459,00	0,76	0,90		313,96
							13.049,16
011	M3 RELLENO DE ARENA Arena para apoyo y protección de tuberías incluso carga, transporte, colocación, compactación y nivelación. Según medición auxiliar Hasta Calahorra (P.K. 4+928,39 - fin) Desagües Hasta Calahorra (P.K. 4+928,39 - fin)	1	6.445,70				6.445,70
		1	459,00	0,76	0,36		125,58
							6.571,28
019	M2 DEMOLICIÓN DE FIRMES Demolición de firmes de cualquier tipo, incluso precorte, carga y transporte a vertedero, posterior perfilado y compactación del terreno. Hasta Calahorra (P.K. 4+928,39 - fin) P.K. 5+380 - 5+391 P.K. 5+722 - 5+732 P.K. 10+390 - 10+471 P.K. 11+443,13 - 11+726 P.K. 11+726 - 11+742 P.K. 11+742 - 11+932 P.K. 11+932 - 11+940 P.K. 11+940 - 12+058 P.K. 12+058 - 12+070 P.K. 12+070 - 12+327 P.K. 12+327 - 12+343 P.K. 12+348 - 12+395 P.K. 12+424 - 12+428 P.K. 12+517 . FIN	1	11,00	3,00			33,00
		1	10,00	3,00			30,00
		1	81,00	3,00			243,00
		1	282,87	3,00			848,61
		1	16,00	3,00			48,00
		1	190,00	3,00			570,00
		1	8,00	3,00			24,00
		1	118,00	3,00			354,00
		1	12,00	3,00			36,00
		1	257,00	3,00			771,00
		1	8,00	3,00			24,00
		1	47,00	3,00			141,00
		1	4,00	3,00			12,00
		1	13,81	3,00			41,43
							3.176,04
002	M3 EXCAVACIÓN EN ZANJAS Excavación en zanjas y zonas localizadas, en todo tipo de terrenos incluido terrenos en roca con medios mecánicos, incluso rasanteo, nivelación de la superficie de apoyo y transporte a lugar de empleo o vertedero. Según medición auxiliar Hasta Calahorra (P.K. 4+928,39 - fin) A descontar con agotamiento	1	20.839,40				20.839,40
		-1	1.430,70				-1.430,70
							19.408,70
003	M3 EXCAVACIÓN EN ZANJAS CON AGOTAMIENTO Excavación en zanjas y zonas localizadas, en todo tipo de terrenos incluido terrenos en roca con medios mecánicos, incluso rasanteo, nivelación de la superficie de apoyo, agotamiento y transporte a lugar de empleo o vertedero. Según medición auxiliar						

MEDICIONES

ABASTECIMIENTO A VARIOS MUNICIPIOS DE LA RIOJA. SISTEMA CIDACOS

CÓDIGO	RESUMEN	UDS	LONGITUD	ANCHURA	ALTURA	PARCIALES	CANTIDAD
	Arqueta entrada	1	2,20	1,60			3,52
	P.K. 4+928,39 - 5+020	1	259,70				259,70
	P.K. 10+500 - 10+970	1	1.171,00				1.171,00
	Desagües Hasta Calahorra (P.K. 4+928,39 - fin)	1	459,00	0,76	1,26		439,54
							1.870,24
008	M2 DESPEJE Y DESBROCE Despeje y desbroce de capa de tierra vegetal con un espesor medio de 50 cm, incluso corte de árboles, extracción de tocones, nivelación de zona adyacente para el paso de maquinaria, transporte a lugar de acopio independiente para posterior reposición de tierra vegetal tras las obras y despedregado de las parcelas, así como transporte a vertedero de tierras sobrantes. Hasta Calahorra (P.K. 4+928,39 - fin) P.K. 4+935 - 5+178 P.K. 5+430 - 5+543 P.K. 5+549 - 5+722 P.K. 5+732 - 5+803,89 P.K. 5+821,59 - 5+844 P.K. 5+870 - 5+920 P.K. 7+859 - 7+930 P.K. 7+981 - 8+200 P.K. 8+209 - 8+232 P.K. 8+280 - 8+312 P.K. 10+225 - 10+277 P.K. 10+471 - 10+483 P.K. 10+491 - 10+714 P.K. 10+720 - 10+905 P.K. 10+950 - 10+970 P.K. 10+995 - 11+195	1	246,00	3,00			738,00
		1	113,00	3,00			339,00
		1	173,00	3,00			519,00
		1	71,89	3,00			215,67
		1	22,41	3,00			67,23
		1	50,00	3,00			150,00
		1	71,00	3,00			213,00
		1	219,00	3,00			657,00
		1	23,00	3,00			69,00
		1	32,00	3,00			96,00
		1	52,00	3,00			156,00
		1	12,00	3,00			36,00
		1	223,00	3,00			669,00
		1	185,00	3,00			555,00
		1	20,00	3,00			60,00
		1	200,00	3,00			600,00
							5.139,90
007	M2 ENTIBACIÓN MÓDULOS METÁLICOS Entibación a dos caras mediante módulos metálicos y articulados, en zonas de protección de zanja, medida la superficie efectiva. Hasta Calahorra (P.K. 4+928,39 - fin) P.K. 11+443,13 - FIN	1	1.087,68	2,00			2.175,36
							2.175,36
030	M3 HORMIGÓN HNE-20/B/40 Hormigón HNE-20/B/40, con cemento CEM III/A-D/42,5/SR (UNE 80303:96), en masa o ligeramente armado, colocado en cualquier tipo de obra, incluso fabricación, carga y transporte, totalmente colocado. Hasta Calahorra (P.K. 4+928,39 - fin) P.K. 8+200 - 8+224	1	24,00	1,30	0,80		24,96
							24,96
SUBAPARTADO 05.01.03.02 OBRA CIVIL							
030	M3 HORMIGÓN HNE-20/B/40 Hormigón HNE-20/B/40, con cemento CEM III/A-D/42,5/SR (UNE 80303:96), en masa o ligeramente armado, colocado en cualquier tipo de obra, incluso fabricación, carga y transporte, totalmente colocado. Anclaje codos Hasta Calahorra (P.K. 4+928,39 - fin)	22	3,37				74,14
		27	3,74				100,98
		6	4,22				25,32
		2	5,88				11,76
		7	7,31				51,17
		2	8,17				16,34
		4	13,69				54,76
		1	11,48				11,48
		7	14,20				99,40
		2	15,97				31,94
		1	26,19				26,19

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ABASTECIMIENTO A VARIOS MUNICIPIOS DE LA RIOJA. SISTEMA CIDACOS

CÓDIGO	RESUMEN	UDS	LONGITUD	ANCHURA	ALTURA	PARCIALES	CANTIDAD
	Arqueta entrada	1	2,20	1,60		3,52	
	Hasta Calahorra (P.K. 4+928,39 - fin)						
	P.K. 5+380 - 5+391	1	11,00	3,00	0,20	6,60	
	P.K. 5+722 - 5+732	1	10,00	3,00	0,20	6,00	
	P.K. 10+390 - 10+471	1	81,00	3,00	0,20	48,60	
	P.K. 11+726 - 11+742	1	16,00	3,00	0,20	9,60	
	P.K. 11+932 - 11+940	1	8,00	3,00	0,20	4,80	
	P.K. 12+058 - 12+070	1	12,00	3,00	0,20	7,20	
	P.K. 12+348 - 12+395	1	47,00	3,00	0,20	28,20	
	P.K. 12+517 . FIN	1	13,81	3,00	0,20	8,29	
	P.K. 11+443,13 - 11+726	1	282,87	3,00	0,20	169,72	
	P.K. 11+742 - 11+932	1	190,00	3,00	0,20	114,00	
	P.K. 11+940 - 12+058	1	118,00	3,00	0,20	70,80	
	P.K. 12+070 - 12+327	1	257,00	3,00	0,20	154,20	
	P.K. 12+335 - 12+343	1	8,00	3,00	0,20	4,80	
							1.136,29
023	KG ACERO CORRUGADO B-500-S						
	Acero redondo corrugado para armar tipo B-500-S elaborado y colocado.						
	Anclaje codos						
	Hasta Calahorra (P.K. 4+928,39 - fin)	22	172,55			3.796,10	
		27	183,17			4.945,59	
		6	197,95			1.187,70	
		2	245,74			491,48	
		7	285,05			1.995,35	
		2	308,20			616,40	
		4	431,33			1.725,32	
		1	382,64			382,64	
		7	448,54			3.139,78	
		2	476,97			953,94	
		1	661,76			661,76	
							19.896,06
034.2	UD ARQUETA HORMIGÓN DE 3,00x2,50 M Y HASTA 2,50 m DE PROFUNDIDAD						
	Arqueta de hormigón armado HA-25/P/40/IIa para alojamiento de válvulas de tuberías de dimensiones interiores 3,0x2,5 m y una altura de hasta 2,50 m, con solera de 30 cm de canto, muros de 25 cm de espesor y tapa de 25 cm de canto, armado con parrilla de 20x20 cm con redondos de 12 mm, incluso excavación, relleno posterior, encofrado, totalmente terminada.						
	Hasta Calahorra (P.K. 4+928,39 - fin)						
	PK 7+180	1				1,00	
	Cruces carreteras	8				8,00	
							9,00
373	UD POZO DE REGISTRO DE AROS DE HORMIGÓN DN1200						
	Pozo de registro de abastecimiento para válvulas de control de cualquier altura de diámetro interior D=1200 mm, incluso base de hormigón HNE-20, aros de hormigón, cono prefabricado de hormigón, pates y tapa de fundición, totalmente terminado.						
	Ventosas						
	Hasta Calahorra (P.K. 4+928,39 - fin)	13				13,00	
	Desagües						
	Hasta Calahorra (P.K. 4+928,39 - fin)	10				10,00	
							23,00
	SUBAPARTADO 05.01.03.03 TUBERÍAS						
060	ML TUBERÍA FD 500 mm						
	Tubería de fundición dúctil de diámetro interior 500 mm y PFA de 38 bar, revestida interiormente con mortero de cemento y exteriormente con una capa de cinc y otra bituminosa, i/p.p. de junta automática flexible, banda de señalización y medios auxiliares, totalmente colocada y probada.						
	Hasta Calahorra (P.K. 4+928,39 - fin)	1	7.603,00			7.603,00	
							7.603,00

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CÓDIGO	RESUMEN	UDS	LONGITUD	ANCHURA	ALTURA	PARCIALES	CANTIDAD
076	UD CODO FD 1/32 500 mm						
	Codo de fundición dúctil de 1/32 de diámetro interior 500 mm y PFA 30 bar, con revestimiento interior y exterior epoxi, incluso p.p. de juntas y medios auxiliares, totalmente colocado y probado.						
	Hasta Calahorra (P.K. 4+928,39 - fin)	55				55,00	
							55,00
075	UD CODO FD 1/16 500 mm						
	Codo de fundición dúctil de 1/16 de diámetro interior 500 mm y PFA 30 bar, con revestimiento interior y exterior epoxi, incluso p.p. de juntas y medios auxiliares, totalmente colocado y probado.						
	Hasta Calahorra (P.K. 4+928,39 - fin)	11				11,00	
							11,00
074	UD CODO FD 1/8 500 mm						
	Codo de fundición dúctil de 1/8 de diámetro interior 500 mm y PFA 30 bar, con revestimiento interior y exterior epoxi, incluso p.p. de juntas y medios auxiliares, totalmente colocado y probado.						
	Hasta Calahorra (P.K. 4+928,39 - fin)	14				14,00	
							14,00
074R	UD CODO FD 1/4 500 mm						
	Codo de fundición dúctil de 1/4 de diámetro interior 500 mm y PFA 30 bar, con revestimiento interior y exterior epoxi, incluso p.p. de juntas y medios auxiliares, totalmente colocado y probado.						
	Hasta Calahorra (P.K. 4+928,39 - fin)	1				1,00	
							1,00
197	ML TUBERÍA DE PVC 160 mm						
	Tubería de PVC con junta elástica de 160 mm de diámetro exterior, y PN=6 bar, incluso banda de señalización, totalmente colocada en zanja.						
	Desagües						
	Hasta Calahorra (P.K. 4+928,39 - fin)						
	P.K. 8+200	1	10,00			10,00	
	P.K. 8+600	1	201,00			201,00	
	P.K. 11+100	1	222,00			222,00	
	P.K. 12+337,821	1	26,00			26,00	
							459,00
	SUBAPARTADO 05.01.03.04 VALVULERÍA Y ACCESORIOS						
245.5	UD VENTOSA DN=80 (3") mm PN25						
	Válvula ventosa de tres funciones de DN=80 mm (3") y PN 25 bar incluido transporte, juntas, válvula de corte DN=80 mm y PN 25 y piezas especiales, totalmente colocada y probada.						
	Hasta Calahorra (P.K. 4+928,39 - fin)						
	P.K. 5+020	1				1,00	
	P.K. 5+826,025	1				1,00	
	P.K. 6+520	1				1,00	
	P.K. 7+505,675	1				1,00	
	P.K. 8+313,377	1				1,00	
	P.K. 8+811,901	1				1,00	
	P.K. 9+816,677	1				1,00	
	P.K. 10+220	1				1,00	
	P.K. 10+440	1				1,00	
	P.K. 11+940	1				1,00	
	P.K. 12+380	1				1,00	
							11,00
245.6	UD VENTOSA DN=80 (3") mm PN40						
	Válvula ventosa de tres funciones de DN=80 mm (3") y PN 40 bar incluido transporte, juntas, válvula de corte DN=80 mm y PN 40 y piezas especiales, totalmente colocada y probada.						
	Hasta Calahorra (P.K. 4+928,39 - fin)						
	P.K. 11+100	1				1,00	
							1,00

MEDICIONES

ABASTECIMIENTO A VARIOS MUNICIPIOS DE LA RIOJA. SISTEMA CIDACOS

CÓDIGO	RESUMEN	UDS	LONGITUD	ANCHURA	ALTURA	PARCIALES	CANTIDAD
244	UD VENTOSA DN=100 (4") mm PN25 Válvula ventosa de tres funciones de DN=100 mm y PN 25 bar incluido transporte, juntas, válvula de corte DN=100 mm y PN 25 bar y piezas especiales, totalmente colocada y probada. Hasta Calahorra (P.K. 4+928,39 - fin) P.K. 7+284,656	1				1,00	1,00
119	UD TE FD 500 mm PN25 "T" de fundición dúctil de PFA 25 bar, con dos enchufes y derivación con brida para tubería de 500 mm con salida comprendida entre 500 y 100 mm, con un revestimiento interior y exterior epoxi, i/p.p. de junta de unión y medios auxiliares, totalmente colocada y probada. Ventosas Hasta Calahorra (P.K. 4+928,39 - fin) P.K. 5+020 P.K. 5+826,025 P.K. 6+520 P.K. 7+505,675 P.K. 8+313,377 P.K. 8+811,901 P.K. 9+816,677 P.K. 10+220 P.K. 10+440 P.K. 11+940 P.K. 12+380 P.K. 11+100 P.K. 7+284,656 Desagües Hasta Calahorra (P.K. 4+928,39 - fin)	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 10				1,00 1,00 1,00 1,00 1,00 1,00 1,00 1,00 1,00 1,00 1,00 1,00 1,00 1,00 1,00 10,00	23,00
113	UD REDUCCIÓN FD 100 A 80/50 mm PN25 Reducción en fundición dúctil de 100 mm a 80-65-60-50 mm con dos bridas PN 25 bar, con un revestimiento interior y exterior epoxi, i/p.p. de tornillería y medios auxiliares, totalmente colocada y probada. Ventosas Hasta Calahorra (P.K. 4+928,39 - fin) P.K. 5+020 P.K. 5+826,025 P.K. 6+520 P.K. 7+505,675 P.K. 8+313,377 P.K. 8+811,901 P.K. 9+816,677 P.K. 10+220 P.K. 10+440 P.K. 11+940 P.K. 12+380	1 1 1 1 1 1 1 1 1 1 1 1				1,00 1,00 1,00 1,00 1,00 1,00 1,00 1,00 1,00 1,00 1,00 1,00	11,00
113.1	UD REDUCCIÓN FD 100 A 80/50 mm PN40 Reducción en fundición dúctil de 100 mm a 80-65-60-50 mm con dos bridas PN 40 bar, con un revestimiento interior y exterior epoxi, i/p.p. de tornillería y medios auxiliares, totalmente colocada y probada. Ventosas Hasta Calahorra (P.K. 4+928,39 - fin) P.K. 11+100	1				1,00	1,00

MEDICIONES

ABASTECIMIENTO A VARIOS MUNICIPIOS DE LA RIOJA. SISTEMA CIDACOS

CÓDIGO	RESUMEN	UDS	LONGITUD	ANCHURA	ALTURA	PARCIALES	CANTIDAD
234	UD VÁLVULA DE COMPUERTA MANUAL DN150 PN25 Válvula de compuerta de cierre elástico de 150 mm. de diámetro nominal y 25 At. de P.N., de accionamiento manual por volante, de cuerpo de fundición nodular GGG-50, con eje de acero inoxidable al 13 % Cr. con rosca conformada por laminación en frío, cierre en fundición nodular, tornillería de acero inoxidable, protegida contra la corrosión mediante aplicación de doble capa de pintura epoxy, totalmente colocada y probada. Resto de características según ET. Desagües Hasta Calahorra (P.K. 4+928,39 - fin) P.K. 7+180 P.K. 7+425,642 P.K. 8+200 P.K. 8+600 P.K. 9+655,155 P.K. 9+980 P.K. 10+326,986 P.K. 12+337,821 P.K. 12+460	1 1 1 1 1 1 1 1 1				1,00 1,00 1,00 1,00 1,00 1,00 1,00 1,00	9,00
233	UD VÁLVULA DE COMPUERTA MANUAL DN150 PN40 Válvula de compuerta de accionamiento manual de diámetro nominal DN=150 mm de 40 bares de presión máxima admisible, con tornillería y juntas, totalmente instalada y probada, incluso volante de accionamiento. Desagües Hasta Calahorra (P.K. 4+928,39 - fin) P.K. 11+019,915	1				1,00	1,00
109A	UD RACORD TIPO BARCELONA SALIDAS 80-200 mm Rosca Racord tipo Barcelona con salida entre 80 y 200 mm para enchufe de manguera, totalmente instalado y terminado. Desagües Hasta Calahorra (P.K. 4+928,39 - fin) P.K. 7+180 P.K. 7+425,642 P.K. 8+600 P.K. 9+655,155 P.K. 9+980 P.K. 10+326,986 P.K. 12+460	1 1 1 1 1 1 1				1,00 1,00 1,00 1,00 1,00 1,00 1,00	7,00
EVMM0500.1	UD VÁLVULA DE MARIPOSA DOBLE EXCENRICIDAD DN 500 mm PN25 MANUAL Válvula de mariposa de doble excentricidad de 500 mm de diámetro y PN25, de accionamiento manual por reductor, incluso mecanismo de accionamiento, maniobra y control, transporte, montaje, juntas, tornillería y pintura totalmente instalada y probada. Resto de características según ET de proyecto. Hasta Calahorra (P.K. 4+928,39 - fin) PK7.180 Cruces carreteras	1 8				1,00 8,00	9,00
ECD0500.1	UD CARRETE DE DESMONTAJE DN=500 mm PN25 Carrete telescópico de desmontaje DN500 PN 25, bridas de acero al carbono, virolas de acero inoxidable, protección epoxi, tornillos y tuercas en acero F-114, cincado y posterior baño de cromo-niquel, incluido p.p. de brida enchufe, totalmente instalado y probado en obra. Hasta Calahorra (P.K. 4+928,39 - fin) PK7.180 Cruces carreteras	1 8				1,00 8,00	9,00

MEDICIONES

ABASTECIMIENTO A VARIOS MUNICIPIOS DE LA RIOJA. SISTEMA CIDACOS

CÓDIGO	RESUMEN	UDS	LONGITUD	ANCHURA	ALTURA	PARCIALES	CANTIDAD
115.4	UD BRIDA ENCHUFE FD 500 mm PN16/25 Brida enchufe de fundición dúctil de PFA 16 bar para tubería de 500 mm, con un revestimiento interior y exterior epoxi, i/p.p. de junta de unión y medios auxiliares, totalmente colocada y probada. Hasta Calahorra (P.K. 4+928,39 - fin) PK7.180	1				1,00	1,00
114.2	UD BRIDA LISO FD 500 mm PN16/25 Brida lisa de fundición dúctil de PFA 16 bar para tubería de 500 mm, con un revestimiento interior y exterior epoxi, i/p.p. de junta de unión y medios auxiliares, totalmente colocada y probada. Hasta Calahorra (P.K. 4+928,39 - fin) PK7.180	1				1,00	1,00
SUBPARTADO 05.01.03.05 HINCAS							
369	ML HINCA TUBO ACERO 813 mm TIERRAS Hinca de tubo de acero, de 813 mm de diámetro interior, bajo viales, en tierra o roca alterada, incluso p.p. de instalación de tubería de fundición dúctil de 500 mm de diámetro interior y sus anclajes y apoyos; muros de reacción y contención; y todos los elementos necesarios para su montaje y desmontaje. Hasta Calahorra (P.K. 4+928,39 - fin) P.K. 5+803,89 - 5+821,59 P.K. 10+905 - 10+950 P.K. 10+970 - 10+995 P.K. 11+425 - 11+443.13	1	17,70			17,70	17,70
		1	45,00			45,00	45,00
		1	25,00			25,00	25,00
		1	18,13			18,13	18,13
105,83							
SUBPARTADO 05.01.03.06 OBRAS ACCESORIAS Y REPOSICIONES DE SERVICIOS							
030	M3 HORMIGÓN HNE-20/B/40 Hormigón HNE-20/B/40, con cemento CEM III/A-D/42,5/SR (UNE 80303:96), en masa o ligeramente armado, colocado en cualquier tipo de obra, incluso fabricación, carga y transporte, totalmente colocado. Protección cruce línea eléctrica Hasta Calahorra (P.K. 4+928,39 - fin) P.K. 5+600 P.K. 7+540 P.K. 9+300 P.K. 9+450 P.K. 11+220 P.K. 11+360 P.K. 11+760 P.K. 11+835 P.K. 12+195 Protección tubería gas (cruces) Hasta Calahorra (P.K. 4+928,39 - fin) P.K. 7+340 P.K. 11+401 P.K. 12+032	1	3,00	0,60	0,50	0,90	0,90
		1	3,00	0,60	0,50	0,90	0,90
		1	3,00	0,60	0,50	0,90	0,90
		1	3,00	0,60	0,50	0,90	0,90
		1	3,00	0,60	0,50	0,90	0,90
		1	3,00	0,60	0,50	0,90	0,90
		2	3,00	0,60	0,50	1,80	1,80
		1	5,00	1,40	0,20	1,40	1,40
		1	5,00	1,40	0,20	1,40	1,40
		1	3,00	1,40	0,20	0,84	0,84
12,64							
388	ML REPOSICIÓN DE ACEQUIA HASTA 1 m ANCHURA Reposición de acequia prefabricada de hormigón hasta 1,00 m de anchura. Hasta Calahorra (P.K. 4+928,39 - fin) P.K. 4+940 P.K. 8+840 P.K. 9+800 P.K. 10+050 P.K. 10+480 P.K. 10+720 P.K. 11+150 P.K. 11+180	1	5,00			5,00	5,00
		1	5,00			5,00	5,00
		1	5,00			5,00	5,00
		1	5,00			5,00	5,00
		1	5,00			5,00	5,00
		1	5,00			5,00	5,00
		1	5,00			5,00	5,00
		1	5,00			5,00	5,00
40,00							

MEDICIONES

ABASTECIMIENTO A VARIOS MUNICIPIOS DE LA RIOJA. SISTEMA CIDACOS

CÓDIGO	RESUMEN	UDS	LONGITUD	ANCHURA	ALTURA	PARCIALES	CANTIDAD
194	ML TUBO PVC CORRUGADO DN 110 mm CANALIZACIONES ELÉCTRICAS Tubo corrugado de PVC de D=110 mm, para reposición de línea eléctrica subterránea, totalmente colocado. Cruce línea eléctrica Hasta Calahorra (P.K. 4+928,39 - fin) P.K. 11+411 P.K. 11+760 P.K. 12+035 P.K. 12+195	5	3,00			15,00	15,00
		5	3,00			15,00	15,00
		5	3,00			15,00	15,00
		10	3,00			30,00	30,00
75,00							
381	M2 REPOSICIÓN DE FIRME DE AGLOMERADO Reposición de firme de aglomerado en caliente en zonas afectadas por las obras. Hasta Calahorra (P.K. 4+928,39 - fin) P.K. 5+380 - 5+391 P.K. 5+722 - 5+732 P.K. 10+390 - 10+471 P.K. 11+726 - 11+742 P.K. 11+932 - 11+940 P.K. 12+058 - 12+070 P.K. 12+348 - 12+395	1	11,00	3,00		33,00	33,00
		1	10,00	3,00		30,00	30,00
		1	81,00	3,00		243,00	243,00
		1	16,00	3,00		48,00	48,00
		1	8,00	3,00		24,00	24,00
		1	12,00	3,00		36,00	36,00
		1	47,00	3,00		141,00	141,00
555,00							
380	M2 REPOSICIÓN DE PAVIMENTO DE HORMIGÓN Reposición de pavimento de hormigón HM-20/B/40/IIa+Qa de 15 cm de espesor, totalmente terminado. Hasta Calahorra (P.K. 4+928,39 - fin) P.K. 12+517 - FIN	1	13,81	3,00		41,43	41,43
41,43							
386	M2 PAVIMENTO ADOQUÍN PREFABRICADO HORMIGÓN Pavimento de adoquín prefabricado de hormigón bicapa en color gris, de forma rectangular de 20x10x8 cm, colocado sobre cama de arena de río, rasanteada, de 3/4 cm de espesor, dejando entre ellos una junta de separación de 2/3 mm para su posterior relleno con arena caliza de machaqueo, i/recebado de juntas, barrido y compactado, a colocar sobre base firme existente, no incluido en el precio, compactada al 100% del ensayo Proctor. Hasta Calahorra (P.K. 4+928,39 - fin) P.K. 11+443,13 - 11+726 P.K. 11+742 - 11+932 P.K. 11+940 - 12+058 P.K. 12+070 - 12+327 P.K. 12+335 - 12+343	1	282,87	3,00		848,61	848,61
		1	190,00	3,00		570,00	570,00
		1	118,00	3,00		354,00	354,00
		1	257,00	3,00		771,00	771,00
		1	8,00	3,00		24,00	24,00
2.567,61							
384	M2 REPOSICIÓN DE ACERA DE HORMIGÓN Reposición de acera de hormigón existente en vía pública, incluso bordillo, totalmente terminada. Hasta Calahorra (P.K. 4+928,39 - fin) P.K. 12+424 - 12+428	1	4,00	3,00		12,00	12,00
12,00							
385	M2 REPOSICIÓN DE JARDÍN EXISTENTE Reposición de jardín existente. Hasta Calahorra (P.K. 4+928,39 - fin) P.K. 12+327 - 12+335 P.K. 12+343 - 12+348 P.K. 12+395 - 12+424 P.K. 12+428 - 12+507	1	8,00	3,00		24,00	24,00
		1	5,00	3,00		15,00	15,00
		1	29,00	3,00		87,00	87,00
		1	79,00	3,00		237,00	237,00
363,00							
056	M3 ZAHORRA ARTIFICIAL Zahorra artificial compactada. Hasta Calahorra (P.K. 4+928,39 - fin)						

MEDICIONES

ABASTECIMIENTO A VARIOS MUNICIPIOS DE LA RIOJA. SISTEMA CIDACOS

CÓDIGO	RESUMEN	UDS	LONGITUD	ANCHURA	ALTURA	PARCIALES	CANTIDAD
	Arqueta entrada	1	2,20	1,60		3,52	
	P.K. 5+178 - 5+380	1	202,00	3,00	0,20	121,20	
	P.K. 5+391 - 5+430	1	39,00	3,00	0,20	23,40	
	P.K. 5+543 - 5+549	1	6,00	3,00	0,20	3,60	
	P.K. 5+844 - 5+870	1	26,00	3,00	0,20	15,60	
	P.K. 5+920 - 7+859	1	1.929,00	3,00	0,20	1.157,40	
	P.K. 7+930 - 7+981	1	51,00	3,00	0,20	30,60	
	P.K. 8+200 - 8+209	1	9,00	3,00	0,20	5,40	
	P.K. 8+232 - 8+280	1	48,00	3,00	0,20	28,80	
	P.K. 8+312 - 10+225	1	1.913,00	3,00	0,20	1.147,80	
	P.K. 10+277 - 10+390	1	113,00	3,00	0,20	67,80	
	P.K. 10+483 - 10+491	1	8,00	3,00	0,20	4,80	
	P.K. 10+714 - 10+720	1	6,00	3,00	0,20	3,60	
	P.K. 11+195 - 11+425	1	230,00	3,00	0,20	138,00	
	P.K. 12+507 - 12+517	1	10,00	3,00	0,20	6,00	
							2.757,60
383	ML REPOSICIÓN DE CERRAMIENTO EXISTENTE						
	Reposición de cerramiento existente hasta 2,00 m de altura.						
	Hasta Calahorra (P.K. 4+928,39 - fin)						
	P.K. 5+390	1	5,00			5,00	
	P.K. 10+870	1	10,00			10,00	
	P.K. 10+900	1	10,00			10,00	
	P.K. 12+479	1	5,00			5,00	
							30,00
391	ML REPOSICIÓN DE POZO DE REGISTRO						
	Reposición de pozo de registro para saneamiento o abastecimiento, incluso base de hormigón HM-20, p.p. de cono prefabricado de hormigón y tapa, totalmente terminado.						
	Hasta Calahorra (P.K. 4+928,39 - fin)						
	P.K. 11+692 - 11+705	4				4,00	
	P.K. 12+000 - 12+032	2				2,00	
	P.K. 11+287 - 12+304	2				2,00	
							8,00
393	ML CANALIZACIÓN TELEFÓNICA FIBRA ÓPTICA						
	Canalización telefónica en zanja bajo calzada, para reposición de cable de fibra óptica de 12 a 16 fibras, incluso p.p. de arquetas y caja de empalmes, totalmente terminado.						
	Hasta Calahorra (P.K. 4+928,39 - fin)						
	P.K. 10+353	1	20,00			20,00	
	P.K. 10+514	1	25,00			25,00	
							45,00
397	ML CANALIZACIÓN TELEFÓNICA BAJO CALZADA 8 TUBOS						
	Canalización telefónica en zanja bajo calzada, de 0,65x1,01 m para 8 conductos, en base 4, de PVC de 110 mm de diámetro, embebidos en prisma de hormigón HM-20 de central de 8 cm de recubrimiento superior e inferior y 10 cm lateralmente, incluso excavación de tierras a máquina en terrenos flojos, tubos, soportes distanciadores cada 70 cm, cuerda guía para cables, hormigón y relleno en la capa superior con tierras procedentes de la excavación, en tongadas < 25 cm, compactada al 95% del P.N., totalmente terminado.						
	Hasta Calahorra (P.K. 4+928,39 - fin)						
	P.K. 11+574	1	20,00			20,00	
							20,00
396	ML CANALIZACIÓN TELEFÓNICA BAJO CALZADA 6 TUBOS						
	Canalización telefónica en zanja bajo calzada, de 0,45x1,01 m para 6 conductos, en base 2, de PVC de 110 mm de diámetro, embebidos en prisma de hormigón HM-20 de central de 8 cm de recubrimiento superior e inferior y 10 cm lateralmente, incluso excavación de tierras a máquina en terrenos flojos, tubos, soportes distanciadores cada 70 cm, cuerda guía para cables, hormigón y relleno en la capa superior con tierras procedentes de la excavación, en tongadas < 25 cm, compactada al 95% del P.N., totalmente terminado.						
	Hasta Calahorra (P.K. 4+928,39 - fin)						
	P.K. 11+390	1	20,00			20,00	

MEDICIONES

ABASTECIMIENTO A VARIOS MUNICIPIOS DE LA RIOJA. SISTEMA CIDACOS

CÓDIGO	RESUMEN	UDS	LONGITUD	ANCHURA	ALTURA	PARCIALES	CANTIDAD
	Arqueta entrada	1	2,20	1,60		3,52	
	P.K. 12+024	1	20,00			20,00	
							60,00
395	ML CANALIZACIÓN TELEFÓNICA BAJO CALZADA 4 TUBOS						
	Canalización telefónica en zanja bajo calzada, de 0,45x1,01 m para 4 conductos, en base 2, de PVC de 110 mm de diámetro, embebidos en prisma de hormigón HM-20 de central de 8 cm de recubrimiento superior e inferior y 10 cm lateralmente, incluso excavación de tierras a máquina en terrenos flojos, tubos, soportes distanciadores cada 70 cm, cuerda guía para cables, hormigón y relleno en la capa superior con tierras procedentes de la excavación, en tongadas < 25 cm, compactada al 95% del P.N., totalmente terminado.						
	Hasta Calahorra (P.K. 4+928,39 - fin)						
	P.K. 12+311	1	20,00			20,00	
							20,00
394	ML CANALIZACIÓN TELEFÓNICA BAJO CALZADA 2 TUBOS						
	Canalización telefónica en zanja bajo calzada, de 0,45x0,88 m para 2 conductos, en base 2, de PVC de 110 mm de diámetro, embebidos en prisma de hormigón HM-20 de central de 8 cm de recubrimiento superior e inferior y 10 cm lateralmente, incluso excavación de tierras a máquina en terrenos flojos, tubos, soportes distanciadores cada 70 cm, cuerda guía para cables, hormigón y relleno en la capa superior con tierras procedentes de la excavación, en tongadas < 25 cm, compactada al 95% del P.N., totalmente terminado.						
	Hasta Calahorra (P.K. 4+928,39 - fin)						
	P.K. 11+390	1	20,00			20,00	
	P.K. 11+574	1	20,00			20,00	
	P.K. 11+695	1	20,00			20,00	
	P.K. 11+896	1	20,00			20,00	
	P.K. 12+024	1	20,00			20,00	
							100,00
398	ML CANALIZACIÓN TELEFÓNICA BAJO CALZADA 12 TUBOS						
	Canalización telefónica en zanja bajo calzada, de 0,65x1,01 m para 12 conductos, en base 5, de PVC de 110 mm de diámetro, embebidos en prisma de hormigón HM-20 de central de 8 cm de recubrimiento superior e inferior y 10 cm lateralmente, incluso excavación de tierras a máquina en terrenos flojos, tubos, soportes distanciadores cada 70 cm, cuerda guía para cables, hormigón y relleno en la capa superior con tierras procedentes de la excavación, en tongadas < 25 cm, compactada al 95% del P.N., totalmente terminado.						
	Hasta Calahorra (P.K. 4+928,39 - fin)						
	P.K. 11+896	1	20,00			20,00	
							20,00
SUBCAPÍTULO 05.02 ARQUETA ANTIINUNDACIÓN DN300							
APARTADO 05.02.01 OBRA CIVIL							
008	M2 DESPEJE Y DESBROCE						
	Despeje y desbroce de capa de tierra vegetal con un espesor medio de 50 cm, incluso corte de árboles, extracción de tocones, nivelación de zona adyacente para el paso de maquinaria, transporte a lugar de acopio independiente para posterior reposición de tierra vegetal tras las obras y despedregado de las parcelas, así como transporte a vertedero de tierras sobrantes.						
		1	7,40	4,00		29,60	
							29,60
002	M3 EXCAVACIÓN EN ZANJAS						
	Excavación en zanjas y zonas localizadas, en todo tipo de terrenos incluido terrenos en roca con medios mecánicos, incluso rasanteo, nivelación de la superficie de apoyo y transporte a lugar de empleo o vertedero.						
		1	7,40	4,00	3,00	88,80	
							88,80
010	M3 RELLENO ZANJAS, CIMIENTOS Y TRASDOSES DE MATERIAL SELECCIONADO						
	Relleno con material seleccionado en zanjas, cimientos, trasdós de muros, estribos y otras estructuras procedente de la excavación o préstamos incluso carga, transporte y compactación.						
		1	88,00			88,00	
		-1	5,50	3,30	0,50	-9,08	
		-1	5,10	2,90	2,25	-33,28	

MEDICIONES

ABASTECIMIENTO A VARIOS MUNICIPIOS DE LA RIOJA. SISTEMA CIDACOS

CÓDIGO	RESUMEN	UDS	LONGITUD	ANCHURA	ALTURA	PARCIALES	CANTIDAD
							45,64
028	M3 HORMIGÓN DE LIMPEZA HL-150 Hormigón de limpieza HL-150, de consistencia plástica, árido de tamaño máximo 40 mm y cemento CEM-II-D/42,5/SR, para saneos y enchachados, incluyendo fabricación y transporte totalmente colocado.	1	5,50	3,30	0,10	1,82	
							1,82
031	M3 HORMIGÓN HA-25/B/20/IIa Hormigón HA-25/B/20/IIa, con cemento CEM II/A-D/42,5/SR, incluyendo fabricación, transporte, puesta en obra y vibrado, totalmente ejecutado, incluso curado y juntas.						
	Solera	1	5,50	3,30	0,40	7,26	7,26
	Muros	2	5,10	0,25	2,40	6,12	
		2	2,40	0,25	2,40	2,88	9,00
	Tapa	1	5,10	2,90	0,25	3,70	
							19,96
023	KG ACERO CORRUGADO B-500-S Acero redondo corrugado para armar tipo B-500-S elaborado y colocado.						
	Solera doble parrilla de 150x150 y 12 mm	1	7,29	65,00		473,85	
	Muros doble parrilla de 150x150 y 10 mm	1	9,00	60,00		540,00	
	Tapa	1	3,70	65,00		240,50	
	Solapes y despuentes (5%)	0,05	1.254,35			62,72	
							1.317,07
025	M2 ENCOFRADO RECTO EN PARAMENTOS OCULTOS Encofrado recto en paramentos ocultos, incluso colocación, fijación y desencofrado.						
	Solera	2	5,50		0,40	4,40	4,40
		2	3,30		0,40	2,64	
							7,04
026	M2 ENCOFRADO RECTO EN PARAMENTOS VISTOS 1C Encofrado recto en paramentos vistos a una cara, incluso colocación, fijación y desencofrado.						
	Muros	4	5,10		2,40	48,96	
		4	2,90		2,40	27,84	76,80
							76,80
052	ML JUNTAS DE ESTANQUEIDAD DE PVC 32 CM Junta de trabajo interior de policloruro de vinilo (PVC) 100% virgen, con una fuerza máxima de dilatación > 250 % , de 32 cm de ancho, MASTERFLEX 2000 TI-24 de BASF o equivalente, colocada simétricamente en el eje de la losa o muro, incluso solapes y piezas especiales para cruces o ángulos. Medida la longitud ejecutada.						
		2	5,10			10,20	
		2	2,90			5,80	
							16,00
289	UD TAPA DE FUNDICIÓN DN600 Tapa de fundición normalizada DN600, incluyendo el marco, anclada, totalmente colocada.	2				2,00	
							2,00
290	UD PATE POLIPROPILENO Pate de polipropileno de dimensiones 30x25 cm, incluyendo fabricación, transporte a obra, perforación de anclajes y relleno con aportación de material de agarre, completamente colocado.	16				16,00	
							16,00

MEDICIONES

ABASTECIMIENTO A VARIOS MUNICIPIOS DE LA RIOJA. SISTEMA CIDACOS

CÓDIGO	RESUMEN	UDS	LONGITUD	ANCHURA	ALTURA	PARCIALES	CANTIDAD
ETI316150	ML TUBERÍA DE INOXIDABLE AISI 316L DN 150 Tubería de acero inoxidable de diámetro DN 150 mm. Construcción: Mediante soldadura. Espesor 2 mm. Material: Acero inoxidable AISI -316 L. Material accesorios acero inoxidable AISI - 316L. Acabado: Decapado. Incluso p.p. de uniones, piezas especiales, bridas, codos, tes, injertos para otras tuberías y p.p. de estructuras y elementos de anclajes a solera y/o muros. Montada y probada.	2	1,000			2,000	
	Ventilación						2,00
							2,00
APARTADO 05.02.02 VÁLVULAS Y ACCESORIOS							
271	UD VÁLVULA ANTIINUNDACIÓN DN 300 mm PN25 Válvula antiinundación DN-300 mm, bridas PN25, incluido montaje y carrete de desmontaje.	1				1,00	
							1,00
115.4	UD BRIDA ENCHUFE FD 500 mm PN16/25 Brida enchufe de fundición dúctil de PFA 16 bar para tubería de 500 mm, con un revestimiento interior y exterior epoxi, i/p.p. de junta de unión y medios auxiliares, totalmente colocada y probada.	2				2,00	
							2,00
229.2	UD VÁLVULA DE COMPUERTA MANUAL DN300 PN25 Válvula de compuerta de accionamiento manual de diámetro nominal DN=300 mm de 25 bares de presión máxima admisible, con tornillería y juntas, totalmente instalada y probada, incluso volante de accionamiento.	2				2,00	
							2,00
ECD0300.1	UD CARRETE DE DESMONTAJE DN=300 mm PN25 Carrete telescópico de desmontaje DN300 PN25, bridas de acero al carbono, virolas de acero inoxidable, protección epoxi, tornillos y tuercas en acero F-114, cincado y posterior baño de cromo-niquel, incluido p.p. de brida enchufe, totalmente instalado y probado en obra.	2				2,00	
							2,00
097	UD REDUCCIÓN FD 500 A 450/350 mm PN16/25 Reducción en fundición dúctil de 500 mm a 450-400-350 mm con dos bridas PN 16/25 bar, con un revestimiento interior y exterior epoxi, i/p.p. de junta de unión y medios auxiliares, totalmente colocada y probada.	2				2,00	
							2,00
133	UD TE FD BBB 500 mm PN16/25 SALIDA DN500/100 "T" de fundición dúctil de PFA 16/25 bar, con tres bridas para tubería de 500 mm con salida comprendida entre 400 y 100 mm, con un revestimiento interior y exterior epoxi, i/p.p. de junta de unión y medios auxiliares, totalmente colocada y probada.	1				1,00	
							1,00
244	UD VENTOSA DN=100 (4") mm PN25 Válvula ventosa de tres funciones de DN=100 mm y PN 25 bar incluido transporte, juntas, válvula de corte DN=100 mm y PN 25 bar y piezas especiales, totalmente colocada y probada.	1				1,00	
							1,00
162.1	UD MANGUITO FD DN300 A DN400 mm PN16/25 Manguito de fundición dúctil con bridas diámetros de 300 a 400 mm, longitud comprendida entre 0,20 y 1,00 m y PN16/25, incluso p.p. de tornillería y medios auxiliares, totalmente colocado y probado.	1				1,00	
							1,00

MEDICIONES

ABASTECIMIENTO A VARIOS MUNICIPIOS DE LA RIOJA. SISTEMA CIDACOS

CÓDIGO	RESUMEN	UDS	LONGITUD	ANCHURA	ALTURA	PARCIALES	CANTIDAD
CAPÍTULO 06 RAMAL DESDE ARQUETA P190 - ALFARO							
SUBCAPÍTULO 06.01 EJE 5: P-190 - DERIVACIÓN ALDEANUEVA DE EBRO							
APARTADO 06.01.01 MOVIMIENTO DE TIERRAS							
002	M3 EXCAVACIÓN EN ZANJAS						
	Excavación en zanjas y zonas localizadas, en todo tipo de terrenos incluido terrenos en roca con medios mecánicos, incluso rasanteo, nivelación de la superficie de apoyo y transporte a lugar de empleo o vertedero.						
	Según medición auxiliar	1	45.223,70				45.223,70
	A descontar con agotamiento	-1	23.120,20				-23.120,20
							22.103,50
003	M3 EXCAVACIÓN EN ZANJAS CON AGOTAMIENTO						
	Excavación en zanjas y zonas localizadas, en todo tipo de terrenos incluido terrenos en roca con medios mecánicos, incluso rasanteo, nivelación de la superficie de apoyo, agotamiento y transporte a lugar de empleo o vertedero.						
	Según medición auxiliar						
	P.K. 2+380 - 5+678,58	1	13.580,90				13.580,90
	P.K. 7+480 - 10+100	1	9.539,30				9.539,30
	Desagües	1	785,00	0,76	1,26		751,72
							23.871,92
008	M2 DESPEJE Y DESBROCE						
	Despeje y desbroce de capa de tierra vegetal con un espesor medio de 50 cm, incluso corte de árboles, extracción de tocones, nivelación de zona adyacente para el paso de maquinaria, transporte a lugar de acopio independiente para posterior reposición de tierra vegetal tras las obras y despedregado de las parcelas, así como transporte a vertedero de tierras sobrantes.						
	P.K. 0+162 - 0+208	1	46,00	3,00			138,00
	P.K. 0+229 - 0+270	1	41,00	3,00			123,00
	P.K. 0+277 - 0+462	1	185,00	3,00			555,00
	P.K. 0+467 - 1+475	1	1.008,00	3,00			3.024,00
	P.K. 4+170 - 4+176	1	6,00	3,00			18,00
	P.K. 4+182 - 4+275	1	93,00	3,00			279,00
	P.K. 4+290 - 4+480	1	190,00	3,00			570,00
	P.K. 4+495 - 4+708	1	213,00	3,00			639,00
	P.K. 5+420 - 5+460	1	40,00	3,00			120,00
	P.K. 7+164 - 7+270	1	106,00	3,00			318,00
	P.K. 10+479 - 10+662	1	183,00	3,00			549,00
	P.K. 13+008 - 13+030	1	22,00	3,00			66,00
							6.399,00
010	M3 RELLENO ZANJAS, CIMIENTOS Y TRASDOSES DE MATERIAL SELECCIONADO						
	Relleno con material seleccionado en zanjas, cimientos, trasdós de muros, estribos y otras estructuras procedente de la excavación o préstamos incluso carga, transporte y compactación.						
	Según medición auxiliar	1	29.411,50				29.411,50
	Desagües	1	785,00	0,76	0,90		536,94
							29.948,44
011	M3 RELLENO DE ARENA						
	Arena para apoyo y protección de tuberías incluso carga, transporte, colocación, compactación y nivelación.						
	Según medición auxiliar	1	12.807,90				12.807,90
	Desagües	1	785,00	0,76	0,36		214,78
							13.022,68
019	M2 DEMOLICIÓN DE FIRMES						
	Demolición de firmes de cualquier tipo, incluso precorte, carga y transporte a vertedero, posterior perfilado y compactación del terreno.						
	P.K. 4+150 - 4+170	1	20,00	3,00			60,00
	P.K. 5+460 - 5+678,58	1	218,58	3,00			655,74
	P.K. 5+839 - 6+030	1	191,00	3,00			573,00
							1.288,74

MEDICIONES

ABASTECIMIENTO A VARIOS MUNICIPIOS DE LA RIOJA. SISTEMA CIDACOS

CÓDIGO	RESUMEN	UDS	LONGITUD	ANCHURA	ALTURA	PARCIALES	CANTIDAD
007	M2 ENTIBACIÓN MÓDULOS METÁLICOS						
	Entibación a dos caras mediante módulos metálicos y articulados, en zonas de protección de zanja, medida la superficie efectiva.						
	P.K. 5+460 - 5+678,58	1	218,58	2,00			437,16
							437,16
030	M3 HORMIGÓN HNE-20/B/40						
	Hormigón HNE-20/B/40, con cemento CEM III/A-D/42,5/SR (UNE 80303:96), en masa o ligeramente armado, colocado en cualquier tipo de obra, incluso fabricación, carga y transporte, totalmente colocado.						
	P.K. 0+277 - 0+281	1	4,00	1,40	0,80		4,48
	P.K. 0+925 - 0+930	1	5,00	1,40	0,80		5,60
	P.K. 1+100 - 1+115	1	15,00	1,40	0,80		16,80
	P.K. 3+540 - 3+560	1	20,00	1,50	0,80		24,00
	P.K. 6+446 - 6+456	1	10,00	1,20	0,80		9,60
	P.K. 10+585 - 10+605	1	20,00	1,40	0,80		22,40
	P.K. 11+830 - 11+860	1	30,00	1,40	0,80		33,60
							116,48
APARTADO 06.01.02 OBRA CIVIL							
023	KG ACERO CORRUGADO B-500-S						
	Acero redondo corrugado para armar tipo B-500-S elaborado y colocado.						
	Anclaje codos	4	80,57				322,28
		22	112,32				2.471,04
		3	114,91				344,73
		4	126,68				506,72
		32	139,02				4.448,64
		5	148,92				744,60
		19	151,94				2.886,86
		9	155,33				1.397,97
		7	162,26				1.135,82
		6	172,55				1.035,30
		3	179,86				539,58
		3	197,95				593,85
		19	213,30				4.052,70
		27	233,39				6.301,53
		3	245,74				737,22
		3	254,39				763,17
		1	267,26				267,26
		1	271,75				271,75
		1	276,30				276,30
		2	303,42				606,84
		3	332,26				996,78
		2	361,97				723,94
		4	382,64				1.530,56
		4	398,85				1.595,40
		3	500,65				1.501,95
		1	594,92				594,92
		2	634,49				1.268,98
	A mayores	15	125,00				1.875,00
							39.791,69
030	M3 HORMIGÓN HNE-20/B/40						
	Hormigón HNE-20/B/40, con cemento CEM III/A-D/42,5/SR (UNE 80303:96), en masa o ligeramente armado, colocado en cualquier tipo de obra, incluso fabricación, carga y transporte, totalmente colocado.						
	Anclaje codos	4	1,09				4,36
		22	1,70				37,40
		3	1,85				5,55
		4	2,15				8,60
		32	2,48				79,36
		5	2,65				13,25

MEDICIONES

ABASTECIMIENTO A VARIOS MUNICIPIOS DE LA RIOJA. SISTEMA CIDACOS

CÓDIGO	RESUMEN	UDS	LONGITUD	ANCHURA	ALTURA	PARCIALES	CANTIDAD
	Arqueta entrada	1	2,20	1,60		3,52	
		9	2,90			26,10	
		7	3,03			21,21	
		6	3,37			20,22	
		3	3,50			10,50	
		3	4,22			12,66	
		19	4,73			89,87	
		27	5,38			145,26	
		3	5,88			17,64	
		3	6,08			18,24	
		1	6,62			6,62	
		1	6,73			6,73	
		1	6,83			6,83	
		2	8,05			16,10	
		3	9,09			27,27	
		2	10,55			21,10	
		4	11,48			45,92	
		4	11,94			47,76	
		3	17,20			51,60	
		1	21,96			21,96	
		2	24,55			49,10	
	A mayores	15	2,50			37,50	
	P.K. 4+146 - 4+182	1	6,00	3,00	0,20	3,60	
	P.K. 4+150 - 4+170	1	20,00	3,00	0,20	12,00	
	P.K. 5+839 - 6+030	1	191,00	3,00	0,20	114,60	
	P.K. 5+460 - 5+678,58	1	218,58	3,00	0,20	131,15	
							1.164,02
034.2	UD ARQUETA HORMIGÓN DE 3,00x2,50 M Y HASTA 2,50 m DE PROFUNDIDAD						
	Arqueta de hormigón armado HA-25/P/40/IIa para alojamiento de válvulas de tuberías de dimensiones interiores 3,0x2,5 m y una altura de hasta 2,50 m, con solera de 30 cm de canto, muros de 25 cm de espesor y tapa de 25 cm de canto, armado con parrilla de 20x20 cm con redondos de 12 mm, incluso excavación, relleno posterior, encofrado, totalmente terminada.						
	Tras derivación Autol	1				1,00	
	pk 3+020	1				1,00	
	pk 8+100	1				1,00	
	pk 10+860	1				1,00	
	Cruces carreteras	4				4,00	
							8,00
373	UD POZO DE REGISTRO DE AROS DE HORMIGÓN DN1200						
	Pozo de registro de abastecimiento para válvulas de control de cualquier altura de diámetro interior D=1200 mm, incluso base de hormigón HNE-20, aros de hormigón, cono prefabricado de hormigón, pates y tapa de fundición, totalmente terminado.						
	Ventosas	22				22,00	
	Desagües	11				11,00	
							33,00
	APARTADO 06.01.03 TUBERÍAS						
060	ML TUBERÍA FD 500 mm						
	Tubería de fundición dúctil de diámetro interior 500 mm y PFA de 38 bar, revestida interiormente con mortero de cemento y exteriormente con una capa de cinc y otra bituminosa, i/p.p. de junta automática flexible, banda de señalización y medios auxiliares, totalmente colocada y probada.	1	13.576,00			13.576,00	
							13.576,00
074R	UD CODO FD 1/4 500 mm						
	Codo de fundición dúctil de 1/8 de diámetro interior 500 mm y PFA 30 bar, con revestimiento interior y exterior epoxi, incluso p.p. de juntas y medios auxiliares, totalmente colocado y probado.	6				6,00	
							6,00

MEDICIONES

ABASTECIMIENTO A VARIOS MUNICIPIOS DE LA RIOJA. SISTEMA CIDACOS

CÓDIGO	RESUMEN	UDS	LONGITUD	ANCHURA	ALTURA	PARCIALES	CANTIDAD
074	UD CODO FD 1/8 500 mm						
	Codo de fundición dúctil de 1/8 de diámetro interior 500 mm y PFA 30 bar, con revestimiento interior y exterior epoxi, incluso p.p. de juntas y medios auxiliares, totalmente colocado y probado.	17				17,00	
							17,00
075	UD CODO FD 1/16 500 mm						
	Codo de fundición dúctil de 1/16 de diámetro interior 500 mm y PFA 30 bar, con revestimiento interior y exterior epoxi, incluso p.p. de juntas y medios auxiliares, totalmente colocado y probado.	64				64,00	
							64,00
076	UD CODO FD 1/32 500 mm						
	Codo de fundición dúctil de 1/32 de diámetro interior 500 mm y PFA 30 bar, con revestimiento interior y exterior epoxi, incluso p.p. de juntas y medios auxiliares, totalmente colocado y probado.	106				106,00	
	A mayores	15				15,00	
							121,00
197	ML TUBERÍA DE PVC 160 mm						
	Tubería de PVC con junta elástica de 160 mm de diámetro exterior, y PN=6 bar, incluso banda de señalización, totalmente colocada en zanja.						
	Desagües						
	P.K. 0+160	1	84,00			84,00	
	P.K. 0+920	1	5,00			5,00	
	P.K. 1+020	1	32,00			32,00	
	P.K. 1+475,46	1	25,00			25,00	
	P.K. 3+980	1	29,00			29,00	
	P.K. 4+740	1	60,00			60,00	
	P.K. 5+460	1	10,00			10,00	
	P.K. 6+446,259	1	100,00			100,00	
	P.K. 7+780	1	100,00			100,00	
	P.K. 8+090,475	1	340,00			340,00	
							785,00
	APARTADO 06.01.04 VÁLVULAS Y ACCESORIOS						
245.2	UD VENTOSA DN=80 (3") mm PN16						
	Válvula ventosa de tres funciones de DN=80 mm (3") y PN 16 bar incluido transporte, juntas, válvula de corte DN=80 mm y PN 16y piezas especiales, totalmente colocada y probada.						
	P.K. 0+460	1				1,00	
	P.K. 0+980	1				1,00	
	P.K. 1+120	1				1,00	
	P.K. 1+536,994	1				1,00	
	P.K. 2+264,409	1				1,00	
	P.K. 3+020	1				1,00	
	P.K. 3+860	1				1,00	
	P.K. 4+039,254	1				1,00	
	P.K. 5+740	1				1,00	
	P.K. 6+260	1				1,00	
	P.K. 6+760	1				1,00	
	P.K. 7+296,197	1				1,00	
	P.K. 8+001,977	1				1,00	
	P.K. 8+640	1				1,00	
	P.K. 9+140	1				1,00	
	P.K. 10+003,005	1				1,00	
							16,00
245.5	UD VENTOSA DN=80 (3") mm PN25						
	Válvula ventosa de tres funciones de DN=80 mm (3") y PN 25 bar incluido transporte, juntas, válvula de corte DN=80 mm y PN 25 y piezas especiales, totalmente colocada y probada.						
	P.K. 4+906,049	1				1,00	
	P.K. 5+420	1				1,00	

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ABASTECIMIENTO A VARIOS MUNICIPIOS DE LA RIOJA. SISTEMA CIDACOS

CÓDIGO	RESUMEN	UDS	LONGITUD	ANCHURA	ALTURA	PARCIALES	CANTIDAD
	Arqueta entrada	1	2,20	1,60		3,52	
	P.K. 11+580	1				1,00	
	P.K. 11+920	1				1,00	
	P.K. 12+780	1				1,00	
							6,00
119	UD TE FD 500 mm PN25						
	"T" de fundición dúctil de PFA 25 bar, con dos enchufes y derivación con brida para tubería de 500 mm con salida comprendida entre 500 y 100 mm, con un revestimiento interior y exterior epoxi, i/p.p. de junta de unión y medios auxiliares, totalmente colocada y probada.						
	Ventosas						
	P.K. 0+460	1				1,00	
	P.K. 0+980	1				1,00	
	P.K. 1+120	1				1,00	
	P.K. 1+536,994	1				1,00	
	P.K. 2+264,409	1				1,00	
	P.K. 3+020	1				1,00	
	P.K. 3+860	1				1,00	
	P.K. 4+039,254	1				1,00	
	P.K. 5+740	1				1,00	
	P.K. 6+260	1				1,00	
	P.K. 6+760	1				1,00	
	P.K. 7+296,197	1				1,00	
	P.K. 8+001,977	1				1,00	
	P.K. 8+640	1				1,00	
	P.K. 9+140	1				1,00	
	P.K. 10+003,005	1				1,00	
	P.K. 4+906,049	1				1,00	
	P.K. 5+420	1				1,00	
	P.K. 10+780	1				1,00	
	P.K. 11+580	1				1,00	
	P.K. 11+920	1				1,00	
	P.K. 12+780	1				1,00	
	Desagües	11				11,00	
							33,00
114	UD REDUCCIÓN FD 100 A 80/50 mm PN16/25						
	Reducción en fundición dúctil de 100 mm a 80-65-60-50 mm con dos bridas PN 16/25 bar, con un revestimiento interior y exterior epoxi, i/p.p. de tornillería y medios auxiliares, totalmente colocada y probada.						
	Ventosas						
	P.K. 0+460	1				1,00	
	P.K. 0+980	1				1,00	
	P.K. 1+120	1				1,00	
	P.K. 1+536,994	1				1,00	
	P.K. 2+264,409	1				1,00	
	P.K. 3+020	1				1,00	
	P.K. 3+860	1				1,00	
	P.K. 4+039,254	1				1,00	
	P.K. 5+740	1				1,00	
	P.K. 6+260	1				1,00	
	P.K. 6+760	1				1,00	
	P.K. 7+296,197	1				1,00	
	P.K. 8+001,977	1				1,00	
	P.K. 8+640	1				1,00	
	P.K. 9+140	1				1,00	
	P.K. 10+003,005	1				1,00	
							16,00
113	UD REDUCCIÓN FD 100 A 80/50 mm PN25						
	Reducción en fundición dúctil de 100 mm a 80-65-60-50 mm con dos bridas PN 25 bar, con un revestimiento interior y exterior epoxi, i/p.p. de tornillería y medios auxiliares, totalmente colocada y probada.						

MEDICIONES

ABASTECIMIENTO A VARIOS MUNICIPIOS DE LA RIOJA. SISTEMA CIDACOS

CÓDIGO	RESUMEN	UDS	LONGITUD	ANCHURA	ALTURA	PARCIALES	CANTIDAD
	Arqueta entrada	1	2,20	1,60		3,52	
	P.K. 4+906,049	1				1,00	
	P.K. 5+420	1				1,00	
	P.K. 10+780	1				1,00	
	P.K. 11+580	1				1,00	
	P.K. 11+920	1				1,00	
	P.K. 12+780	1				1,00	
							6,00
235	UD VÁLVULA DE COMPUERTA MANUAL DN150 PN16						
	Válvula de compuerta de accionamiento manual de diámetro nominal DN=150 mm de 16 bares de presión máxima admisible, con tornillería y juntas, totalmente instalada y probada, incluso volante de accionamiento.						
	Desagües						
	P.K. 0+160	1				1,00	
	P.K. 0+920	1				1,00	
	P.K. 1+020	1				1,00	
	P.K. 1+475,462	1				1,00	
	P.K. 3+660	1				1,00	
	P.K. 3+980	1				1,00	
	P.K. 6+446,259	1				1,00	
	P.K. 7+780	1				1,00	
	P.K. 8+090,475	1				1,00	
							9,00
234	UD VÁLVULA DE COMPUERTA MANUAL DN150 PN25						
	Válvula de compuerta de cierre elástico de 150 mm. de diámetro nominal y 25 At. de P.N., de accionamiento manual por volante, de cuerpo de fundición nodular GGG-50, con eje de acero inoxidable al 13 % Cr. con roscas conformadas por laminación en frío, cierre en fundición nodular, tornillería de acero inoxidable, protegida contra la corrosión mediante aplicación de doble capa de pintura epoxy, totalmente colocada y probada. Resto de características según ET.						
	Desagües						
	P.K. 4+740	1				1,00	
	P.K. 5+460	1				1,00	
							2,00
109A	UD RACORD TIPO BARCELONA SALIDAS 80-200 mm						
	Rosca Racord tipo Barcelona con salidad entre 80 y 200 mm para enchufe de manguera, totalmente instalado y terminado.						
	Desagües						
	P.K. 3+020	2				2,00	
	P.K. 3+660	1				1,00	
	P.K. 4+740	1				1,00	
	P.K. 7+780	1				1,00	
	P.K. 8+090,475	1				1,00	
							6,00
EVMM0500	UD VÁLVULA DE MARIPOSA DOBLE EXCENRICIDAD DN 500 mm PN16 MANUAL						
	Válvula de mariposa de doble excentricidad de 500 mm de diámetro y PN16, de accionamiento manual por reductor, incluso mecanismo de accionamiento, maniobra y control, transporte, montaje, juntas, tornillería y pintura totalmente instalada y probada. Resto de características según ET de proyecto.						
	Compuerta tras derivación Autol	1				1,00	
	pk 3+020	1				1,00	
	pk 8+100	1				1,00	
	pk 10+860	1				1,00	
	Cruces carreteras	4				4,00	
							8,00
ECD0500	UD CARRETE DE DESMONTAJE DN=500 mm PN16						
	Carrete telescópico de desmontaje DN500 PN 16, bridas de acero al carbono, virolas de acero inoxidable, protección epoxi, tornillos y tuercas en acero F-114, cincado y posterior baño de cromo-niquel, incluido p.p. de brida enchufe, totalmente instalado y probado en obra.						

MEDICIONES

ABASTECIMIENTO A VARIOS MUNICIPIOS DE LA RIOJA. SISTEMA CIDACOS

CÓDIGO	RESUMEN	UDS	LONGITUD	ANCHURA	ALTURA	PARCIALES	CANTIDAD
	Arqueta entrada	1	2,20	1,60		3,52	
	pk 3+020	1				1,00	
	pk 8+100	1				1,00	
	pk 10+860	1				1,00	
	Cruces carreteras	4				4,00	
							8,00
115.4	UD BRIDA ENCHUFE FD 500 mm PN16/25						
	Brida enchufe de fundición dúctil de PFA 16 bar para tubería de 500 mm, con un revestimiento interior y exterior epoxi, i/p.p. de junta de unión y medios auxiliares, totalmente colocada y probada.						
	Compuerta tras derivación Autol	1				1,00	
	pk 3+020	1				1,00	
	pk 8+100	1				1,00	
	pk 10+860	1				1,00	
							4,00
114.2	UD BRIDA LISO FD 500 mm PN16/25						
	Brida lisa de fundición dúctil de PFA 16 bar para tubería de 500 mm, con un revestimiento interior y exterior epoxi, i/p.p. de junta de unión y medios auxiliares, totalmente colocada y probada.						
	Compuerta tras derivación Autol	1				1,00	
	pk 3+020	1				1,00	
	pk 8+100	1				1,00	
	pk 10+860	1				1,00	
							4,00
	APARTADO 06.01.05 HINCAS						
369	ML HINCA TUBO ACERO 813 mm TIERRAS						
	Hinca de tubo de acero, de 813 mm de diámetro interior, bajo viales, en tierra o roca alterada, incluso p.p. de instalación de tubería de fundición dúctil de 500 mm de diámetro interior y sus anclajes y apoyos; muros de reacción y contención; y todos los elementos necesarios para su montaje y desmontaje.						
	P.K. 4+275 - 4+290	1	15,00			15,00	
	P.K. 13+030 - 13+045,47	1	15,47			15,47	
							30,47
	APARTADO 06.01.06 OBRAS ACCESORIAS Y REPOSICIONES DE SERVICIOS						
030	M3 HORMIGÓN HNE-20/B/40						
	Hormigón HNE-20/B/40, con cemento CEM III/A-D/42,5/SR (UNE 80303:96), en masa o ligeramente armado, colocado en cualquier tipo de obra, incluso fabricación, carga y transporte, totalmente colocado.						
	Protección tubería gas						
	P.K. 4+226	1	5,00	1,96	0,20	1,96	
	P.K. 4+790	1	5,00	1,96	0,20	1,96	
	P.K. 5+690	1	5,00	1,20	0,20	1,20	
	P.K. 13+010	1	5,00	1,50	0,20	1,50	
							6,62
055	M2 PAVIMENTO DOBLE TRATAMIENTO SUPERFICIAL						
	Pavimento doble tratamiento superficial formado por árido 13/7 y 6/3, y ligante emulsión C60B3 ADH con dotación 4 kg/m2, incluso riego de imprimación previo con ligante emulsión C60BF4 IMP en dotación 1 kg/m2, puesto en obra y terminado.						
	P.K. 4+146 - 4+182	1	6,00	3,00		18,00	
							18,00
389	ML REPOSICIÓN DE ACEQUIA						
	Reposición de acequia con tubo de hormigón hasta 1 m de diámetro.						
	P.K. 2+480	1	5,00			5,00	
	P.K. 4+480	1	5,00			5,00	
	P.K. 4+800	1	5,00			5,00	
	P.K. 5+270	1	5,00			5,00	
							20,00

MEDICIONES

ABASTECIMIENTO A VARIOS MUNICIPIOS DE LA RIOJA. SISTEMA CIDACOS

CÓDIGO	RESUMEN	UDS	LONGITUD	ANCHURA	ALTURA	PARCIALES	CANTIDAD
381	M2 REPOSICIÓN DE FIRME DE AGLOMERADO						
	Reposición de firme de aglomerado en caliente en zonas afectadas por las obras.						
	P.K. 4+150 - 4+170	1	20,00	3,00		60,00	
	P.K. 5+839 - 6+030	1	191,00	3,00		573,00	
							633,00
380	M2 REPOSICIÓN DE PAVIMENTO DE HORMIGÓN						
	Reposición de pavimento de hormigón HM-20/B/40/IIa+Qa de 15 cm de espesor, totalmente terminado.						
	P.K. 5+460 - 5+678,58	1	218,58	3,00		655,74	
							655,74
056	M3 ZAHORRA ARTIFICIAL						
	Zahorra artificial compactada.						
	P.K. 0+000 - 0+162	1	162,00	3,00	0,20	97,20	
	P.K. 0+208 - 0+229	1	21,00	3,00	0,20	12,60	
	P.K. 0+270 - 0+277	1	7,00	3,00	0,20	4,20	
	P.K. 0+462 - 0+467	1	5,00	3,00	0,20	3,00	
	P.K. 1+475 - 4+150	1	2.675,00	3,00	0,20	1.605,00	
	P.K. 4+480 - 4+495	1	15,00	3,00	0,20	9,00	
	P.K. 4+708 - 5+420	1	712,00	3,00	0,20	427,20	
	P.K. 5+678,58 - 5+839	1	160,42	3,00	0,20	96,25	
	P.K. 6+030 - 7+164	1	1.134,00	3,00	0,20	680,40	
	P.K. 7+270 - 10+479	1	3.209,00	3,00	0,20	1.925,40	
	P.K. 10+662 - 11+010	1	348,00	3,00	0,20	208,80	
	P.K. 11+245 - 13+008	1	1.763,00	3,00	0,20	1.057,80	
	P.K. 13+045,47 - FIN	1	530,34	3,00	0,20	318,20	
							6.445,05
383	ML REPOSICIÓN DE CERRAMIENTO EXISTENTE						
	Reposición de cerramiento existente hasta 2,00 m de altura.						
	P.K. 0+020	1	9,00			9,00	
	P.K. 0+140	1	5,00			5,00	
							14,00
382	ML REPOSICIÓN DE MURO DE HORMIGÓN EXISTENTE						
	Reposición de muro de hormigón existente hasta 2,00 m de altura.						
	P.K. 0+200	1	5,00			5,00	
	P.K. 0+211	1	5,00			5,00	
							10,00
391	ML REPOSICIÓN DE POZO DE REGISTRO						
	Reposición de pozo de registro para saneamiento o abastecimiento, incluso base de hormigón HM-20, p.p. de cono prefabricado de hormigón y tapa, totalmente terminado.						
	P.K. 5+280	1				1,00	
	P.K. 6+100	1				1,00	
							2,00
387	ML REPOSICIÓN OBRA DE DRENAJE HASTA DN 1,00 m						
	Reposición de obra de drenaje hasta 1,00 de diámetro, p.p. de boquilla de entrada y salida, excavación, hormigón de recubrimiento y relleno compactado, totalmente terminada.						
	P.K. 7+350	1	5,00			5,00	
							5,00
393	ML CANALIZACIÓN TELEFÓNICA FIBRA ÓPTICA						
	Canalización telefónica en zanja bajo calzada, para reposición de cable de fibra óptica de 12 a 16 fibras, incluso p.p. de arquetas y caja de empalmes, totalmente terminado.						
	P.K. 13+010	2	20,00			40,00	
							40,00

MEDICIONES

ABASTECIMIENTO A VARIOS MUNICIPIOS DE LA RIOJA. SISTEMA CIDACOS

CÓDIGO	RESUMEN	UDS	LONGITUD	ANCHURA	ALTURA	PARCIALES	CANTIDAD
SUBCAPÍTULO 06.02 EJE 6: DERIVACIÓN ALDEANUEVA DE EBRO - DEPÓSITO DE ALFARO							
APARTADO 06.02.01 MOVIMIENTO DE TIERRAS							
002	M3 EXCAVACIÓN EN ZANJAS Excavación en zanjas y zonas localizadas, en todo tipo de terrenos incluido terrenos en roca con medios mecánicos, incluso rasanteo, nivelación de la superficie de apoyo y transporte a lugar de empleo o vertedero. Según medición auxiliar P.K. 10+180 - 12+200 P.K. 18+000 - FIN	1	5.650,00			5.650,00	
		1	2.982,30			2.982,30	
							8.632,30
003	M3 EXCAVACIÓN EN ZANJAS CON AGOTAMIENTO Excavación en zanjas y zonas localizadas, en todo tipo de terrenos incluido terrenos en roca con medios mecánicos, incluso rasanteo, nivelación de la superficie de apoyo, agotamiento y transporte a lugar de empleo o vertedero. Según medición auxiliar A descontar sin agotamiento Desagües	1	54.408,60			54.408,60	
		-1	8.632,30			-8.632,30	
		1	1.150,00	0,76	1,26	1.101,24	
							46.877,54
008	M2 DESPEJE Y DESBROCE Despeje y desbroce de capa de tierra vegetal con un espesor medio de 50 cm, incluso corte de árboles, extracción de tocones, nivelación de zona adyacente para el paso de maquinaria, transporte a lugar de acopio independiente para posterior reposición de tierra vegetal tras las obras y despedregado de las parcelas, así como transporte a vertedero de tierras sobrantes. P.K. 1+132 - 1+160 P.K. 1+168 - 1+946 P.K. 2+064 - 2+590 P.K. 2+596 - 2+848 P.K. 2+928 - 2+951 P.K. 2+957 - 3+360 P.K. 3+367 - 3+878 P.K. 3+955 - 4+394 P.K. 7+760 - 8+188 P.K. 8+275 - 8+518 P.K. 9+332 - 9+430 P.K. 9+982 - 10+120 P.K. 11+513 - 11+744 P.K. 12+234 - 12+385 P.K. 14+286 - 14+517 P.K. 14+894 - 15+056 P.K. 15+110 - 15+320 P.K. 15+340 - 15+712 P.K. 15+964 - 16+002 P.K. 16+210 - 16+716 P.K. 16+728 - 16+950 P.K. 16+972 - 17+122 P.K. 17+129 - 17+200 P.K. 17+217 - 17+227,19 P.K. 17+316 - 17+588 P.K. 18+133 - 18+280 P.K. 18+731 - 18+742 P.K. 19+229 - 19+312 P.K. 19+391 - FIN	1	28,00	3,00		84,00	
		1	778,00	3,00		2.334,00	
		1	526,00	3,00		1.578,00	
		1	252,00	3,00		756,00	
		1	23,00	3,00		69,00	
		1	403,00	3,00		1.209,00	
		1	511,00	3,00		1.533,00	
		1	439,00	3,00		1.317,00	
		1	428,00	3,00		1.284,00	
		1	243,00	3,00		729,00	
		1	98,00	3,00		294,00	
		1	138,00	3,00		414,00	
		1	231,00	3,00		693,00	
		1	151,00	3,00		453,00	
		1	231,00	3,00		693,00	
		1	162,00	3,00		486,00	
		1	210,00	3,00		630,00	
		1	372,00	3,00		1.116,00	
		1	38,00	3,00		114,00	
		1	506,00	3,00		1.518,00	
		1	222,00	3,00		666,00	
		1	150,00	3,00		450,00	
		1	71,00	3,00		213,00	
		1	10,19	3,00		30,57	
		1	272,00	3,00		816,00	
		1	147,00	3,00		441,00	
		1	11,00	3,00		33,00	
		1	83,00	3,00		249,00	
		1	13,96	3,00		41,88	
							20.244,45
010	M3 RELLENO ZANJAS, CIMIENTOS Y TRASDOSES DE MATERIAL SELECCIONADO Relleno con material seleccionado en zanjas, cimientos, trasdós de muros, estribos y otras estructuras procedente de la excavación o préstamos incluso carga, transporte y compactación. Según medición auxiliar Desagües	1	37.196,40			37.196,40	
		1	1.150,00	0,76	0,90	786,60	
							37.983,00

MEDICIONES

ABASTECIMIENTO A VARIOS MUNICIPIOS DE LA RIOJA. SISTEMA CIDACOS

CÓDIGO	RESUMEN	UDS	LONGITUD	ANCHURA	ALTURA	PARCIALES	CANTIDAD
011	M3 RELLENO DE ARENA Arena para apoyo y protección de tuberías incluso carga, transporte, colocación, compactación y nivelación. Según medición auxiliar Desagües	1	14.458,40			14.458,40	
		1	1.150,00	0,76	0,36	314,64	
							14.773,04
019	M2 DEMOLICIÓN DE FIRMES Demolición de firmes de cualquier tipo, incluso precorte, carga y transporte a vertedero, posterior perfilado y compactación del terreno. P.K. 2+036 - 2+064 P.K. 2+911 - 2+928 P.K. 2+951 - 2+957 P.K. 7+450 - 7+678 P.K. 7+678 - 7+735 P.K. 16+716 - 16+728 P.K. 17+200 - 17+217 P.K. 18+280 - 18+300 P.K. 18+318,47 - 18+460	1	28,00	3,00		84,00	
		1	17,00	3,00		51,00	
		1	6,00	3,00		18,00	
		1	228,00	3,00		684,00	
		1	57,00	3,00		171,00	
		1	12,00	3,00		36,00	
		1	17,00	3,00		51,00	
		1	20,00	3,00		60,00	
		1	141,53	3,00		424,59	
							1.579,59
030	M3 HORMIGÓN HNE-20/B/40 Hormigón HNE-20/B/40, con cemento CEM III/A-D/42,5/SR (UNE 80303:96), en masa o ligeramente armado, colocado en cualquier tipo de obra, incluso fabricación, carga y transporte, totalmente colocado. P.K. 11+990 - 12+015 P.K. 12+370 - 12+385 P.K. 13+025 - 13+035 P.K. 14+018 - 14+028 P.K. 16+210 - 16+247	1	15,00	1,20	0,70	12,60	
		1	15,00	1,40	0,70	14,70	
		1	10,00	1,30	0,70	9,10	
		1	10,00	1,30	0,70	9,10	
		1	37,00	1,30	0,70	33,67	
							79,17
APARTADO 06.02.02 OBRA CIVIL							
023	KG ACERO CORRUGADO B-500-S Acero redondo corrugado para armar tipo B-500-S elaborado y colocado. Anclaje codos A mayores	5	73,12			365,60	
		2	82,56			165,12	
		65	103,17			6.706,05	
		23	114,33			2.629,59	
		15	126,07			1.891,05	
		27	158,08			4.268,16	
		32	175,45			5.614,40	
		2	182,43			364,86	
		8	201,05			1.608,40	
		14	244,89			3.428,46	
		11	270,85			2.979,35	
		2	316,92			633,84	
		3	371,38			1.114,14	
		4	475,78			1.903,12	
		12	150,00			1.800,00	
							35.472,14
030	M3 HORMIGÓN HNE-20/B/40 Hormigón HNE-20/B/40, con cemento CEM III/A-D/42,5/SR (UNE 80303:96), en masa o ligeramente armado, colocado en cualquier tipo de obra, incluso fabricación, carga y transporte, totalmente colocado. Anclaje codos	5	0,93			4,65	
		2	1,12			2,24	
		65	1,58			102,70	
		23	1,85			42,55	
		15	2,15			32,25	
		27	2,96			79,92	

MEDICIONES

ABASTECIMIENTO A VARIOS MUNICIPIOS DE LA RIOJA. SISTEMA CIDACOS

CÓDIGO	RESUMEN	UDS	LONGITUD	ANCHURA	ALTURA	PARCIALES	CANTIDAD
	Arqueta entrada	1	2,20	1,60		3,52	
		2	3,74			7,48	
		8	4,30			34,40	
		14	5,88			82,32	
		11	6,73			74,03	
		2	8,41			16,82	
		3	10,84			32,52	
		4	15,97			63,88	
	A mayores	12	2,50			30,00	
	P.K. 7+450 - 7+678	1	228,00	3,00	0,20	136,80	
	P.K. 18+318,47 - 18+460	1	141,53	3,00	0,20	84,92	
	P.K. 2+036 - 2+064	1	28,00	3,00	0,20	16,80	
	P.K. 2+911 - 2+928	1	17,00	3,00	0,20	10,20	
	P.K. 2+951 - 2+957	1	6,00	3,00	0,20	3,60	
	P.K. 7+678 - 7+735	1	57,00	3,00	0,20	34,20	
	P.K. 16+716 - 16+728	1	12,00	3,00	0,20	7,20	
	P.K. 17+200 - 17+217	1	17,00	3,00	0,20	10,20	
	P.K. 18+280 - 18+300	1	20,00	3,00	0,20	12,00	
							1.031,76
034.2	UD ARQUETA HORMIGÓN DE 3,00x2,50 M Y HASTA 2,50 m DE PROFUNDIDAD						
	Arqueta de hormigón armado HA-25/P/40/11a para alojamiento de válvulas de tuberías de dimensiones interiores 3,0x2,5 m y una altura de hasta 2,50 m, con solera de 30 cm de canto, muros de 25 cm de espesor y tapa de 25 cm de canto, armado con parrilla de 20x20 cm con redondos de 12 mm, incluso excavación, relleno posterior, encofrado, totalmente terminada.						
	pk 2+600	1				1,00	
	pk 8+300	1				1,00	
	pk 12+000	1				1,00	
	pk 16.240	1				1,00	
	Tras derivación Aldeanueva	1				1,00	
	Cruce autopista	2				2,00	
	Cruce LR-285	2				2,00	
							9,00
373	UD POZO DE REGISTRO DE AROS DE HORMIGÓN DN1200						
	Pozo de registro de abastecimiento para válvulas de control de cualquier altura de diámetro interior D=1200 mm, incluso base de hormigón HNE-20, aros de hormigón, con prefabricado de hormigón, pates y tapa de fundición, totalmente terminado.						
	Ventosas	32				32,00	
	Desagües	23				23,00	
							55,00
061	ML TUBERÍA FD 400 mm						
	Tubería de fundición dúctil de diámetro interior 400 mm y PFA de 42 bar, revestida interiormente con mortero de cemento y exteriormente con una capa de cinc y otra bituminosa, i/p.p. de junta automática flexible, banda de señalización y medios auxiliares, totalmente colocada y probada.	1	19.405,00			19.405,00	
							19.405,00
077	UD CODO FD 1/8 400 mm						
	Codo de fundición dúctil de 1/8 de diámetro interior 400 mm y PFA 30 bar, con revestimiento interior y exterior epoxi, incluso p.p. de juntas y medios auxiliares, totalmente colocado y probado.	29				29,00	
							29,00
078	UD CODO FD 1/16 A 1/32 400 mm						
	Codo de fundición dúctil de 1/16 a 1/32 de diámetro interior 400 mm y PFA 30 bar, con revestimiento interior y exterior epoxi, incluso p.p. de juntas y medios auxiliares, totalmente colocado y probado.	177				177,00	
	A mayores	12				12,00	
							189,00

MEDICIONES

ABASTECIMIENTO A VARIOS MUNICIPIOS DE LA RIOJA. SISTEMA CIDACOS

CÓDIGO	RESUMEN	UDS	LONGITUD	ANCHURA	ALTURA	PARCIALES	CANTIDAD
079	UD CODO FD 1/4 400 mm						
	Codo de fundición dúctil de 1/4 de diámetro interior 400 mm y PFA 30 bar, con revestimiento interior y exterior epoxi, incluso p.p. de juntas y medios auxiliares, totalmente colocado y probado.	7				7,00	
							7,00
197	ML TUBERÍA DE PVC 160 mm						
	Tubería de PVC con junta elástica de 160 mm de diámetro exterior, y PN=6 bar, incluso banda de señalización, totalmente colocada en zanja.						
	Desagües						
	P.K. 3+972	1	306,00			306,00	
	P.K. 5+920	1	148,00			148,00	
	P.K. 6+440	1	32,00			32,00	
	P.K. 8+300	1	321,00			321,00	
	P.K. 9+180	1	42,00			42,00	
	P.K. 9+460	1	98,00			98,00	
	P.K. 10+160	1	123,00			123,00	
	P.K. 10+364,838	1	40,00			40,00	
	P.K. 12+000	1	5,00			5,00	
	P.K. 16+240	1	5,00			5,00	
	P.K. 17+000	1	30,00			30,00	
							1.150,00
245.4	UD VENTOSA DN=50 (2") mm PN16						
	Válvula ventosa de tres funciones de DN=50 mm (2") y PN 16 bar incluido transporte, juntas, válvula de corte DN=50 mm y PN 16 y piezas especiales, totalmente colocada y probada.						
	P.K. 5+060	1				1,00	
	P.K. 5+727,335	1				1,00	
	P.K. 6+163,076	1				1,00	
	P.K. 7+073,850	1				1,00	
	P.K. 7+860	1				1,00	
	P.K. 7+981,431	1				1,00	
	P.K. 8+920	1				1,00	
	P.K. 9+260	1				1,00	
	P.K. 9+700	1				1,00	
	P.K. 10+240	1				1,00	
	P.K. 10+460	1				1,00	
	P.K. 11+492,210	1				1,00	
	P.K. 13+464,773	1				1,00	
	P.K. 13+905,898	1				1,00	
	P.K. 14+360	1				1,00	
	P.K. 16+820	1				1,00	
	P.K. 16+980	1				1,00	
	P.K. 17+600	1				1,00	
	P.K. 18+420	1				1,00	
	P.K. 18+769	1				1,00	
							20,00
245.3	UD VENTOSA DN=50 (2") mm PN25						
	Válvula ventosa de tres funciones de DN=50 mm (2") y PN 25 bar incluido transporte, juntas, válvula de corte DN=50 mm y PN 25 y piezas especiales, totalmente colocada y probada.						
	P.K. 0+769,664	1				1,00	
	P.K. 1+260	1				1,00	
	P.K. 2+007,834	1				1,00	
	P.K. 2+380	1				1,00	
	P.K. 2+900	1				1,00	
	P.K. 3+680	1				1,00	
	P.K. 4+229,376	1				1,00	
	P.K. 12+520	1				1,00	
	P.K. 14+873,916	1				1,00	
	P.K. 15+332,824	1				1,00	

MEDICIONES

ABASTECIMIENTO A VARIOS MUNICIPIOS DE LA RIOJA. SISTEMA CIDACOS

CÓDIGO	RESUMEN	UDS	LONGITUD	ANCHURA	ALTURA	PARCIALES	CANTIDAD
	Arqueta entrada	1	2,20	1,60		3,52	
	P.K. 16+027,705	1				1,00	
							12,00
121	UD TE FD EEB 400 mm PN16/25 SALIDA DN400/80						
	"T" de fundición dúctil de PFA 16/25 bar, con dos enchufes y derivación con brida para tubería de 400 mm con salida comprendida entre 400 y 80 mm, con un revestimiento interior y exterior epoxi, i/p.p. de junta de unión y medios auxiliares, totalmente colocada y probada.						
	Ventosas						
	P.K. 5+060	1				1,00	
	P.K. 5+727,335	1				1,00	
	P.K. 6+163,076	1				1,00	
	P.K. 7+073,850	1				1,00	
	P.K. 7+860	1				1,00	
	P.K. 7+981,431	1				1,00	
	P.K. 8+920	1				1,00	
	P.K. 9+260	1				1,00	
	P.K. 9+700	1				1,00	
	P.K. 10+240	1				1,00	
	P.K. 10+460	1				1,00	
	P.K. 11+492,210	1				1,00	
	P.K. 13+464,773	1				1,00	
	P.K. 13+905,898	1				1,00	
	P.K. 14+360	1				1,00	
	P.K. 16+820	1				1,00	
	P.K. 16+980	1				1,00	
	P.K. 17+600	1				1,00	
	P.K. 18+420	1				1,00	
	P.K. 18+769	1				1,00	
	P.K. 0+769,664	1				1,00	
	P.K. 1+260	1				1,00	
	P.K. 2+007,834	1				1,00	
	P.K. 2+380	1				1,00	
	P.K. 2+900	1				1,00	
	P.K. 3+680	1				1,00	
	P.K. 4+229.376	1				1,00	
	P.K. 12+520	1				1,00	
	P.K. 14+873,916	1				1,00	
	P.K. 15+332,824	1				1,00	
	P.K. 15+816,124	1				1,00	
	P.K. 16+027,705	1				1,00	
	Desagües	23				23,00	
							55,00
114	UD REDUCCIÓN FD 100 A 80/50 mm PN16/25						
	Reducción en fundición dúctil de 100 mm a 80-65-60-50 mm con dos bridas PN 16/25 bar, con un revestimiento interior y exterior epoxi, i/p.p. de tomillería y medios auxiliares, totalmente colocada y probada.						
	Ventosas						
	P.K. 5+060	1				1,00	
	P.K. 5+727,335	1				1,00	
	P.K. 6+163,076	1				1,00	
	P.K. 7+073,850	1				1,00	
	P.K. 7+860	1				1,00	
	P.K. 7+981,431	1				1,00	
	P.K. 8+920	1				1,00	
	P.K. 9+260	1				1,00	
	P.K. 9+700	1				1,00	
	P.K. 10+240	1				1,00	
	P.K. 10+460	1				1,00	
	P.K. 11+492,210	1				1,00	
	P.K. 13+464,773	1				1,00	

MEDICIONES

ABASTECIMIENTO A VARIOS MUNICIPIOS DE LA RIOJA. SISTEMA CIDACOS

CÓDIGO	RESUMEN	UDS	LONGITUD	ANCHURA	ALTURA	PARCIALES	CANTIDAD
	Arqueta entrada	1	2,20	1,60		3,52	
	P.K. 14+360	1				1,00	
	P.K. 16+820	1				1,00	
	P.K. 16+980	1				1,00	
	P.K. 17+600	1				1,00	
	P.K. 18+420	1				1,00	
	P.K. 18+769	1				1,00	
							20,00
113	UD REDUCCIÓN FD 100 A 80/50 mm PN25						
	Reducción en fundición dúctil de 100 mm a 80-65-60-50 mm con dos bridas PN 25 bar, con un revestimiento interior y exterior epoxi, i/p.p. de tomillería y medios auxiliares, totalmente colocada y probada.						
	Ventosas						
	P.K. 0+769,664	1				1,00	
	P.K. 1+260	1				1,00	
	P.K. 2+007,834	1				1,00	
	P.K. 2+380	1				1,00	
	P.K. 2+900	1				1,00	
	P.K. 3+680	1				1,00	
	P.K. 4+229.376	1				1,00	
	P.K. 12+520	1				1,00	
	P.K. 14+873,916	1				1,00	
	P.K. 15+332,824	1				1,00	
	P.K. 15+816,124	1				1,00	
	P.K. 16+027,705	1				1,00	
							12,00
235	UD VÁLVULA DE COMPUERTA MANUAL DN150 PN16						
	Válvula de compuerta de accionamiento manual de diámetro nominal DN=150 mm de 16 bares de presión máxima admisible, con tomillería y juntas, totalmente instalada y probada, incluso volante de accionamiento.						
	Desagües						
	P.K. 4+960	1				1,00	
	P.K. 5+920	1				1,00	
	P.K. 6+440	1				1,00	
	P.K. 7+800	1				1,00	
	P.K. 7+940	1				1,00	
	P.K. 8+300	1				1,00	
	P.K. 9+180	1				1,00	
	P.K. 9+460	1				1,00	
	P.K. 10+160	1				1,00	
	P.K. 10+364,838	1				1,00	
	P.K. 14+100	1				1,00	
	P.K. 17+000	1				1,00	
							12,00
234	UD VÁLVULA DE COMPUERTA MANUAL DN150 PN25						
	Válvula de compuerta de cierre elástico de 150 mm. de diámetro nominal y 25 At. de P.N., de accionamiento manual por volante, de cuerpo de fundición nodular GGG-50, con eje de acero inoxidable al 13 % Cr. con rosca conformada por laminación en frío, cierre en fundición nodular, tomillería de acero inoxidable, protegida contra la corrosión mediante aplicación de doble capa de pintura epoxy, totalmente colocada y probada. Resto de características según ET.						
	Desagües						
	P.K. 1+160	1				1,00	
	P.K. 1+440	1				1,00	
	P.K. 2+240	1				1,00	
	P.K. 2+596,674	1				1,00	
	P.K. 3+067,420	1				1,00	
	P.K. 3+972,176	1				1,00	
	P.K. 12+000	1				1,00	
	P.K. 14+620	1				1,00	
	P.K. 14+960	1				1,00	

MEDICIONES

ABASTECIMIENTO A VARIOS MUNICIPIOS DE LA RIOJA. SISTEMA CIDACOS

CÓDIGO	RESUMEN	UDS	LONGITUD	ANCHURA	ALTURA	PARCIALES	CANTIDAD
	Arqueta entrada	1	2,20	1,60		3,52	
	P.K. 16+240	1				1,00	
							11,00
109A	UD RACORD TIPO BARCELONA SALIDAS 80-200 mm Rosca Racord tipo Barcelona con salida entre 80 y 200 mm para enchufe de manguera, totalmente instalado y terminado. Desagües						
	P.K. 1+160	1				1,00	
	P.K. 1+440	1				1,00	
	P.K. 2+240	1				1,00	
	P.K. 3+060	1				1,00	
	P.K. 4+960	1				1,00	
	P.K. 7+800	1				1,00	
	P.K. 7+940	1				1,00	
	P.K. 12+000	1				1,00	
	P.K. 14+100	1				1,00	
	P.K. 14+620	1				1,00	
	P.K. 14+960	1				1,00	
	P.K. 15+880	1				1,00	
							12,00
ECD0400.1	UD CARRETE DE DESMONTAJE DN=400 mm PN25 Carrete telescópico de desmontaje DN400 PN25, bridas de acero al carbono, virolas de acero inoxidable, protección epoxi, tornillos y tuercas en acero F-114, cincado y posterior baño de cromo-niquel, incluido p.p. de brida enchufe, totalmente instalado y probado en obra.						
	pk 2+600	1				1,00	
	pk 8+300	1				1,00	
	pk 12+000	1				1,00	
	pk 16.240	1				1,00	
	Tras derivación Aldeanueva	1				1,00	
	Cruce autopista	2				2,00	
	Cruce LR-285	2				2,00	
							9,00
EVMM400.1	UD VÁLVULA DE MARIPOSA DOBLE EXCENTRICIDAD DN 400 mm PN25 MANUAL Válvula de mariposa de doble excentricidad de 400 mm de diámetro y PN25, de accionamiento manual por reductor, incluso mecanismo de accionamiento, maniobra y control, transporte, montaje, juntas, tornillería y pintura totalmente instalada y probada. Resto de características según ET de proyecto.						
	pk 2+600	1				1,00	
	pk 8+300	1				1,00	
	pk 12+000	1				1,00	
	pk 16.240	1				1,00	
	Tras derivación Aldeanueva	1				1,00	
	Cruce LR-285	2				2,00	
	Cruce autopista	2				2,00	
							9,00
114.6	UD BRIDA LISO FD 400 mm PN16/25 Brida lisa de fundición dúctil de PFA 16/25 bar para tubería de 400 mm, con un revestimiento interior y exterior epoxi, i/p.p. de junta de unión y medios auxiliares, totalmente colocada y probada.						
	pk 2+600	1				1,00	
	pk 8+300	1				1,00	
	pk 12+000	1				1,00	
	pk 16.240	1				1,00	
	Tras derivación Aldeanueva	1				1,00	
							5,00
115.5	UD BRIDA ENCHUFE FD 400 mm PN16/25 Brida enchufe de fundición dúctil de PFA 16/25 bar para tubería de 400 mm, con un revestimiento interior y exterior epoxi, i/p.p. de junta de unión y medios auxiliares, totalmente colocada y probada.						
	pk 2+600	1				1,00	

MEDICIONES

ABASTECIMIENTO A VARIOS MUNICIPIOS DE LA RIOJA. SISTEMA CIDACOS

CÓDIGO	RESUMEN	UDS	LONGITUD	ANCHURA	ALTURA	PARCIALES	CANTIDAD
	Arqueta entrada	1	2,20	1,60		3,52	
	pk 12+000	1				1,00	
	pk 16.240	1				1,00	
	Tras derivación Aldeanueva	1				1,00	
							5,00
	APARTADO 06.02.05 HINCAS						
368	ML HINCA TUBO ACERO 609 mm TIERRAS Hinca de tubo de acero, de 609 mm de diámetro interior, bajo viales, en tierra o roca alterada, incluso p.p. de instalación de tubería de fundición dúctil comprendida entre 400 mm y 250 mm de diámetro interior y sus anclajes y apoyos; muros de reacción y contención; y todos los elementos necesarios para su montaje y desmontaje.						
	P.K. 3+900 - 3+955	1	55,00			55,00	
	P.K. 7+735 - 7+760	1	25,00			25,00	
	P.K. 15+718,07 - 15+746,16	1	28,09			28,09	
	P.K. 17+227,19 - 17+260,55	1	33,36			33,36	
	P.K. 18+300 - 18+318,47	1	18,47			18,47	
							159,92
	APARTADO 06.02.06 OBRAS ACCESORIAS Y REPOSICIONES DE SERVICIOS						
380	M2 REPOSICIÓN DE PAVIMENTO DE HORMIGÓN Reposición de pavimento de hormigón HM-20/B/40/IIa+Qa de 15 cm de espesor, totalmente terminado.						
	P.K. 7+450 - 7+678	1	228,00	3,00		684,00	
	P.K. 18+318,47 - 18+460	1	141,53	3,00		424,59	
							1.108,59
381	M2 REPOSICIÓN DE FIRME DE AGLOMERADO Reposición de firme de aglomerado en caliente en zonas afectadas por las obras.						
	P.K. 2+036 - 2+064	1	28,00	3,00		84,00	
	P.K. 2+911 - 2+928	1	17,00	3,00		51,00	
	P.K. 2+951 - 2+957	1	6,00	3,00		18,00	
	P.K. 7+678 - 7+735	1	57,00	3,00		171,00	
	P.K. 16+716 - 16+728	1	12,00	3,00		36,00	
	P.K. 17+200 - 17+217	1	17,00	3,00		51,00	
	P.K. 18+280 - 18+300	1	20,00	3,00		60,00	
							471,00
056	M3 ZAHORRA ARTIFICIAL Zahorra artificial compactada.						
	Camino de servicio Canal de Lodosa	2	1,00	4,30	0,20	1,72	
	P.K. 10+130						
	Camino de servicio Canal de Lodosa	1	1,00	4,30	0,20	0,86	
	P.K. 16+960						
	P.K. 0+000 - 1+132	1	1.132,00	3,00	0,20	679,20	
	P.K. 1+160 - 1+168	1	8,00	3,00	0,20	4,80	
	P.K. 1+946 - 2+036	1	90,00	3,00	0,20	54,00	
	P.K. 2+590 - 2+596	1	6,00	3,00	0,20	3,60	
	P.K. 2+848 - 2+911	1	63,00	3,00	0,20	37,80	
	P.K. 3+360 - 3+367	1	7,00	3,00	0,20	4,20	
	P.K. 3+878 - 3+900	1	22,00	3,00	0,20	13,20	
	P.K. 4+394 - 6+008	1	1.614,00	3,00	0,20	968,40	
	P.K. 7+210 - 7+450	1	240,00	3,00	0,20	144,00	
	P.K. 8+188 - 8+275	1	87,00	3,00	0,20	52,20	
	P.K. 9+150 - 9+332	1	182,00	3,00	0,20	109,20	
	P.K. 9+430 - 9+982	1	552,00	3,00	0,20	331,20	
	P.K. 10+142,8 - 11+513	1	1.370,20	3,00	0,20	822,12	
	P.K. 11+744 - 12+234	1	490,00	3,00	0,20	294,00	
	P.K. 12+385 - 14+286	1	1.901,00	3,00	0,20	1.140,60	
	P.K. 14+517 - 14+894	1	377,00	3,00	0,20	226,20	
	P.K. 15+056 - 15+110	1	54,00	3,00	0,20	32,40	
	P.K. 15+320 - 15+340	1	20,00	3,00	0,20	12,00	
	P.K. 15+712 - 15+718,07	1	6,07	3,00	0,20	3,64	

MEDICIONES

ABASTECIMIENTO A VARIOS MUNICIPIOS DE LA RIOJA. SISTEMA CIDACOS

CÓDIGO	RESUMEN	UDS	LONGITUD	ANCHURA	ALTURA	PARCIALES	CANTIDAD
	Arqueta entrada	1	2,20	1,60		3,52	
	P.K. 16+002 - 16+012	1	10,00	3,00	0,20	6,00	
	P.K. 17+122 - 17+129	1	7,00	3,00	0,20	4,20	
	P.K. 17+260,55 - 17+316	1	55,45	3,00	0,20	33,27	
	P.K. 17+588 - 18+000	1	412,00	3,00	0,20	247,20	
	P.K. 18+000 - 18+133	1	133,00	3,00	0,20	79,80	
	P.K. 18+460 - 18+731	1	271,00	3,00	0,20	162,60	
	P.K. 18+742 - 19+229	1	487,00	3,00	0,20	292,20	
	P.K. 19+312 - 19+391	1	79,00	3,00	0,20	47,40	
							5.938,71
030	M3 HORMIGÓN HNE-20/B/40						
	Hormigón HNE-20/B/40, con cemento CEM II/A-D/42,5/SR (UNE 80303:96), en masa o ligeramente armado, colocado en cualquier tipo de obra, incluso fabricación, carga y transporte, totalmente colocado.						
	Protección tubería gas (cruces)						
	P.K. 0+007	1	5,00	1,50	0,20	1,50	
	P.K. 0+220	1	5,00	1,50	0,20	1,50	
	P.K. 1+757	1	5,00	1,50	0,20	1,50	
	Cruce línea eléctrica						
	P.K. 5+130	1	5,00	0,60	0,50	1,50	
							6,00
383	ML REPOSICIÓN DE CERRAMIENTO EXISTENTE						
	Reposición de cerramiento existente hasta 2,00 m de altura.						
	P.K. 3+900	1	10,00			10,00	
	P.K. 3+955	1	10,00			10,00	
							20,00
387	ML REPOSICIÓN OBRA DE DRENAJE HASTA DN 1,00 m						
	Reposición de obra de drenaje hasta 1,00 de diámetro, p.p. de boquilla de entrada y salida, excavación, hormigón de recubrimiento y relleno compactado, totalmente terminada.						
	P.K. 9+060	1	5,00			5,00	
	P.K. 11+990	1	5,00			5,00	
	P.K. 12+080	1	5,00			5,00	
	P.K. 12+380	1	5,00			5,00	
	P.K. 18+380	1	5,00			5,00	
							25,00
388	ML REPOSICIÓN DE ACEQUIA HASTA 1 m ANCHURA						
	Reposición de acequia prefabricada de hormigón hasta 1,00 m de anchura.						
	P.K. 12+370	1	5,00			5,00	
							5,00
390	ML REPOSICIÓN DE ACEQUIA HASTA 3 m ANCHURA						
	Reposición de acequia de hormigón de 1,00 a 3,00 m de anchura.						
	P.K. 17+110	1	5,00			5,00	
							5,00
389	ML REPOSICIÓN DE ACEQUIA						
	Reposición de acequia con tubo de hormigón hasta 1 m de diámetro.						
	P.K. 0+205	1	5,00			5,00	
	P.K. 1+560	1	5,00			5,00	
	P.K. 5+070	1	5,00			5,00	
	P.K. 5+200	1	5,00			5,00	
	P.K. 5+310	1	5,00			5,00	
	P.K. 5+450	1	5,00			5,00	
	P.K. 5+700	1	5,00			5,00	
	P.K. 6+960	1	5,00			5,00	
	P.K. 9+360	1	5,00			5,00	
	P.K. 11+520	1	5,00			5,00	
	P.K. 11+750	1	5,00			5,00	
	P.K. 13+400	1	5,00			5,00	

MEDICIONES

ABASTECIMIENTO A VARIOS MUNICIPIOS DE LA RIOJA. SISTEMA CIDACOS

CÓDIGO	RESUMEN	UDS	LONGITUD	ANCHURA	ALTURA	PARCIALES	CANTIDAD
	Arqueta entrada	1	2,20	1,60		3,52	
	P.K. 14+700	1	15,00			15,00	
							85,00
393	ML CANALIZACIÓN TELEFÓNICA FIBRA ÓPTICA						
	Canalización telefónica en zanja bajo calzada, para reposición de cable de fibra óptica de 12 a 16 fibras, incluso p.p. de arquetas y caja de empalmes, totalmente terminado.						
	P.K. 0+690	2	20,00			40,00	
	P.K. 1+150	2	20,00			40,00	
							80,00
396	ML CANALIZACIÓN TELEFÓNICA BAJO CALZADA 6 TUBOS						
	Canalización telefónica en zanja bajo calzada, de 0,45x1,01 m para 6 conductos, en base 2, de PVC de 110 mm de diámetro, embebidos en prisma de hormigón HM-20 de central de 8 cm de recubrimiento superior e inferior y 10 cm lateralmente, incluso excavación de tierras a máquina en terrenos flojos, tubos, soportes distanciadores cada 70 cm, cuerda guía para cables, hormigón y relleno en la capa superior con tierras procedentes de la excavación, en tongadas < 25 cm, compactada al 95% del P.N., totalmente terminado.						
	P.K. 18+060	1	25,00			25,00	
	P.K. 18+360	1	20,00			20,00	
							45,00
023	KG ACERO CORRUGADO B-500-S						
	Acero redondo corrugado para armar tipo B-500-S elaborado y colocado.						
	Paso sobre canal P.K. 10+130	1	1,19		108,55	129,17	
	Paso sobre canal P.K. 16+960	1	19,00		108,55	2.062,45	
							2.191,62
025	M2 ENCOFRADO RECTO EN PARAMENTOS OCULTOS						
	Encofrado recto en paramentos ocultos, incluso colocación, fijación y desencofrado.						
	Paso sobre canal P.K. 10+130	8	1,00	0,40		3,20	
		8			0,20	0,80	1,28
		8			0,40	0,80	2,56
		4	1,13	0,20		0,90	
	Paso sobre canal P.K. 16+960	8	1,00	0,40		3,20	
		8			0,20	0,80	1,28
		8			0,40	0,80	2,56
		4	1,13	0,20		0,90	
							15,88
028	M3 HORMIGÓN DE LIMPIEZA HL-150						
	Hormigón de limpieza HL-150, de consistencia plástica, árido de tamaño máximo 40 mm y cemento CEM-II-D/42,5/SR, para saneos y encachados, incluyendo fabricación y transporte totalmente colocado.						
	Paso sobre canal P.K. 10+130	1	1,00	1,00	0,10	0,10	
	Paso sobre canal P.K. 16+960	1	1,00	1,00	0,10	0,10	
							0,20
031	M3 HORMIGÓN HA-25/B/20/IIa						
	Hormigón HA-25/B/20/IIa, con cemento CEM II/A-D/42,5/SR, incluyendo fabricación, transporte, puesta en obra y vibrado, totalmente ejecutado, incluso curado y juntas.						
	Paso sobre canal P.K. 10+130 (Estribos)	2	1,00	1,00	0,40	0,80	
		4	0,20	0,20	0,80	0,13	
		4	0,80	0,20	0,40	0,26	
	Paso sobre canal P.K. 16+960 (Estribos)	2	1,00	1,00	0,40	0,80	
		4	0,20	0,20	0,80	0,13	
		4	0,80	0,20	0,40	0,26	
							2,38

MEDICIONES

ABASTECIMIENTO A VARIOS MUNICIPIOS DE LA RIOJA. SISTEMA CIDACOS

CÓDIGO	RESUMEN	UDS	LONGITUD	ANCHURA	ALTURA	PARCIALES	CANTIDAD
054	T PAVIMENTO DE MBC AC16 surf S Pavimento de mezcla bituminosa en caliente en capa de rodadura tipo AC 16 surf S de 5 cm de espesor, que incluye riego de imprimación con dotación de 1 Kg/m2, con betún B60/70 en dotación de 70 Kg/Tm, puesto en obra y terminado. Camino de servicio Canal de Lodosa P.K. 10+130 Camino de servicio Canal de Lodosa P.K. 16+960	2,4	1,50	4,00	0,05	0,72	
		2,4	1,50	4,00	0,05	0,72	
							1,44
181	ML TUBERÍA DE ACERO DN=632 mm Tubería de acero AE-42 helicostaldado, de límite elástico no inferior a 2000 Kp/cm2, de diámetro exterior 632 mm y PN 16 bar, con recubrimiento interior de 300 micras de pintura epoxi tipo alimentario y recubrimiento exterior de tres capas de polietileno extruido en caliente, incluso montaje, soldaduras y pruebas de control. Paso sobre canal P.K. 10+130 Paso sobre canal P.K. 16+960	1	15,00			15,00	
		1	15,00			15,00	
							30,00
194	ML TUBO PVC CORRUGADO DN 110 mm CANALIZACIONES ELÉCTRICAS Tubo corrugado de PVC de D=110 mm, para reposición de línea eléctrica subterránea, totalmente colocado. P.K. 5+130	5	5,00			25,00	
							25,00
209	ML TUBERÍA HORMIGÓN DN=60 cm Tubería de hormigón centrifugado de diámetro interior 60 cm, fabricada con cemento CEM III/A-D/42,5/SR (UNE 80303:96), totalmente terminada. Paso sobre canal P.K. 10+130 Paso sobre canal P.K. 16+960	1	5,00			5,00	
		1	6,05			6,05	
		1	8,40			8,40	
		1	6,05			6,05	
							25,50
SUBCAPÍTULO 06.03 EJE 18: ACOMETIDA AUTOL							
APARTADO 06.03.01 MOVIMIENTO DE TIERRAS							
002	M3 EXCAVACIÓN EN ZANJAS Excavación en zanjas y zonas localizadas, en todo tipo de terrenos incluido terrenos en roca con medios mecánicos, incluso rasanteo, nivelación de la superficie de apoyo y transporte a lugar de empleo o vertedero. Según medición auxiliar Desagües	1	3.228,90			3.228,90	
		1	5,00	0,71	1,21	4,30	
							3.233,20
007	M2 ENTIBACIÓN MÓDULOS METÁLICOS Entibación a dos caras mediante módulos metálicos y articulados, en zonas de protección de zanja, medida la superficie efectiva. P.K. 0+120 - 0+610 P.K. 0+850 - 0+884 P.K. 0+900 - 1+485	1	490,00	2,00		980,00	
		1	34,00	1,50		51,00	
		1	585,00	1,50		877,50	
							1.908,50
008	M2 DESPEJE Y DESBROCE Despeje y desbroce de capa de tierra vegetal con un espesor medio de 50 cm, incluso corte de árboles, extracción de tocones, nivelación de zona adyacente para el paso de maquinaria, transporte a lugar de acopio independiente para posterior reposición de tierra vegetal tras las obras y despedregado de las parcelas, así como transporte a vertedero de tierras sobrantes. P.K. 0+670 - 0+745 P.K. 0+800 - 0+850 P.K. 1+485 - 1+851	1	75,00	3,00		225,00	
		1	50,00	3,00		150,00	
		1	366,00	3,00		1.098,00	
							1.473,00

MEDICIONES

ABASTECIMIENTO A VARIOS MUNICIPIOS DE LA RIOJA. SISTEMA CIDACOS

CÓDIGO	RESUMEN	UDS	LONGITUD	ANCHURA	ALTURA	PARCIALES	CANTIDAD
010	M3 RELLENO ZANJAS, CIMIENTOS Y TRASDOSES DE MATERIAL SELECCIONADO Relleno con material seleccionado en zanjas, cimientos, trasdós de muros, estribos y otras estructuras procedente de la excavación o préstamos incluso carga, transporte y compactación. Según medición auxiliar Desagües	1	2.246,10			2.246,10	
		1	5,00	0,71	0,90	3,20	
							2.249,30
011	M3 RELLENO DE ARENA Arena para apoyo y protección de tuberías incluso carga, transporte, colocación, compactación y nivelación. Según medición auxiliar Desagües	1	877,30			877,30	
		1	5,00	0,71	0,31	1,10	
							878,40
019	M2 DEMOLICIÓN DE FIRMES Demolición de firmes de cualquier tipo, incluso precorte, carga y transporte a vertedero, posterior perfilado y compactación del terreno. P.K. 0+210 - 0+332 P.K. 0+380 - 0+407 P.K. 0+745 - 0+800 P.K. 0+900 - 1+205	1	122,00	3,00		366,00	
		1	27,00	3,00		81,00	
		1	55,00	3,00		165,00	
		1	305,00	3,00		915,00	
							1.527,00
APARTADO 06.03.02 OBRA CIVIL							
023	KG ACERO CORRUGADO B-500-S Acero redondo corrugado para armar tipo B-500-S elaborado y colocado. Anclajes codos	8	70,12			560,96	
		2	79,37			158,74	
		11	91,80			1.009,80	
		6	113,47			680,82	
		4	150,28			601,12	
		1	192,56			192,56	
		8	227,18			1.817,44	
		1	260,62			260,62	
		1	282,76			282,76	
		2	344,41			688,82	
							6.253,64
030	M3 HORMIGÓN HNE-20/B/40 Hormigón HNE-20/B/40, con cemento CEM III/A-D/42,5/SR (UNE 80303:96), en masa o ligeramente armado, colocado en cualquier tipo de obra, incluso fabricación, carga y transporte, totalmente colocado. Anclajes codos Murete protección gas	8	0,90			7,20	
		2	1,09			2,18	
		11	1,34			14,74	
		6	1,85			11,10	
		4	2,84			11,36	
		1	3,96			3,96	
		8	5,29			42,32	
		1	6,52			6,52	
		1	7,31			7,31	
		2	9,80			19,60	
		1	1.445,00	0,20	1,50	433,50	
							559,79
373	UD POZO DE REGISTRO DE AROS DE HORMIGÓN DN1200 Pozo de registro de abastecimiento para válvulas de control de cualquier altura de diámetro interior D=1200 mm, incluso base de hormigón HNE-20, aros de hormigón, cono prefabricado de hormigón, pates y tapa de fundición, totalmente terminado. Ventosas Desagües Cruces ctra	3				3,00	
		2				2,00	
		2				2,00	

MEDICIONES

ABASTECIMIENTO A VARIOS MUNICIPIOS DE LA RIOJA. SISTEMA CIDACOS

CÓDIGO	RESUMEN	UDS	LONGITUD	ANCHURA	ALTURA	PARCIALES	CANTIDAD
							7,00
APARTADO 06.03.03 TUBERÍAS							
063	ML TUBERÍA FD 250 mm Tubería de fundición dúctil de diámetro interior 250 mm y PFA de 54 bar, revestida interiormente con mortero de cemento y exteriormente con una capa de cinc y otra bituminosa, i/p.p. de junta automática flexible, banda de señalización y medios auxiliares, totalmente colocada y probada.	1	1.864,00			1.864,00	1.864,00
081	UD CODO FD 1/8 A 1/32 250 mm Codo de fundición dúctil de 1/8 a 1/32 de diámetro interior 250 mm y PFA 54 bar, con un revestimiento interior y exterior epoxi, incluso p.p. de juntas y medios auxiliares, totalmente colocado y probado.	40				40,00	40,00
082	UD CODO FD 1/4 250 mm Codo de fundición dúctil de 1/8 de diámetro interior 250 mm y PFA 40 bar, con revestimiento interior y exterior epoxi, incluso p.p. de juntas y medios auxiliares, totalmente colocado y probado.	4				4,00	4,00
198	ML TUBERÍA DE PVC 110 mm Tubería de PVC con junta elástica de 110 mm de diámetro exterior, y PN=6 bar, incluso banda de señalización, totalmente colocada en zanja. Desagües P.K. 0+900 P.K. 1+480	1 1	138,00 5,00			138,00 5,00	143,00
APARTADO 06.03.04 VÁLVULAS Y ACCESORIOS							
245.4	UD VENTOSA DN=50 (2") mm PN16 Válvula ventosa de tres funciones de DN=50 mm (2") y PN 16 bar incluido transporte, juntas, válvula de corte DN=50 mm y PN 16 y piezas especiales, totalmente colocada y probada. P.K. 0+657,978 P.K. 1+200 P.K. 1+562,904	1 1 1				1,00 1,00 1,00	3,00
135	UD TE FD EEB 250 mm PN16/25 SALIDA DN250/60 "T" de fundición dúctil de PFA 16/25 bar, con dos enchufes y derivación con brida para tubería de 250 mm y salida comprendida entre 250 y 60 mm, con un revestimiento interior y exterior epoxi, i/p.p. de junta de unión y medios auxiliares, totalmente colocada y probada. Ventosas P.K. 0+657,978 P.K. 1+200 P.K. 1+562,904 Desagües	1 1 1 2				1,00 1,00 1,00 2,00	5,00
114	UD REDUCCIÓN FD 100 A 80/50 mm PN16/25 Reducción en fundición dúctil de 100 mm a 80-65-60-50 mm con dos bridas PN 16/25 bar, con un revestimiento interior y exterior epoxi, i/p.p. de tornillería y medios auxiliares, totalmente colocada y probada. Ventosas P.K. 0+657,978 P.K. 1+200 P.K. 1+562,904	1 1 1				1,00 1,00 1,00	3,00

MEDICIONES

ABASTECIMIENTO A VARIOS MUNICIPIOS DE LA RIOJA. SISTEMA CIDACOS

CÓDIGO	RESUMEN	UDS	LONGITUD	ANCHURA	ALTURA	PARCIALES	CANTIDAD
238	ud VÁLVULA DE COMPUERTA MANUAL DN100 PN16 Válvula de compuerta de cierre elástico de 100 mm. de diámetro nominal y 16 At. de P.N., de accionamiento manual por volante, de cuerpo de fundición nodular GGG-50, con eje de acero inoxidable al 13 % Cr. con roscas conformadas por laminación en frío, cierre en fundición nodular, tornillería de acero inoxidable, protegida contra la corrosión mediante aplicación de doble capa de pintura epoxi, totalmente colocada y probada. Resto de características según ET. Desagües P.K. 0+899,696 P.K. 1+480	1 1				1,00 1,00	2,00
120	UD TE FD EEB 500 mm PN16 SALIDA DN500/100 "T" de fundición dúctil de PFA 16 bar, con dos enchufes y derivación con brida para tubería de 500 mm y salida comprendida entre 500 y 100 mm, con un revestimiento interior y exterior epoxi, i/p.p. de junta de unión y medios auxiliares, totalmente colocada y probada. Derivación a DN250	1				1,00	1,00
114.2	UD BRIDA LISO FD 500 mm PN16/25 Brida lisa de fundición dúctil de PFA 16 bar para tubería de 500 mm, con un revestimiento interior y exterior epoxi, i/p.p. de junta de unión y medios auxiliares, totalmente colocada y probada. Derivación a DN250	1				1,00	1,00
162	UD MANGUITO FD DN100 A DN250 mm PN16/25 Manguito de fundición dúctil con bridas diámetros de 100 a 250 mm, longitud comprendida entre 0,20 y 1,00 m y PN16/25, incluso p.p. de tornillería y medios auxiliares, totalmente colocado y probado. Derivación a DN250	1				1,00	1,00
229	UD VÁLVULA DE COMPUERTA MANUAL DN250 PN16 Válvula de compuerta de accionamiento manual de diámetro nominal DN=250 mm de 16 bares de presión máxima admisible, con tornillería y juntas, totalmente instalada y probada, incluso volante de accionamiento. Derivación a DN250 Cruces ctra	1 2				1,00 2,00	3,00
141	UD CARRETE DE DESMONTAJE DN=250 mm PN25 Carrete de desmontaje autoportante de PFA 25 bar de D=250 mm, colocado. Derivación a DN250 Cruces ctra	1 2				1,00 2,00	3,00
115.6	UD BRIDA ENCHUFE FD 250 mm PN16/25 Brida enchufe de fundición dúctil de PFA 16/25 bar para tubería de 250 mm, con un revestimiento interior y exterior epoxi, i/p.p. de junta de unión y medios auxiliares, totalmente colocada y probada. Derivación a DN250	1				1,00	1,00
APARTADO 06.03.05 HINCAS							
368	ML HINCA TUBO ACERO 609 mm TIERRAS Hinca de tubo de acero, de 609 mm de diámetro interior, bajo viales, en tierra o roca alterada, incluso p.p. de instalación de tubería de fundición dúctil comprendida entre 400 mm y 250 mm de diámetro interior y sus anclajes y apoyos; muros de reacción y contención; y todos los elementos necesarios para su montaje y desmontaje. P.K. 0+884 - 0+900	1	16,00			16,00	16,00

MEDICIONES

ABASTECIMIENTO A VARIOS MUNICIPIOS DE LA RIOJA. SISTEMA CIDACOS

CÓDIGO	RESUMEN	UDS	LONGITUD	ANCHURA	ALTURA	PARCIALES	CANTIDAD
APARTADO 06.03.06 OBRAS ACCESORIAS Y REPOSICIONES DE SERVICIOS							
030	M3 HORMIGÓN HNE-20/B/40 Hormigón HNE-20/B/40, con cemento CEM III/A-D/42,5/SR (UNE 80303:96), en masa o ligeramente armado, colocado en cualquier tipo de obra, incluso fabricación, carga y transporte, totalmente colocado. Protección tubería gas (paralelismo) P.K. 0+000 - 1+450 A descontar cruces Protección tuberías gas (cruces) P.K. 0+040 P.K. 0+211 P.K. 0+850 P.K. 0+900	1 -4 1 1 1 1	1.450,00 5,00 5,00 5,00 5,00	0,20 0,20 1,20 1,20 1,20	1,60 1,60 0,20 0,20 0,20	464,00 -6,40 1,20 1,20 1,20 1,20	462,40
025	M2 ENCOFRADO RECTO EN PARAMENTOS OCULTOS Encofrado recto en paramentos ocultos, incluso colocación, fijación y desencofrado. Protección tubería gas (paralelismo) P.K. 0+000 - 1+450 A descontar cruces	2 73 -8	1.450,00 5,00	0,20	1,60 1,60	4.640,00 23,36 -64,00	4.599,36
056	M3 ZAHORRA ARTIFICIAL Zahorra artificial compactada. P.K. 0+000 - 0+210 P.K. 0+332 - 0+380 P.K. 0+407 - 0+670 P.K. 1+205 - 1+485 P.K. 1+851 - FIN	1 1 1 1 1	210,00 48,00 263,00 280,00 12,62	3,00 3,00 3,00 3,00	0,20 0,20 0,20 0,20	126,00 28,80 157,80 168,00 7,57	488,17
380	M2 REPOSICIÓN DE PAVIMENTO DE HORMIGÓN Reposición de pavimento de hormigón HM-20/B/40/IIa+Qa de 15 cm de espesor, totalmente terminado. P.K. 0+210 - 0+332 P.K. 0+380 - 0+407 P.K. 0+745 - 0+800 P.K. 0+900 - 1+205	1 1 1 1	122,00 27,00 55,00 305,00	3,00 3,00 3,00		366,00 81,00 165,00 915,00	1.527,00
393	ML CANALIZACIÓN TELEFÓNICA FIBRA ÓPTICA Canalización telefónica en zanja bajo calzada, para reposición de cable de fibra óptica de 12 a 16 fibras, incluso p.p. de arquetas y caja de empalmes, totalmente terminado. P.K. 0+866	1	20,00			20,00	20,00
SUBCAPÍTULO 06.04 EJE 19: ACOMETIDA ALDEANUEVA DE EBRO							
APARTADO 06.04.01 MOVIMIENTO DE TIERRAS							
002	M3 EXCAVACIÓN EN ZANJAS Excavación en zanjas y zonas localizadas, en todo tipo de terrenos incluido terrenos en roca con medios mecánicos, incluso rasanteo, nivelación de la superficie de apoyo y transporte a lugar de empleo o vertedero. Según medición auxiliar	1	813,90			813,90	813,90
010	M3 RELLENO ZANJAS, CIMIENTOS Y TRASDOSES DE MATERIAL SELECCIONADO Relleno con material seleccionado en zanjas, cimientos, trasdós de muros, estribos y otras estructuras procedente de la excavación o préstamos incluso carga, transporte y compactación. Según medición auxiliar	1	569,20			569,20	569,20

MEDICIONES

ABASTECIMIENTO A VARIOS MUNICIPIOS DE LA RIOJA. SISTEMA CIDACOS

CÓDIGO	RESUMEN	UDS	LONGITUD	ANCHURA	ALTURA	PARCIALES	CANTIDAD
011	M3 RELLENO DE ARENA Arena para apoyo y protección de tuberías incluso carga, transporte, colocación, compactación y nivelación. Según medición auxiliar	1	220,60			220,60	220,60
APARTADO 06.04.02 OBRA CIVIL							
023	KG ACERO CORRUGADO B-500-S Acero redondo corrugado para armar tipo B-500-S elaborado y colocado. Anclaje codos	3 2	110,84 369,70			332,52 739,40	1.071,92
030	M3 HORMIGÓN HNE-20/B/40 Hormigón HNE-20/B/40, con cemento CEM III/A-D/42,5/SR (UNE 80303:96), en masa o ligeramente armado, colocado en cualquier tipo de obra, incluso fabricación, carga y transporte, totalmente colocado. Anclaje codos	3 2	1,70 12,09			5,10 24,18	29,28
373	UD POZO DE REGISTRO DE AROS DE HORMIGÓN DN1200 Pozo de registro de abastecimiento para válvulas de control de cualquier altura de diámetro interior D=1200 mm, incluso base de hormigón HNE-20, aros de hormigón, cono prefabricado de hormigón, pates y tapa de fundición, totalmente terminado. Ventosas Desagües	1 1				1,00 1,00	2,00
063	ML TUBERÍA FD 250 mm Tubería de fundición dúctil de diámetro interior 250 mm y PFA de 54 bar, revestida interiormente con mortero de cemento y exteriormente con una capa de cinc y otra bituminosa, i/p.p. de junta automática flexible, banda de señalización y medios auxiliares, totalmente colocada y probada.	1	410,00			410,00	410,00
081	UD CODO FD 1/8 A 1/32 250 mm Codo de fundición dúctil de 1/8 a 1/32 de diámetro interior 250 mm y PFA 54 bar, con un revestimiento interior y exterior epoxi, incluso p.p. de juntas y medios auxiliares, totalmente colocado y probado.	3				3,00	3,00
082	UD CODO FD 1/4 250 mm Codo de fundición dúctil de 1/8 de diámetro interior 250 mm y PFA 40 bar, con revestimiento interior y exterior epoxi, incluso p.p. de juntas y medios auxiliares, totalmente colocado y probado.	2				2,00	2,00
APARTADO 06.04.04 VÁLVULAS Y ACCESORIOS							
245.8	UD VENTOSA DN=25 mm (1") PN25 Válvula ventosa de tres funciones de 1" (DN=25 mm) y PN 25 bar incluido transporte, juntas, válvula de corte DN=25 mm y PN 25 bar y piezas especiales, totalmente colocada y probada. P.K. 0+409,538	1				1,00	1,00
135	UD TE FD EEB 250 mm PN16/25 SALIDA DN250/60 "T" de fundición dúctil de PFA 16/25 bar, con dos enchufes y derivación con brida para tubería de 250 mm y salida comprendida entre 250 y 60 mm, con un revestimiento interior y exterior epoxi, i/p.p. de junta de unión y medios auxiliares, totalmente colocada y probada. Ventosas P.K. 0+409,538	1				1,00	1,00

MEDICIONES

ABASTECIMIENTO A VARIOS MUNICIPIOS DE LA RIOJA. SISTEMA CIDACOS

CÓDIGO	RESUMEN	UDS	LONGITUD	ANCHURA	ALTURA	PARCIALES	CANTIDAD
	Arqueta entrada	1	2,20	1,60		3,52	
							2,00
114	UD REDUCCIÓN FD 100 A 80/50 mm PN16/25 Reducción en fundición dúctil de 100 mm a 80-65-60-50 mm con dos bridas PN 16/25 bar, con un revestimiento interior y exterior epoxi, i/p.p. de tornillería y medios auxiliares, totalmente colocada y probada. Ventosas P.K. 0+409,538	1				1,00	
							1,00
114.8	UD REDUCCIÓN FD 50 A 40/25 mm PN16/25 Reducción en fundición dúctil de 50 mm a 40-25 mm con dos bridas PN 16/25 bar, con un revestimiento interior y exterior epoxi, i/p.p. de tornillería y medios auxiliares, totalmente colocada y probada. Ventosas P.K. 0+409,538	1				1,00	
							1,00
237	UD VÁLVULA DE COMPUERTA MANUAL DN100 PN25 Válvula de compuerta de cierre elástico de 100 mm. de diámetro nominal y 25 At. de P.N., de accionamiento manual por volante, de cuerpo de fundición nodular GGG-50, con eje de acero inoxidable al 13 % Cr. con roscas conformadas por laminación en frío, cierre en fundición nodular, tornillería de acero inoxidable, protegida contra la corrosión mediante aplicación de doble capa de pintura epoxy, totalmente colocada y probada. Resto de características según ET. Desagües P.K. 0+220	1				1,00	
							1,00
109A	UD RACORD TIPO BARCELONA SALIDAS 80-200 mm Rosca Racord tipo Barcelona con salidad entre 80 y 200 mm para enchufe de manguera, totalmente instalado y terminado. Desagües P.K. 0+220	1				1,00	
							1,00
120	UD TE FD EEB 500 mm PN16 SALIDA DN500/100 "T" de fundición dúctil de PFA 16 bar, con dos enchufes y derivación con brida para tubería de 500 mm y salida comprendida entre 500 y 100 mm, con un revestimiento interior y exterior epoxi, i/p.p. de junta de unión y medios auxiliares, totalmente colocada y probada. Acometida salida DN250	1				1,00	
							1,00
162	UD MANGUITO FD DN100 A DN250 mm PN16/25 Manguito de fundición dúctil con bridas diámetros de 100 a 250 mm, longitud comprendida entre 0,20 y 1,00 m y PN16/25, incluso p.p. de tornillería y medios auxiliares, totalmente colocado y probado.	1				1,00	
							1,00
228	UD VÁLVULA DE COMPUERTA MANUAL DN250 PN25 Válvula de compuerta de accionamiento manual de diámetro nominal DN=250 mm de 25 bares de presión máxima admisible, con tornillería y juntas, totalmente instalada y probada, incluso volante de accionamiento.	1				1,00	
							1,00
141	UD CARRETE DE DESMONTAJE DN=250 mm PN25 Carrete de desmontaje autoportante de PFA 25 bar de D=250 mm, colocado.	1				1,00	
							1,00
115.6	UD BRIDA ENCHUFE FD 250 mm PN16/25 Brida enchufe de fundición dúctil de PFA 16/25 bar para tubería de 250 mm, con un revestimiento interior y exterior epoxi, i/p.p. de junta de unión y medios auxiliares, totalmente colocada y probada.						

MEDICIONES

ABASTECIMIENTO A VARIOS MUNICIPIOS DE LA RIOJA. SISTEMA CIDACOS

CÓDIGO	RESUMEN	UDS	LONGITUD	ANCHURA	ALTURA	PARCIALES	CANTIDAD
	Arqueta entrada	1	2,20	1,60		3,52	
							1,00
APARTADO 06.04.05 OBRAS ACCESORIAS Y REPOSICIONES DE SERVICIOS							
056	M3 ZAHORRA ARTIFICIAL Zahorra artificial compactada. P.K. 0+000 - 0+389	1	389,00	3,00	0,20	233,40	
							233,40
383	ML REPOSICIÓN DE CERRAMIENTO EXISTENTE Reposición de cerramiento existente hasta 2,00 m de altura.	1	5,00			5,00	
							5,00
SUBCAPÍTULO 06.05 EJE 20: ACOMETIDA RINCÓN DE SOTO							
APARTADO 06.05.01 MOVIMIENTO DE TIERRAS							
003	M3 EXCAVACIÓN EN ZANJAS CON AGOTAMIENTO Excavación en zanjas y zonas localizadas, en todo tipo de terrenos incluido terrenos en roca con medios mecánicos, incluso rasanteo, nivelación de la superficie de apoyo, agotamiento y transporte a lugar de empleo o vertedero. Según medición auxiliar Desagües	1	3.535,80			3.535,80	
		1	55,00	0,69	1,19	45,16	
							3.580,96
010	M3 RELLENO ZANJAS, CIMIENTOS Y TRASDOSES DE MATERIAL SELECCIONADO Relleno con material seleccionado en zanjas, cimientos, trasdós de muros, estribos y otras estructuras procedente de la excavación o préstamos incluso carga, transporte y compactación. Según medición auxiliar Desagües	1	2.562,80			2.562,80	
		1	55,00	0,69	0,90	34,16	
							2.596,96
011	M3 RELLENO DE ARENA Arena para apoyo y protección de tuberías incluso carga, transporte, colocación, compactación y nivelación. Según medición auxiliar Desagües	1	877,00			877,00	
		1	55,00	0,29	0,90	14,36	
							891,36
019	M2 DEMOLICIÓN DE FIRMES Demolición de firmes de cualquier tipo, incluso precorte, carga y transporte a vertedero, posterior perfilado y compactación del terreno. P.K. 1+517 - 1+622	1	105,00	3,00		315,00	
							315,00
APARTADO 06.05.02 OBRA CIVIL							
023	KG ACERO CORRUGADO B-500-S Acero redondo corrugado para armar tipo B-500-S elaborado y colocado. Anclajes codos	2	70,12			140,24	
		9	86,87			781,83	
		4	137,74			550,96	
		1	315,44			315,44	
							1.788,47
030	M3 HORMIGÓN HNE-20/B/40 Hormigón HNE-20/B/40, con cemento CEM III/A-D/42,5/SR (UNE 80303:96), en masa o ligeramente armado, colocado en cualquier tipo de obra, incluso fabricación, carga y transporte, totalmente colocado. Anclajes codos	2	0,90			1,80	
		9	1,18			10,62	
		4	2,35			9,40	
		1	8,41			8,41	
	Protección tubería P.K. 1+517 - 1+622	1	105,00	3,00	0,20	63,00	

MEDICIONES

ABASTECIMIENTO A VARIOS MUNICIPIOS DE LA RIOJA. SISTEMA CIDACOS

CÓDIGO	RESUMEN	UDS	LONGITUD	ANCHURA	ALTURA	PARCIALES	CANTIDAD
							93,23
373	UD POZO DE REGISTRO DE AROS DE HORMIGÓN DN1200 Pozo de registro de abastecimiento para válvulas de control de cualquier altura de diámetro interior D=1200 mm, incluso base de hormigón HNE-20, aros de hormigón, cono prefabricado de hormigón, pates y tapa de fundición, totalmente terminado. Ventosas 3 3,00 Desagües 1 1,00						4,00
APARTADO 06.05.03 TUBERÍAS							
063	ML TUBERÍA FD 250 mm Tubería de fundición dúctil de diámetro interior 250 mm y PFA de 54 bar, revestida interiormente con mortero de cemento y exteriormente con una capa de cinc y otra bituminosa, i/p.p. de junta automática flexible, banda de señalización y medios auxiliares, totalmente colocada y probada. 1 1.649,00 1.649,00						1.649,00
081	UD CODO FD 1/8 A 1/32 250 mm Codo de fundición dúctil de 1/8 a 1/32 de diámetro interior 250 mm y PFA 54 bar, con un revestimiento interior y exterior epoxi, incluso p.p. de juntas y medios auxiliares, totalmente colocado y probado. 15 15,00						15,00
082	UD CODO FD 1/4 250 mm Codo de fundición dúctil de 1/8 de diámetro interior 250 mm y PFA 40 bar, con revestimiento interior y exterior epoxi, incluso p.p. de juntas y medios auxiliares, totalmente colocado y probado. 1 1,00						1,00
199	ML TUBERÍA DE PVC 90 mm Tubería de PVC con junta elástica de 90 mm de diámetro exterior, y PN=6 bar, incluso banda de señalización, totalmente colocada en zanja. P.K. 1+000 1 55,00 55,00						55,00
APARTADO 06.05.04 VÁLVULAS Y ACCESORIOS							
245.4	UD VENTOSA DN=50 (2") mm PN16 Válvula ventosa de tres funciones de DN=50 mm (2") y PN 16 bar incluido transporte, juntas, válvula de corte DN=50 mm y PN 16 y piezas especiales, totalmente colocada y probada. P.K. 0+000 1 1,00 P.K. 0+560 1 1,00 P.K. 1+140 1 1,00						3,00
135	UD TE FD EEB 250 mm PN16/25 SALIDA DN250/60 "T" de fundición dúctil de PFA 16/25 bar, con dos enchufes y derivación con brida para tubería de 250 mm y salida comprendida entre 250 y 60 mm, con un revestimiento interior y exterior epoxi, i/p.p. de junta de unión y medios auxiliares, totalmente colocada y probada. Ventosas P.K. 0+000 1 1,00 P.K. 0+560 1 1,00 P.K. 1+140 1 1,00 Desagües 1 1,00						4,00
114	UD REDUCCIÓN FD 100 A 80/50 mm PN16/25 Reducción en fundición dúctil de 100 mm a 80-65-60-50 mm con dos bridas PN 16/25 bar, con un revestimiento interior y exterior epoxi, i/p.p. de tomillería y medios auxiliares, totalmente colocada y probada. Ventosas P.K. 0+000 1 1,00						1,00

MEDICIONES

ABASTECIMIENTO A VARIOS MUNICIPIOS DE LA RIOJA. SISTEMA CIDACOS

CÓDIGO	RESUMEN	UDS	LONGITUD	ANCHURA	ALTURA	PARCIALES	CANTIDAD
	Arqueta entrada 1 2,20 1,60 3,52 P.K. 1+140 1 1,00						3,00
238	ud VÁLVULA DE COMPUERTA MANUAL DN100 PN16 Válvula de compuerta de cierre elástico de 100 mm. de diámetro nominal y 16 At. de P.N., de accionamiento manual por volante, de cuerpo de fundición nodular GGG-50, con eje de acero inoxidable al 13 % Cr. con roscas conformadas por laminación en frío, cierre en fundición nodular, tomillería de acero inoxidable, protegida contra la corrosión mediante aplicación de doble capa de pintura epoxy, totalmente colocada y probada. Resto de características según ET. Desagües P.K. 1+000 1 1,00						1,00
APARTADO 06.05.05 OBRAS ACCESORIAS Y REPOSICIONES DE SERVICIOS							
023	KG ACERO CORRUGADO B-500-S Acero redondo corrugado para armar tipo B-500-S elaborado y colocado. Paso sobre canal P.K. 1+502 1 1,28 108,55 138,94						138,94
025	M2 ENCOFRADO RECTO EN PARAMENTOS OCULTOS Encofrado recto en paramentos ocultos, incluso colocación, fijación y desencofrado. Paso sobre canal PK 1+502 8 1,00 0,40 3,20 8 0,25 0,80 1,60 8 0,40 0,80 2,56 4 1,13 0,20 0,90						8,26
028	M3 HORMIGÓN DE LIMPIEZA HL-150 Hormigón de limpieza HL-150, de consistencia plástica, árido de tamaño máximo 40 mm y cemento CEM-II-D/42,5/SR, para saneos y enchachados, incluyendo fabricación y transporte totalmente colocado. Paso sobre canal PK 1+502 1 1,00 1,00 0,10 0,10						0,10
031	M3 HORMIGÓN HA-25/B/20/IIa Hormigón HA-25/B/20/IIa, con cemento CEM III/A-D/42,5/SR, incluyendo fabricación, transporte, puesta en obra y vibrado, totalmente ejecutado, incluso curado y juntas. Paso sobre canal P.K. 1+502 2 1,00 1,00 0,40 0,80 (Estribos) 4 0,20 0,25 0,80 0,16 4 0,80 0,25 0,40 0,32						1,28
054	T PAVIMENTO DE MBC AC16 surf S Pavimento de mezcla bituminosa en caliente en capa de rodadura tipo AC 16 surf S de 5 cm de espesor, que incluye riego de imprimación con dotación de 1 Kg/m2, con betún B60/70 en dotación de 70 Kg/Tm, puesto en obra y terminado. Camino de servicio Canal de Lodosa PK 1+502 2,4 1,50 4,00 0,05 0,72						0,72
056	M3 ZAHORRA ARTIFICIAL Zahorra artificial compactada. Camino de servicio Canal de Lodosa PK 1+502 2 1,00 4,30 0,20 1,72 P.K. 0+000 - 1+502 1 1.502,00 3,00 0,20 901,20						902,92
181	ML TUBERÍA DE ACERO DN=632 mm Tubería de acero AE-42 helicosoldado, de límite elástico no inferior a 2000 Kp/cm2, de diámetro exterior 632 mm y PN 16 bar, con recubrimiento interior de 300 micras de pintura epoxi tipo alimentario y recubrimiento exterior de tres capas de polietileno extruido en caliente, incluso montaje, soldaduras y pruebas de control.						

MEDICIONES

ABASTECIMIENTO A VARIOS MUNICIPIOS DE LA RIOJA. SISTEMA CIDACOS

CÓDIGO	RESUMEN	UDS	LONGITUD	ANCHURA	ALTURA	PARCIALES	CANTIDAD
	Arqueta entrada	1	2,20	1,60		3,52	
							15,00
209	ML TUBERÍA HORMIGÓN DN=60 cm Tubería de hormigón centrifugado de diámetro interior 60 cm, fabricada con cemento CEM II/A-D/42,5/SR (UNE 80303:96), totalmente terminada. Paso sobre canal P.K. 1+502	1	4,40			4,40	
		1	5,45			5,45	
							9,85
381	M2 REPOSICIÓN DE FIRME DE AGLOMERADO Reposición de firme de aglomerado en caliente en zonas afectadas por las obras. P.K. 1+517 - 1+622	1	105,00	3,00		315,00	
							315,00
383	ML REPOSICIÓN DE CERRAMIENTO EXISTENTE Reposición de cerramiento existente hasta 2,00 m de altura. P.K. 1+622	1	5,00			5,00	
							5,00
388	ML REPOSICIÓN DE ACEQUIA HASTA 1 m ANCHURA Reposición de acequia prefabricada de hormigón hasta 1,00 m de anchura. P.K. 0+076 P.K. 1+174 P.K. 1+600	1	5,00			5,00	
		1	5,00			5,00	
		1	5,00			5,00	
							15,00
SUBCAPÍTULO 06.06 DERIVACIÓN RINCÓN. ARQUETA VÁLVULAS DE RETENCIÓN P-260							
APARTADO 06.06.01 OBRA CIVIL							
008	M2 DESPEJE Y DESBROCE Despeje y desbroce de capa de tierra vegetal con un espesor medio de 50 cm, incluso corte de árboles, extracción de tocones, nivelación de zona adyacente para el paso de maquinaria, transporte a lugar de acopio independiente para posterior reposición de tierra vegetal tras las obras y despedregado de las parcelas, así como transporte a vertedero de tierras sobrantes.	1	15,00	5,00		75,00	
							75,00
002	M3 EXCAVACIÓN EN ZANJAS Excavación en zanjas y zonas localizadas, en todo tipo de terrenos incluido terrenos en roca con medios mecánicos, incluso rasanteo, nivelación de la superficie de apoyo y transporte a lugar de empleo o vertedero.	1	13,00	5,00	2,64	171,60	
							171,60
010	M3 RELLENO ZANJAS, CIMIENTOS Y TRASDOSES DE MATERIAL SELECCIONADO Relleno con material seleccionado en zanjas, cimientos, trasdós de muros, estribos y otras estructuras procedente de la excavación o préstamos incluso carga, transporte y compactación.	1	171,60			171,60	
		-1	4,80	14,20	0,50	-34,08	
		-1	13,80	4,40	2,14	-129,94	
							7,58
028	M3 HORMIGÓN DE LIMPIEZA HL-150 Hormigón de limpieza HL-150, de consistencia plástica, árido de tamaño máximo 40 mm y cemento CEM-II-D/42,5/SR, para saneos y encachados, incluyendo fabricación y transporte totalmente colocado.	1	14,20	4,80		68,16	
							68,16
031	M3 HORMIGÓN HA-25/B/20/IIa Hormigón HA-25/B/20/IIa, con cemento CEM II/A-D/42,5/SR, incluyendo fabricación, transporte, puesta en obra y vibrado, totalmente ejecutado, incluso curado y juntas. Solera	1	14,20	4,80	0,40	27,26	

MEDICIONES

ABASTECIMIENTO A VARIOS MUNICIPIOS DE LA RIOJA. SISTEMA CIDACOS

CÓDIGO	RESUMEN	UDS	LONGITUD	ANCHURA	ALTURA	PARCIALES	CANTIDAD
	Arqueta entrada	1	2,20	1,60		3,52	
		2	3,80	0,30	2,35	5,36	
							52,08
023	KG ACERO CORRUGADO B-500-S Acero redondo corrugado para armar tipo B-500-S elaborado y colocado. Solera Muros Solapes y despuntes (5%)	1	27,26	70,00		1.908,20	
		1	24,82	85,00		2.109,70	
		0,05	4.017,90			200,90	
							4.218,80
025	M2 ENCOFRADO RECTO EN PARAMENTOS OCULTOS Encofrado recto en paramentos ocultos, incluso colocación, fijación y desencofrado. Solera	2	14,40		0,40	11,52	
		2	4,40		0,40	3,52	
							15,04
026	M2 ENCOFRADO RECTO EN PARAMENTOS VISTOS 1C Encofrado recto en paramentos vistos a una cara, incluso colocación, fijación y desencofrado.	2	13,80		2,35	64,86	
		2	4,40		2,35	20,68	
							85,54
052	ML JUNTAS DE ESTANQUEIDAD DE PVC 32 CM Junta de trabajo interior de policloruro de vinilo (PVC) 100% virgen, con una fuerza máxima de dilatación > 250 %, de 32 cm de ancho, MASTERFLEX 2000 TI-24 de BASF o equivalente, colocada simétricamente en el eje de la losa o muro, incluso solapes y piezas especiales para cruces o ángulos. Medida la longitud ejecutada.	2	13,80			27,60	
		2	4,40			8,80	
							36,40
462	M2 FÁBRICA BLOQUES 40x20x20 cm TIPO SPLIT COLOR Fábrica de bloques de hormigón tipo Split, de medidas 40x20x20 cm color i/relleno de hormigón y colocación de armaduras s/normativa y recibido con mortero de cemento y arena de río 1/6 i/p.p. de piezas especiales para dinteles y materialización de jambas, roturas, nivelados, aplomados, llagueados y limpieza, todo ello según normativa. Muros A deducir puerta A deducir ventanas	1	13,80		3,80	52,44	
		1	13,80		3,40	46,92	
		2	4,40		3,60	31,68	
		-1	1,00		2,20	-2,20	
		-3	0,80		0,60	-1,44	
							127,40
520	M2 CUBIERTA PANEL SANDWICH (E=50 mm.) Cubierta con panel tipo sandwich espesor 50 cm., con doble chapa prelacada de 0,4 mm de espesor, y aislamiento térmico de poliuretano, fijada con gancho de acero galvanizado, incluso p.p de piezas de remate, totalmente colocada.	1	13,80	4,40		60,72	
							60,72
519	ML REMATE DE CHAPA PRELACADA CUBIERTA Remate de chapa prelacada en color, para cubrir parte superior de bloque o panel, hasta el panel sandwich de la cubierta por el interior del peto, fijado mediante tacos y/o ganchos anclado a muro y o cubierta, dispuesto según planos.	2	13,80			27,60	
		2	4,40			8,80	
							36,40

MEDICIONES

ABASTECIMIENTO A VARIOS MUNICIPIOS DE LA RIOJA. SISTEMA CIDACOS

CÓDIGO	RESUMEN	UDS	LONGITUD	ANCHURA	ALTURA	PARCIALES	CANTIDAD
465.1	M2 PUERTA DOBLE CHAPA ACERO CON LAMAS Puerta de paso hojas abatibles de doble chapa lisa de acero de 1 mm de espesor, con aislamiento interno de fibre de vidrio, engatillada en dos bandejas, con rigidizadores de tubo rectangular, i/manillas de acero inoxidable y cerradura, con dos o cuatro rejillas de ventilación con malla anti insectos interior, patillas para recibir en fábricas, herrajes de colgar y de seguridad, imprimación antióxido y pintura al esmalte, totalmente colocada incluyendo el recibido de fábricas.	1	1,00		2,20	2,20	
							2,20
464cf	M2 CARPINTERÍA FIJA ALUMINIO m². Carpintería fija con junquillos para la fijación del vidrio, de aluminio modelo con rotura de puente térmico, Alfil A54RPT de SAPAGROUP con un ancho de marco de 54 mm y con un ancho de hoja de 61 mm, medida del frente de 96,3 mm, con sistema de cámara europea, con espesor de perfil de 1,5 mm, con sistema de cierre por junta central de estanqueidad en EPDM, coplanar exteriormente y con resalte de hoja sobre el marco al interior, para un acristalamiento con altura de galce de 22 mm y anchura hasta 44 mm en marcos y 51 mm en hojas, lacado (entre 60-100 micras) en color estándar (RAL estándar: blanco, gris...), herrajes de colgar, p.p. de cerradura Tesa o similar y costes indirectos. Homologada con Clase 4 en el ensayo de permeabilidad al aire según norma UNE-EN 1026:2000. La transmitancia máxima del marco es de 2,90 W/m² K, y cumple en las zonas A, B, C, D y E, según el C TE/DB-HE 1.	2	0,80		0,60	0,96	
							0,96
464V3	M2 VIDRIO SEGURIDAD STADIP 44.1 INCOLORO (2B2) m². Acristalamiento de vidrio laminar de seguridad Stadip compuesto por dos vidrios de 4 mm de espesor unidos mediante lámina de butiral de polivinilo incolora de 0,38 mm, clasificado 2B2 según UNE-EN 12600, fijado sobre carpintería con acuíñado mediante calzos de apoyo perimetrales y laterales y sellado en frío con silicona neutra, incluso colocación de junquillos, según UNE 8522:1985.	2	0,80		0,60	0,96	
							0,96
521	M2 CELOSIA FIJA VENTILACIÓN Celosía metálica fija para ventilación, formada por cerco con empanelado de lamas de acero de 60 mm, con abertura mínima de 1 cm entre lamas, malla de 2 mm para evitar entrada de insectos, garras de sujeción a soporte de 10 cm, elaborada en taller y montada en obra, totalmente colocada.	1	0,80		0,60	0,48	
							0,48
020	KG ACERO S 275 J PERFILES LAMINADOS Acero S 275 J en perfiles laminados elaborado y colocado.						
	Correas IPE-120	3	13,80	10,40		430,56	430,56
	Vigas IPE-180	4	4,40	18,80		330,88	
	Pilar HEB-100	4	3,30	20,40		269,28	
		4	2,60	20,40		212,16	812,32
	Placas	8	90,00			720,00	
	Polipasto IPE-180	2	13,40	18,80		503,84	
							2.466,72
474.1	ML CANALON CHAPA PRELACADA 50cm Canalón de chapa prelacada en color, de 50 cm. de desarrollo fijado mediante ganchos ocultos con tornillo autoroscante 40 cm., incluso p.p. de embocadura de bajante, codos y piezas especiales.	1	13,80			13,80	
							13,80
474.2	ML BAJANTE DE CHAPA PRELACADA DN110 Bajante de chapa prelacada en color, DN110, fijado mediante ganchos con tornillo autoroscante 20 cm., incluso p.p. de embocadura de bajante, codos y piezas especiales.	2				2,00	
							2,00

MEDICIONES

ABASTECIMIENTO A VARIOS MUNICIPIOS DE LA RIOJA. SISTEMA CIDACOS

CÓDIGO	RESUMEN	UDS	LONGITUD	ANCHURA	ALTURA	PARCIALES	CANTIDAD
290B	M2 ESCALERA Y PASARELAS DE ACERO GALVANIZADO. BARANDILLAS GALVANIZ Escalera y pasarelas de acceso de forma según planos, ejecutada en perfiles de acero galvanizado en caliente, incluso barandilla tubular del mismo material, de 90 cm de altura en uno o dos lados, rodapié de seguridad del mismo en uno o dos lados, así como entramado metálico de 30x30x3 en descansillos y peldaños, medida según su proyección en planta. Anclada a los muros y/o solera, instalada.	1	3,80	1,00		3,80	
		2	2,00	0,80		3,20	
							7,00
290AA	ML ESCALERA TUBULAR GALVANIZADO CON ELEMENTOS ANTICAIDA Formación de escalera tubular de 50 mm de diámetro, de acero galvanizado, incluso protecciones circulares contra caídas según normativa, anclada a la pared y/o muros, totalmente ejecutada.	2				2,00	
							2,00
620	UD APOYOS DE TUBERÍA Y VÁLVULAS SOBRE SOLERA Apoyos de tuberías y válvulas en soleras, mediante dado de hormigón HA-25/P/20/IIa, ligeramente armado y anclado a la solera, así como cintas o eslingas de acero con material de protección de tubería para sujeción de las mismas, incluyendo el hormigón, encofrados, acero, eslingas, material de PE de protección, montado.	12				12,00	
							12,00
APARTADO 06.06.02 VÁLVULAS Y ACCESORIOS							
115.13	UD BRIDA ENCHUFE FD 400 mm PN40 Brida enchufe de fundición dúctil de PFA 40 bar para tubería de 400 mm, con un revestimiento interior y exterior epoxi, i/p.p. de junta de unión y medios auxiliares, totalmente colocada y probada.	1				1,00	
	Entrada						1,00
115.5	UD BRIDA ENCHUFE FD 400 mm PN16/25 Brida enchufe de fundición dúctil de PFA 16/25 bar para tubería de 400 mm, con un revestimiento interior y exterior epoxi, i/p.p. de junta de unión y medios auxiliares, totalmente colocada y probada.	1				1,00	
	Salida a Alfaro						1,00
115.6	UD BRIDA ENCHUFE FD 250 mm PN16/25 Brida enchufe de fundición dúctil de PFA 16/25 bar para tubería de 250 mm, con un revestimiento interior y exterior epoxi, i/p.p. de junta de unión y medios auxiliares, totalmente colocada y probada.	1				1,00	
	Derivación Rincón						1,00
134	UD TE FD BBB 250 mm PN16/25 SALIDA DN250/60 "T" de fundición dúctil de PFA 16/25 bar, con tres bridas para tubería de 250 mm con salida comprendida entre 250 y 60 mm, con un revestimiento interior y exterior epoxi, i/p.p. de junta de unión y medios auxiliares, totalmente colocada y probada.	2				2,00	
	Para ventosa tras reductora						2,00
	Para alivio tras ventosa	2				2,00	
	Ventosa a Rincón	1				1,00	
							5,00
126	UD TE FD BBB 250 mm PN40 SALIDA DN250/60 "T" de fundición dúctil de PFA 40 bar, con tres bridas para tubería de 250 mm con salida comprendida entre 250 y 60 mm, con un revestimiento interior y exterior epoxi, i/p.p. de junta de unión y medios auxiliares, totalmente colocada y probada.	1				1,00	
	Entrada DN250						1,00
121.1	UD TE FD BBB 400 mm PN16/25 SALIDA DN400/80 "T" de fundición dúctil de PFA 16/25 bar, con tres bridas para tubería de 400 mm con salida comprendida entre 400 y 80 mm, con un revestimiento interior y exterior epoxi, i/p.p. de junta de unión y medios auxiliares, totalmente colocada y probada.						

MEDICIONES

ABASTECIMIENTO A VARIOS MUNICIPIOS DE LA RIOJA. SISTEMA CIDACOS

CÓDIGO	RESUMEN	UDS	LONGITUD	ANCHURA	ALTURA	PARCIALES	CANTIDAD
	Arqueta entrada	1	2,20	1,60		3,52	
	Derivación a Rincón DN250	1				1,00	
	Ventosa a Alfaro	1				1,00	
							3,00
098.1	UD REDUCCIÓN FD 400 A 350/250 mm PN40						
	Reducción en fundición dúctil de 400 mm a 350-300-250 mm con dos bridas PN 40 bar, con un revestimiento interior y exterior epoxi, i/p.p. de junta de unión y medios auxiliares, totalmente colocada y probada.						
	Entrada	1				1,00	
							1,00
098	UD REDUCCIÓN FD 400 A 350/250 mm PN16/25						
	Reducción en fundición dúctil de 400 mm a 350-300-250 mm con dos bridas PN 16/25 bar, con un revestimiento interior y exterior epoxi, i/p.p. de junta de unión y medios auxiliares, totalmente colocada y probada.						
	Tras reductoras	2				2,00	
							2,00
160	UD MANGUITO FD 100 A 250 mm PN40						
	Manguito de fundición dúctil con bridas diámetros de 100 a 250 mm, longitud comprendida entre 0,20 y 1,00 m y PN40, incluso p.p. de tornillería y medios auxiliares, totalmente colocado y probado.						
	Antes reductora	2				2,00	
							2,00
162	UD MANGUITO FD DN100 A DN250 mm PN16/25						
	Manguito de fundición dúctil con bridas diámetros de 100 a 250 mm, longitud comprendida entre 0,20 y 1,00 m y PN16/25, incluso p.p. de tornillería y medios auxiliares, totalmente colocado y probado.						
	Después reductora	2				2,00	
	Derivación Rincón	1				1,00	
							3,00
162.1	UD MANGUITO FD DN300 A DN400 mm PN16/25						
	Manguito de fundición dúctil con bridas diámetros de 300 a 400 mm, longitud comprendida entre 0,20 y 1,00 m y PN16/25, incluso p.p. de tornillería y medios auxiliares, totalmente colocado y probado.						
	Tras válvula	2				2,00	
							2,00
250.12	UD FILTRO COLADOR EN Y DN=250 mm PN40						
	Filtro colador en "Y" de diámetro nominal DN=250 mm y brida PN=40 bar de presión, incluso juntas de unión y tornillería, totalmente instalado.						
		2				2,00	
							2,00
EVCMT250.1	UD VÁLVULA DE COMPUERTA MANUAL DN250 PN40						
	Válvula de compuerta de cierre elástico de 250 mm. de diámetro nominal y 40 At. de P.N., de accionamiento manual, de cuerpo de fundición nodular GGG-50, con eje de acero inoxidable al 13 % Cr. con roscas conformadas por laminación en frío, cierre en fundición nodular, tornillería de acero inoxidable, protegida contra la corrosión mediante aplicación de doble capa de pintura epoxy, totalmente colocada y probada. Resto de características según ET.						
	Entrada	2				2,00	
							2,00
EVM400	UD VÁLVULA DE MARIPOSA DOBLE EXCENRICIDAD DN 400 mm PN16 MANUAL						
	Válvula de mariposa de doble excentricidad de 400 mm de diámetro y PN16, de accionamiento manual por reductor, incluso mecanismo de accionamiento, maniobra y control, transporte, montaje, juntas, tornillería y pintura totalmente instalada y probada. Resto de características según ET de proyecto.						
	Tras caudalímetros	2				2,00	
	A Alfaro	1				1,00	
							3,00

MEDICIONES

ABASTECIMIENTO A VARIOS MUNICIPIOS DE LA RIOJA. SISTEMA CIDACOS

CÓDIGO	RESUMEN	UDS	LONGITUD	ANCHURA	ALTURA	PARCIALES	CANTIDAD
229	UD VÁLVULA DE COMPUERTA MANUAL DN250 PN16						
	Válvula de compuerta de accionamiento manual de diámetro nominal DN=250 mm de 16 bares de presión máxima admisible, con tornillería y juntas, totalmente instalada y probada, incluso volante de accionamiento.						
	A Rincon	1				1,00	
							1,00
255.2	UD VÁLVULA REDUCTORA DE PRESIÓN DN=250 mm PN40						
	Válvula reductora de presión de diámetro DN=250 mm y PN 40 bar, incluso juntas de unión y tornillería, totalmente colocada y probada.						
		2				2,00	
							2,00
ECD25040	UD CARRETE DE DESMONTAJE DN=250 mm PN40						
	Carrete telescópico de desmontaje DN250 PN40, bridas de acero al carbono, virolas de acero inoxidable, protección epoxi, tornillos y tuercas en acero F-114, cincado y posterior baño de cromo-niquel, incluido p.p. de brida enchufe, totalmente instalado y probado en obra.						
	Antes válvula	2				2,00	
							2,00
ECD25016	UD CARRETE DE DESMONTAJE DN=250 mm PN16						
	Carrete telescópico de desmontaje DN250 PN16, bridas de acero al carbono, virolas de acero inoxidable, protección epoxi, tornillos y tuercas en acero F-114, cincado y posterior baño de cromo-niquel, incluido p.p. de brida enchufe, totalmente instalado y probado en obra.						
	Derivación Rincón	1				1,00	
							1,00
ECD0400	UD CARRETE DE DESMONTAJE DN=400 mm PN16						
	Carrete telescópico de desmontaje DN400 PN16, bridas de acero al carbono, virolas de acero inoxidable, protección epoxi, tornillos y tuercas en acero F-114, cincado y posterior baño de cromo-niquel, incluido p.p. de brida enchufe, totalmente instalado y probado en obra.						
	Tras caudalímetro	2				2,00	
	A Alfaro	1				1,00	
							3,00
273	UD VÁLVULA ALIVIO DE PRESIÓN 3" PN 16						
	Válvula de alivio de presión de 3" brida PN 16 bar, incluso válvula de corte de 3", juntas de unión, y tornillería, totalmente colocada y probada.						
	Tras reductoras	2				2,00	
							2,00
245.2	UD VENTOSA DN=80 (3") mm PN16						
	Válvula ventosa de tres funciones de DN=80 mm (3") y PN 16 bar incluido transporte, juntas, válvula de corte DN=80 mm y PN 16y piezas especiales, totalmente colocada y probada.						
	Salida a Alfaro	1				1,00	
	Salida a Rincón	1				1,00	
	Tras reductoras	2				2,00	
							4,00
079	UD CODO FD 1/4 400 mm						
	Codo de fundición dúctil de 1/4 de diámetro interior 400 mm y PFA 30 bar, con revestimiento interior y exterior epoxi, incluso p.p. de juntas y medios auxiliares, totalmente colocado y probado.						
		2				2,00	
							2,00
082	UD CODO FD 1/4 250 mm						
	Codo de fundición dúctil de 1/8 de diámetro interior 250 mm y PFA 40 bar, con revestimiento interior y exterior epoxi, incluso p.p. de juntas y medios auxiliares, totalmente colocado y probado.						
		2				2,00	
							2,00

MEDICIONES

ABASTECIMIENTO A VARIOS MUNICIPIOS DE LA RIOJA. SISTEMA CIDACOS

CÓDIGO	RESUMEN	UDS	LONGITUD	ANCHURA	ALTURA	PARCIALES	CANTIDAD
061	ML TUBERÍA FD 400 mm Tubería de fundición dúctil de diámetro interior 400 mm y PFA de 42 bar, revestida interiormente con mortero de cemento y exteriormente con una capa de cinc y otra bituminosa, i/p.p. de junta automática flexible, banda de señalización y medios auxiliares, totalmente colocada y probada. Previo carrete	2	2,00			4,00	
		2	1,20			2,40	
							6,40
ECELM400	UD CAUDALÍMETRO ELECTROMAGNÉTICO DN 400 mm Equipo medidor de caudal de DN400 mm. tipo electromagnético y PN=10 atm. con salida 4/20 mA, tensión 220 V y escala 0-240 m3/h, totalmente instalado y probado. Incluido transporte, motaje, conexiones eléctricas y pruebas de funcionamiento. Resto de características, según ET.	2				2,00	
							2,00
APARTADO 06.06.03 INSTALACIÓN ELÉCTRICA DE BT							
563.1	ud PANTALLA ESTANCA LED Luminaria estanca WT120C LED80S/840 de Philips o equivalente para montaje en superficie de dimensiones 1515x80, carcasa de policarbonato, óptica de polimetacrilato de metilo, flujo luminoso 8.000 lm, potencia 68 W, Tª color 4000 K, rango de Tª de 10°C a 35°C, protección IP-65 Clase I. Incluso p.p. de canalización y cableado, completamente instalado.	2				2,000	
							2,00
524.1	m LINEA 3x1.5mm2 Cu 0.6/1kV RZ1-K (AS) Línea eléctrica con conductor multipolares 3x1.5mm2 RZ1-K (AS) en canalización existente, incluso conexionado en inicio y final de línea.	1	30,000			30,000	
							30,00
571	ud INTERRUPTOR EMPOTRAR SIMO 32 BLANCO. Interruptor empotrar blanco, totalmente instalado.	1				1,000	
							1,00
204	m TUBO DE PVC RÍGIDO DE 25 MM DIÁMETRO Tubo rígido de PVC d=25mm para canalización de conductores, incluso soportes y anclajes a pared, instalado.	1	50,000			50,000	
							50,00
APARTADO 06.06.04 VARIOS							
617.4	PA CONEXIÓN ALIVIOS CON POZO EXTERIOR Y DESAGÜE Partida Alzada de Abono Íntegro para conexión de la salida de los alivios de la nueva caseta de válvulas con pozo exterior y salida a cuneta y/o cauce, incluyendo, excavaciones, tuberías de PEAD DN de salida de alivio, rellenos, ayudas de albañilería, demoliciones, relleno de huecos con morteros sin retracción, anclaje de tuberías, así como todos los medios auxiliares necesarios para la conexión entre ambas tuberías.	1				1,00	
							1,00
CAPÍTULO 07 RAMAL DESDE ARQUETA P190- ALCANADRE							
SUBCAPÍTULO 07.01 EJE 8: P-190 - DERIVACIÓN HACIA TUDELILLA (P-350)							
APARTADO 07.01.01 MOVIMIENTO DE TIERRAS							
002	M3 EXCAVACIÓN EN ZANJAS Excavación en zanjas y zonas localizadas, en todo tipo de terrenos incluido terrenos en roca con medios mecánicos, incluso rasanteo, nivelación de la superficie de apoyo y transporte a lugar de empleo o vertedero. Según medición auxiliar A descontar con agotamiento	1	25.253,80			25.253,80	
		-1	9.009,10			-9.009,10	
							16.244,70

MEDICIONES

ABASTECIMIENTO A VARIOS MUNICIPIOS DE LA RIOJA. SISTEMA CIDACOS

CÓDIGO	RESUMEN	UDS	LONGITUD	ANCHURA	ALTURA	PARCIALES	CANTIDAD
003	M3 EXCAVACIÓN EN ZANJAS CON AGOTAMIENTO Excavación en zanjas y zonas localizadas, en todo tipo de terrenos incluido terrenos en roca con medios mecánicos, incluso rasanteo, nivelación de la superficie de apoyo, agotamiento y transporte a lugar de empleo o vertedero. Según medición auxiliar						
	P.K. 1+140 - 1+280	1	513,20			513,20	
	P.K. 4+060 - 4+725	1	2.394,20			2.394,20	
	P.K. 5+640 - 6+140	1	1.272,80			1.272,80	
	P.K. 6+900 - 8+200	1	3.479,30			3.479,30	
	P.K. 8+800 - FIN	1	1.349,60			1.349,60	
	Desagües	1	587,00	0,69	1,19	481,99	
							9.491,09
008	M2 DESPEJE Y DESBROCE Despeje y desbroce de capa de tierra vegetal con un espesor medio de 50 cm, incluso corte de árboles, extracción de tocones, nivelación de zona adyacente para el paso de maquinaria, transporte a lugar de acopio independiente para posterior reposición de tierra vegetal tras las obras y despedregado de las parcelas, así como transporte a vertedero de tierras sobrantes.						
	P.K. 2+723 - 2+807	1	84,00	3,00		252,00	
	P.K. 2+953 - 3+070	1	117,00	3,00		351,00	
	P.K. 3+555 - 3+573,14	1	18,14	3,00		54,42	
	P.K. 3+595,46 - 3+905	1	309,54	3,00		928,62	
	P.K. 3+950 - 4+705	1	755,00	3,00		2.265,00	
	P.K. 5+750 - 5+791,46	1	41,46	3,00		124,38	
	P.K. 5+809,95 - 5+817	1	7,05	3,00		21,15	
	P.K. 5+817 - 6+155	1	338,00	3,00		1.014,00	
	P.K. 6+174,09 - 6+384	1	209,91	3,00		629,73	
							5.640,30
010	M3 RELLENO ZANJAS, CIMIENTOS Y TRASDOSES DE MATERIAL SELECCIONADO Relleno con material seleccionado en zanjas, cimientos, trasdós de muros, estribos y otras estructuras procedente de la excavación o préstamos incluso carga, transporte y compactación. Según medición auxiliar						
	Desagües	1	17.290,10			17.290,10	
		1	587,00	0,69	0,90	364,53	
							17.654,63
011	M3 RELLENO DE ARENA Arena para apoyo y protección de tuberías incluso carga, transporte, colocación, compactación y nivelación. Según medición auxiliar						
	Desagües	1	6.693,20			6.693,20	
		1	587,00	0,69	0,29	117,46	
							6.810,66
030	M3 HORMIGÓN HNE-20/B/40 Hormigón HNE-20/B/40, con cemento CEM III/A-D/42,5/SR (UNE 80303:96), en masa o ligeramente armado, colocado en cualquier tipo de obra, incluso fabricación, carga y transporte, totalmente colocado.						
	P.K. 1+575 - 1+590	1	15,00	1,50	0,70	15,75	
	P.K. 2+280 - 2+290	1	10,00	1,50	0,70	10,50	
	P.K. 3+285 - 3+295	1	10,00	1,50	0,70	10,50	
	P.K. 3+710 - 3+722	1	12,00	1,50	0,70	12,60	
	P.K. 5+750 - 5+770	1	20,00	1,50	0,70	21,00	
	P.K. 8+870 - 8+880	1	10,00	1,50	0,70	10,50	
							80,85

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ABASTECIMIENTO A VARIOS MUNICIPIOS DE LA RIOJA. SISTEMA CIDACOS

CÓDIGO	RESUMEN	UDS	LONGITUD	ANCHURA	ALTURA	PARCIALES	CANTIDAD
APARTADO 07.01.02 OBRA CIVIL							
023	KG ACERO CORRUGADO B-500-S						
	Acero redondo corrugado para armar tipo B-500-S elaborado y colocado.						
	Anclaje codos	18	103,17			1.857,06	
		17	114,33			1.943,61	
		14	120,28			1.683,92	
		11	126,07			1.386,77	
		9	158,08			1.422,72	
		16	175,45			2.807,20	
		15	189,91			2.848,65	
		8	201,05			1.608,40	
		3	244,89			734,67	
		5	270,85			1.354,25	
		11	298,15			3.279,65	
		2	316,92			633,84	
		3	402,79			1.208,37	
		1	441,60			441,60	
	A mayores	15	103,17			1.547,55	
							24.758,26
030	M3 HORMIGÓN HNE-20/B/40						
	Hormigón HNE-20/B/40, con cemento CEM III/A-D/42,5/SR (UNE 80303:96), en masa o ligeramente armado, colocado en cualquier tipo de obra, incluso fabricación, carga y transporte, totalmente colocado.						
	Anclaje codos	18	1,58			28,44	
		17	1,85			31,45	
		14	1,94			27,16	
		11	2,15			23,65	
		9	2,96			26,64	
		16	3,44			55,04	
		15	3,89			58,35	
		8	4,30			34,40	
		3	5,88			17,64	
		5	6,73			33,65	
		11	7,65			84,15	
		2	8,41			16,82	
		3	12,47			37,41	
		1	14,03			14,03	
	A mayores	15	1,58			23,70	
							512,53
034.2	UD ARQUETA HORMIGÓN DE 3,00x2,50 M Y HASTA 2,50 m DE PROFUNDIDAD						
	Arqueta de hormigón armado HA-25/P/40/IIa para alojamiento de válvulas de tuberías de dimensiones interiores 3,0x2,5 m y una altura de hasta 2,50 m, con solera de 30 cm de canto, muros de 25 cm de espesor y tapa de 25 cm de canto, armado con parrilla de 20x20 cm con redondos de 12 mm, incluso excavación, relleno posterior, encofrado, totalmente terminada.						
	PK 3+720	1				1,00	
	PK 7+200	1				1,00	
	Tras derivación Bergasa	1				1,00	
	Cruces carreteras	8				8,00	
							11,00
373	UD POZO DE REGISTRO DE AROS DE HORMIGÓN DN1200						
	Pozo de registro de abastecimiento para válvulas de control de cualquier altura de diámetro interior D=1200 mm, incluso base de hormigón HNE-20, aros de hormigón, cono prefabricado de hormigón, pates y tapa de fundición, totalmente terminado.						
	Ventosas	17				17,00	
	Desagües	11				11,00	
							28,00

MEDICIONES

ABASTECIMIENTO A VARIOS MUNICIPIOS DE LA RIOJA. SISTEMA CIDACOS

CÓDIGO	RESUMEN	UDS	LONGITUD	ANCHURA	ALTURA	PARCIALES	CANTIDAD
APARTADO 07.01.03 TUBERÍAS							
061	ML TUBERIA FD 400 mm						
	Tubería de fundición dúctil de diámetro interior 400 mm y PFA de 42 bar, revestida interiormente con mortero de cemento y exteriormente con una capa de cinc y otra bituminosa, i/p.p. de junta automática flexible, banda de señalización y medios auxiliares, totalmente colocada y probada.						
		1	9.332,00			9.332,00	
							9.332,00
079	UD CODO FD 1/4 400 mm						
	Codo de fundición dúctil de 1/4 de diámetro interior 400 mm y PFA 30 bar, con revestimiento interior y exterior epoxi, incluso p.p. de juntas y medios auxiliares, totalmente colocado y probado.						
		4				4,00	
							4,00
077	UD CODO FD 1/8 400 mm						
	Codo de fundición dúctil de 1/8 de diámetro interior 400 mm y PFA 30 bar, con revestimiento interior y exterior epoxi, incluso p.p. de juntas y medios auxiliares, totalmente colocado y probado.						
		21				21,00	
							21,00
078	UD CODO FD 1/16 A 1/32 400 mm						
	Codo de fundición dúctil de 1/16 a 1/32 de diámetro interior 400 mm y PFA 30 bar, con revestimiento interior y exterior epoxi, incluso p.p. de juntas y medios auxiliares, totalmente colocado y probado.						
		123				123,00	
							123,00
199	ML TUBERIA DE PVC 90 mm						
	Tubería de PVC con junta elástica de 90 mm de diámetro exterior, y PN=6 bar, incluso banda de señalización, totalmente colocada en zanja.						
	Desagües						
	P.K. 1+599,539	1	10,00			10,00	
	P.K. 2+143	1	35,00			35,00	
	P.K. 3+720	1	5,00			5,00	
	P.K. 5+760	1	5,00			5,00	
	P.K. 8+910,981	1	30,00			30,00	
	P.K. 0+440	1	95,00			95,00	
	P.K. 2+860	1	70,00			70,00	
	P.K. 4+320	1	170,00			170,00	
	P.K. 7+200	1	110,00			110,00	
	P.K. 8+400	1	57,00			57,00	
							587,00
APARTADO 07.01.04 VÁLVULAS Y ACCESORIOS							
245.2	UD VENTOSA DN=80 (3") mm PN16						
	Válvula ventosa de tres funciones de DN=80 mm (3") y PN 16 bar incluido transporte, juntas, válvula de corte DN=80 mm y PN 16y piezas especiales, totalmente colocada y probada.						
	P.K. 0+280	1				1,00	
	P.K. 0+560	1				1,00	
	P.K. 5+380	1				1,00	
	P.K. 5+840	1				1,00	
	P.K. 6+380	1				1,00	
	P.K. 6+920	1				1,00	
	P.K. 7+580	1				1,00	
	P.K. 8+080	1				1,00	
	P.K. 8+836,498	1				1,00	
							9,00
245.5	UD VENTOSA DN=80 (3") mm PN25						
	Válvula ventosa de tres funciones de DN=80 mm (3") y PN 25 bar incluido transporte, juntas, válvula de corte DN=80 mm y PN 25 y piezas especiales, totalmente colocada y probada.						
	P.K. 1+200	1				1,00	
	P.K. 1+840	1				1,00	

MEDICIONES

ABASTECIMIENTO A VARIOS MUNICIPIOS DE LA RIOJA. SISTEMA CIDACOS

CÓDIGO	RESUMEN	UDS	LONGITUD	ANCHURA	ALTURA	PARCIALES	CANTIDAD
	Arqueta entrada	1	2,20	1,60		3,52	
	P.K. 2+540	1				1,00	
	P.K. 2+793,221	1				1,00	
	P.K. 3+400	1				1,00	
	P.K. 4+140	1				1,00	
	P.K. 4+884,844	1				1,00	
							8,00
121	UD TE FD EEB 400 mm PN16/25 SALIDA DN400/80						
	"T" de fundición dúctil de PFA 16/25 bar, con dos enchufes y derivación con brida para tubería de 400 mm con salida comprendida entre 400 y 80 mm, con un revestimiento interior y exterior epoxi, i/p.p. de junta de unión y medios auxiliares, totalmente colocada y probada.						
	Ventosas						
	P.K. 0+280	1				1,00	
	P.K. 0+560	1				1,00	
	P.K. 5+380	1				1,00	
	P.K. 5+840	1				1,00	
	P.K. 6+380	1				1,00	
	P.K. 6+920	1				1,00	
	P.K. 7+580	1				1,00	
	P.K. 8+080	1				1,00	
	P.K. 8+836,498	1				1,00	
	P.K. 1+200	1				1,00	
	P.K. 1+840	1				1,00	
	P.K. 2+236,110	1				1,00	
	P.K. 2+540	1				1,00	
	P.K. 2+793,221	1				1,00	
	P.K. 3+400	1				1,00	
	P.K. 4+140	1				1,00	
	P.K. 4+884,844	1				1,00	
	Desagües	11				11,00	
							28,00
234	UD VÁLVULA DE COMPUERTA MANUAL DN150 PN25						
	Válvula de compuerta de cierre elástico de 150 mm. de diámetro nominal y 25 At. de P.N., de accionamiento manual por volante, de cuerpo de fundición nodular GGG-50, con eje de acero inoxidable al 13 % Cr. con roscas conformadas por laminación en frío, cierre en fundición nodular, tornillería de acero inoxidable, protegida contra la corrosión mediante aplicación de doble capa de pintura epoxy, totalmente colocada y probada. Resto de características según ET.						
	Desagües						
	P.K. 1+599,539	1				1,00	
	P.K. 2+140	1				1,00	
	P.K. 2+860	1				1,00	
	P.K. 3+720	1				1,00	
	P.K. 4+320	1				1,00	
							5,00
235	UD VÁLVULA DE COMPUERTA MANUAL DN150 PN16						
	Válvula de compuerta de accionamiento manual de diámetro nominal DN=150 mm de 16 bares de presión máxima admisible, con tornillería y juntas, totalmente instalada y probada, incluso volante de accionamiento.						
	Desagües						
	P.K. 0+260	1				1,00	
	P.K. 0+440	1				1,00	
	P.K. 5+760	1				1,00	
	P.K. 7+200	1				1,00	
	P.K. 8+400	1				1,00	
	P.K. 8+910,981	1				1,00	
							6,00
109A	UD RACORD TIPO BARCELONA SALIDAS 80-200 mm						
	Rosca Racord tipo Barcelona con salidad entre 80 y 200 mm para enchufe de manguera, totalmente instalado y terminado.						

MEDICIONES

ABASTECIMIENTO A VARIOS MUNICIPIOS DE LA RIOJA. SISTEMA CIDACOS

CÓDIGO	RESUMEN	UDS	LONGITUD	ANCHURA	ALTURA	PARCIALES	CANTIDAD
	Arqueta entrada	1	2,20	1,60		3,52	
	P.K. 4+320	1				1,00	
	P.K. 0+260	1				1,00	
	P.K. 0+440	1				1,00	
							3,00
EVMM400.1	UD VÁLVULA DE MARIPOSA DOBLE EXCENRICIDAD DN 400 mm PN25 MANUAL						
	Válvula de mariposa de doble excentricidad de 400 mm de diámetro y PN25, de accionamiento manual por reductor, incluso mecanismo de accionamiento, maniobra y control, transporte, montaje, juntas, tornillería y pintura totalmente instalada y probada. Resto de características según ET de proyecto.						
	PK 3+720	1				1,00	
	PK 7+200	1				1,00	
	Tras derivación Bergasa	1				1,00	
	Cruces carreteras	8				8,00	
							11,00
114.6	UD BRIDA LISO FD 400 mm PN16/25						
	Brida lisa de fundición dúctil de PFA 16/25 bar para tubería de 400 mm, con un revestimiento interior y exterior epoxi, i/p.p. de junta de unión y medios auxiliares, totalmente colocada y probada.						
	PK 3+720	1				1,00	
	PK 7+200	1				1,00	
	Tras derivación Bergasa	1				1,00	
							3,00
115.5	UD BRIDA ENCHUFE FD 400 mm PN16/25						
	Brida enchufe de fundición dúctil de PFA 16/25 bar para tubería de 400 mm, con un revestimiento interior y exterior epoxi, i/p.p. de junta de unión y medios auxiliares, totalmente colocada y probada.						
	PK 3+720	1				1,00	
	PK 7+200	1				1,00	
	Tras derivación Bergasa	1				1,00	
							3,00
ECD0400.1	UD CARRETE DE DESMONTAJE DN=400 mm PN25						
	Carrete telescópico de desmontaje DN400 PN25, bridas de acero al carbono, virolas de acero inoxidable, protección epoxi, tornillos y tuercas en acero F-114, cincado y posterior baño de cromo-niquel, incluido p.p. de brida enchufe, totalmente instalado y probado en obra.						
	PK 3+720	1				1,00	
	PK 7+200	1				1,00	
	Tras derivación Bergasa	1				1,00	
	Cruces carreteras	8				8,00	
							11,00
APARTADO 07.01.05 HINCAS							
368	ML HINCA TUBO ACERO 609 mm TIERRAS						
	Hinca de tubo de acero, de 609 mm de diámetro interior, bajo viales, en tierra o roca alterada, incluso p.p. de instalación de tubería de fundición dúctil comprendida entre 400 mm y 250 mm de diámetro interior y sus anclajes y apoyos; muros de reacción y contención; y todos los elementos necesarios para su montaje y desmontaje.						
	P.K. 0+460 - 0+475,09	1	15,09			15,09	
	P.K. 3+573,14 - 3+595,46	1	22,32			22,32	
	P.K. 5+791,46 - 5+809,95	1	18,49			18,49	
	P.K. 6+155 - 6+174,09	1	19,09			19,09	
							74,99

MEDICIONES

ABASTECIMIENTO A VARIOS MUNICIPIOS DE LA RIOJA. SISTEMA CIDACOS

CÓDIGO	RESUMEN	UDS	LONGITUD	ANCHURA	ALTURA	PARCIALES	CANTIDAD
APARTADO 07.01.06 OBRAS ACCESORIAS Y REPOSICIONES DE SERVICIOS							
056	M3 ZAHORRA ARTIFICIAL Zahorra artificial compactada.						
	P.K. 0+446 - 0+460	1	14,00	3,00	0,20		8,40
	P.K. 0+475,09 - 1+575	1	1.099,91	3,00	0,20		659,95
	P.K. 1+590 - 2+723	1	1.133,00	3,00	0,20		679,80
	P.K. 2+807 - 2+953	1	146,00	3,00	0,20		87,60
	P.K. 3+070 - 3+555	1	485,00	3,00	0,20		291,00
	P.K. 3+905 - 3+950	1	45,00	3,00	0,20		27,00
	P.K. 4+705 - 5+750	1	1.045,00	3,00	0,20		627,00
	P.K. 5+817 - 5+827	1	10,00	3,00	0,20		6,00
	P.K. 6+384 - FIN	1	2.947,42	3,00	0,20		1.768,45
							4.155,20
383	ML REPOSICIÓN DE CERRAMIENTO EXISTENTE Reposición de cerramiento existente hasta 2,00 m de altura.						
	P.K. 5+700	1	5,00				5,00
							5,00
393	ML CANALIZACIÓN TELEFÓNICA FIBRA ÓPTICA Canalización telefónica en zanja bajo calzada, para reposición de cable de fibra óptica de 12 a 16 fibras, incluso p.p. de arquetas y caja de empalmes, totalmente terminado.						
	P.K. 3+590	1	5,00				5,00
							5,00
SUBCAPÍTULO 07.02 EJE 9: P-350 - ETAP VALLE DE OCÓN							
APARTADO 07.02.01 MOVIMIENTO DE TIERRAS							
002	M3 EXCAVACIÓN EN ZANJAS Excavación en zanjas y zonas localizadas, en todo tipo de terrenos incluido terrenos en roca con medios mecánicos, incluso rasanteo, nivelación de la superficie de apoyo y transporte a lugar de empleo o vertedero.						
	Según medición auxiliar	1	17.069,40				17.069,40
	A descontar con agotamiento	-1	6.006,60				-6.006,60
							11.062,80
003	M3 EXCAVACIÓN EN ZANJAS CON AGOTAMIENTO Excavación en zanjas y zonas localizadas, en todo tipo de terrenos incluido terrenos en roca con medios mecánicos, incluso rasanteo, nivelación de la superficie de apoyo, agotamiento y transporte a lugar de empleo o vertedero.						
	Según medición auxiliar						
	P.K. 0+000 - 3+160	1	6.006,60				6.006,60
	Desagües	1	385,00	0,69	1,19		316,12
							6.322,72
008	M2 DESPEJE Y DESBROCE Despeje y desbroce de capa de tierra vegetal con un espesor medio de 50 cm, incluso corte de árboles, extracción de tocones, nivelación de zona adyacente para el paso de maquinaria, transporte a lugar de acopio independiente para posterior reposición de tierra vegetal tras las obras y despedregado de las parcelas, así como transporte a vertedero de tierras sobrantes.						
	P.K. 0+000 - 0+600	1	600,00	3,00			1.800,00
	P.K. 0+611 - 1+118	1	507,00	3,00			1.521,00
	P.K. 1+128 - 1+216	1	88,00	3,00			264,00
	P.K. 1+696 - 1+714	1	18,00	3,00			54,00
	P.K. 2+380 - 2+600	1	220,00	3,00			660,00
	P.K. 3+018 - 3+164	1	146,00	3,00			438,00
	P.K. 3+374 - 3+755	1	381,00	3,00			1.143,00
	P.K. 6+065 - 6+328	1	263,00	3,00			789,00
	P.K. 7+310 - 7+320	1	10,00	3,00			30,00
	P.K. 7+327 - 7+381	1	54,00	3,00			162,00
	P.K. 8+801 - 9+100	1	299,00	3,00			897,00
							7.758,00

MEDICIONES

ABASTECIMIENTO A VARIOS MUNICIPIOS DE LA RIOJA. SISTEMA CIDACOS

CÓDIGO	RESUMEN	UDS	LONGITUD	ANCHURA	ALTURA	PARCIALES	CANTIDAD
010	M3 RELLENO ZANJAS, CIMIENTOS Y TRASDOSES DE MATERIAL SELECCIONADO Relleno con material seleccionado en zanjas, cimientos, trasdós de muros, estribos y otras estructuras procedente de la excavación o préstamos incluso carga, transporte y compactación.						
	Según medición auxiliar	1	12.440,30				12.440,30
	Desagües	1	385,00	0,69	0,90		239,09
							12.679,39
011	M3 RELLENO DE ARENA Arena para apoyo y protección de tuberías incluso carga, transporte, colocación, compactación y nivelación.						
	Según medición auxiliar	1	4.268,40				4.268,40
	Desagües	1	385,00	0,69	0,29		77,04
							4.345,44
030	M3 HORMIGÓN HNE-20/B/40 Hormigón HNE-20/B/40, con cemento CEM III/A-D/42,5/SR (UNE 80303:96), en masa o ligeramente armado, colocado en cualquier tipo de obra, incluso fabricación, carga y transporte, totalmente colocado.						
	P.K. 1+696 - 1+714	1	18,00	1,00	0,50		9,00
	P.K. 7+310 - 7+320	1	10,00	1,00	0,50		5,00
							14,00
APARTADO 07.02.02 OBRA CIVIL							
023	KG ACERO CORRUGADO B-500-S Acero redondo corrugado para armar tipo B-500-S elaborado y colocado.						
	Anclaje codos	12	45,79				549,48
		10	49,59				495,90
		4	61,43				245,72
		16	70,12				1.121,92
		4	79,37				317,48
		12	86,87				1.042,44
		1	91,80				91,80
		5	102,34				511,70
		8	110,84				886,72
		5	113,47				567,35
		8	125,16				1.001,28
		4	137,74				550,96
		2	147,22				294,44
		3	150,28				450,84
		1	163,69				163,69
		1	170,75				170,75
		2	181,33				362,66
		4	196,04				784,16
		2	211,33				422,66
		1	260,62				260,62
		1	315,44				315,44
		2	428,51				857,02
		1	450,97				450,97
							11.916,00
030	M3 HORMIGÓN HNE-20/B/40 Hormigón HNE-20/B/40, con cemento CEM III/A-D/42,5/SR (UNE 80303:96), en masa o ligeramente armado, colocado en cualquier tipo de obra, incluso fabricación, carga y transporte, totalmente colocado.						
	Anclaje codos	12	0,47				5,64
		10	0,50				5,00
		4	0,74				2,96
		16	0,90				14,40
		4	1,09				4,36
		12	1,18				14,16
		1	1,34				1,34
		5	1,58				7,90

MEDICIONES

ABASTECIMIENTO A VARIOS MUNICIPIOS DE LA RIOJA. SISTEMA CIDACOS

CÓDIGO	RESUMEN	UDS	LONGITUD	ANCHURA	ALTURA	PARCIALES	CANTIDAD
	Arqueta entrada	1	2,20	1,60		3,52	
		5	1,85			9,25	
		8	2,15			17,20	
		4	2,35			9,40	
		2	2,65			5,30	
		3	2,84			8,52	
		1	3,24			3,24	
		1	3,37			3,37	
		2	3,74			7,48	
		4	4,22			16,88	
		2	4,73			9,46	
		1	6,52			6,52	
		1	8,41			8,41	
		2	13,69			27,38	
		1	14,80			14,80	
							216,57
373	UD POZO DE REGISTRO DE AROS DE HORMIGÓN DN1200						
	Pozo de registro de abastecimiento para válvulas de control de cualquier altura de diámetro interior D=1200 mm, incluso base de hormigón HNE-20, aros de hormigón, con prefabricado de hormigón, pates y tapa de fundición, totalmente terminado.						
	Ventosas	15				15,00	
	Desagües	8				8,00	
	PK 3+960	1				1,00	
	PK7+000	1				1,00	
							25,00
	APARTADO 07.02.03 TUBERÍA						
063	ML TUBERÍA FD 250 mm						
	Tubería de fundición dúctil de diámetro interior 250 mm y PFA de 54 bar, revestida interiormente con mortero de cemento y exteriormente con una capa de cinc y otra bituminosa, i/p.p. de junta automática flexible, banda de señalización y medios auxiliares, totalmente colocada y probada.	1	9.386,00			9.386,00	
							9.386,00
081	UD CODO FD 1/8 A 1/32 250 mm						
	Codo de fundición dúctil de 1/8 a 1/32 de diámetro interior 250 mm y PFA 54 bar, con un revestimiento interior y exterior epoxi, incluso p.p. de juntas y medios auxiliares, totalmente colocado y probado.	104				104,00	
							104,00
082	UD CODO FD 1/4 250 mm						
	Codo de fundición dúctil de 1/8 de diámetro interior 250 mm y PFA 40 bar, con revestimiento interior y exterior epoxi, incluso p.p. de juntas y medios auxiliares, totalmente colocado y probado.	5				5,00	
							5,00
199	ML TUBERÍA DE PVC 90 mm						
	Tubería de PVC con junta elástica de 90 mm de diámetro exterior, y PN=6 bar, incluso banda de señalización, totalmente colocada en zanja.						
	Desagües						
	P.K. 1+218,795	1	77,00			77,00	
	P.K. 7+320	1	58,00			58,00	
	P.K. 1+010,207	1	25,00			25,00	
	P.K. 3+980	1	111,00			111,00	
	P.K. 8+460	1	26,00			26,00	
	P.K. 8+801,447	1	28,00			28,00	
	P.K. 7+000	1	31,00			31,00	
	P.K. 5+751,250	1	29,00			29,00	
							385,00

MEDICIONES

ABASTECIMIENTO A VARIOS MUNICIPIOS DE LA RIOJA. SISTEMA CIDACOS

CÓDIGO	RESUMEN	UDS	LONGITUD	ANCHURA	ALTURA	PARCIALES	CANTIDAD
	APARTADO 07.02.04 VÁLVULAS Y ACCESORIOS						
245.2	UD VENTOSA DN=80 (3") mm PN16						
	Válvula ventosa de tres funciones de DN=80 mm (3") y PN 16 bar incluido transporte, juntas, válvula de corte DN=80 mm y PN 16y piezas especiales, totalmente colocada y probada.						
	P.K. 0+929,594	1				1,00	
	P.K. 3+100	1				1,00	
	P.K. 3+700	1				1,00	
	P.K. 4+420	1				1,00	
	P.K. 5+200	1				1,00	
	P.K. 5+633,244	1				1,00	
	P.K. 6+100	1				1,00	
	P.K. 6+800	1				1,00	
	P.K. 7+260	1				1,00	
	P.K. 8+080	1				1,00	
	P.K. 8+550,894	1				1,00	
	P.K. 9+183,781	1				1,00	
							12,00
245.5	UD VENTOSA DN=80 (3") mm PN25						
	Válvula ventosa de tres funciones de DN=80 mm (3") y PN 25 bar incluido transporte, juntas, válvula de corte DN=80 mm y PN 25 y piezas especiales, totalmente colocada y probada.						
	P.K. 1+120	1				1,00	
	P.K. 2+340	1				1,00	
							2,00
245.6	UD VENTOSA DN=80 (3") mm PN40						
	Válvula ventosa de tres funciones de DN=80 mm (3") y PN 40 bar incluido transporte, juntas, válvula de corte DN=80 mm y PN 40 y piezas especiales, totalmente colocada y probada.						
	P.K. 1+640	1				1,00	
							1,00
134	UD TE FD BBB 250 mm PN16/25 SALIDA DN250/60						
	"T" de fundición dúctil de PFA 16/25 bar, con tres bridas para tubería de 250 mm con salida comprendida entre 250 y 60 mm, con un revestimiento interior y exterior epoxi, i/p.p. de junta de unión y medios auxiliares, totalmente colocada y probada.						
	Ventosas						
	P.K. 0+929,594	1				1,00	
	P.K. 3+100	1				1,00	
	P.K. 3+700	1				1,00	
	P.K. 4+420	1				1,00	
	P.K. 5+200	1				1,00	
	P.K. 5+633,244	1				1,00	
	P.K. 6+100	1				1,00	
	P.K. 6+800	1				1,00	
	P.K. 7+260	1				1,00	
	P.K. 8+080	1				1,00	
	P.K. 8+550,894	1				1,00	
	P.K. 9+183,781	1				1,00	
	P.K. 1+120	1				1,00	
	P.K. 2+340	1				1,00	
	P.K. 1+640	1				1,00	
	Desagües	8				8,00	
							23,00
EVCM080	UD VÁLVULA DE COMPUERTA MANUAL DN80 PN16						
	Válvula de compuerta de cierre elástico de 80 mm. de diámetro nominal y 16 At. de P.N., de accionamiento manual por volante, de cuerpo de fundición nodular GGG-50, con eje de acero inoxidable al 13 % Cr. con roscas conformadas por laminación en frío, cierre en fundición nodular, tornillería de acero inoxidable, protegida contra la corrosión mediante aplicación de doble capa de pintura epoxy, totalmente colocada y probada. Resto de características según ET.						
	Desagües						
	P.K. 1+010,207	1				1,00	

MEDICIONES

ABASTECIMIENTO A VARIOS MUNICIPIOS DE LA RIOJA. SISTEMA CIDACOS

CÓDIGO	RESUMEN	UDS	LONGITUD	ANCHURA	ALTURA	PARCIALES	CANTIDAD
	Arqueta entrada	1	2,20	1,60		3,52	
	P.K. 5+751,250	1				1,00	
	P.K. 7+000	1				1,00	
	P.K. 7+320	1				1,00	
	P.K. 8+460	1				1,00	
	P.K. 8+801,447	1				1,00	
							7,00
239	UD VÁLVULA DE COMPUERTA MANUAL DN80 PN40						
	Válvula de compuerta de accionamiento manual de diámetro nominal DN=80 mm de 40 bares de presión máxima admisible, con tornillería y juntas, totalmente instalada y probada, incluso volante de accionamiento.						
	Desagües						
	P.K. 1+218,795	1				1,00	
							1,00
141	UD CARRETE DE DESMONTAJE DN=250 mm PN25						
	Carrete de desmontaje autoportante de PFA 25 bar de D=250 mm, colocado.						
	PK 3+960	1				1,00	
	PK7+000	1				1,00	
	Derivación hacia Tudelilla	1				1,00	
							3,00
228	UD VÁLVULA DE COMPUERTA MANUAL DN250 PN25						
	Válvula de compuerta de accionamiento manual de diámetro nominal DN=250 mm de 25 bares de presión máxima admisible, con tornillería y juntas, totalmente instalada y probada, incluso volante de accionamiento.						
	PK 3+960	1				1,00	
	PK7+000	1				1,00	
	Derivación hacia Tudelilla	1				1,00	
							3,00
115.6	UD BRIDA ENCHUFE FD 250 mm PN16/25						
	Brida enchufe de fundición dúctil de PFA 16/25 bar para tubería de 250 mm, con un revestimiento interior y exterior epoxi, i/p.p. de junta de unión y medios auxiliares, totalmente colocada y probada.						
	PK 3+960	1				1,00	
	PK7+000	1				1,00	
	Derivación hacia Tudelilla	1				1,00	
							3,00
114.3	UD BRIDA LISO FD 250 mm PN16/25						
	Brida lisa de fundición dúctil de PFA 16/25 bar para tubería de 250 mm, con un revestimiento interior y exterior epoxi, i/p.p. de junta de unión y medios auxiliares, totalmente colocada y probada.						
	PK 3+960	1				1,00	
	PK7+000	1				1,00	
							2,00
162	UD MANGUITO FD DN100 A DN250 mm PN16/25						
	Manguito de fundición dúctil con bridas diámetros de 100 a 250 mm, longitud comprendida entre 0,20 y 1,00 m y PN 16/25, incluso p.p. de tornillería y medios auxiliares, totalmente colocado y probado.						
	Derivación hacia Tudelilla	1				1,00	
							1,00
121	UD TE FD EEB 400 mm PN16/25 SALIDA DN400/80						
	"T" de fundición dúctil de PFA 16/25 bar, con dos enchufes y derivación con brida para tubería de 400 mm con salida comprendida entre 400 y 80 mm, con un revestimiento interior y exterior epoxi, i/p.p. de junta de unión y medios auxiliares, totalmente colocada y probada.						
	Derivación hacia Tudelilla	1				1,00	
							1,00

MEDICIONES

ABASTECIMIENTO A VARIOS MUNICIPIOS DE LA RIOJA. SISTEMA CIDACOS

CÓDIGO	RESUMEN	UDS	LONGITUD	ANCHURA	ALTURA	PARCIALES	CANTIDAD
APARTADO 07.02.05 OBRAS ACCESORIAS Y REPOSICIONES DE SERVICIOS							
381	M2 REPOSICIÓN DE FIRME DE AGLOMERADO						
	Reposición de firme de aglomerado en caliente en zonas afectadas por las obras.						
	P.K. 1+118 - 1+128	1	10,00	3,00		30,00	
							30,00
056	M3 ZAHORRA ARTIFICIAL						
	Zahorra artificial compactada.						
	P.K. 0+600 - 0+611	1	11,00	3,00	0,20	6,60	
	P.K. 1+216 - 1+696	1	480,00	3,00	0,20	288,00	
	P.K. 1+714 - 2+000	1	286,00	3,00	0,20	171,60	
	P.K. 4+198 - 5+250	1	1.052,00	3,00	0,20	631,20	
	P.K. 7+310 - 7+327	1	17,00	3,00	0,20	10,20	
	P.K. 7+492 - 8+801	1	1.309,00	3,00	0,20	785,40	
	P.K. 9+100 - FIN	1	285,33	3,00	0,20	171,20	
							2.064,20
383	ML REPOSICIÓN DE CERRAMIENTO EXISTENTE						
	Reposición de cerramiento existente hasta 2,00 m de altura.						
	P.K. 1+016	1	5,00			5,00	
	P.K. 1+034	1	5,00			5,00	
							10,00
389	ML REPOSICIÓN DE ACEQUIA						
	Reposición de acequia con tubo de hormigón hasta 1 m de diámetro.						
	P.K. 4+190	1	5,00			5,00	
	P.K. 4+205	1	5,00			5,00	
							10,00
SUBCAPÍTULO 07.03 EJE 10: P-350 - DERIVACIÓN A VILLAR DE ARNEDO (P-410)							
APARTADO 07.03.01 MOVIMIENTO DE TIERRAS							
002	M3 EXCAVACIÓN EN ZANJAS						
	Excavación en zanjas y zonas localizadas, en todo tipo de terrenos incluido terrenos en roca con medios mecánicos, incluso rasanteo, nivelación de la superficie de apoyo y transporte a lugar de empleo o vertedero.						
	Según medición auxiliar	1	10.061,90			10.061,90	
							10.061,90
003	M3 EXCAVACIÓN EN ZANJAS CON AGOTAMIENTO						
	Excavación en zanjas y zonas localizadas, en todo tipo de terrenos incluido terrenos en roca con medios mecánicos, incluso rasanteo, nivelación de la superficie de apoyo, agotamiento y transporte a lugar de empleo o vertedero.						
	Según medición auxiliar	1	10.818,20			10.818,20	
	A descontar sin agotamiento	-1	10.061,90			-10.061,90	
	Desagües	1	108,00	0,69	1,19	88,68	
							844,98
008	M2 DESPEJE Y DESBROCE						
	Despeje y desbroce de capa de tierra vegetal con un espesor medio de 50 cm, incluso corte de árboles, extracción de tocones, nivelación de zona adyacente para el paso de maquinaria, transporte a lugar de acopio independiente para posterior reposición de tierra vegetal tras las obras y despedregado de las parcelas, así como transporte a vertedero de tierras sobrantes.						
	P.K. 0+164 - 0+172,99	1	8,99	3,00		26,97	
	P.K. 0+197 - 0+354	1	157,00	3,00		471,00	
	P.K. 0+360 - 0+684,14	1	324,14	3,00		972,42	
	P.K. 0+700 - 0+812	1	112,00	3,00		336,00	
	P.K. 1+225 - 1+364	1	139,00	3,00		417,00	
	P.K. 1+384 - 1+448	1	64,00	3,00		192,00	
	P.K. 2+308 - 2+434	1	126,00	3,00		378,00	
	P.K. 2+452 - 2+538	1	86,00	3,00		258,00	
	P.K. 2+804 - 3+227,68	1	423,68	3,00		1.271,04	
	P.K. 3+611 - 3+654	1	43,00	3,00		129,00	

MEDICIONES

ABASTECIMIENTO A VARIOS MUNICIPIOS DE LA RIOJA. SISTEMA CIDACOS

CÓDIGO	RESUMEN	UDS	LONGITUD	ANCHURA	ALTURA	PARCIALES	CANTIDAD
	Arqueta entrada	1	2,20	1,60		3,52	
	P.K. 4+010 - 4+045	1	35,00	3,00		105,00	
	P.K. 4+051 - 4+154,16	1	103,16	3,00		309,48	
	P.K. 4+811 - 5+184	1	373,00	3,00		1.119,00	
							6.158,91
010	M3 RELLENO ZANJAS, CIMIENTOS Y TRASDOSES DE MATERIAL SELECCIONADO						
	Relleno con material seleccionado en zanjas, cimientos, trasdós de muros, estribos y otras estructuras procedente de la excavación o préstamos incluso carga, transporte y compactación.						
	Según medición auxiliar	1	7.448,80			7.448,80	
	Desagües	1	108,00	0,69	0,90	67,07	
							7.515,87
011	M3 RELLENO DE ARENA						
	Arena para apoyo y protección de tuberías incluso carga, transporte, colocación, compactación y nivelación.						
	Según medición auxiliar	1	2.945,70			2.945,70	
	Desagües	1	108,00	0,69	0,29	21,61	
							2.967,31
019	M2 DEMOLICIÓN DE FIRMES						
	Demolición de firmes de cualquier tipo, incluso precorte, carga y transporte a vertedero, posterior perfilado y compactación del terreno.						
	P.K. 4+180 - 4+254	1	74,00	3,00		222,00	
							222,00
030	M3 HORMIGÓN HNE-20/B/40						
	Hormigón HNE-20/B/40, con cemento CEM III/A-D/42,5/SR (UNE 80303:96), en masa o ligeramente armado, colocado en cualquier tipo de obra, incluso fabricación, carga y transporte, totalmente colocado.						
	P.K. 5+059 - 5+069	1	10,00	1,10	0,60	6,60	
							6,60
APARTADO 07.03.02 OBRA CIVIL							
023	KG ACERO CORRUGADO B-500-S						
	Acero redondo corrugado para armar tipo B-500-S elaborado y colocado.						
	Anclaje codos	2	70,34			140,68	
		4	87,13			348,52	
		2	92,06			184,12	
		4	102,62			410,48	
		7	108,11			756,77	
		5	113,76			568,80	
		5	125,47			627,35	
		8	127,90			1.023,20	
		3	137,75			413,25	
		2	157,39			314,78	
		2	171,11			342,22	
		4	181,70			726,80	
		4	196,42			785,68	
		4	204,16			816,64	
		2	211,72			423,44	
		1	265,48			265,48	
		4	278,66			1.114,64	
		4	301,53			1.206,12	
		4	320,42			1.281,68	
		1	401,70			401,70	
		1	429,07			429,07	
							12.581,42
030	M3 HORMIGÓN HNE-20/B/40						
	Hormigón HNE-20/B/40, con cemento CEM III/A-D/42,5/SR (UNE 80303:96), en masa o ligeramente armado, colocado en cualquier tipo de obra, incluso fabricación, carga y transporte, totalmente colocado.						

MEDICIONES

ABASTECIMIENTO A VARIOS MUNICIPIOS DE LA RIOJA. SISTEMA CIDACOS

CÓDIGO	RESUMEN	UDS	LONGITUD	ANCHURA	ALTURA	PARCIALES	CANTIDAD
	Arqueta entrada	1	2,20	1,60		3,52	
		4	1,18			4,72	
		2	1,34			2,68	
		4	1,58			6,32	
		7	1,68			11,76	
		5	1,85			9,25	
		5	2,15			10,75	
		8	2,20			17,60	
		3	2,48			7,44	
		2	2,96			5,92	
		2	3,37			6,74	
		4	3,74			14,96	
		4	4,22			16,88	
		4	4,38			17,52	
		2	4,73			9,46	
		1	6,62			6,62	
		4	7,20			28,80	
		4	8,05			32,20	
		4	8,83			35,32	
		1	12,47			12,47	
		1	13,69			13,69	
	P.K. 4+180 - 4+254	1	74,00	3,00	0,20	44,40	
							317,30
373	UD POZO DE REGISTRO DE AROS DE HORMIGÓN DN1200						
	Pozo de registro de abastecimiento para válvulas de control de cualquier altura de diámetro interior D=1200 mm, incluso base de hormigón HNE-20, aros de hormigón, cono prefabricado de hormigón, pates y tapa de fundición, totalmente terminado.						
	Ventosas	7				7,00	
	Desagües	3				3,00	
							10,00
034.2	UD ARQUETA HORMIGÓN DE 3,00x2,50 M Y HASTA 2,50 m DE PROFUNDIDAD						
	Arqueta de hormigón armado HA-25/P/40/IIa para alojamiento de válvulas de tuberías de dimensiones interiores 3,0x2,5 m y una altura de hasta 2,50 m, con solera de 30 cm de canto, muros de 25 cm de espesor y tapa de 25 cm de canto, armado con parrilla de 20x20 cm con redondos de 12 mm, incluso excavación, relleno posterior, encofrado, totalmente terminada.						
	Tras derivación Tudelilla	1				1,00	
	Cruces carreteras	9				9,00	
							10,00
APARTADO 07.03.03 TUBERÍAS							
062	ML TUBERÍA FD 300 mm						
	Tubería de fundición dúctil de diámetro interior 300 mm y PFA de 49 bar, revestida interiormente con mortero de cemento y exteriormente con una capa de cinc y otra bituminosa, i/p.p. de junta automática flexible, banda de señalización y medios auxiliares, totalmente colocada y probada.						
		1	5.201,00			5.201,00	
							5.201,00
080	UD CODO FD 1/8 A 1/32 300 mm						
	Codo de fundición dúctil de 1/8 a 1/32 de diámetro interior 300 mm y PFA 40 bar, con un revestimiento interior y exterior epoxi, incluso p.p. de juntas y medios auxiliares, totalmente colocado y probado.						
		73				73,00	
							73,00
199	ML TUBERÍA DE PVC 90 mm						
	Tubería de PVC con junta elástica de 90 mm de diámetro exterior, y PN=6 bar, incluso banda de señalización, totalmente colocada en zanja.						
	P.K. 0+448,902	1	108,00			108,00	
							108,00

MEDICIONES

ABASTECIMIENTO A VARIOS MUNICIPIOS DE LA RIOJA. SISTEMA CIDACOS

CÓDIGO	RESUMEN	UDS	LONGITUD	ANCHURA	ALTURA	PARCIALES	CANTIDAD
APARTADO 07.03.04 VÁLVULAS Y ACCESORIOS							
245.4	UD VENTOSA DN=50 (2") mm PN16 Válvula ventosa de tres funciones de DN=50 mm (2") y PN 16 bar incluido transporte, juntas, válvula de corte DN=50 mm y PN 16 y piezas especiales, totalmente colocada y probada. P.K. 0+580	1				1,00	1,00
245.3	UD VENTOSA DN=50 (2") mm PN25 Válvula ventosa de tres funciones de DN=50 mm (2") y PN 25 bar incluido transporte, juntas, válvula de corte DN=50 mm y PN 25 y piezas especiales, totalmente colocada y probada. P.K. 1+452,458 P.K. 2+207,391 P.K. 2+840	1 1 1				1,00 1,00 1,00	3,00
245.7	UD VENTOSA DN=50 (2") mm PN40 Válvula ventosa de tres funciones de DN=50 mm (2") y PN 40 bar incluido transporte, juntas, válvula de corte y piezas especiales, totalmente colocada y probada. P.K. 3+480 P.K. 4+340 P.K. 5+060	1 1 1				1,00 1,00 1,00	3,00
135.1	UD TE FD EEB 300 mm PN16/25/40 SALIDA DN300/60 "T" de fundición dúctil de PFA 16/25/40 bar, con dos enchufes y derivación con brida para tubería de 300 mm y salida comprendida entre 300 y 60 mm, con un revestimiento interior y exterior epoxi, i/p.p. de junta de unión y medios auxiliares, totalmente colocada y probada. Ventosas P.K. 0+580 P.K. 1+452,458 P.K. 2+207,391 P.K. 2+840 P.K. 3+480 P.K. 4+340 P.K. 5+060 Desagües	1 1 1 1 1 1 1 3				1,00 1,00 1,00 1,00 1,00 1,00 1,00 3,00	10,00
114	UD REDUCCIÓN FD 100 A 80/50 mm PN16/25 Reducción en fundición dúctil de 100 mm a 80-65-60-50 mm con dos bridas PN 16/25 bar, con un revestimiento interior y exterior epoxi, i/p.p. de tornillería y medios auxiliares, totalmente colocada y probada. Ventosas P.K. 0+580	1				1,00	1,00
113	UD REDUCCIÓN FD 100 A 80/50 mm PN25 Reducción en fundición dúctil de 100 mm a 80-65-60-50 mm con dos bridas PN 25 bar, con un revestimiento interior y exterior epoxi, i/p.p. de tornillería y medios auxiliares, totalmente colocada y probada. Ventosas P.K. 1+452,458 P.K. 2+207,391 P.K. 2+840	1 1 1				1,00 1,00 1,00	3,00
113.1	UD REDUCCIÓN FD 100 A 80/50 mm PN40 Reducción en fundición dúctil de 100 mm a 80-65-60-50 mm con dos bridas PN 40 bar, con un revestimiento interior y exterior epoxi, i/p.p. de tornillería y medios auxiliares, totalmente colocada y probada. Ventosas P.K. 3+480 P.K. 4+340	1 1				1,00 1,00	2,00

MEDICIONES

ABASTECIMIENTO A VARIOS MUNICIPIOS DE LA RIOJA. SISTEMA CIDACOS

CÓDIGO	RESUMEN	UDS	LONGITUD	ANCHURA	ALTURA	PARCIALES	CANTIDAD
	Arqueta entrada	1	2,20	1,60		3,52	3,00
237	UD VÁLVULA DE COMPUERTA MANUAL DN100 PN25 Válvula de compuerta de cierre elástico de 100 mm. de diámetro nominal y 25 At. de P.N., de accionamiento manual por volante, de cuerpo de fundición nodular GGG-50, con eje de acero inoxidable al 13 % Cr. con roscas conformadas por laminación en frío, cierre en fundición nodular, tornillería de acero inoxidable, protegida contra la corrosión mediante aplicación de doble capa de pintura epoxy, totalmente colocada y probada. Resto de características según ET. Desagües P.K. 0+448,902 P.K. 3+380 P.K. 4+940	1 1 1				1,00 1,00 1,00	3,00
109A	UD RACORD TIPO BARCELONA SALIDAS 80-200 mm Rosca Racord tipo Barcelona con salida entre 80 y 200 mm para enchufe de manguera, totalmente instalado y terminado. Desagües P.K. 3+380 P.K. 4+940	1 1				1,00 1,00	2,00
114.6	UD BRIDA LISO FD 400 mm PN16/25 Brida lisa de fundición dúctil de PFA 16/25 bar para tubería de 400 mm, con un revestimiento interior y exterior epoxi, i/p.p. de junta de unión y medios auxiliares, totalmente colocada y probada. Tras derivación Tudelilla	1				1,00	1,00
098	UD REDUCCIÓN FD 400 A 350/250 mm PN16/25 Reducción en fundición dúctil de 400 mm a 350-300-250 mm con dos bridas PN 16/25 bar, con un revestimiento interior y exterior epoxi, i/p.p. de junta de unión y medios auxiliares, totalmente colocada y probada. Tras derivación Tudelilla	1				1,00	1,00
229.1	UD VÁLVULA DE COMPUERTA MANUAL DN300 PN16 Válvula de compuerta de accionamiento manual de diámetro nominal DN=300 mm de 16 bares de presión máxima admisible, con tornillería y juntas, totalmente instalada y probada, incluso volante de accionamiento. Tras derivación Tudelilla Cruces carreteras	1 9				1,00 9,00	10,00
ECD0300	UD CARRETE DE DESMONTAJE DN=300 mm PN16 Carrete telescópico de desmontaje DN300 PN16, bridas de acero al carbono, virolas de acero inoxidable, protección epoxi, tornillos y tuercas en acero F-114, cincado y posterior baño de cromo-niquel, incluido p.p. de brida enchufe, totalmente instalado y probado en obra. Tras derivación Tudelilla Cruces carreteras	1 9				1,00 9,00	10,00
115.12	UD BRIDA ENCHUFE FD 300 mm PN16 Brida enchufe de fundición dúctil de PFA 16 bar para tubería de 300 mm, con un revestimiento interior y exterior epoxi, i/p.p. de junta de unión y medios auxiliares, totalmente colocada y probada. Tras derivación Tudelilla	1				1,00	1,00

MEDICIONES

ABASTECIMIENTO A VARIOS MUNICIPIOS DE LA RIOJA. SISTEMA CIDACOS

CÓDIGO	RESUMEN	UDS	LONGITUD	ANCHURA	ALTURA	PARCIALES	CANTIDAD
APARTADO 07.03.05 HINCAS							
568	ML TUBO ACERO 609 mm Tubo de acero, de 609 mm de diámetro interior, bajo viales, incluso piezas especiales, medios auxiliares, totalmente terminada y colocada. P.K. 3+200 - 3+270	2	70,00			140,00	140,00
368	ML HINCA TUBO ACERO 609 mm TIERRAS Hinca de tubo de acero, de 609 mm de diámetro interior, bajo viales, en tierra o roca alterada, incluso p.p. de instalación de tubería de fundición dúctil comprendida entre 400 mm y 250 mm de diámetro interior y sus anclajes y apoyos; muros de reacción y contención; y todos los elementos necesarios para su montaje y desmontaje. P.K. 0+172 99 - 0+189 P.K. 0+684,14 - 0+700 P.K. 2+610 - 2+627,12 P.K. 4+154,16 - 4+180	1 1 1 1	16,01 15,86 17,12 25,84			16,01 15,86 17,12 25,84	74,83
APARTADO 07.03.06 OBRAS ACCESORIAS Y REPOSICIONES DE SERVICIOS							
381	M2 REPOSICIÓN DE FIRME DE AGLOMERADO Reposición de firme de aglomerado en caliente en zonas afectadas por las obras. P.K. 4+180 - 4+254	1	74,00	3,00		222,00	222,00
056	M3 ZAHORRA ARTIFICIAL Zahorra artificial compactada. P.K. 0+000 - 0+164 P.K. 0+189 - 0+197 P.K. 0+354 - 0+360 P.K. 0+812 - 1+225 P.K. 1+364 - 1+384 P.K. 1+448 - 2+308 P.K. 2+538 - 2+804 P.K. 3+277,68 - 3+611 P.K. 3+654 - 3+942 P.K. 4+000 - 4+010 P.K. 4+045 - 4+051 P.K. 4+254 - 4+811 P.K. 5+184 - FIN	1 1 1 1 1 1 1 1 1 1 1 1 1	164,00 8,00 6,00 413,00 20,00 860,00 266,00 333,32 288,00 10,00 6,00 557,00 16,07	3,00 3,00 3,00 3,00 3,00 3,00 3,00 3,00 3,00 3,00 3,00 3,00 3,00	0,20 0,20 0,20 0,20 0,20 0,20 0,20 0,20 0,20 0,20 0,20 0,20 0,20	98,40 4,80 3,60 247,80 12,00 516,00 159,60 199,99 172,80 6,00 3,60 334,20 9,64	1.768,43
030	M3 HORMIGÓN HNE-20/B/40 Hormigón HNE-20/B/40, con cemento CEM III/A-D/42,5/SR (UNE 80303:96), en masa o ligeramente armado, colocado en cualquier tipo de obra, incluso fabricación, carga y transporte, totalmente colocado. Protección tubería gas (cruces) P.K. 2+256	1	5,00	1,25	0,20	1,25	1,25
393	ML CANALIZACIÓN TELEFÓNICA FIBRA ÓPTICA Canalización telefónica en zanja bajo calzada, para reposición de cable de fibra óptica de 12 a 16 fibras, incluso p.p. de arquetas y caja de empalmes, totalmente terminado. P.K. 4+012	1	20,00			20,00	20,00
395	ML CANALIZACIÓN TELEFÓNICA BAJO CALZADA 4 TUBOS Canalización telefónica en zanja bajo calzada, de 0,45x1,01 m para 4 conductos, en base 2, de PVC de 110 mm de diámetro, embebidos en prisma de hormigón HM-20 de central de 8 cm de recubrimiento superior e inferior y 10 cm lateralmente, incluso excavación de tierras a máquina en terrenos flojos, tubos, soportes distanciadores cada 70 cm, cuerda guía para cables, hormigón y relleno en la capa superior con tierras procedentes de la excavación, en tongadas < 25 cm, compactada al 95% del P.N., totalmente terminado. P.K. 4+012	1	20,00			20,00	20,00

MEDICIONES

ABASTECIMIENTO A VARIOS MUNICIPIOS DE LA RIOJA. SISTEMA CIDACOS

CÓDIGO	RESUMEN	UDS	LONGITUD	ANCHURA	ALTURA	PARCIALES	CANTIDAD
	Arqueta entrada	1	2,20	1,60		3,52	40,00
SUBCAPÍTULO 07.04 EJE 11: P-410 - DEPÓSITO DE PRADEJÓN							
APARTADO 07.04.01 MOVIMIENTO DE TIERRAS							
003	M3 EXCAVACIÓN EN ZANJAS CON AGOTAMIENTO Excavación en zanjas y zonas localizadas, en todo tipo de terrenos incluido terrenos en roca con medios mecánicos, incluso rasanteo, nivelación de la superficie de apoyo, agotamiento y transporte a lugar de empleo o vertedero. Según medición auxiliar	1	5.792,00			5.792,00	5.792,00
008	M2 DESPEJE Y DESBROCE Despeje y desbroce de capa de tierra vegetal con un espesor medio de 50 cm, incluso corte de árboles, extracción de tocones, nivelación de zona adyacente para el paso de maquinaria, transporte a lugar de acopio independiente para posterior reposición de tierra vegetal tras las obras y despedregado de las parcelas, así como transporte a vertedero de tierras sobrantes. P.K. 0+825 - 0+930 P.K. 1+026 - 1+218 P.K. 1+227 - 1+262 P.K. 1+460 - 1+610 P.K. 1+876 - 1+892 P.K. 2+904 - 3+003 P.K. 3+009 - 3+210	1 1 1 1 1 1 1	105,00 192,00 35,00 150,00 16,00 99,00 201,00	3,00 3,00 3,00 3,00 3,00 3,00 3,00		315,00 576,00 105,00 450,00 48,00 297,00 603,00	2.394,00
010	M3 RELLENO ZANJAS, CIMIENTOS Y TRASDOSES DE MATERIAL SELECCIONADO Relleno con material seleccionado en zanjas, cimientos, trasdós de muros, estribos y otras estructuras procedente de la excavación o préstamos incluso carga, transporte y compactación. Según medición auxiliar	1	3.987,80			3.987,80	3.987,80
011	M3 RELLENO DE ARENA Arena para apoyo y protección de tuberías incluso carga, transporte, colocación, compactación y nivelación. Según medición auxiliar	1	1.618,30			1.618,30	1.618,30
019	M2 DEMOLICIÓN DE FIRMES Demolición de firmes de cualquier tipo, incluso precorte, carga y transporte a vertedero, posterior perfilado y compactación del terreno. P.K. 1+218 - 1+227 P.K. 1+610 - 1+790 P.K. 1+790 - 1+874 P.K. 1+874 - 1+876 P.K. 1+892 - 1+894 P.K. 1+913 - 1+956 P.K. 1+956 - 1+978 P.K. 1+978 - 1+985 P.K. 1+985 - 1+998 P.K. 1+998 - 2+089 P.K. 2+089 - 2+878	1 1 1 1 1 1 1 1 1 1 1	9,00 180,00 84,00 2,00 2,00 43,00 22,00 7,00 13,00 91,00 789,00	3,00 3,00 3,00 3,00 3,00 3,00 3,00 3,00 3,00 3,00 3,00		27,00 540,00 252,00 6,00 6,00 129,00 66,00 21,00 39,00 273,00 2.367,00	3.726,00
007	M2 ENTIBACIÓN MÓDULOS METÁLICOS Entibación a dos caras mediante módulos metálicos y articulados, en zonas de protección de zanja, medida la superficie efectiva. P.K. 1+790 - 2+878	1	1.088,00	1,50		1.632,00	1.632,00

MEDICIONES

ABASTECIMIENTO A VARIOS MUNICIPIOS DE LA RIOJA. SISTEMA CIDACOS

CÓDIGO	RESUMEN	UDS	LONGITUD	ANCHURA	ALTURA	PARCIALES	CANTIDAD
APARTADO 07.04.02 OBRA CIVIL							
023	KG ACERO CORRUGADO B-500-S Acero redondo corrugado para armar tipo B-500-S elaborado y colocado.						
	Anclaje codos	3	70,12				210,36
		17	86,87				1.476,79
		4	91,80				367,20
		1	113,47				113,47
		3	137,74				413,22
		5	147,22				736,10
		5	211,33				1.056,65
		4	227,18				908,72
		1	315,44				315,44
							5.597,95
030	M3 HORMIGÓN HNE-20/B/40 Hormigón HNE-20/B/40, con cemento CEM III/A-D/42,5/SR (UNE 80303:96), en masa o ligeramente armado, colocado en cualquier tipo de obra, incluso fabricación, carga y transporte, totalmente colocado.						
	Anclaje codos	3	0,90				2,70
		17	1,18				20,06
		4	1,34				5,36
		1	1,85				1,85
		3	2,35				7,05
		5	2,65				13,25
		5	4,73				23,65
		4	5,29				21,16
		1	8,41				8,41
	P.K. 1+218 - 1+227	1	9,00	3,00	0,20		5,40
	P.K. 1+610 - 1+790	1	180,00	3,00	0,20		108,00
	P.K. 1+790 - 1+874	1	84,00	3,00	0,20		50,40
	P.K. 1+956 - 1+978	1	22,00	3,00	0,20		13,20
	P.K. 1+985 - 1+998	1	13,00	3,00	0,20		7,80
	P.K. 2+089 - 2+878	1	789,00	3,00	0,20		473,40
	P.K. 1+874 - 1+876	1	2,00	3,00	0,20		1,20
	P.K. 1+892 - 1+894	1	2,00	3,00	0,20		1,20
							764,09
373	UD POZO DE REGISTRO DE AROS DE HORMIGÓN DN1200 Pozo de registro de abastecimiento para válvulas de control de cualquier altura de diámetro interior D=1200 mm, incluso base de hormigón HNE-20, aros de hormigón, cono prefabricado de hormigón, pates y tapa de fundición, totalmente terminado.						
	Ventosas	4					4,00
	Desagües	1					1,00
	Derivación a Pradejón	1					1,00
	Cruces carreteras	2					2,00
							8,00
APARTADO 07.04.03 TUBERÍAS							
063	ML TUBERÍA FD 250 mm Tubería de fundición dúctil de diámetro interior 250 mm y PFA de 54 bar, revestida interiormente con mortero de cemento y exteriormente con una capa de cinc y otra bituminosa, i/p.p. de junta automática flexible, banda de señalización y medios auxiliares, totalmente colocada y probada.						
		1	3.220,00				3.220,00
							3.220,00
082	UD CODO FD 1/4 250 mm Codo de fundición dúctil de 1/8 de diámetro interior 250 mm y PFA 40 bar, con revestimiento interior y exterior epoxi, incluso p.p. de juntas y medios auxiliares, totalmente colocado y probado.						
		1					1,00
							1,00

MEDICIONES

ABASTECIMIENTO A VARIOS MUNICIPIOS DE LA RIOJA. SISTEMA CIDACOS

CÓDIGO	RESUMEN	UDS	LONGITUD	ANCHURA	ALTURA	PARCIALES	CANTIDAD
081	UD CODO FD 1/8 A 1/32 250 mm Codo de fundición dúctil de 1/8 a 1/32 de diámetro interior 250 mm y PFA 54 bar, con un revestimiento interior y exterior epoxi, incluso p.p. de juntas y medios auxiliares, totalmente colocado y probado.						
		42					42,00
							42,00
APARTADO 07.04.04 VÁLVULAS Y ACCESORIOS							
245.4	UD VENTOSA DN=50 (2") mm PN16 Válvula ventosa de tres funciones de DN=50 mm (2") y PN 16 bar incluido transporte, juntas, válvula de corte DN=50 mm y PN 16 y piezas especiales, totalmente colocada y probada.						
	P.K. 0+789,655	1					1,00
	P.K. 2+920	1					1,00
							2,00
245.3	UD VENTOSA DN=50 (2") mm PN25 Válvula ventosa de tres funciones de DN=50 mm (2") y PN 25 bar incluido transporte, juntas, válvula de corte DN=50 mm y PN 25 y piezas especiales, totalmente colocada y probada.						
	P.K. 1+600	1					1,00
	P.K. 2+380	1					1,00
							2,00
135	UD TE FD EEB 250 mm PN16/25 SALIDA DN250/60 "T" de fundición dúctil de PFA 16/25 bar, con dos enchufes y derivación con brida para tubería de 250 mm y salida comprendida entre 250 y 60 mm, con un revestimiento interior y exterior epoxi, i/p.p. de junta de unión y medios auxiliares, totalmente colocada y probada.						
	Ventosas						
	P.K. 0+789,655	1					1,00
	P.K. 2+920	1					1,00
	P.K. 1+600	1					1,00
	P.K. 2+380	1					1,00
	Derivación a Pradejón	1					1,00
	Desagües	1					1,00
							6,00
114	UD REDUCCIÓN FD 100 A 80/50 mm PN16/25 Reducción en fundición dúctil de 100 mm a 80-65-60-50 mm con dos bridas PN 16/25 bar, con un revestimiento interior y exterior epoxi, i/p.p. de tornillería y medios auxiliares, totalmente colocada y probada.						
	Ventosas						
	P.K. 0+789,655	1					1,00
	P.K. 2+920	1					1,00
							2,00
113	UD REDUCCIÓN FD 100 A 80/50 mm PN25 Reducción en fundición dúctil de 100 mm a 80-65-60-50 mm con dos bridas PN 25 bar, con un revestimiento interior y exterior epoxi, i/p.p. de tornillería y medios auxiliares, totalmente colocada y probada.						
	Ventosas						
	P.K. 1+600	1					1,00
	P.K. 2+380	1					1,00
							2,00
237	UD VÁLVULA DE COMPUERTA MANUAL DN100 PN25 Válvula de compuerta de cierre elástico de 100 mm. de diámetro nominal y 25 At. de P.N., de accionamiento manual por volante, de cuerpo de fundición nodular GGG-50, con eje de acero inoxidable al 13 % Cr. con roscas conformadas por laminación en frío, cierre en fundición nodular, tornillería de acero inoxidable, protegida contra la corrosión mediante aplicación de doble capa de pintura epoxy, totalmente colocada y probada. Resto de características según ET.						
	Desagües						
	P.K. 1+940	1					1,00
							1,00

MEDICIONES

ABASTECIMIENTO A VARIOS MUNICIPIOS DE LA RIOJA. SISTEMA CIDACOS

CÓDIGO	RESUMEN	UDS	LONGITUD	ANCHURA	ALTURA	PARCIALES	CANTIDAD
109A	UD RACORD TIPO BARCELONA SALIDAS 80-200 mm Rosca Racord tipo Barcelona con salida entre 80 y 200 mm para enchufe de manguera, totalmente instalado y terminado. Desagües P.K. 1+940	1				1,00	1,00
162	UD MANGUITO FD DN100 A DN250 mm PN16/25 Manguito de fundición dúctil con bridas diámetros de 100 a 250 mm, longitud comprendida entre 0,20 y 1,00 m y PN16/25, incluso p.p. de tornillería y medios auxiliares, totalmente colocado y probado. Derivación a Pradejón	1				1,00	1,00
229	UD VÁLVULA DE COMPUERTA MANUAL DN250 PN16 Válvula de compuerta de accionamiento manual de diámetro nominal DN=250 mm de 16 bares de presión máxima admisible, con tornillería y juntas, totalmente instalada y probada, incluso volante de accionamiento. Derivación a Pradejón Cruces carreteras	1 2				1,00 2,00	3,00
ECD25016	UD CARRETE DE DESMONTAJE DN=250 mm PN16 Carrete telescópico de desmontaje DN250 PN16, bridas de acero al carbono, virolas de acero inoxidable, protección epoxi, tornillos y tuercas en acero F-114, cincado y posterior baño de cromo-niquel, incluido p.p. de brida enchufe, totalmente instalado y probado en obra. Derivación a Pradejón Cruces carreteras	1 2				1,00 2,00	3,00
115.6	UD BRIDA ENCHUFE FD 250 mm PN16/25 Brida enchufe de fundición dúctil de PFA 16/25 bar para tubería de 250 mm, con un revestimiento interior y exterior epoxi, i/p.p. de junta de unión y medios auxiliares, totalmente colocada y probada. Derivación a Pradejón	1				1,00	1,00
APARTADO 07.04.05 HINCAS							
367	ML HINCA TUBO ACERO 455 mm TIERRAS Hinca de tubo de acero, de 455 mm de diámetro interior, bajo viales, en tierra o roca alterada, incluso p.p. de instalación de tubería de fundición dúctil comprendida entre 250 y 150 mm de diámetro interior y sus anclajes y apoyos; muros de reacción y contención; y todos los elementos necesarios para su montaje y desmontaje. P.K. 1+894 - 1+913	1	19,00			19,00	19,00
APARTADO 07.04.06 OBRAS ACCESORIAS Y REPOSICIONES DE SERVICIOS							
381	M2 REPOSICIÓN DE FIRME DE AGLOMERADO Reposición de firme de aglomerado en caliente en zonas afectadas por las obras. P.K. 1+218 - 1+227 P.K. 1+610 - 1+790 P.K. 1+790 - 1+874 P.K. 1+956 - 1+978 P.K. 1+985 - 1+998 P.K. 2+089 - 2+878	1 1 1 1 1 1	9,00 180,00 84,00 22,00 13,00 789,00	3,00 3,00 3,00 3,00 3,00 3,00		27,00 540,00 252,00 66,00 39,00 2.367,00	3.291,00
380	M2 REPOSICIÓN DE PAVIMENTO DE HORMIGÓN Reposición de pavimento de hormigón HM-20/B/40/IIa+Qa de 15 cm de espesor, totalmente terminado. P.K. 1+874 - 1+876 P.K. 1+892 - 1+894	1 1	2,00 2,00	3,00 3,00		6,00 6,00	12,00

MEDICIONES

ABASTECIMIENTO A VARIOS MUNICIPIOS DE LA RIOJA. SISTEMA CIDACOS

CÓDIGO	RESUMEN	UDS	LONGITUD	ANCHURA	ALTURA	PARCIALES	CANTIDAD
384	M2 REPOSICIÓN DE ACERA DE HORMIGÓN Reposición de acera de hormigón existente en vía pública, incluso bordillo, totalmente terminada. P.K. 1+913 - 1+956 P.K. 1+978 - 1+985 P.K. 1+998 - 2+089	1 1 1	43,00 7,00 91,00	3,00 3,00 3,00		129,00 21,00 273,00	423,00
056	M3 ZAHORRA ARTIFICIAL Zahorra artificial compactada. P.K. 0+000 - 0+825 P.K. 0+930 - 1+026 P.K. 1+262 - 1+460 P.K. 2+878 - 2+904 P.K. 3+003 - 3+009 P.K. 3+210 - FIN	1 1 1 1 1 1	825,00 96,00 198,00 26,00 6,00 9,35	3,00 3,00 3,00 3,00 3,00 3,00	0,20 0,20 0,20 0,20 0,20 0,20	495,00 57,60 118,80 15,60 3,60 5,61	696,21
385	M2 REPOSICIÓN DE JARDÍN EXISTENTE Reposición de jardín existente. P.K. 1+876 - 1+892	1	16,00	2,00		32,00	32,00
383	ML REPOSICIÓN DE CERRAMIENTO EXISTENTE Reposición de cerramiento existente hasta 2,00 m de altura. P.K. 1+874 P.K. 1+894 P.K. 1+913 P.K. 1+956	1 1 1 1	5,00 5,00 5,00 5,00			5,00 5,00 5,00 5,00	20,00
030	M3 HORMIGÓN HNE-20/B/40 Hormigón HNE-20/B/40, con cemento CEM III/A-D/42,5/SR (UNE 80303:96), en masa o ligeramente armado, colocado en cualquier tipo de obra, incluso fabricación, carga y transporte, totalmente colocado. P.K. 2+250	1	5,00	0,60	0,50	1,50	1,50
194	ML TUBO PVC CORRUGADO DN 110 mm CANALIZACIONES ELÉCTRICAS Tubo corrugado de PVC de D=110 mm, para reposición de línea eléctrica subterránea, totalmente colocado. P.K. 2+250	5	5,00			25,00	25,00
395	ML CANALIZACIÓN TELEFÓNICA BAJO CALZADA 4 TUBOS Canalización telefónica en zanja bajo calzada, de 0,45x1,01 m para 4 conductos, en base 2, de PVC de 110 mm de diámetro, embebidos en prisma de hormigón HM-20 de central de 8 cm de recubrimiento superior e inferior y 10 cm lateralmente, incluso excavación de tierras a máquina en terrenos flojos, tubos, soportes distanciadores cada 70 cm, cuerda guía para cables, hormigón y relleno en la capa superior con tierras procedentes de la excavación, en tongadas < 25 cm, compactada al 95% del P.N., totalmente terminado. P.K. 1+882 P.K. 2+080	1 1	20,00 20,00			20,00 20,00	40,00
SUBCAPÍTULO 07.05 EJE 12: DERIVACIÓN PRADEJÓN (P-430) - DEPÓSITO DE ALCANADRE							

MEDICIONES

ABASTECIMIENTO A VARIOS MUNICIPIOS DE LA RIOJA. SISTEMA CIDACOS

CÓDIGO	RESUMEN	UDS	LONGITUD	ANCHURA	ALTURA	PARCIALES	CANTIDAD
APARTADO 07.05.01 MOVIMIENTO DE TIERRAS							
002	M3 EXCAVACIÓN EN ZANJAS Excavación en zanjas y zonas localizadas, en todo tipo de terrenos incluido terrenos en roca con medios mecánicos, incluso rasanteo, nivelación de la superficie de apoyo y transporte a lugar de empleo o vertedero. Según medición auxiliar P.K. 0+000 - 2+910 P.K. 11+240 - FIN	1 1	5.718,60			5.718,60 357,30	6.075,90
003	M3 EXCAVACIÓN EN ZANJAS CON AGOTAMIENTO Excavación en zanjas y zonas localizadas, en todo tipo de terrenos incluido terrenos en roca con medios mecánicos, incluso rasanteo, nivelación de la superficie de apoyo, agotamiento y transporte a lugar de empleo o vertedero. Según medición auxiliar A descontar sin agotamiento Desagües	1 -1 1	22.023,80 6.075,90 379,00			22.023,80 -6.075,90 311,20	16.259,10
008	M2 DESPEJE Y DESBROCE Despeje y desbroce de capa de tierra vegetal con un espesor medio de 50 cm, incluso corte de árboles, extracción de tocones, nivelación de zona adyacente para el paso de maquinaria, transporte a lugar de acopio independiente para posterior reposición de tierra vegetal tras las obras y despedregado de las parcelas, así como transporte a vertedero de tierras sobrantes. P.K. 2+930 - 3+585 P.K. 3+596 - 3+950 P.K. 4+000 - 5+107 P.K. 5+120 - 5+138 P.K. 5+144 - 5+940 P.K. 7+055 - 7+360 P.K. 7+375 - 7+384,91 P.K. 7+455 - 8+770 P.K. 11+005 - 11+240 P.K. 11+247 - 11+312	1 1 1 1 1 1 1 1 1 1	655,00 354,00 1.107,00 18,00 796,00 305,00 9,91 1.315,00 235,00 65,00	3,00 3,00 3,00 3,00 3,00 3,00 3,00 3,00 3,00 3,00		1.965,00 1.062,00 3.321,00 54,00 2.388,00 915,00 29,73 3.945,00 705,00 195,00	14.579,73
010	M3 RELLENO ZANJAS, CIMIENTOS Y TRASDOSES DE MATERIAL SELECCIONADO Relleno con material seleccionado en zanjas, cimientos, trasdós de muros, estribos y otras estructuras procedente de la excavación o préstamos incluso carga, transporte y compactación. Según medición auxiliar Desagües	1 1	17.531,50 379,00			17.531,50 235,36	17.766,86
011	M3 RELLENO DE ARENA Arena para apoyo y protección de tuberías incluso carga, transporte, colocación, compactación y nivelación. Según medición auxiliar Desagües	1 1	4.308,20 379,00			4.308,20 75,84	4.384,04
019	M2 DEMOLICIÓN DE FIRMES Demolición de firmes de cualquier tipo, incluso precorte, carga y transporte a vertedero, posterior perfilado y compactación del terreno. P.K. 0+000 - 0+2910 P.K. 5+107 - 5+120 P.K. 5+138 - 5+144	1 1 1	2.910,00 13,00 6,00	3,00 3,00 3,00		8.730,00 39,00 18,00	8.787,00
030	M3 HORMIGÓN HNE-20/B/40 Hormigón HNE-20/B/40, con cemento CEM III/A-D/42,5/SR (UNE 80303:96), en masa o ligeramente armado, colocado en cualquier tipo de obra, incluso fabricación, carga y transporte, totalmente colocado. P.K. 4+248 - 4+254	1	6,00	0,90	0,43	2,32	

MEDICIONES

ABASTECIMIENTO A VARIOS MUNICIPIOS DE LA RIOJA. SISTEMA CIDACOS

CÓDIGO	RESUMEN	UDS	LONGITUD	ANCHURA	ALTURA	PARCIALES	CANTIDAD
	Arqueta entrada P.K. 11+247 - 11+263	1 1	2,20 16,00	1,60 0,90		3,52 6,19	12,38
APARTADO 07.05.02 OBRA CIVIL							
023	KG ACERO CORRUGADO B-500-S Acero redondo corrugado para armar tipo B-500-S elaborado y colocado. Anclaje codos	6 15 8 26 5 3 6 4 8 5 2 3 6 1 1	29,19 32,06 33,63 38,41 40,12 45,33 49,10 52,83 60,90 63,05 76,56 83,68 91,14 101,66 136,64			175,14 480,90 269,04 998,66 200,60 135,99 294,60 211,32 487,20 315,25 153,12 251,04 546,84 101,66 136,64	4.758,00
030	M3 HORMIGÓN HNE-20/B/40 Hormigón HNE-20/B/40, con cemento CEM III/A-D/42,5/SR (UNE 80303:96), en masa o ligeramente armado, colocado en cualquier tipo de obra, incluso fabricación, carga y transporte, totalmente colocado. Anclaje codos P.K. 0+000 - 0+2910 P.K. 5+107 - 5+120 P.K. 5+138 - 5+144	6 15 8 26 5 3 6 4 8 5 2 3 6 1 1 1 1 1	0,22 0,28 0,29 0,36 0,38 0,47 0,50 0,59 0,74 0,76 0,98 1,15 1,34 1,58 2,48 2.910,00 13,00 6,00			1,32 4,20 2,32 9,36 1,90 1,41 3,00 2,36 5,92 3,80 1,96 3,45 8,04 1,58 2,48 1.746,00 7,80 3,60	1.810,50
373	UD POZO DE REGISTRO DE AROS DE HORMIGÓN DN1200 Pozo de registro de abastecimiento para válvulas de control de cualquier altura de diámetro interior D=1200 mm, incluso base de hormigón HNE-20, aros de hormigón, cono prefabricado de hormigón, pates y tapa de fundición, totalmente terminado. Ventosas Desagües PK 4+760 PK 9+550 Inicio ramal Alcanadre Cruces carreteras y autopista	20 12 1 1 1 4				20,00 12,00 1,00 1,00 1,00 4,00	39,00

MEDICIONES

ABASTECIMIENTO A VARIOS MUNICIPIOS DE LA RIOJA. SISTEMA CIDACOS

CÓDIGO	RESUMEN	UDS	LONGITUD	ANCHURA	ALTURA	PARCIALES	CANTIDAD
APARTADO 07.05.03 TUBERÍAS							
066	ML TUBERÍA FD 125 mm Tubería de fundición dúctil de diámetro interior 125 mm y PFA de 64 bar, revestida interiormente con mortero de cemento y exteriormente con una capa de cinc y otra bituminosa, i/p.p. de junta automática flexible, cinta señalizadora y medios auxiliares, totalmente colocada y probada.	1	11.420,00			11.420,00	
							11.420,00
086	UD CODO FD 1/4 A 1/32 125 mm Codo de fundición dúctil de 1/4 a 1/32 de diámetro interior 125 mm y PFA 40 bar, con un revestimiento interior y exterior epoxi, incluso p.p. de juntas y medios auxiliares, totalmente colocado y probado.	99				99,00	
							99,00
199	ML TUBERÍA DE PVC 90 mm Tubería de PVC con junta elástica de 90 mm de diámetro exterior, y PN=6 bar, incluso banda de señalización, totalmente colocada en zanja. Desagües P.K. 1+680 P.K. 3+260 P.K. 4+260 P.K. 4+760 P.K. 5+960 P.K. 7+460 P.K. 9+546,763 P.K. 11+260	1 1 1 1 1 1 1 1	110,00 30,00 5,00 5,00 12,00 48,00 132,00 37,00			110,00 30,00 5,00 5,00 12,00 48,00 132,00 37,00	
							379,00
APARTADO 07.05.04 VÁLVULAS Y ACCESORIOS							
245.1	UD VENTOSA DN=25 mm (1") PN16 Válvula ventosa de tres funciones de 1" (DN=25 mm) y PN 16 bar incluido transporte, juntas, válvula de corte DN=25 mm y PN 16 bar y piezas especiales, totalmente colocada y probada. P.K. 0+860 P.K. 1+140 P.K. 1+860 P.K. 2+300 P.K. 2+930,086 P.K. 3+379,229 P.K. 4+280 P.K. 4+781,521 P.K. 6+660 P.K. 7+367,642 P.K. 8+120 P.K. 8+894,922 P.K. 9+280 P.K. 10+040 P.K. 10+580 P.K. 11+180 P.K. 11+390,151 P.K. 11+419,494	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1				1,00 1,00 1,00 1,00 1,00 1,00 1,00 1,00 1,00 1,00 1,00 1,00 1,00 1,00 1,00 1,00 1,00 1,00	
							18,00
245.8	UD VENTOSA DN=25 mm (1") PN25 Válvula ventosa de tres funciones de 1" (DN=25 mm) y PN 25 bar incluido transporte, juntas, válvula de corte DN=25 mm y PN 25 bar y piezas especiales, totalmente colocada y probada. P.K. 5+146,747 P.K. 5+894,404	1 1				1,00 1,00	
							2,00

MEDICIONES

ABASTECIMIENTO A VARIOS MUNICIPIOS DE LA RIOJA. SISTEMA CIDACOS

CÓDIGO	RESUMEN	UDS	LONGITUD	ANCHURA	ALTURA	PARCIALES	CANTIDAD
129.8	UD TE FD EEB 125 mm PN16/25 SALIDA DN125/40 "T" de fundición dúctil de PFA 16/25 bar, con dos enchufes y derivación con brida para tubería de 125 mm y salida comprendida entre 125 y 40 mm, con un revestimiento interior y exterior epoxi, i/p.p. de junta de unión y medios auxiliares, totalmente colocada y probada. Ventosas P.K. 0+860 P.K. 1+140 P.K. 1+860 P.K. 2+300 P.K. 2+930,086 P.K. 3+379,229 P.K. 4+280 P.K. 4+781,521 P.K. 6+660 P.K. 7+367,642 P.K. 8+120 P.K. 8+894,922 P.K. 9+280 P.K. 10+040 P.K. 10+580 P.K. 11+180 P.K. 11+390,151 P.K. 11+419,494 P.K. 5+146,747 P.K. 5+894,404 Desagües	1 12				1,00 12,00	
							32,00
114.8	UD REDUCCIÓN FD 50 A 40/25 mm PN16/25 Reducción en fundición dúctil de 50 mm a 40-25 mm con dos bridas PN 16/25 bar, con un revestimiento interior y exterior epoxi, i/p.p. de tornillería y medios auxiliares, totalmente colocada y probada. Ventosas P.K. 0+860 P.K. 1+140 P.K. 1+860 P.K. 2+300 P.K. 2+930,086 P.K. 3+379,229 P.K. 4+280 P.K. 4+781,521 P.K. 6+660 P.K. 7+367,642 P.K. 8+120 P.K. 8+894,922 P.K. 9+280 P.K. 10+040 P.K. 10+580 P.K. 11+180 P.K. 11+390,151 P.K. 11+419,494 P.K. 5+146,747 P.K. 5+894,404	1 1				1,00 1,00	
							20,00
EVCM080	UD VÁLVULA DE COMPUERTA MANUAL DN80 PN16 Válvula de compuerta de cierre elástico de 80 mm. de diámetro nominal y 16 At. de P.N., de accionamiento manual por volante, de cuerpo de fundición nodular GGG-50, con eje de acero inoxidable al 13 % Cr. con roscas conformadas por laminación en frío, cierre en fundición nodular, tornillería de acero inoxidable, protegida contra la corrosión mediante aplicación de doble capa de pintura epoxy, totalmente colocada y probada. Resto de características según ET. Desagües						

MEDICIONES

ABASTECIMIENTO A VARIOS MUNICIPIOS DE LA RIOJA. SISTEMA CIDACOS

CÓDIGO	RESUMEN	UDS	LONGITUD	ANCHURA	ALTURA	PARCIALES	CANTIDAD
	Arqueta entrada	1	2,20	1,60		3,52	
	P.K. 1+680	1				1,00	
	P.K. 2+590,821	1				1,00	
	P.K. 3+260	1				1,00	
	P.K. 4+260	1				1,00	
	P.K. 4+760	1				1,00	
	P.K. 7+460	1				1,00	
	P.K. 9+546,763	1				1,00	
	P.K. 11+000	1				1,00	
	P.K. 11+260	1				1,00	
							10,00
240	UD VÁLVULA DE COMPUERTA MANUAL DN80 PN25						
	Válvula de compuerta de accionamiento manual de diámetro nominal DN=80 mm de 25 bares de presión máxima admisible, con tornillería y juntas, totalmente instalada y probada, incluso volante de accionamiento.						
	Desagües						
	P.K. 5+078,283	1				1,00	
	P.K. 5+960	1				1,00	
							2,00
109A	UD RACORD TIPO BARCELONA SALIDAS 80-200 mm						
	Rosca Racord tipo Barcelona con salidad entre 80 y 200 mm para enchufe de manguera, totalmente instalado y terminado.						
	Desagües						
	P.K. 0+920	1				1,00	
	P.K. 2+590,821	1				1,00	
	P.K. 11+000	1				1,00	
	P.K. 5+078,283	1				1,00	
							4,00
EVCM12525	UD VÁLVULA DE COMPUERTA MANUAL DN125 PN25						
	Válvula de compuerta de cierre elástico de 125 mm. de diámetro nominal y 25 At. de P.N., de accionamiento manual por volante, de cuerpo de fundición nodular GGG-50, con eje de acero inoxidable al 13 % Cr. con rosca conformadas por laminación en frío, cierre en fundición nodular, tornillería de acero inoxidable, protegida contra la corrosión mediante aplicación de doble capa de pintura epoxy, totalmente colocada y probada. Resto de características según ET.						
	PK 4+760	1				1,00	
	PK 9+550	1				1,00	
	Inicio ramal Alcanadre	1				1,00	
	Cruces carretera y autopista	4				4,00	
							7,00
ECD012525	UD CARRETE DE DESMONTAJE DN=125 mm PN25						
	Carrete telescópico de desmontaje DN125 PN25, bridas de acero al carbono, virolas de acero inoxidable, protección epoxy, tornillos y tuercas en acero F-114, cincado y posterior baño de cromo-niquel, incluido p.p. de brida enchufe, totalmente instalado y probado en obra.						
	PK 4+760	1				1,00	
	PK 9+550	1				1,00	
	Inicio ramal Alcanadre	1				1,00	
	Cruces carretera y autopista	4				4,00	
							7,00
114.4	UD BRIDA LISO FD DN<150 mm PN16/25/40						
	Brida lisa de fundición dúctil de PFA 16/25/40 bar para tubería de diámetro menor o igual de 150 mm, con un revestimiento interior y exterior epoxy, i/p.p. de junta de unión y medios auxiliares, totalmente colocada y probada.						
	PK 4+760	1				1,00	
	PK 9+550	1				1,00	
							2,00

MEDICIONES

ABASTECIMIENTO A VARIOS MUNICIPIOS DE LA RIOJA. SISTEMA CIDACOS

CÓDIGO	RESUMEN	UDS	LONGITUD	ANCHURA	ALTURA	PARCIALES	CANTIDAD
115.7	UD BRIDA ENCHUFE FD DN<150 mm PN16/25/40						
	Brida enchufe de fundición dúctil de PFA 16/25/40 bar para tubería de diámetro menor o igual de 150 mm, con un revestimiento interior y exterior epoxy, i/p.p. de junta de unión y medios auxiliares, totalmente colocada y probada.						
	PK 4+760	1				1,00	
	PK 9+550	1				1,00	
	Inicio ramal Alcanadre	1				1,00	
							3,00
106	UD REDUCCIÓN FD 250 A 200/125 mm PN16						
	Reducción en fundición dúctil de 250 mm a 200-150-125 mm con dos bridas PN 25 bar, con un revestimiento interior y exterior epoxy, i/p.p. de junta de unión y medios auxiliares, totalmente colocada y probada.						
	Inicio ramal Alcanadre	1				1,00	
							1,00
APARTADO 07.05.05 HINCAS							
366	ML HINCA TUBO ACERO 355 mm TIERRAS						
	Hinca de tubo de acero, de 355 mm de diámetro interior, bajo viales, en tierra o roca alterada, incluso p.p. de instalación de tubería de fundición dúctil comprendida entre 250 y 150 mm de diámetro interior y sus anclajes y apoyos; muros de reacción y contención; y todos los elementos necesarios para su montaje y desmontaje.						
	P.K. 2+910 - 2+930	1	20,00			20,00	
	P.K. 7+384,91 - 7+455	1	70,09			70,09	
							90,09
APARTADO 07.05.06 OBRAS ACCESORIAS Y REPOSICIONES DE SERVICIOS							
381	M2 REPOSICIÓN DE FIRME DE AGLOMERADO						
	Reposición de firme de aglomerado en caliente en zonas afectadas por las obras.						
	P.K. 0+000 - 0+2910	1	2.910,00	3,00		8.730,00	
	P.K. 5+107 - 5+120	1	13,00	3,00		39,00	
	P.K. 5+138 - 5+144	1	6,00	3,00		18,00	
							8.787,00
056	M3 ZAHORRA ARTIFICIAL						
	Zahorra artificial compactada.						
	P.K. 3+585 - 3+596	1	11,00	3,00	0,20	6,60	
	P.K. 3+950 - 4+000	1	50,00	3,00	0,20	30,00	
	P.K. 5+940 - 7+055	1	1.115,00	3,00	0,20	669,00	
	P.K. 7+360 - 7+375	1	15,00	3,00	0,20	9,00	
	P.K. 8+770 - 11+005	1	2.235,00	3,00	0,20	1.341,00	
	P.K. 11+240 - 11+247	1	7,00	3,00	0,20	4,20	
	P.K. 11+312 - FIN	1	107,49	3,00	0,20	64,49	
							2.124,29
383	ML REPOSICIÓN DE CERRAMIENTO EXISTENTE						
	Reposición de cerramiento existente hasta 2,00 m de altura.						
	P.K. 7+382 (AP-68)	1	5,00			5,00	
	P.K. 7+420 (AP-68)	1	5,00			5,00	
							10,00
387	ML REPOSICIÓN OBRA DE DRENAJE HASTA DN 1,00 m						
	Reposición de obra de drenaje hasta 1,00 de diámetro, p.p. de boquilla de entrada y salida, excavación, hormigón de recubrimiento y relleno compactado, totalmente terminada.						
	P.K. 2+912	1	5,00			5,00	
							5,00
389	ML REPOSICIÓN DE ACEQUIA						
	Reposición de acequia con tubo de hormigón hasta 1 m de diámetro.						
	P.K. 10+310	1	5,00			5,00	
	P.K. 10+463	1	5,00			5,00	
	P.K. 10+563	1	5,00			5,00	

MEDICIONES

ABASTECIMIENTO A VARIOS MUNICIPIOS DE LA RIOJA. SISTEMA CIDACOS

CÓDIGO	RESUMEN	UDS	LONGITUD	ANCHURA	ALTURA	PARCIALES	CANTIDAD
							15,00
	SUBCAPÍTULO 07.06 EJE 13: IMPULSIÓN A AUSEJO						
	APARTADO 07.06.01 MOVIMIENTO DE TIERRAS						
019	M2 DEMOLICIÓN DE FIRMES Demolición de firmes de cualquier tipo, incluso precorte, carga y transporte a vertedero, posterior perfilado y compactación del terreno. P.K. 0+370 - 0+560	1	190,00	3,00		570,00	
							570,00
010	M3 RELLENO ZANJAS, CIMIENTOS Y TRASDOSES DE MATERIAL SELECCIONADO Relleno con material seleccionado en zanjas, cimientos, trasdós de muros, estribos y otras estructuras procedente de la excavación o préstamos incluso carga, transporte y compactación. Según medición auxiliar Desagües	1	7.962,60			7.962,60	
		1	100,00	0,69	0,90	62,10	
							8.024,70
011	M3 RELLENO DE ARENA Arena para apoyo y protección de tuberías incluso carga, transporte, colocación, compactación y nivelación. Según medición auxiliar Desagües	1	2.756,50			2.756,50	
		1	100,00	0,69	0,29	20,01	
							2.776,51
003	M3 EXCAVACIÓN EN ZANJAS CON AGOTAMIENTO Excavación en zanjas y zonas localizadas, en todo tipo de terrenos incluido terrenos en roca con medios mecánicos, incluso rasanteo, nivelación de la superficie de apoyo, agotamiento y transporte a lugar de empleo o vertedero. Según medición auxiliar Desagües	1	10.878,40			10.878,40	
		1	100,00	0,69	1,19	82,11	
							10.960,51
008	M2 DESPEJE Y DESBROCE Despeje y desbroce de capa de tierra vegetal con un espesor medio de 50 cm, incluso corte de árboles, extracción de tocones, nivelación de zona adyacente para el paso de maquinaria, transporte a lugar de acopio independiente para posterior reposición de tierra vegetal tras las obras y despedregado de las parcelas, así como transporte a vertedero de tierras sobrantes. P.K. 0+000 - 0+107 P.K. 0+120 - 0+204 P.K. 0+560 - 0+570 P.K. 1+537 - 2+400 P.K. 2+400 - 2+800 P.K. 2+800 - 2+930 P.K. 4+280 - 4+375 P.K. 5+040 - 5+200 P.K. 5+200 - 5+680 P.K. 6+218 - 6+775 P.K. 6+881 - 6+983	1	107,00	3,00		321,00	
		1	84,00	3,00		252,00	
		1	10,00	3,00		30,00	
		1	863,00	3,00		2.589,00	
		1	400,00	3,00		1.200,00	
		1	130,00	3,00		390,00	
		1	95,00	3,00		285,00	
		1	160,00	3,00		480,00	
		1	480,00	3,00		1.440,00	
		1	557,00	3,00		1.671,00	
		1	102,00	3,00		306,00	
							8.964,00
030	M3 HORMIGÓN HNE-20/B/40 Hormigón HNE-20/B/40, con cemento CEM III/A-D/42,5/SR (UNE 80303:96), en masa o ligeramente armado, colocado en cualquier tipo de obra, incluso fabricación, carga y transporte, totalmente colocado. P.K. 0+560 - 0+570	1	10,00	0,80	0,45	3,60	
							3,60

MEDICIONES

ABASTECIMIENTO A VARIOS MUNICIPIOS DE LA RIOJA. SISTEMA CIDACOS

CÓDIGO	RESUMEN	UDS	LONGITUD	ANCHURA	ALTURA	PARCIALES	CANTIDAD
	APARTADO 07.06.02 OBRA CIVIL						
030	M3 HORMIGÓN HNE-20/B/40 Hormigón HNE-20/B/40, con cemento CEM III/A-D/42,5/SR (UNE 80303:96), en masa o ligeramente armado, colocado en cualquier tipo de obra, incluso fabricación, carga y transporte, totalmente colocado. Anclaje codos	4	0,16			0,64	
		24	0,28			6,72	
		11	0,30			3,30	
		7	0,36			2,52	
		1	0,38			0,38	
		32	0,47			15,04	
		6	0,52			3,12	
		3	0,61			1,83	
		1	0,63			0,63	
		4	0,74			2,96	
		5	0,90			4,50	
		4	1,09			4,36	
		1	1,18			1,18	
		2	1,45			2,90	
		4	1,66			6,64	
		4	1,90			7,60	
		1	2,20			2,20	
		1	2,30			2,30	
		2	3,03			6,06	
	P.K. 0+370 - 0+560	1	190,00	3,00	0,20	114,00	
							188,88
023	KG ACERO CORRUGADO B-500-S Acero redondo corrugado para armar tipo B-500-S elaborado y colocado. Anclaje codos	4	23,77			95,08	
		24	32,14			771,36	
		11	35,33			388,63	
		7	38,49			269,43	
		1	40,21			40,21	
		32	45,43			1.453,76	
		6	51,15			306,90	
		3	54,94			164,82	
		1	56,99			56,99	
		4	61,01			244,04	
		5	69,66			348,30	
		4	78,89			315,56	
		1	86,34			86,34	
		2	99,30			198,60	
		4	107,38			429,52	
		4	115,80			463,20	
		1	127,61			127,61	
		1	133,87			133,87	
		2	159,79			319,58	
							6.213,80
373	UD POZO DE REGISTRO DE AROS DE HORMIGÓN DN1200 Pozo de registro de abastecimiento para válvulas de control de cualquier altura de diámetro interior D=1200 mm, incluso base de hormigón HNE-20, aros de hormigón, cono prefabricado de hormigón, pates y tapa de fundición, totalmente terminado. Ventosas Desagües PK 4+360 Cruce ctra	15				15,00	
		9				9,00	
		1				1,00	
		2				2,00	
							27,00

MEDICIONES

ABASTECIMIENTO A VARIOS MUNICIPIOS DE LA RIOJA. SISTEMA CIDACOS

CÓDIGO	RESUMEN	UDS	LONGITUD	ANCHURA	ALTURA	PARCIALES	CANTIDAD
APARTADO 07.06.03 TUBERÍA							
065	ML TUBERÍA FD 150 mm Tubería de fundición dúctil de diámetro interior 150 mm y PFA de 64 bar, revestida interiormente con mortero de cemento y exteriormente con una capa de cinc y otra bituminosa, i/p.p. de junta automática flexible, banda de señalización y medios auxiliares, totalmente colocada y probada.	1	7.021,00			7.021,00	7.021,00
085	UD CODO FD 1/8 A 1/32 150 mm Codo de fundición dúctil de 1/8 a 1/32 de diámetro interior 150 mm y PFA 40 bar, con un revestimiento interior exterior epoxi, incluso p.p. de juntas y medios auxiliares, totalmente colocado y probado.	117				117,00	117,00
199	ML TUBERÍA DE PVC 90 mm Tubería de PVC con junta elástica de 90 mm de diámetro exterior, y PN=6 bar, incluso banda de señalización, totalmente colocada en zanja. Desagües P.K. 0+580 P.K. 1+700 P.K. 2+680 P.K. 4+360 P.K. 5+060 P.K. 5+840 P.K. 6+780	1 1 1 1 1 1 1	20,00 10,00 30,00 20,00 5,00 10,00 5,00			20,00 10,00 30,00 20,00 5,00 10,00 5,00	100,00
APARTADO 07.06.04 VÁLVULAS Y ACCESORIOS							
245.4	UD VENTOSA DN=50 (2") mm PN16 Válvula ventosa de tres funciones de DN=50 mm (2") y PN 16 bar incluido transporte, juntas, válvula de corte DN=50 mm y PN 16 y piezas especiales, totalmente colocada y probada. P.K. 0+107,495 P.K. 1+080 P.K. 1+857,232 P.K. 2+317,025 P.K. 2+580 P.K. 2+820 P.K. 3+400 P.K. 3+960 P.K. 4+714.173 P.K. 5+040 P.K. 5+672,068 P.K. 5+900 P.K. 6+600 P.K. 7+000 P.K. 7+020,273	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1				1,00 1,00 1,00 1,00 1,00 1,00 1,00 1,00 1,00 1,00 1,00 1,00 1,00 1,00 1,00	15,00
129.1	UD TE FD EEB 150 mm PN16/25 SALIDA DN150/40 "T" de fundición dúctil de PFA 16/25 bar, con dos enchufes y derivación con brida para tubería de 150 mm y salida comprendida entre 150 y 40 mm, con un revestimiento interior y exterior epoxi, i/p.p. de junta de unión y medios auxiliares, totalmente colocada y probada. Ventosas P.K. 0+107,495 P.K. 1+080 P.K. 1+857,232 P.K. 2+317,025 P.K. 2+580 P.K. 2+820 P.K. 3+400 P.K. 3+960	1 1 1 1 1 1 1 1				1,00 1,00 1,00 1,00 1,00 1,00 1,00 1,00	15,00

MEDICIONES

ABASTECIMIENTO A VARIOS MUNICIPIOS DE LA RIOJA. SISTEMA CIDACOS

CÓDIGO	RESUMEN	UDS	LONGITUD	ANCHURA	ALTURA	PARCIALES	CANTIDAD
	Arqueta entrada P.K. 5+040 P.K. 5+672,068 P.K. 5+900 P.K. 6+600 P.K. 7+000 P.K. 7+020,273 Desagües	1 1 1 1 1 1 1 9	2,20	1,60		3,52 1,00 1,00 1,00 1,00 1,00 1,00 9,00	24,00
EVC080	UD VÁLVULA DE COMPUERTA MANUAL DN80 PN16 Válvula de compuerta de cierre elástico de 80 mm. de diámetro nominal y 16 At. de P.N., de accionamiento manual por volante, de cuerpo de fundición nodular GGG-50, con eje de acero inoxidable al 13 % Cr. con roscas conformadas por laminación en frío, cierre en fundición nodular, tornillería de acero inoxidable, protegida contra la corrosión mediante aplicación de doble capa de pintura epoxy, totalmente colocada y probada. Resto de características según ET. Desagües P.K. 0+580 P.K. 1+700 P.K. 2+420 P.K. 2+680 P.K. 3+901,350 P.K. 4+360 P.K. 5+060 P.K. 5+840 P.K. 6+780	1 1 1 1 1 1 1 1 1 1				1,00 1,00 1,00 1,00 1,00 1,00 1,00 1,00 1,00	9,00
109A	UD RACORD TIPO BARCELONA SALIDAS 80-200 mm Rosca Racord tipo Barcelona con salidad entre 80 y 200 mm para enchufe de manguera, totalmente instalado y terminado. Desagües P.K. 2+420 P.K. 3+901,350	1 1				1,00 1,00	2,00
115.7	UD BRIDA ENCHUFE FD DN<150 mm PN16/25/40 Brida enchufe de fundición dúctil de PFA 16/25/40 bar para tubería de diámetro menor o igual de 150 mm, con un revestimiento interior y exterior epoxi, i/p.p. de junta de unión y medios auxiliares, totalmente colocada y probada. PK 4+360	1				1,00	1,00
114.4	UD BRIDA LISO FD DN<150 mm PN16/25/40 Brida lisa de fundición dúctil de PFA 16/25/40 bar para tubería de diámetro menor o igual de 150 mm, con un revestimiento interior y exterior epoxi, i/p.p. de junta de unión y medios auxiliares, totalmente colocada y probada. PK 4+360	1				1,00	1,00
ECD010016	UD CARRETE DE DESMONTAJE DN=100 mm PN16 Carrete telescópico de desmontaje DN 100 PN 16, bridas de acero al carbono, virolas de acero inoxidable, protección epoxi, tornillos y tuercas en acero F-114, cincado y posterior baño de cromo-niquel, incluido p.p. de brida enchufe, totalmente instalado y probado en obra. PK 4+360 Cruce ctra	1 2				1,00 2,00	3,00

MEDICIONES

ABASTECIMIENTO A VARIOS MUNICIPIOS DE LA RIOJA. SISTEMA CIDACOS

CÓDIGO	RESUMEN	UDS	LONGITUD	ANCHURA	ALTURA	PARCIALES	CANTIDAD
EVCM12516	UD VÁLVULA DE COMPUERTA MANUAL DN125 PN16 Válvula de compuerta de cierre elástico de 125 mm. de diámetro nominal y 16 At. de P.N., de accionamiento manual por volante, de cuerpo de fundición nodular GGG-50, con eje de acero inoxidable al 13 % Cr. con roscas conformadas por laminación en frío, cierre en fundición nodular, tornillería de acero inoxidable, protegida contra la corrosión mediante aplicación de doble capa de pintura epoxy, totalmente colocada y probada. Resto de características según ET. PK 4+360 Cruce ctra	1 2				1,00 2,00	3,00
APARTADO 07.06.05 HINCAS							
367	ML HINCA TUBO ACERO 455 mm TIERRAS Hinca de tubo de acero, de 455 mm de diámetro interior, bajo viales, en tierra o roca alterada, incluso p.p. de instalación de tubería de fundición dúctil comprendida entre 250 y 150 mm de diámetro interior y sus anclajes y apoyos; muros de reacción y contención; y todos los elementos necesarios para su montaje y desmontaje. P.K. 0+107 - 0+120	1	13,00			13,00	13,00
APARTADO 07.06.06 OBRAS ACCESORIAS Y REPOSICIONES DE SERVICIOS							
381	M2 REPOSICIÓN DE FIRME DE AGLOMERADO Reposición de firme de aglomerado en caliente en zonas afectadas por las obras. P.K. 0+370 - 0+560	1	190,00	3,00		570,00	570,00
056	M3 ZAHORRA ARTIFICIAL Zahorra artificial compactada. P.K. 0+204 - 0+370 P.K. 0+570 - 1+537 P.K. 2+930 - 3+000 P.K. 3+000 - 4+280 P.K. 4+375 - 5+040 P.K. 5+680 - 6+218 P.K. 6+775 - 6+881 P.K. 6+983 - FIN	1 1 1 1 1 1 1 1	166,00 967,00 70,00 1.280,00 665,00 538,00 106,00 37,27	3,00 3,00 3,00 3,00 3,00 3,00 3,00 0,20	0,20 0,20 0,20 0,20 0,20 0,20 0,20 0,20	99,60 580,20 42,00 768,00 399,00 322,80 63,60 22,36	2.297,56
SUBCAPÍTULO 07.07 EJE 21: ACOMETIDA BERGASA							
APARTADO 07.07.01 MOVIMIENTO DE TIERRAS							
003	M3 EXCAVACIÓN EN ZANJAS CON AGOTAMIENTO Excavación en zanjas y zonas localizadas, en todo tipo de terrenos incluido terrenos en roca con medios mecánicos, incluso rasanteo, nivelación de la superficie de apoyo, agotamiento y transporte a lugar de empleo o vertedero. Según medición auxiliar	1	5.355,00			5.355,00	5.355,00
007	M2 ENTIBACIÓN MÓDULOS METÁLICOS Entibación a dos caras mediante módulos metálicos y articulados, en zonas de protección de zanja, medida la superficie efectiva. P.K. 0+175 - 0+195 P.K. 3+154 - 3+248 P.K. 3+379 - 3+574 P.K. 3+714 - 3+810	1 1 1 1	20,00 94,00 195,00 96,00	2,00 1,50 1,50 1,50		40,00 141,00 292,50 144,00	617,50
008	M2 DESPEJE Y DESBROCE Despeje y desbroce de capa de tierra vegetal con un espesor medio de 50 cm, incluso corte de árboles, extracción de tocones, nivelación de zona adyacente para el paso de maquinaria, transporte a lugar de acopio independiente para posterior reposición de tierra vegetal tras las obras y despedregado de las parcelas, así como transporte a vertedero de tierras sobrantes. P.K. 0+000 - 0+389 P.K. 0+398 - 1+096 P.K. 1+106 - 2+560	1 1 1	389,00 698,00 1.454,00	3,00 3,00 3,00		1.167,00 2.094,00 4.362,00	

MEDICIONES

ABASTECIMIENTO A VARIOS MUNICIPIOS DE LA RIOJA. SISTEMA CIDACOS

CÓDIGO	RESUMEN	UDS	LONGITUD	ANCHURA	ALTURA	PARCIALES	CANTIDAD
	Arqueta entrada P.K. 3+248 - 3+379 P.K. 3+574 - 3+714	1 1 1	2,20 131,00 140,00	1,60 3,00 3,00		3,52 393,00 420,00	10.188,00
010	M3 RELLENO ZANJAS, CIMIENTOS Y TRASDOSES DE MATERIAL SELECCIONADO Relleno con material seleccionado en zanjas, cimientos, trasdós de muros, estribos y otras estructuras procedente de la excavación o préstamos incluso carga, transporte y compactación. Según medición auxiliar	1	4.027,20			4.027,20	4.027,20
011	M3 RELLENO DE ARENA Arena para apoyo y protección de tuberías incluso carga, transporte, colocación, compactación y nivelación. Según medición auxiliar	1	1.277,70			1.277,70	1.277,70
019	M2 DEMOLICIÓN DE FIRMES Demolición de firmes de cualquier tipo, incluso precorte, carga y transporte a vertedero, posterior perfilado y compactación del terreno. P.K. 0+389 - 0+398 P.K. 1+096 - 1+106 P.K. 2+560 - 2+570 P.K. 3+154 - 3+162 P.K. 3+175 - 3+248 P.K. 3+379 - 3+574 P.K. 3+714 - 3+810	1 1 1 1 1 1 1	9,00 10,00 10,00 8,00 73,00 195,00 96,00	3,00 3,00 3,00 3,00 3,00 3,00 3,00		27,00 30,00 30,00 24,00 219,00 585,00 288,00	1.203,00
030	M3 HORMIGÓN HNE-20/B/40 Hormigón HNE-20/B/40, con cemento CEM III/A-D/42,5/SR (UNE 80303:96), en masa o ligeramente armado, colocado en cualquier tipo de obra, incluso fabricación, carga y transporte, totalmente colocado. P.K. 3+162 - 3+175	1	13,00	0,80	0,40	4,16	4,16
APARTADO 07.07.02 OBRA CIVIL							
030	M3 HORMIGÓN HNE-20/B/40 Hormigón HNE-20/B/40, con cemento CEM III/A-D/42,5/SR (UNE 80303:96), en masa o ligeramente armado, colocado en cualquier tipo de obra, incluso fabricación, carga y transporte, totalmente colocado. Anclajes de codos Protección tubería P.K. 0+389 - 0+398 P.K. 1+096 - 1+106 P.K. 2+560 - 2+570 P.K. 3+175 - 3+248 P.K. 3+379 - 3+574 P.K. 3+714 - 3+810 P.K. 3+154 - 3+162	1 3 2 6 10 12 6 1 1 1 1 1 1	0,74 0,47 0,36 0,28 0,19 0,14 0,06 9,00 10,00 10,00 73,00 195,00 96,00 8,00	3,00 3,00 3,00 3,00 3,00 3,00 3,00 3,00 3,00 3,00 3,00 3,00 3,00	0,20 0,20 0,20 0,20 0,20 0,20 0,20 0,20 0,20 0,20 0,20 0,20 0,20	5,40 6,00 6,00 43,80 117,00 57,60 4,80	249,09
023	KG ACERO CORRUGADO B-500-S Acero redondo corrugado para armar tipo B-500-S elaborado y colocado. Anclajes de codos	1 3 2	60,97 45,24 38,46			60,97 135,72 76,92	

MEDICIONES

ABASTECIMIENTO A VARIOS MUNICIPIOS DE LA RIOJA. SISTEMA CIDACOS

CÓDIGO	RESUMEN	UDS	LONGITUD	ANCHURA	ALTURA	PARCIALES	CANTIDAD
	Arqueta entrada	1	2,20	1,60		3,52	
		10	24,83			248,30	
		12	19,78			237,36	
		6	11,40			68,40	
							1.019,55
373	UD POZO DE REGISTRO DE AROS DE HORMIGÓN DN1200 Pozo de registro de abastecimiento para válvulas de control de cualquier altura de diámetro interior D=1200 mm, incluso base de hormigón HNE-20, aros de hormigón, cono prefabricado de hormigón, pates y tapa de fundición, totalmente terminado. Derivación a Bergasa Ventosas	1 3				1,00 3,00	
							4,00
APARTADO 07.07.03 TUBERÍA							
067	ML TUBERÍA FD 100 mm Tubería de fundición dúctil de diámetro interior 100 mm y PFA de 64 bar, revestida interiormente con mortero de cemento y exteriormente con una capa de cinc y otra bituminosa, i/p.p. de junta automática flexible, cinta señalizadora y medios auxiliares, totalmente colocada y probada.	1	2.870,00			2.870,00	
							2.870,00
066	ML TUBERÍA FD 125 mm Tubería de fundición dúctil de diámetro interior 125 mm y PFA de 64 bar, revestida interiormente con mortero de cemento y exteriormente con una capa de cinc y otra bituminosa, i/p.p. de junta automática flexible, cinta señalizadora y medios auxiliares, totalmente colocada y probada.	1	1.045,00			1.045,00	
							1.045,00
086	UD CODO FD 1/4 A 1/32 125 mm Codo de fundición dúctil de 1/4 a 1/32 de diámetro interior 125 mm y PFA 40 bar, con un revestimiento interior y exterior epoxi, incluso p.p. de juntas y medios auxiliares, totalmente colocado y probado.	3				3,00	
							3,00
087	UD CODO FD 1/4 A 1/32 100 mm Codo de fundición dúctil de 1/4 a 1/32 de diámetro interior 100 mm y PFA 40 bar, con un revestimiento interior y exterior epoxi, incluso p.p. de juntas y medios auxiliares, totalmente colocado y probado.	37				37,00	
							37,00
APARTADO 07.07.04 VÁLVULAS Y ACCESORIOS							
121	UD TE FD EEB 400 mm PN16/25 SALIDA DN400/80 "T" de fundición dúctil de PFA 16/25 bar, con dos enchufes y derivación con brida para tubería de 400 mm con salida comprendida entre 400 y 80 mm, con un revestimiento interior y exterior epoxi, i/p.p. de junta de unión y medios auxiliares, totalmente colocada y probada. Derivación Bergasa	1				1,00	
							1,00
115.7	UD BRIDA ENCHUFE FD DN<150 mm PN16/25/40 Brida enchufe de fundición dúctil de PFA 16/25/40 bar para tubería de diámetro menor o igual de 150 mm, con un revestimiento interior y exterior epoxi, i/p.p. de junta de unión y medios auxiliares, totalmente colocada y probada.	1				1,00	
							1,00
ECD15016	UD CARRETE DE DESMONTAJE DN=150 mm PN16 Carrete telescópico de desmontaje DN150 PN16, bridas de acero al carbono, virolas de acero inoxidable, protección epoxi, tornillos y tuercas en acero F-114, cincado y posterior baño de cromo-niquel, incluido p.p. de brida enchufe, totalmente instalado y probado en obra.	1				1,00	

MEDICIONES

ABASTECIMIENTO A VARIOS MUNICIPIOS DE LA RIOJA. SISTEMA CIDACOS

CÓDIGO	RESUMEN	UDS	LONGITUD	ANCHURA	ALTURA	PARCIALES	CANTIDAD
							1,00
162	UD MANGUITO FD DN100 A DN250 mm PN16/25 Manguito de fundición dúctil con bridas diámetros de 100 a 250 mm, longitud comprendida entre 0,20 y 1,00 m y PN16/25, incluso p.p. de tornillería y medios auxiliares, totalmente colocado y probado.	1				1,00	
							1,00
235	UD VÁLVULA DE COMPUERTA MANUAL DN150 PN16 Válvula de compuerta de accionamiento manual de diámetro nominal DN=150 mm de 16 bares de presión máxima admisible, con tornillería y juntas, totalmente instalada y probada, incluso volante de accionamiento. Derivación	1				1,00	
							1,00
245.1	UD VENTOSA DN=25 mm (1") PN16 Válvula ventosa de tres funciones de 1" (DN=25 mm) y PN 16 bar incluido transporte, juntas, válvula de corte DN=25 mm y PN 16 bar y piezas especiales, totalmente colocada y probada. P.K. 0+780 P.K. 2+340 P.K. 3+100	1 1 1				1,00 1,00 1,00	
							3,00
245.8	UD VENTOSA DN=25 mm (1") PN25 Válvula ventosa de tres funciones de 1" (DN=25 mm) y PN 25 bar incluido transporte, juntas, válvula de corte DN=25 mm y PN 25 bar y piezas especiales, totalmente colocada y probada. P.K. 1+560	1				1,00	
							1,00
129.8	UD TE FD EEB 125 mm PN16/25 SALIDA DN125/40 "T" de fundición dúctil de PFA 16/25 bar, con dos enchufes y derivación con brida para tubería de 125 mm y salida comprendida entre 125 y 40 mm, con un revestimiento interior y exterior epoxi, i/p.p. de junta de unión y medios auxiliares, totalmente colocada y probada. Ventosas P.K. 0+780	1				1,00	
							1,00
129.9	UD TE FD EEB 100 mm PN16/25 SALIDA DN100/40 "T" de fundición dúctil de PFA 16/25 bar, con dos enchufes y derivación con brida para tubería de 100 mm y salida comprendida entre 100 y 40 mm, con un revestimiento interior y exterior epoxi, i/p.p. de junta de unión y medios auxiliares, totalmente colocada y probada. Ventosas P.K. 1+560 P.K. 2+340 P.K. 3+100	1 1 1				1,00 1,00 1,00	
							3,00
114.8	UD REDUCCIÓN FD 50 A 40/25 mm PN16/25 Reducción en fundición dúctil de 50 mm a 40-25 mm con dos bridas PN 16/25 bar, con un revestimiento interior y exterior epoxi, i/p.p. de tornillería y medios auxiliares, totalmente colocada y probada. Ventosas P.K. 0+780 P.K. 1+560 P.K. 2+340 P.K. 3+100	1 1 1 1				1,00 1,00 1,00 1,00	
							4,00

MEDICIONES

ABASTECIMIENTO A VARIOS MUNICIPIOS DE LA RIOJA. SISTEMA CIDACOS

CÓDIGO	RESUMEN	UDS	LONGITUD	ANCHURA	ALTURA	PARCIALES	CANTIDAD
APARTADO 07.07.05 OBRAS ACCESORIOS Y REPOSICIONES DE SERVICIOS							
056	M3 ZAHORRA ARTIFICIAL Zahorra artificial compactada. P.K. 3+810 - FIN	1	104,67	2,00	0,20	41,87	41,87
380	M2 REPOSICIÓN DE PAVIMENTO DE HORMIGÓN Reposición de pavimento de hormigón HM-20/B/40/IIa+Qa de 15 cm de espesor, totalmente terminado. P.K. 3+154 - 3+162	1	8,00	1,00		8,00	8,00
381	M2 REPOSICIÓN DE FIRME DE AGLOMERADO Reposición de firme de aglomerado en caliente en zonas afectadas por las obras. P.K. 0+389 - 0+398 P.K. 1+096 - 1+106 P.K. 2+560 - 2+570 P.K. 3+175 - 3+248 P.K. 3+379 - 3+574 P.K. 3+714 - 3+810	1	9,00	2,00		18,00	18,00
		1	10,00	2,00		20,00	20,00
		1	10,00	2,00		20,00	20,00
		1	73,00	1,00		73,00	73,00
		1	195,00	1,00		195,00	195,00
		1	96,00	1,00		96,00	96,00
							422,00
385	M2 REPOSICIÓN DE JARDÍN EXISTENTE Reposición de jardín existente.	1	50,00	1,25		62,50	62,50
388	ML REPOSICIÓN DE ACEQUIA HASTA 1 m ANCHURA Reposición de acequia prefabricada de hormigón hasta 1,00 m de anchura.	1	5,00			5,00	5,00
SUBCAPÍTULO 07.08 EJE 22: ACOMETIDA TUDELILLA							
APARTADO 07.08.01 MOVIMIENTO DE TIERRAS							
003	M3 EXCAVACIÓN EN ZANJAS CON AGOTAMIENTO Excavación en zanjas y zonas localizadas, en todo tipo de terrenos incluido terrenos en roca con medios mecánicos, incluso rasanteo, nivelación de la superficie de apoyo, agotamiento y transporte a lugar de empleo o vertedero. Según medición auxiliar	1	33,90			33,90	33,90
008	M2 DESPEJE Y DESBROCE Despeje y desbroce de capa de tierra vegetal con un espesor medio de 50 cm, incluso corte de árboles, extracción de tocones, nivelación de zona adyacente para el paso de maquinaria, transporte a lugar de acopio independiente para posterior reposición de tierra vegetal tras las obras y despedregado de las parcelas, así como transporte a vertedero de tierras sobrantes.	1	20,85	3,00		62,55	62,55
010	M3 RELLENO ZANJAS, CIMIENTOS Y TRASDOSES DE MATERIAL SELECCIONADO Relleno con material seleccionado en zanjas, cimientos, trasdós de muros, estribos y otras estructuras procedente de la excavación o préstamos incluso carga, transporte y compactación. Según medición auxiliar	1	26,30			26,30	26,30
011	M3 RELLENO DE ARENA Arena para apoyo y protección de tuberías incluso carga, transporte, colocación, compactación y nivelación. Según medición auxiliar	1	7,30			7,30	7,30

MEDICIONES

ABASTECIMIENTO A VARIOS MUNICIPIOS DE LA RIOJA. SISTEMA CIDACOS

CÓDIGO	RESUMEN	UDS	LONGITUD	ANCHURA	ALTURA	PARCIALES	CANTIDAD
APARTADO 07.08.02 TUBERÍAS							
172	ML TUBERIA PEAD DN=110 mm PN 16 Tubería de polietileno de alta densidad de 110 mm de diámetro exterior y PN=16 bar, colocada en zanja incluso banda de señalización, p.p. de junta de unión colocada, codos, tes, portabridas, así como piezas especiales y medios auxiliares, totalmente colocada.	1	21,00			21,00	21,00
APARTADO 07.08.03 VÁLVULAS Y ACCESORIOS							
245.1	UD VENTOSA DN=25 mm (1") PN16 Válvula ventosa de tres funciones de 1" (DN=25 mm) y PN 16 bar incluido transporte, juntas, válvula de corte DN=25 mm y PN 16 bar y piezas especiales, totalmente colocada y probada. P.K. 0+020,849	1				1,00	1,00
175	UD "T" PEAD DN 140 A 63 mm PN16 "T" de derivación en polietileno de alta densidad de 140 mm de diámetro exterior a 63 mm y PN=16 bar, colocada en zanja incluso p.p. de junta de unión colocada y medios auxiliares, totalmente colocada y probada. Ventosas P.K. 0+020,849	1				1,00	1,00
177.1	UD REDUCCIÓN PEAD 63 A 50 mm DIÁMETRO Reducción en polietileno de alta densidad de 63 mm a 50 mm de diámetro, totalmente colocada y probada. Ventosas P.K. 0+020,849	1				1,00	1,00
373	UD POZO DE REGISTRO DE AROS DE HORMIGÓN DN1200 Pozo de registro de abastecimiento para válvulas de control de cualquier altura de diámetro interior D=1200 mm, incluso base de hormigón HNE-20, aros de hormigón, cono prefabricado de hormigón, pates y tapa de fundición, totalmente terminado. Ventosas	1				1,00	1,00
APARTADO 07.08.04 OBRAS ACCESORIAS Y REPOSICIONES DE SERVICIOS							
383	ML REPOSICIÓN DE CERRAMIENTO EXISTENTE Reposición de cerramiento existente hasta 2,00 m de altura.	1	15,00			15,00	15,00
SUBCAPÍTULO 07.09 EJE 23: ACOMETIDA VILLAR DE ARNEDO							
APARTADO 07.09.01 MOVIMIENTO DE TIERRAS							
003	M3 EXCAVACIÓN EN ZANJAS CON AGOTAMIENTO Excavación en zanjas y zonas localizadas, en todo tipo de terrenos incluido terrenos en roca con medios mecánicos, incluso rasanteo, nivelación de la superficie de apoyo, agotamiento y transporte a lugar de empleo o vertedero. Según medición auxiliar	1	1.894,80			1.894,80	1.894,80
007	M2 ENTIBACIÓN MÓDULOS METÁLICOS Entibación a dos caras mediante módulos metálicos y articulados, en zonas de protección de zanja, medida la superficie efectiva. P.K. 1+240 - 1+255	1	15,00	2,00		30,00	30,00
008	M2 DESPEJE Y DESBROCE Despeje y desbroce de capa de tierra vegetal con un espesor medio de 50 cm, incluso corte de árboles, extracción de tocones, nivelación de zona adyacente para el paso de maquinaria, transporte a lugar de acopio independiente para posterior reposición de tierra vegetal tras las obras y despedregado de las parcelas, así como transporte a vertedero de tierras sobrantes.						

MEDICIONES

ABASTECIMIENTO A VARIOS MUNICIPIOS DE LA RIOJA. SISTEMA CIDACOS

CÓDIGO	RESUMEN	UDS	LONGITUD	ANCHURA	ALTURA	PARCIALES	CANTIDAD
	Arqueta entrada	1	2,20	1,60		3,52	
	P.K. 1+165 - 1+240	1	75,00	3,00		225,00	
	P.K. 1+255 - FIN	1	42,26	3,00		126,78	
							414,78
010	M3 RELLENO ZANJAS, CIMIENTOS Y TRASDOSES DE MATERIAL SELECCIONADO						
	Relleno con material seleccionado en zanjas, cimientos, trasdós de muros, estribos y otras estructuras procedente de la excavación o préstamos incluso carga, transporte y compactación.						
	Según medición auxiliar	1	1.456,60			1.456,60	
							1.456,60
011	M3 RELLENO DE ARENA						
	Arena para apoyo y protección de tuberías incluso carga, transporte, colocación, compactación y nivelación.						
	Según medición auxiliar	1	424,40			424,40	
							424,40
019	M2 DEMOLICIÓN DE FIRMES						
	Demolición de firmes de cualquier tipo, incluso precorte, carga y transporte a vertedero, posterior perfilado y compactación del terreno.						
	P.K. 0+927 - 1+165	1	238,00	3,00		714,00	
	P.K. 1+240 - 1+255	1	15,00	3,00		45,00	
							759,00
APARTADO 07.09.02 OBRA CIVIL							
023	KG ACERO CORRUGADO B-500-S						
	Acero redondo corrugado para armar tipo B-500-S elaborado y colocado.						
	Anclajes codos	1	69,44			69,44	
		2	52,73			105,46	
		1	45,24			45,24	
		7	38,32			268,24	
		5	31,98			159,90	
		3	24,83			74,49	
		7	19,78			138,46	
							861,23
030	M3 HORMIGÓN HNE-20/B/40						
	Hormigón HNE-20/B/40, con cemento CEM III/A-D/42,5/SR (UNE 80303:96), en masa o ligeramente armado, colocado en cualquier tipo de obra, incluso fabricación, carga y transporte, totalmente colocado.						
	Anclajes codos	1	0,90			0,90	
		2	0,59			1,18	
		1	0,47			0,47	
		7	0,36			2,52	
		5	0,28			1,40	
		3	0,19			0,57	
		7	0,14			0,98	
	Refuerzo tubería						
	P.K. 0+927 - 1+165	1	238,00	3,00	0,20	142,80	
	P.K. 1+240 - 1+255	1	15,00	3,00	0,20	9,00	
							159,82
373	UD POZO DE REGISTRO DE AROS DE HORMIGÓN DN1200						
	Pozo de registro de abastecimiento para válvulas de control de cualquier altura de diámetro interior D=1200 mm, incluso base de hormigón HNE-20, aros de hormigón, cono prefabricado de hormigón, pates y tapa de fundición, totalmente terminado.						
	Ventosas	2				2,00	
	Cruces carretera	2				2,00	
							4,00

MEDICIONES

ABASTECIMIENTO A VARIOS MUNICIPIOS DE LA RIOJA. SISTEMA CIDACOS

CÓDIGO	RESUMEN	UDS	LONGITUD	ANCHURA	ALTURA	PARCIALES	CANTIDAD
APARTADO 07.09.03 TUBERÍAS							
067	ML TUBERIA FD 100 mm						
	Tubería de fundición dúctil de diámetro interior 100 mm y PFA de 64 bar, revestida interiormente con mortero de cemento y exteriormente con una capa de cinc y otra bituminosa, i/p.p. de junta automática flexible, cinta señalizadora y medios auxiliares, totalmente colocada y probada.						
		1	1.298,00			1.298,00	
							1.298,00
087	UD CODO FD 1/4 A 1/32 100 mm						
	Codo de fundición dúctil de 1/4 a 1/32 de diámetro interior 100 mm y PFA 40 bar, con un revestimiento interior y exterior epoxi, incluso p.p. de juntas y medios auxiliares, totalmente colocado y probado.						
		26				26,00	
							26,00
APARTADO 07.09.04 VÁLVULAS Y ACCESORIOS							
245.1	UD VENTOSA DN=25 mm (1") PN16						
	Válvula ventosa de tres funciones de 1" (DN=25 mm) y PN 16 bar incluido transporte, juntas, válvula de corte DN=25 mm y PN 16 bar y piezas especiales, totalmente colocada y probada.						
	P.K. 0+820	1				1,00	
	P.K. 1+297,257	1				1,00	
							2,00
129.9	UD TE FD EEB 100 mm PN16/25 SALIDA DN100/40						
	"T" de fundición dúctil de PFA 16/25 bar, con dos enchufes y derivación con brida para tubería de 100 mm y salida comprendida entre 100 y 40 mm, con un revestimiento interior y exterior epoxi, i/p.p. de junta de unión y medios auxiliares, totalmente colocada y probada.						
	Ventosas						
	P.K. 0+820	1				1,00	
	P.K. 1+297,257	1				1,00	
							2,00
114.8	UD REDUCCIÓN FD 50 A 40/25 mm PN16/25						
	Reducción en fundición dúctil de 50 mm a 40-25 mm con dos bridas PN 16/25 bar, con un revestimiento interior y exterior epoxi, i/p.p. de tornillería y medios auxiliares, totalmente colocada y probada.						
	Ventosas						
	P.K. 0+820	1				1,00	
	P.K. 1+297,257	1				1,00	
							2,00
237	UD VÁLVULA DE COMPUERTA MANUAL DN100 PN25						
	Válvula de compuerta de cierre elástico de 100 mm. de diámetro nominal y 25 At. de P.N., de accionamiento manual por volante, de cuerpo de fundición nodular GGG-50, con eje de acero inoxidable al 13 % Cr. con roscas conformadas por laminación en frío, cierre en fundición nodular, tornillería de acero inoxidable, protegida contra la corrosión mediante aplicación de doble capa de pintura epoxy, totalmente colocada y probada. Resto de características según ET.						
	Cruces carretera	2				2,00	
							2,00
ECD010025	UD CARRETE DE DESMONTAJE DN=100 mm PN25						
	Carrete telescópico de desmontaje DN100 PN25, bridas de acero al carbono, virolas de acero inoxidable, protección epoxi, tornillos y tuercas en acero F-114, cincado y posterior baño de cromo-níquel, incluido p.p. de brida enchufe, totalmente instalado y probado en obra.						
	Cruces carretera	2				2,00	
							2,00

MEDICIONES

ABASTECIMIENTO A VARIOS MUNICIPIOS DE LA RIOJA. SISTEMA CIDACOS

CÓDIGO	RESUMEN	UDS	LONGITUD	ANCHURA	ALTURA	PARCIALES	CANTIDAD
APARTADO 07.09.05 HINCAS							
366	ML HINCA TUBO ACERO 355 mm TIERRAS Hinca de tubo de acero, de 355 mm de diámetro interior, bajo viales, en tierra o roca alterada, incluso p.p. de instalación de tubería de fundición dúctil comprendida entre 250 y 150 mm de diámetro interior y sus anclajes y apoyos; muros de reacción y contención; y todos los elementos necesarios para su montaje y desmontaje. LR-123. P.K. 0+890 - 0+906	1	16,00				16,00
							16,00
APARTADO 07.09.06 OBRAS ACCESORIAS Y REPOSICIONES DE SERVICIOS							
381	M2 REPOSICIÓN DE FIRME DE AGLOMERADO Reposición de firme de aglomerado en caliente en zonas afectadas por las obras. P.K. 0+927 - 1+165 P.K. 1+240 - 1+255	1	238,00	3,00		714,00	
		1	15,00	3,00		45,00	
							759,00
056	M3 ZAHORRA ARTIFICIAL Zahorra artificial compactada. P.K. 0+000 - 0+890	1	890,00	3,00	0,20	534,00	
							534,00
SUBCAPÍTULO 07.10 ARQUETA REDUCTORA P-410. DERIVACIÓN VILLAR							
APARTADO 07.10.01 OBRA CIVIL							
008	M2 DESPEJE Y DESBROCE Despeje y desbroce de capa de tierra vegetal con un espesor medio de 50 cm, incluso corte de árboles, extracción de tocones, nivelación de zona adyacente para el paso de maquinaria, transporte a lugar de acopio independiente para posterior reposición de tierra vegetal tras las obras y despedregado de las parcelas, así como transporte a vertedero de tierras sobrantes. Solera	1	7,80	4,40		34,32	
							34,32
002	M3 EXCAVACIÓN EN ZANJAS Excavación en zanjas y zonas localizadas, en todo tipo de terrenos incluido terrenos en roca con medios mecánicos, incluso rasanteo, nivelación de la superficie de apoyo y transporte a lugar de empleo o vertedero.	1	7,80	4,40	2,35	80,65	
							80,65
010	M3 RELLENO ZANJAS, CIMIENTOS Y TRASDOSES DE MATERIAL SELECCIONADO Relleno con material seleccionado en zanjas, cimientos, trasdós de muros, estribos y otras estructuras procedente de la excavación o préstamos incluso carga, transporte y compactación.	1	80,65			80,65	
		-1	7,80	4,40	0,50	-17,16	
		-1	7,40	4,00	1,85	-54,76	
							8,73
028	M3 HORMIGÓN DE LIMPIEZA HL-150 Hormigón de limpieza HL-150, de consistencia plástica, árido de tamaño máximo 40 mm y cemento CEM-II-D/42,5/SR, para saneos y encachados, incluyendo fabricación y transporte totalmente colocado.	1	7,80	4,40	0,10	3,43	
							3,43
031	M3 HORMIGÓN HA-25/B/20/IIa Hormigón HA-25/B/20/IIa, con cemento CEM II/A-D/42,5/SR, incluyendo fabricación, transporte, puesta en obra y vibrado, totalmente ejecutado, incluso curado y juntas. Solera Muros	1	7,80	4,40	0,40	13,73	13,73
		2	7,40	0,30	2,05	9,10	
		2	4,00	0,30	2,05	4,92	14,02
							27,75
023	KG ACERO CORRUGADO B-500-S Acero redondo corrugado para armar tipo B-500-S elaborado y colocado.						

MEDICIONES

ABASTECIMIENTO A VARIOS MUNICIPIOS DE LA RIOJA. SISTEMA CIDACOS

CÓDIGO	RESUMEN	UDS	LONGITUD	ANCHURA	ALTURA	PARCIALES	CANTIDAD
	Arqueta entrada	1	2,20	1,60		3,52	
	Muros	1	14,02	85,00		1.191,70	
							2.152,80
025	M2 ENCOFRADO RECTO EN PARAMENTOS OCULTOS Encofrado recto en paramentos ocultos, incluso colocación, fijación y desencofrado. Solera	2	7,80		0,40	6,24	6,24
		2	4,40		0,40	3,52	
							9,76
026	M2 ENCOFRADO RECTO EN PARAMENTOS VISTOS 1C Encofrado recto en paramentos vistos a una cara, incluso colocación, fijación y desencofrado. Muros	4	7,40		2,05	60,68	
		4	4,00		2,05	32,80	93,48
							93,48
052	ML JUNTAS DE ESTANQUEIDAD DE PVC 32 CM Junta de trabajo interior de policloruro de vinilo (PVC) 100% virgen, con una fuerza máxima de dilatación > 250 % , de 32 cm de ancho, MASTERFLEX 2000 TI-24 de BASF o equivalente, colocada simétricamente en el eje de la losa o muro, incluso solapes y piezas especiales para cruces o ángulos. Medida la longitud ejecutada.	2	7,40			14,80	
		2	4,00			8,00	
							22,80
462	M2 FÁBRICA BLOQUES 40x20x20 cm TIPO SPLIT COLOR Fábrica de bloques de hormigón tipo Split, de medidas 40x20x20 cm color i/relleno de hormigón y colocación de armaduras s/normativa y recibido con mortero de cemento y arena de río 1/6 i/p.p. de piezas especiales para dinteles y materialización de jambas, roturas, nivelados, aplomados, llagueados y limpieza, todo ello según normativa. Muros	2	7,40		3,50	51,80	
		2	4,00		3,50	28,00	
	A deducir puerta	-1	0,80		2,20	-1,76	
	A deducir ventanas	-2	0,80		0,60	-0,96	
							77,08
520	M2 CUBIERTA PANEL SANDWICH (E=50 mm.) Cubierta con panel tipo sandwich espesor 50 cm., con doble chapa prelacada de 0,4 mm de espesor, y aislamiento térmico de poliuretano, fijada con gancho de acero galvanizado, incluso p.p de piezas de remate, totalmente colocada.	1	7,40	4,00		29,60	
							29,60
519	ML REMATE DE CHAPA PRELACADA CUBIERTA Remate de chapa prelacada en color, para cubrir parte superior de bloque o panel, hasta el panel sandwich de la cubierta por el interior del peto, fijado mediante tacos y/o ganchos anclado a muro y o cubierta, dispuesto según planos.	1	7,40			7,40	
		2	4,00			8,00	
							15,40
465.1	M2 PUERTA DOBLE CHAPA ACERO CON LAMAS Puerta de paso hojas abatibles de doble chapa lisa de acero de 1 mm de espesor, con aislamiento interno de fibre de vidrio, engatillada, realizada en dos bandejas, con rigidizadores de tubo rectangular, i/manillas de acero inoxidable y cerradura, con dos o cuatro rejillas de ventilación con malla anti insectos interior, patillas para recibir en fábricas, herrajes de colgar y de seguridad, imprimación antióxido y pintura al esmalte, totalmente colocada incluyendo el recibido de fábricas.	1	0,80		2,20	1,76	
							1,76

MEDICIONES

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CÓDIGO	RESUMEN	UDS	LONGITUD	ANCHURA	ALTURA	PARCIALES	CANTIDAD
464cf	M2 CARPINTERÍA FIJA ALUMINIO m². Carpintería fija con junquillos para la fijación del vidrio, de aluminio modelo con rotura de puente térmico, Afili A54RPT de SAPAGROUP con un ancho de marco de 54 mm y con un ancho de hoja de 61 mm, medida del frente de 96,3 mm, con sistema de cámara europea, con espesor de perfil de 1,5 mm, con sistema de cierre por junta central de estanqueidad en EPDM, coplanar exteriormente y con resalte de hoja sobre el marco al interior, para un acristalamiento con altura de galce de 22 mm y anchura hasta 44 mm en marcos y 51 mm en hojas, lacado (entre 60-100 micras) en color estándar (RAL estándar: blanco, gris...), herrajes de colgar, p.p. de cerradura Tesa o similar y costes indirectos. Homologada con Clase 4 en el ensayo de permeabilidad al aire según norma UNE-EN 1026:2000. La transmitancia máxima del marco es de 2,90 W/m² K, y cumple en las zonas A, B, C, D y E, según el CTE/DB-HE 1.	1	0,80	0,60	0,48		0,48
464V3	M2 VIDRIO SEGURIDAD STADIP 44.1 INCOLORO (2B2) m². Acristalamiento de vidrio laminar de seguridad Stadip compuesto por dos vidrios de 4 mm de espesor unidos mediante lámina de butiral de polivinilo incolora de 0,38 mm, clasificado 2B2 según UNE-EN 12600, fijado sobre carpintería con acuíñado mediante calzos de apoyo perimetrales y laterales y sellado en frío con silicona neutra, incluso colocación de junquillos, según UNE 85222:1985.	1	0,80	0,60	0,48		0,48
521	M2 CELOSIA FIJA VENTILACIÓN Celosía metálica fija para ventilación, formada por cerco con empanelado de lamas de acero de 60 mm, con abertura mínima de 1 cm entre lamas, malla de 2 mm para evitar entrada de insectos, garras de sujeción a soporte de 10 cm, elaborada en taller y montada en obra, totalmente colocada.	1	0,80	0,60	0,48		0,48
020	KG ACERO S 275 J PERFILES LAMINADOS Acero S 275 J en perfiles laminados elaborado y colocado. Vigas forjado IPE-100 Vigas IPE-160	3 3	7,40 4,00	8,10 15,80	179,82 189,60		369,42
474.1	ML CANALON CHAPA PRELACADA 50cm Canalón de chapa prelacada en color, de 50 cm. de desarrollo fijado mediante ganchos ocultos con tornillo autoroscante 40 cm., incluso p.p. de embocadura de bajante, codos y piezas especiales.	1	7,40		7,40		7,40
290B	M2 ESCALERA Y PASARELAS DE ACERO GALVANIZADO. BARANDILLAS GALVANIZ Escalera y pasarelas de acceso de forma según planos, ejecutada en perfiles de acero galvanizado en caliente, incluso barandilla tubular del mismo material, de 90 cm de altura en uno o dos lados, rodapié de seguridad del mismo en uno o dos lados, así como entramado metálico de 30x30x3 en descansillos y peldaños, medida según su proyección en planta. Anclada a los muros y/o solera, instalada. Entrada Pasos	1 1 1	1,00 1,00 1,50	1,00 0,60 0,60	1,00 0,60 0,90		2,50
620	UD APOYOS DE TUBERÍA Y VÁLVULAS SOBRE SOLERA Apoyos de tuberías y válvulas en soleras, mediante dado de hormigón HA-25/P/20/IIa, ligeramente armado y anclado a la solera, así como cintas o eslingas de acero con material de protección de tubería para sujeción de las mismas, incluyendo el hormigón, encofrados, acero, eslingas, material de PE de protección, montado.	9			9,00		9,00

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CÓDIGO	RESUMEN	UDS	LONGITUD	ANCHURA	ALTURA	PARCIALES	CANTIDAD
474.2	ML BAJANTE DE CHAPA PRELACADA DN110 Bajante de chapa prelacada en color, DN110, fijado mediante ganchos con tornillo autoroscante 20 cm., incluso p.p. de embocadura de bajante, codos y piezas especiales.	1			3,00	3,00	3,00
290AA	ML ESCALERA TUBULAR GALVANIZADO CON ELEMENTOS ANTICAIDA Formación de escalera tubular de 50 mm de diámetro, de acero galvanizado, incluso protecciones circulares contra caídas según normativa, anclada a la pared y/o muros, totalmente ejecutada.	1	3,50			3,50	3,50
290	UD PATE POLIPROPILENO Pate de polipropileno de dimensiones 30x25 cm, incluyendo fabricación, transporte a obra, perforación de anclajes y relleno con aportación de material de agarre, completamente colocado.	9				9,00	9,00
APARTADO 07.10.02 VÁLVULAS Y ACCESORIOS							
114.3	UD BRIDA LISO FD 250 mm PN16/25 Brida lisa de fundición dúctil de PFA 16/25 bar para tubería de 250 mm, con un revestimiento interior y exterior epoxi, i/p.p. de junta de unión y medios auxiliares, totalmente colocada y probada.	1				1,00	1,00
115.8	UD BRIDA ENCHUFE FD 300 mm PN40 Brida enchufe de fundición dúctil de PFA 40 bar para tubería de 300 mm, con un revestimiento interior y exterior epoxi, i/p.p. de junta de unión y medios auxiliares, totalmente colocada y probada.	1				1,00	1,00
135	UD TE FD EEB 250 mm PN16/25 SALIDA DN250/60 "T" de fundición dúctil de PFA 16/25 bar, con dos enchufes y derivación con brida para tubería de 250 mm y salida comprendida entre 250 y 60 mm, con un revestimiento interior y exterior epoxi, i/p.p. de junta de unión y medios auxiliares, totalmente colocada y probada. Ventosa salida	1				1,00	1,00
128.1	UD TE FD BBB 200 mm PN40 SALIDA DN200/40 "T" de fundición dúctil de PFA 40 bar, con tres bridas para tubería de 200 mm con salida comprendida entre 200 y 40 mm, con un revestimiento interior y exterior epoxi, i/p.p. de junta de unión y medios auxiliares, totalmente colocada y probada. Entrada	1				1,00	1,00
134	UD TE FD BBB 250 mm PN16/25 SALIDA DN250/60 "T" de fundición dúctil de PFA 16/25 bar, con tres bridas para tubería de 250 mm con salida comprendida entre 250 y 60 mm, con un revestimiento interior y exterior epoxi, i/p.p. de junta de unión y medios auxiliares, totalmente colocada y probada. Conexión Derivación a Villar	1 1				1,00 1,00	2,00
137	UD TE FD BBB 200 mm PN16/25 SALIDA DN200/40 "T" de fundición dúctil de PFA 16 bar, con tres bridas para tubería de 200 mm con salida comprendida entre 200 y 40 mm, con un revestimiento interior y exterior epoxi, i/p.p. de junta de unión y medios auxiliares, totalmente colocada y probada. Ventosa Alivio	1 1				1,00 1,00	2,00

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ABASTECIMIENTO A VARIOS MUNICIPIOS DE LA RIOJA. SISTEMA CIDACOS

CÓDIGO	RESUMEN	UDS	LONGITUD	ANCHURA	ALTURA	PARCIALES	CANTIDAD
245.2	UD VENTOSA DN=80 (3") mm PN16 Válvula ventosa de tres funciones de DN=80 mm (3") y PN 16 bar incluido transporte, juntas, válvula de corte DN=80 mm y PN 16y piezas especiales, totalmente colocada y probada.						
	Tras reductora	2				2,00	
	Salida	1				1,00	
							3,00
104.1	UD REDUCCIÓN FD 300 A 200 mm PN40 Reducción en fundición dúctil de 300 mm a 200 mm con dos bridas PN 40bar, con un revestimiento interior y exterior epoxi, i/p.p. de tornillería y medios auxiliares, totalmente colocada y probada.						
		1				1,00	
							1,00
162	UD MANGUITO FD DN100 A DN250 mm PN16/25 Manguito de fundición dúctil con bridas diámetros de 100 a 250 mm, longitud comprendida entre 0,20 y 1,00 m y PN16/25, incluso p.p. de tornillería y medios auxiliares, totalmente colocado y probado.						
		2				2,00	
							2,00
273	UD VÁLVULA ALIVIO DE PRESIÓN 3" PN 16 Válvula de alivio de presión de 3" brida PN 16 bar, incluso válvula de corte de 3", juntas de unión, y tornillería, totalmente colocada y probada.						
		2				2,00	
							2,00
109	UD REDUCCIÓN FD 200 A 150/100 mm PN16 Reducción en fundición dúctil de 200 mm a 150-125-100 mm con dos bridas PN 16 bar, con un revestimiento interior y exterior epoxi, i/p.p. de junta de unión y medios auxiliares, totalmente colocada y probada.						
		2				2,00	
							2,00
232	UD VÁLVULA DE COMPUERTA MANUAL DN200 PN16 Válvula de compuerta de cierre elástico de 200 mm. de diámetro nominal y 16 At. de P.N., de accionamiento manual por volante, de cuerpo de fundición nodular GGG-50, con eje de acero inoxidable al 13 % Cr. con roscas conformadas por laminación en frío, cierre en fundición nodular, tornillería de acero inoxidable, protegida contra la corrosión mediante aplicación de doble capa de pintura epoxy, totalmente colocada y probada. Resto de características según ET.						
		2				2,00	
							2,00
162.2	UD MANGUITO FD DN100 A DN250 mm PN40 Manguito de fundición dúctil con bridas diámetros de 100 a 250 mm, longitud comprendida entre 0,20 y 1,00 m y PN40, incluso p.p. de tornillería y medios auxiliares, totalmente colocado y probado.						
		2				2,00	
		2				2,00	
							4,00
084.1	UD CODO FD 1/4 200 mm Codo de fundición dúctil de 1/4 de diámetro interior 200 mm y PFA 40 bar, con revestimiento interior y exterior epoxi, incluso p.p. de juntas y medios auxiliares, totalmente colocado y probado.						
		2				2,00	
							2,00
230	UD VÁLVULA DE COMPUERTA MANUAL DN200 PN40 Válvula de compuerta de accionamiento manual de diámetro nominal DN=200 mm de 40 bares de presión máxima admisible, con tornillería y juntas, totalmente instalada y probada, incluso volante de accionamiento.						
		2				2,00	
							2,00
142	UD CARRETE DE DESMONTAJE DN=200 mm PN40 Carrete de desmontaje autoportante de PFA 40 bar de D=200 mm, colocado.						

MEDICIONES

ABASTECIMIENTO A VARIOS MUNICIPIOS DE LA RIOJA. SISTEMA CIDACOS

CÓDIGO	RESUMEN	UDS	LONGITUD	ANCHURA	ALTURA	PARCIALES	CANTIDAD
	Arqueta entrada	1	2,20	1,60		3,52	
							2,00
246	UD FILTRO COLADOR EN Y DN=200 mm PN40 Filtro colador en "Y" de diámetro nominal DN=200 mm y brida PN=40 bar de presión, incluso juntas de unión y tornillería, totalmente instalado.						
		2				2,00	
							2,00
256	UD VÁLVULA REDUCTORA DE PRESIÓN DN=200 mm PN40 Válvula reductora de presión de diámetro DN=200 mm y PN 40 bar, incluso juntas de unión y tornillería, totalmente colocada y probada.						
		2				2,00	
							2,00
082	UD CODO FD 1/4 250 mm Codo de fundición dúctil de 1/8 de diámetro interior 250 mm y PFA 40 bar, con revestimiento interior y exterior epoxi, incluso p.p. de juntas y medios auxiliares, totalmente colocado y probado.						
		2				2,00	
							2,00
114.4	UD BRIDA LISO FD DN<150 mm PN16/25/40 Brida lisa de fundición dúctil de PFA 16/25/40 bar para tubería de diámetro menor o igual de 150 mm, con un revestimiento interior y exterior epoxi, i/p.p. de junta de unión y medios auxiliares, totalmente colocada y probada.						
	Derivación Villar	1				1,00	
							1,00
237	UD VÁLVULA DE COMPUERTA MANUAL DN100 PN25 Válvula de compuerta de cierre elástico de 100 mm. de diámetro nominal y 25 At. de P.N., de accionamiento manual por volante, de cuerpo de fundición nodular GGG-50, con eje de acero inoxidable al 13 % Cr. con roscas conformadas por laminación en frío, cierre en fundición nodular, tornillería de acero inoxidable, protegida contra la corrosión mediante aplicación de doble capa de pintura epoxy, totalmente colocada y probada. Resto de características según ET.						
	Derivación Villar	1				1,00	
							1,00
ECD010016	UD CARRETE DE DESMONTAJE DN=100 mm PN16 Carrete telescópico de desmontaje DN100 PN16, bridas de acero al carbono, virolas de acero inoxidable, protección epoxi, tornillos y tuercas en acero F-114, cincado y posterior baño de cromo-níquel, incluido p.p. de brida enchufe, totalmente instalado y probado en obra.						
	Derivación Villar	1				1,00	
							1,00
115.7	UD BRIDA ENCHUFE FD DN<150 mm PN16/25/40 Brida enchufe de fundición dúctil de PFA 16/25/40 bar para tubería de diámetro menor o igual de 150 mm, con un revestimiento interior y exterior epoxi, i/p.p. de junta de unión y medios auxiliares, totalmente colocada y probada.						
	Derivación Villar	1				1,00	
							1,00
APARTADO 07.10.03 INSTALACIÓN ELÉCTRICA DE BT							
563.1	ud PANTALLA ESTANCA LED Luminaria estanca WT120C LED80S/840 de Philips o equivalente para montaje en superficie de dimensiones 1515x80, carcasa de policarbonato, óptica de polimetacrilato de metilo, flujo luminoso 8.000 lm, potencia 68 W, Tª color 4000 K, rango de Tª de 10°C a 35°C, protección IP-65 Clase I. Incluso p.p. de canalización y cableado, completamente instalado.						
		1				1,000	
							1,00
524.1	m LINEA 3x1.5mm2 Cu 0.6/1kV RZ1-K (AS) Línea eléctrica con conductor multipolares 3x1.5mm2 RZ1-K (AS) en canalización existente, incluso conexionado en inicio y final de línea.						
		1	15,000			15,000	

MEDICIONES

ABASTECIMIENTO A VARIOS MUNICIPIOS DE LA RIOJA. SISTEMA CIDACOS

CÓDIGO	RESUMEN	UDS	LONGITUD	ANCHURA	ALTURA	PARCIALES	CANTIDAD
							15,00
571	ud INTERRUPTOR EMPOTRAR SIMO 32 BLANCO. Interruptor empotrar blanco, totalmente instalado.	1				1,000	
							1,00
204	m TUBO DE PVC RÍGIDO DE 25 MM DIÁMETRO Tubo rígido de PVC d=25mm para canalización de conductores, incluso soportes y anclajes a pared, instalado.	1	25,000			25,000	
							25,00
APARTADO 07.10.04 VARIOS							
617.4	PA CONEXIÓN ALIVIOS CON POZO EXTERIOR Y DESAGÜE Partida Alzada de Abono Íntegro para conexión de la salida de los alivios de la nueva caseta de válvulas con pozo exterior y salida a cuneta y/o cauce, incluyendo, excavaciones, tuberías de PEAD DN de salida de alivio, rellenos, ayudas de albañilería, demoliciones, relleno de huecos con morteros sin retracción, anclaje de tuberías, así como todos los medios auxiliares necesarios para la conexión entre ambas tuberías.	1				1,00	
							1,00
SUBCAPÍTULO 07.11 BOMBEO AUSEJO Y VALLE DE OCÓN							
APARTADO 07.11.01 OBRA CIVIL							
008	M2 DESPEJE Y DESBROCE Despeje y desbroce de capa de tierra vegetal con un espesor medio de 50 cm, incluso corte de árboles, extracción de tocones, nivelación de zona adyacente para el paso de maquinaria, transporte a lugar de acopio independiente para posterior reposición de tierra vegetal tras las obras y despedregado de las parcelas, así como transporte a vertedero de tierras sobrantes.	1	15,00	8,00		120,00	
							120,00
002	M3 EXCAVACIÓN EN ZANJAS Excavación en zanjas y zonas localizadas, en todo tipo de terrenos incluido terrenos en roca con medios mecánicos, incluso rasanteo, nivelación de la superficie de apoyo y transporte a lugar de empleo o vertedero.	1	10,00	7,80	2,25	175,50	
	Edificio	1	10,00	7,80	2,25	175,50	
	Apoyo calderín	1	7,00	3,00	0,40	8,40	
							183,90
010	M3 RELLENO ZANJAS, CIMIENTOS Y TRASDOSES DE MATERIAL SELECCIONADO Relleno con material seleccionado en zanjas, cimientos, trasdós de muros, estribos y otras estructuras procedente de la excavación o préstamos incluso carga, transporte y compactación.	1	175,50			175,50	
	De excavación edificio	1	175,50			175,50	
		-1	10,00	7,80	0,50	-39,00	
		-1	9,60	7,40	1,75	-124,32	
							12,18
028	M3 HORMIGÓN DE LIMPIEZA HL-150 Hormigón de limpieza HL-150, de consistencia plástica, árido de tamaño máximo 40 mm y cemento CEM-II-D/42,5/SR, para saneos y encachados, incluyendo fabricación y transporte totalmente colocado.	1	10,00	7,80	0,10	7,80	
	Edificio	1	10,00	7,80	0,10	7,80	
	Solera antiarriete	1	7,00	3,00	0,10	2,10	
							9,90
031	M3 HORMIGÓN HA-25/B/20/IIa Hormigón HA-25/B/20/IIa, con cemento CEM II/A-D/42,5/SR, incluyendo fabricación, transporte, puesta en obra y vibrado, totalmente ejecutado, incluso curado y juntas.	1	10,00	7,80	0,40	31,20	31,20
	Solera	1	10,00	7,80	0,40	31,20	31,20
	Muros	2	9,60	0,30	1,75	10,08	
		2	6,80	0,30	1,75	7,14	17,22

MEDICIONES

ABASTECIMIENTO A VARIOS MUNICIPIOS DE LA RIOJA. SISTEMA CIDACOS

CÓDIGO	RESUMEN	UDS	LONGITUD	ANCHURA	ALTURA	PARCIALES	CANTIDAD
	Arqueta entrada	1	2,20	1,60		3,52	
		2	0,25	0,25	2,97	0,37	
		1	0,25	0,25	4,72	0,30	1,65
	Vigas	3	9,50	0,25	0,25	1,78	
	Vigas inclinadas	3	7,30	0,25	0,25	1,37	3,15
	Solera antiarriete	1	7,00	3,00	0,30	6,30	
	Apoyos antiarriete	4	0,50	0,40	0,50	0,40	6,70
							59,92
023	KG ACERO CORRUGADO B-500-S Acero redondo corrugado para armar tipo B-500-S elaborado y colocado.						
	Solera	1	31,20	70,00		2.184,00	
	Muros	1	17,22	85,00		1.463,70	
	Pilares	1	1,65	130,00		214,50	
	Vigas	1	3,15	90,00		283,50	
	Solera alderín	1	6,70	70,00		469,00	
	Solapes y despuntes (5%)	0,05	4.614,71			230,74	
							4.845,44
025	M2 ENCOFRADO RECTO EN PARAMENTOS OCULTOS Encofrado recto en paramentos ocultos, incluso colocación, fijación y desencofrado.						
	Solera	2	10,00		0,40	8,00	8,00
		2	9,80		0,40	7,84	
	Solera calderín	2	7,00		0,30	4,20	
		2	3,00		0,30	1,80	
							21,84
026	M2 ENCOFRADO RECTO EN PARAMENTOS VISTOS 1C Encofrado recto en paramentos vistos a una cara, incluso colocación, fijación y desencofrado.						
	Muros	4	9,60		1,75	67,20	
		4	7,40		1,75	51,80	119,00
	Apoyos antiarriete	8	0,50		0,50	2,00	2,00
		8	0,40		0,50	1,60	
							122,60
026.2	M2 ENCOFRADO RECTO EN PILARES VISTOS Encofrado recto en pilares vistos, incluso colocación, fijación y desencofrado.						
	Pilares	24	0,25		2,60	15,60	
		8	0,25		2,97	5,94	
		4	0,25		4,72	4,72	
							26,26
026.3	M2 ENCOFRADO RECTO EN VIGAS VISTOS Encofrado recto en vigas vistos, incluso colocación, fijación, apuntalamiento o cimbras, y desencofrado.						
	Vigas	6	9,50		0,25	14,25	
		3	9,25	0,25		6,94	
	Vigas inclinadas	6	7,30		0,25	10,95	
		3	7,30	0,25		5,48	
							37,62
052	ML JUNTAS DE ESTANQUEIDAD DE PVC 32 CM Junta de trabajo interior de policloruro de vinilo (PVC) 100% virgen, con una fuerza máxima de dilatación > 250 %, de 32 cm de ancho, MASTERFLEX 2000 TI-24 de BASF o equivalente, colocada simétricamente en el eje de la losa o muro, incluso solapes y piezas especiales para cruces o ángulos. Medida la longitud ejecutada.						
		2	9,60			19,20	
		2	7,40			14,80	
							34,00

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ABASTECIMIENTO A VARIOS MUNICIPIOS DE LA RIOJA. SISTEMA CIDACOS

CÓDIGO	RESUMEN	UDS	LONGITUD	ANCHURA	ALTURA	PARCIALES	CANTIDAD
462	M2 FÁBRICA BLOQUES 40x20x20 cm TIPO SPLIT COLOR Fábrica de bloques de hormigón tipo Split, de medidas 40x20x20 cm color i/relleno de hormigón y colocación de armaduras s/normativa y recibido con mortero de cemento y arena de río 1/6 i/p.p. de piezas especiales para dinteles y materialización de jambas, roturas, nivelados, aplomados, llagueados y limpieza, todo ello según normativa. Muros A deducir puerta A deducir ventanas	2 2 -1 -4	9,60 7,40 1,00 0,80		2,85 3,40 2,20 0,60	54,72 50,32 -2,20 -1,92	100,92
520	M2 CUBIERTA PANEL SANDWICH (E=50 mm.) Cubierta con panel tipo sandwich espesor 50 cm., con doble chapa prelacada de 0,4 mm de espesor, y aislamiento térmico de poliuretano, fijada con gancho de acero galvanizado, incluso p.p de piezas de remate, totalmente colocada.	1	9,60	7,40		71,04	71,04
519	ML REMATE DE CHAPA PRELACADA CUBIERTA Remate de chapa prelacada en color, para cubrir parte superior de bloque o panel, hasta el panel sandwich de la cubierta por el interior del peto, fijado mediante tacos y/o ganchos anclado a muro y o cubierta, dispuesto según planos.	2 2	9,60 7,40			19,20 14,80	34,00
465.1	M2 PUERTA DOBLE CHAPA ACERO CON LAMAS Puerta de paso hojas abatibles de doble chapa lisa de acero de 1 mm de espesor, con aislamiento interno de fibre de vidrio, engatillada, realizada en dos bandejas, con rigidizadores de tubo rectangular, i/manillas de acero inoxidable y cerradura, con dos o cuatro rejillas de ventilación con malla anti insectos interior, patillas para recibir en fábricas, herrajes de colgar y de seguridad, imprimación antióxido y pintura al esmalte, totalmente colocada incluyendo el recibido de fábricas.	1	1,00		2,20	2,20	2,20
464cf	M2 CARPINTERÍA FIJA ALUMINIO m². Carpintería fija con junquillos para la fijación del vidrio, de aluminio modelo con rotura de puente térmico, Alfil A54RPT de SAPAGROUP con un ancho de marco de 54 mm y con un ancho de hoja de 61 mm, medida del frente de 96,3 mm, con sistema de cámara europea, con espesor de perfil de 1,5 mm, con sistema de cierre por junta central de estanqueidad en EPDM, coplanar exteriormente y con resalte de hoja sobre el marco al interior, para un acristalamiento con altura de galce de 22 mm y anchura hasta 44 mm en marcos y 51 mm en hojas, lacado (entre 60-100 micras) en color estándar (RAL estándar: blanco, gris...), herrajes de colgar, p.p. de cerradura Tesa o similar y costes indirectos. Homologada con Clase 4 en el ensayo de permeabilidad al aire según norma UNE-EN 1026:2000. La transmitancia máxima del marco es de 2,90 W/m² K, y cumple en las zonas A, B, C, D y E, según el CTE/DB-HE 1.	3	0,80		0,60	1,44	1,44
464V3	M2 VIDRIO SEGURIDAD STADIP 44.1 INCOLORO (2B2) m². Acristalamiento de vidrio laminar de seguridad Stadip compuesto por dos vidrios de 4 mm de espesor unidos mediante lámina de butiral de polivinilo incolora de 0,38 mm, clasificado 2B2 según UNE-EN 12600, fijado sobre carpintería con acuíñado mediante calzos de apoyo perimetrales y laterales y sellado en frío con silicona neutra, incluso colocación de junquillos, según UNE 85222:1985.	3	0,80		0,60	1,44	1,44
521	M2 CELOSIA FIJA VENTILACIÓN Celosía metálica fija para ventilación, formada por cerco con empanelado de lamas de acero de 60 mm, con abertura mínima de 1 cm entre lamas, malla de 2 mm para evitar entrada de insectos, garras de sujeción a soporte de 10 cm, elaborada en taller y montada en obra, totalmente colocada.						

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CÓDIGO	RESUMEN	UDS	LONGITUD	ANCHURA	ALTURA	PARCIALES	CANTIDAD
	Arqueta entrada	1	2,20	1,60		3,52	0,48
020	KG ACERO S 275 J PERFILES LAMINADOS Acero S 275 J en perfiles laminados elaborado y colocado. EDIFICIO BOMBEO Correas IPE-140 Vigas soportes polipasto IPE-200 Vipa polipasto IPE-240 Chapas Varios TENDEJÓN CUBIERTA CALDERÍN Correas IPE-140 Vigas IPE-140 Pilares HEB-100 Placas	6 2 1 2 1 4 2 4 4	9,60 4,63 17,00 7,50 200,00 6,50 3,20 3,80 15,00	12,90 22,40 30,70		743,04 207,42 521,90 15,00 200,00 335,40 82,56 310,08 60,00	2.475,40
474.1	ML CANALON CHAPA PRELACADA 50cm Canalón de chapa prelacada en color, de 50 cm. de desarrollo fijado mediante ganchos ocultos con tornillo autoroscante 40 cm., incluso p.p. de embocadura de bajante, codos y piezas especiales.	2	9,60			19,20	19,20
474.2	ML BAJANTE DE CHAPA PRELACADA DN110 Bajante de chapa prelacada en color, DN110, fijado mediante ganchos con tornillo autoroscante 20 cm., incluso p.p. de embocadura de bajante, codos y piezas especiales.	4			2,85	11,40	11,40
290B	M2 ESCALERA Y PASARELAS DE ACERO GALVANIZADO. BARANDILLAS GALVANIZ Escalera y pasarelas de acceso de forma según planos, ejecutada en perfiles de acero galvanizado en caliente, incluso barandilla tubular del mismo material, de 90 cm de altura en uno o dos lados, rodapié de seguridad del mismo en uno o dos lados, así como entramado metálico de 30x30x3 en descansillos y peldaños, medida según su proyección en planta. Anclada a los muros y/o solera, instalada. Escalera	1	2,85	1,10		3,14	3,14
620	UD APOYOS DE TUBERÍA Y VÁLVULAS SOBRE SOLERA Apoyos de tuberías y válvulas en soleras, mediante dado de hormigón HA-25/P/20/IIa, ligeramente armado y anclado a la solera, así como cintas o eslingas de acero con material de protección de tubería para sujeción de las mismas, incluyendo el hormigón, encofrados, acero, eslingas, material de PE de protección, montado.	12				12,00	12,00
APARTADO 07.11.02 EQUIPOS, VÁLVULAS Y ACCESORIOS							
EBMV03	UD BOMBA CENTRIFUGA MULTIETAPA VERTICAL Q=21,59 l/s H=180 mca Bomba centrífuga multietapa vertical tipo CR 95-8-2 A-F-A-E-HQQE de Grundfos o equivalente para bombeo de un caudal de 21,59 l/s y una altura de 180 m.c.a. Aspiración DN50 e impulsión DN50. Cuerpo de función, rodete en acero inoxidable. Motor eléctrico asíncrono, trifásico, cerrado, de 55kW-4P-50Hz-380-415V-IP-55, estructura de soporte en perfiles de acero electrosoldado. Cuadro controlador y supervisor de bombas según E.T. Resto de características según E.T. de Proyecto. Instalada y probada en obra. Bombeo a Valle Ocón	3				3,00	3,00

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CÓDIGO	RESUMEN	UDS	LONGITUD	ANCHURA	ALTURA	PARCIALES	CANTIDAD
EBMV04	UD BOMBA CENTRIFUGA MULTIETAPA VERTICAL Q=8,63 l/s H=15 mca Bomba cenrifuga multietapa vertical tipo CRE 32-2-1 A-F-A-E-HQQE de Grundfos o equivalente para bombeo de un caudal de 8,63 l/s y una altura de 15 m.c.a. Aspiración DN50 e impulsión DN50. Cuerpo de fundición, rodete en acero inoxidable. Motor eléctrico asincrono, trifásico, cerrado, de 5,5kW-4P-50Hz-380-415V-IP-55, estructura de soporte en perfiles de acero electrosoldado. Cuadro controlador y supervisor de bombas según E.T. Resto de características según E.T. de Proyecto. Instalada y probada en obra. Bombeo Ausejo	2				2,00	2,00
245	UD VENTOSA DN=65 mm PN16/25 Válvula ventosa de tres funciones de DN=65 mm y PN 16/25 bar incluido transporte, juntas, válvula de corte DN=65 mm y PN 15/25y piezas especiales, totalmente colocada y probada. Bombeo Ausejo	1				1,00	1,00
245.2	UD VENTOSA DN=80 (3") mm PN16 Válvula ventosa de tres funciones de DN=80 mm (3") y PN 16 bar incluido transporte, juntas, válvula de corte DN=80 mm y PN 16y piezas especiales, totalmente colocada y probada. Colector entrada bombeos Colector salida bombeo Valle de Ocón	1 1				1,00 1,00	2,00
ETI316250	ML TUBERÍA DE INOXIDABLE AISI 316L DN 250 Tubería de acero inoxidable de diámetro DN 250 mm. Construcción: Mediante soldadura. Espesor 2 mm. Material: Acero inoxidable AISI -316 L. Material accesorios acero inoxidable AISI - 316L. Acabado: Decapado. Incluso p.p. de uniones, piezas especiales, bridas, codos, tes, injertos para otras tuberías y p.p. de estructuras y elementos de anclajes a solera y/o muros. Montada y probada. Colector entrada bombeos Colector salida bombeo Ocón Tubería a calderín	1 1 1 2	7,000 4,500 2,000 6,000			7,000 4,500 2,000 12,000	25,50
ETI316200	ML TUBERÍA DE INOXIDABLE AISI 316L DN 200 Tubería de acero inoxidable de diámetro DN 200 mm. Construcción: Mediante soldadura. Espesor 2 mm. Material: Acero inoxidable AISI -316 L. Material accesorios acero inoxidable AISI - 316L. Acabado: Decapado. Incluso p.p. de uniones, piezas especiales, bridas, codos, tes, injertos para otras tuberías y p.p. de estructuras y elementos de anclajes a solera y/o muros. Montada y probada. Bombeo Ocón Colector de entrada Colector de salida	3 3	0,500 1,300			1,500 3,900	5,40
ETI316150	ML TUBERÍA DE INOXIDABLE AISI 316L DN 150 Tubería de acero inoxidable de diámetro DN 150 mm. Construcción: Mediante soldadura. Espesor 2 mm. Material: Acero inoxidable AISI -316 L. Material accesorios acero inoxidable AISI - 316L. Acabado: Decapado. Incluso p.p. de uniones, piezas especiales, bridas, codos, tes, injertos para otras tuberías y p.p. de estructuras y elementos de anclajes a solera y/o muros. Montada y probada. Impulsión Ausejo Tramo bombeo Ocón caudalímetro	1 2 1 1	5,200 1,000 2,000 2,000			5,200 2,000 2,000 2,000	11,20
ETI316080	ML TUBERÍA DE INOXIDABLE AISI 316L DN 80 Tubería de acero inoxidable de diámetro DN 80 mm. Construcción: Mediante soldadura. Espesor 2 mm. Material: Acero inoxidable AISI -316 L. Material accesorios acero inoxidable AISI - 316L. Acabado: Decapado. Incluso p.p. de uniones, piezas especiales, bridas, codos, tes, injertos para otras tuberías y p.p. de estructuras y elementos de anclajes a solera y/o muros. Montada y probada. Vaciado colector Ausejo Vaciado colector Valle de Ocón Vaciado colector entrada	1 1 1	3,500 5,000 3,500			3,500 5,000 3,500	

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ABASTECIMIENTO A VARIOS MUNICIPIOS DE LA RIOJA. SISTEMA CIDACOS

CÓDIGO	RESUMEN	UDS	LONGITUD	ANCHURA	ALTURA	PARCIALES	CANTIDAD
238	ud VÁLVULA DE COMPUERTA MANUAL DN100 PN16 Válvula de compuerta de cierre elástico de 100 mm. de diámetro nominal y 16 At. de P.N., de accionamiento manual por volante, de cuerpo de fundición nodular GGG-50, con eje de acero inoxidable al 13 % Cr. con roscas conformadas por laminación en frío, cierre en fundición nodular, tornillería de acero inoxidable, protegida contra la corrosión mediante aplicación de doble capa de pintura epoxy, totalmente colocada y probada. Resto de características según ET. Derivación Tudellilla Entrada bombeo Valle de Ocón	1 3				1,00 3,00	4,00
234	UD VÁLVULA DE COMPUERTA MANUAL DN150 PN25 Válvula de compuerta de cierre elástico de 150 mm. de diámetro nominal y 25 At. de P.N., de accionamiento manual por volante, de cuerpo de fundición nodular GGG-50, con eje de acero inoxidable al 13 % Cr. con roscas conformadas por laminación en frío, cierre en fundición nodular, tornillería de acero inoxidable, protegida contra la corrosión mediante aplicación de doble capa de pintura epoxy, totalmente colocada y probada. Resto de características según ET. Bombeo Valle de Ocón	1				1,00	1,00
237	UD VÁLVULA DE COMPUERTA MANUAL DN100 PN25 Válvula de compuerta de cierre elástico de 100 mm. de diámetro nominal y 25 At. de P.N., de accionamiento manual por volante, de cuerpo de fundición nodular GGG-50, con eje de acero inoxidable al 13 % Cr. con roscas conformadas por laminación en frío, cierre en fundición nodular, tornillería de acero inoxidable, protegida contra la corrosión mediante aplicación de doble capa de pintura epoxy, totalmente colocada y probada. Resto de características según ET. Salida bombeo Valle de Ocón	3				3,00	3,00
EVCM06516	UD VÁLVULA DE COMPUERTA MANUAL DN65 PN16 Válvula de compuerta de cierre elástico de 65 mm. de diámetro nominal y 16 At. de P.N., de accionamiento manual por volante, de cuerpo de fundición nodular GGG-50, con eje de acero inoxidable al 13 % Cr. con roscas conformadas por laminación en frío, cierre en fundición nodular, tornillería de acero inoxidable, protegida contra la corrosión mediante aplicación de doble capa de pintura epoxy, totalmente colocada y probada. Resto de características según ET. Entrada bombeo Ausejo Salida bombeo Ausejo	2 2				2,00 2,00	4,00
235	UD VÁLVULA DE COMPUERTA MANUAL DN150 PN16 Válvula de compuerta de accionamiento manual de diámetro nominal DN=150 mm de 16 bares de presión máxima admisible, con tornillería y juntas, totalmente instalada y probada, incluso volante de accionamiento. By-pass Ausejo	2				2,00	2,00
EVCM080	UD VÁLVULA DE COMPUERTA MANUAL DN80 PN16 Válvula de compuerta de cierre elástico de 80 mm. de diámetro nominal y 16 At. de P.N., de accionamiento manual por volante, de cuerpo de fundición nodular GGG-50, con eje de acero inoxidable al 13 % Cr. con roscas conformadas por laminación en frío, cierre en fundición nodular, tornillería de acero inoxidable, protegida contra la corrosión mediante aplicación de doble capa de pintura epoxy, totalmente colocada y probada. Resto de características según ET. Bombeo Ausejo Vaciado Ausejo Vaciado colector entrada Caudalímetro Ausejo	2 1 1 1				2,00 1,00 1,00 1,00	5,00

MEDICIONES

ABASTECIMIENTO A VARIOS MUNICIPIOS DE LA RIOJA. SISTEMA CIDACOS

CÓDIGO	RESUMEN	UDS	LONGITUD	ANCHURA	ALTURA	PARCIALES	CANTIDAD
240.1	UD VÁLVULA DE COMPUERTA MOTORIZADA DN80 PN25 Válvula de compuerta de cierre elástico de 80 mm. de diámetro nominal y 25 At. de P.N., de accionamiento motorizado, de cuerpo de fundición nodular GGG-50, con eje de acero inoxidable al 13 % Cr. con roscas conformadas por laminación en frío, cierre en fundición nodular, tornillería de acero inoxidable, protegida contra la corrosión mediante aplicación de doble capa de pintura epoxy, totalmente colocada y probada. Resto de características según ET. Vaciado Bombeo Valle de Ocón	1				1,00	1,00
							1,00
235.1	UD VÁLVULA DE COMPUERTA MOTORIZADA DN150 PN16 Válvula de compuerta de cierre elástico de 150 mm. de diámetro nominal y 16 At. de P.N., de accionamiento motorizado, de cuerpo de fundición nodular GGG-50, con eje de acero inoxidable al 13 % Cr. con roscas conformadas por laminación en frío, cierre en fundición nodular, tornillería de acero inoxidable, protegida contra la corrosión mediante aplicación de doble capa de pintura epoxy, totalmente colocada y probada. Resto de características según ET. By-pass Ausejo	1				1,00	1,00
							1,00
EVCMT15025	UD VÁLVULA DE COMPUERTA MOTORIZADA DN150 PN25 Válvula de compuerta de cierre elástico de 150 mm. de diámetro nominal y 25 At. de P.N., de accionamiento motorizado, de cuerpo de fundición nodular GGG-50, con eje de acero inoxidable al 13 % Cr. con roscas conformadas por laminación en frío, cierre en fundición nodular, tornillería de acero inoxidable, protegida contra la corrosión mediante aplicación de doble capa de pintura epoxy, totalmente colocada y probada. Resto de características según ET. Bombeo Valle de Ocón	1				1,00	1,00
							1,00
141	UD CARRETE DE DESMONTAJE DN=250 mm PN25 Carrete de desmontaje autoportante de PFA 25 bar de D=250 mm, colocado. Entrada calderín impulsión Ocón	2				2,00	2,00
							2,00
ECD0065	UD CARRETE DE DESMONTAJE DN=65 mm PN16 Carrete telescópico de desmontaje DN65 PN 16, bridas de acero al carbono, virolas de acero inoxidable, protección epoxy, tornillos y tuercas en acero F-114, cincado y posterior baño de cromo-niquel, incluido p.p. de brida enchufe, totalmente instalado y probado en obra. Entrada Bombeo Ausejo Salida Bombeo Ausejo	2 2				2,00 2,00	4,00
							4,00
ECD010016	UD CARRETE DE DESMONTAJE DN=100 mm PN16 Carrete telescópico de desmontaje DN100 PN16, bridas de acero al carbono, virolas de acero inoxidable, protección epoxy, tornillos y tuercas en acero F-114, cincado y posterior baño de cromo-niquel, incluido p.p. de brida enchufe, totalmente instalado y probado en obra. DERivación Tudelilla Entrada bombeo Valle de Ocón	1 3				1,00 3,00	4,00
							4,00
ECD010025	UD CARRETE DE DESMONTAJE DN=100 mm PN25 Carrete telescópico de desmontaje DN100 PN25, bridas de acero al carbono, virolas de acero inoxidable, protección epoxy, tornillos y tuercas en acero F-114, cincado y posterior baño de cromo-niquel, incluido p.p. de brida enchufe, totalmente instalado y probado en obra. Salida Bombeo VALLE de Ocón	3				3,00	3,00
							3,00
ECD15016	UD CARRETE DE DESMONTAJE DN=150 mm PN16 Carrete telescópico de desmontaje DN150 PN16, bridas de acero al carbono, virolas de acero inoxidable, protección epoxy, tornillos y tuercas en acero F-114, cincado y posterior baño de cromo-niquel, incluido p.p. de brida enchufe, totalmente instalado y probado en obra. By-pass Ausejo	1				1,00	1,00
							1,00

MEDICIONES

ABASTECIMIENTO A VARIOS MUNICIPIOS DE LA RIOJA. SISTEMA CIDACOS

CÓDIGO	RESUMEN	UDS	LONGITUD	ANCHURA	ALTURA	PARCIALES	CANTIDAD
145	UD CARRETE DE DESMONTAJE DN=150 mm PN25 Carrete telescópico de desmontaje DN150 PN25, bridas de acero al carbono, virolas de acero inoxidable, protección epoxy, tornillos y tuercas en acero F-114, cincado y posterior baño de cromo-niquel, incluido p.p. de brida enchufe, totalmente instalado y probado en obra. Salida Bombeo VALLE de Ocón caulimetro	1				1,00	1,00
							1,00
EMAV065	UD MANGUITO ANTIVIBRATORIO DN65 PN16 Manguito antivibratorio, con cuerpo de simple onda, PN10/16 de D=65 mm. EPDM y bridas locas zincadas. Resto de características según ET. Colocado. Bombeo Ausejo	4				4,00	4,00
							4,00
EMAV100	UD MANGUITO ANTIVIBRATORIO DN100 PN16 Manguito antivibratorio, con cuerpo de simple onda, PN10/16 de D=100 mm. EPDM y bridas locas zincadas. Resto de características según ET. Colocado. Entrada bombeo Valle de Ocón	3				3,00	3,00
							3,00
EMAV0100.1	UD MANGUITO ANTIVIBRATORIO DN100 PN25 Manguito antivibratorio, de fuelle multilamina de acero inoxidable AISI321, PN25 de D=100 mm. Bridas fijas planos de acero al carbono. Tirantes limitadores de acero cincado. Resto de características según ET. Colocado. Salida bombeo Valle de Ocón	3				3,00	3,00
							3,00
EVRC065	UD VÁLVULA DE RETENCIÓN DE CLAPETAS DN65 PN16 Válvula de retención de clapeta tipo Wafer, PN 16 y DN-65, con racores de bridas, totalmente instalada. Resto de características según E.T de Proyecto. Salida bombeo Ausejo	2				2,00	2,00
							2,00
EVRC100	UD VÁLVULA DE RETENCIÓN DE DISCOS CONCENTRICOS DN100 PN16/25 Suministro y colocación de válvula de retención de discos concéntricos DN-100, PN-16/25, modelo CLASAR de BELGICAST o equivalente. Cuerpo y tapa en fundición nodular GGG-40, obturador en poliuretano, resortes en acero inoxidable, junta de cierre cuerpo-tapa en nitrilo; colocada mediante unión wafer. Resto características según ET de Proyecto. Totalmente equipada, instalada y funcionando. Salida bombeo Valle de Ocón	3				3,00	3,00
							3,00
EVRC150	UD VÁLVULA DE RETENCIÓN DE CLAPETAS DN150 PN16 Válvula de retención de clapeta tipo Wafer, PN 16 y DN-150, con racores de bridas, totalmente instalada. Resto de características según E.T de Proyecto. By-pass bombeo Ausejo	1				1,00	1,00
							1,00
EPOLE1000	UD POLIPASTO ELÉCTRICO DE 1.000 KG Polipasto. Servicio: Izado de equipos. Características:- Marca: VINCA, VICINAY o equivalente. Capacidad (kg): 1.000. Tipo de carro: monocarril. Cola mínima del gancho a la viga (mm): 880. Potencia motor elevación (KW): 1,85. Incluye limitador de carga, motor-freno en el carro de traslación. Incluso transporte, montaje, conexiones eléctricas y de control, pruebas de funcionamiento. Resto de características según E.T.	1				1,00	1,00
							1,00
EGTM01	UD GRIFO TOMAMUESTRAS PN16/25 Grifo tomamuestras de 3/4" colocado en tubería de acero inoxidable por picaje, incluida la válvula PN16/25, montada y probada.	2				2,00	2,00
							2,00

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ABASTECIMIENTO A VARIOS MUNICIPIOS DE LA RIOJA. SISTEMA CIDACOS

CÓDIGO	RESUMEN	UDS	LONGITUD	ANCHURA	ALTURA	PARCIALES	CANTIDAD
ECAH18000	UD EQUIPO ANTIARIEETE HIDRONEUMÁTICO 18.000 I PN40 Equipo antiarriete hidroneumático con membrana, marca Ibaiondo o equivalente modelo 18000 AHN PN40. Consistente en un calderín cilíndrico de 18.000 l, con presión máxima de servicio de 40 bares. Construido en chapa soldada de acero P265GH. Membrana interior de poliuretano calidad alimentaria. Incluso llaves de aislamiento, indicador de nivel del agua, válvula de inflado, manómetro, boca de hombre y brida de conexión de agua DN 250. Acabado exterior granallado Sa 2 1/2, con imprimación de 40 micras de epoxi de dos componentes y acabado con 30 micras de esmalte de poliuretano; acabado interior granallado Sa 2 1/2, con imprimación de 40 micras de epoxi de dos componentes. Incluso bancada con patas de apoyo. Según Directiva 2014/68/UE. Resto de características según E.T. de Proyecto. Totalmente instalado y en funcionamiento, incluso piezas especiales de acoplamiento a la tubería de entrada.	2				2,00	2,00
216.2	UD VÁLVULA DE MARIPOSA DN=250 mm PN25 Válvula de mariposa de 250 mm de diámetro y PN25, de accionamiento manual por reductor, incluso mecanismo de accionamiento, maniobra y control, transporte, montaje, juntas, tornillería y pintura totalmente instalada y probada. Resto de características según ET de proyecto. Entrada calderín impulsión Ocón	2				2,00	2,00
APARTADO 07.11.03 INSTRUMENTACIÓN Y CONTROL							
ECELM080	UD CAUDALÍMETRO ELECTROMAGNÉTICO DN 80 mm PN10 Equipo medidor de caudal de DN80 mm. tipo electromagnético y PN=10 atm. con salida 4/20 mA, tensión 220 V y escala 0-240 m3/h, totalmente instalado y probado. Incluso transporte, montaje, conexiones eléctricas y pruebas de funcionamiento. Resto de características, según ET. Ausejo	1				1,00	1,00
EMANGL01	UD MANÓMETRO DE ESFERA TIPO MUELLE TUBULAR DN100 Manómetro de esfera DN100 tipo muelle tubular con accesorios, sifón, válvula de aislamiento y purga. Incluso instalación y pruebas. Resto de características según E.T de proyecto. Ocón Ausejo	2 2				2,00 2,00	4,00
281.1	UD CAUDALÍMETRO ELECTROMAGNÉTICO DN 150 mm PN25 Equipo medidor de caudal de DN250 mm. tipo electromagnético y PN=25 atm. con salida 4/20 mA, tensión 220 V y escala 0-240 m3/h, totalmente instalado y probado. Incluso transporte, montaje, conexiones eléctricas y pruebas de funcionamiento. Resto de características, según ET. Bombeo a Ocón	1				1,00	1,00
APARTADO 07.11.04 INSTALACIÓN ELÉCTRICA DE BT							
ELE022	* ML LÍNEA GENERAL DE ALIMENTACIÓN DE 4x150mm2 Cu 0,6/1 kV (AS) Línea general de alimentación con cuatro conductores unipolares de 1x150mm2 Cu 0.6/1kV RZ1-K(AS) instalada en canalización subterránea bajo tubo d=180mm.	1	30,000			30,000	30,00
ELE031	* UD CUADRO GENERAL BAJA TENSIÓN Cuadro general con aparataje y envolvente de Schneider, formado por envolvente metálico con puertas montado sobre zócalo y conteniendo interruptor general automático NS 250 A regulable, limitador de sobretensiones, analizador de redes, 3 variadores de frecuencia 55 kW, 2 variadores de frecuencia de 5.5 kW, protecciones magnetotérmicas y diferenciales según esquema unifilar, incluso cableado interior, perfiles omega y regletas de conexión. Armario: Preparado para instalar un interruptor general automático de hasta 250A. Ampliable por uno de los costados. Con reserva de espacio de al menos el 50% de la aparataje instalada. Montado y probado.	1				1,000	1,00

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ABASTECIMIENTO A VARIOS MUNICIPIOS DE LA RIOJA. SISTEMA CIDACOS

CÓDIGO	RESUMEN	UDS	LONGITUD	ANCHURA	ALTURA	PARCIALES	CANTIDAD
BT050	ML BANDEJA AISLANTE 60x150 MM Bandeja perforada de PVC, color gris RAL 7035, de 60x150 mm, resistencia al impacto 5 julios, propiedades eléctricas: aislante, no propagador de la llama, estable frente a los rayos UV y con resistencia a la intemperie y a los agentes químicos, con 1 compartimento, con soporte horizontal, de PVC, color gris RAL 7035.	1	25,000			25,000	25,00
BT060	ML TUBO PVC RIGIDO d=20mm Tubo rígido de PVC d=16mm para canalización de conductores, incluso soportes y anclajes a pared, instalado.	1	40,000			40,000	40,00
ELAR69868	* ML LÍNEA 3x50/25 mm2 Cu 0.6/1 kV RZ1KZ1-K(AS) Línea multipolar de 3x50/25mm2 RZ1KZ1-K(AS) en canalización existente, incluso conexionado en inicio y final de línea.	1	51,00			51,00	51,00
BT135	* ML LÍNEA 4x4mm2 Cu 0.6/1kV RZ1-K (AS) Línea eléctrica de 4x4 mm2 Cu 0.6/kV RZ1KZ1-K (AS) en canalización existente, con parte proporcional de cajas de derivación.	1	36,000			36,000	36,00
BT131	* ML LÍNEA 3x4mm2 Cu 0.6/1kV RZ1-K (AS) Línea eléctrica de 3x4mm2 Cu 0.6/kV RZ1-K (AS) en canalización existente, con parte proporcional de cajas de derivación.	1	1,000			1,000	1,00
EL362	ML LÍNEA 5x2.5mm2 Cu 0.6/1kV RZ1-K (AS) Línea eléctrica con conductor multipolar 5x2.5mm2 RZ1-K (AS) en canalización existente, incluso conexionado en inicio y final de línea.	1	10,000			10,000	10,00
EL380	ML LÍNEA 3x1.5mm2 Cu 0.6/1kV RZ1-K (AS) Línea eléctrica con conductor multipolares 3x1.5mm2 RZ1-K (AS) en canalización existente, incluso conexionado en inicio y final de línea.	1	60,000			60,000	60,00
BT130	ML LÍNEA 3x2.5mm2 Cu 0.6/1kV RZ1-K (AS) Línea eléctrica de 3x2.5mm2 Cu 0.6/kV RZ1-K (AS) en canalización existente, con parte proporcional de cajas de derivación.	1	40,000			40,000	40,00
ELE0118	UD ARQUETA ELÉCTRICA FÁBRICA 100x100 CM Arqueta de paso de líneas construida en fábrica de ladrillo de 12 cm. de espesor y enfoscado en paredes, dimensiones interiores 100 x 100 y 100 cm. de profundidad, incluso marco y tapa de fundición.	2				2,000	2,00
BT150	UD INTERRUPTOR ALUMBRADO Interruptor de alumbrado con mecanismo completo y p/p de conductor, tubo y cajas de derivación.	1				1,000	1,00

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CÓDIGO	RESUMEN	UDS	LONGITUD	ANCHURA	ALTURA	PARCIALES	CANTIDAD
BT160	UD TOMA DE CORRIENTE Toma de corriente con mecanismo completo y p/p de conductor, tubo y cajas de derivación.	2				2,000	2,00
BT190	UD PANTALLA ESTANCA Pantalla estanca WT120C L1500 1xLED60S/840 de Philips o equivalente, instalada y conexiada.	3				3,000	3,00
BT220	UD EMERGENCIA 300 LM Emergencia Basic Led serie L de Luznor o equivalente, modelo LL-300-T de 300 lúmenes, instalada y conexiada.	1				1,000	1,00
BT210	UD EMERGENCIA 100 LM Emergencia Basic Led serie L de Luznor o equivalente, modelo LLE-100 de 100 lúmenes, instalada y conexiada.	1				1,000	1,00
BT230	UD PUESTA A TIERRA DE LA INSTALACION Puesta a tierra de la nave con 65 metros de conductor de cobre desnudo de 35mm ² y 4 picas de acero cobrizado de 2 metros.	1				1,000	1,00
BT181	UD LUMINARIA EXTERIOR NAVE Campana industrial BGP 307 T25 1xLED99-4S/740 DM11 de Philips o equivalente, instalada y conexiada.	1				1,000	1,00
AL100	UD PALOMILLA BANDERA Palomilla bandera de tubo de acero galvanizado en caliente 50x40x4 mm. con dos anclajes a pared separados 50 cm. y vuelo comprendido entre 30 y 90 cm., galvanizado en caliente, tornillería de enlace de acero galvanizado, incluso obras auxiliares de apertura de huecos para anclajes y recibido en paramentos.	1				1,000	1,00
AL110	UD BRAZO SOPORTE RECTO/CURVO Brazo de tubo de acero estirado de 50 mm. de diámetro y 2,5 mm. de espesor, recto sin vuelo o con vuelo entre 0 y 1,5 m. y altura comprendida entre 2,00 y 5,00 m., galvanizado en caliente, tornillería de enlace de acero galvanizado, incluso obras auxiliares de adaptación a palomilla bandera existente o nueva.	1				1,000	1,00
BT260	Ud OCA Inspección inicial y certificado de Organismo de Control autorizado.	1				1,000	1,00

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CÓDIGO	RESUMEN	UDS	LONGITUD	ANCHURA	ALTURA	PARCIALES	CANTIDAD
APARTADO 07.11.05 VARIOS							
617.4	PA CONEXIÓN ALIVIOS CON POZO EXTERIOR Y DESAGÜE Partida Alzada de Abono Íntegro para conexión de la salida de los alivios de la nueva caseta de válvulas con pozo exterior y salida a cuneta y/o cauce, incluyendo, excavaciones, tuberías de PEAD DN de salida de alivio, rellenos, ayudas de albañilería, demoliciones, relleno de huecos con morteros sin retracción, anclaje de tuberías, así como todos los medios auxiliares necesarios para la conexión entre ambas tuberías.	1				1,00	1,00
SUBCAPÍTULO 07.12 BOMBEO A BERGASA							
APARTADO 07.12.01 OBRA CIVIL							
008	M2 DESPEJE Y DESBROCE Despeje y desbroce de capa de tierra vegetal con un espesor medio de 50 cm, incluso corte de árboles, extracción de tocones, nivelación de zona adyacente para el paso de maquinaria, transporte a lugar de acopio independiente para posterior reposición de tierra vegetal tras las obras y despedregado de las parcelas, así como transporte a vertedero de tierras sobrantes.	1	6,00	6,00		36,00	36,00
002	M3 EXCAVACIÓN EN ZANJAS Excavación en zanjas y zonas localizadas, en todo tipo de terrenos incluido terrenos en roca con medios mecánicos, incluso rasanteo, nivelación de la superficie de apoyo y transporte a lugar de empleo o vertedero.	1	6,00	6,00	2,14	77,04	77,04
010	M3 RELLENO ZANJAS, CIMIENTOS Y TRASDOSES DE MATERIAL SELECCIONADO Relleno con material seleccionado en zanjas, cimientos, trasdós de muros, estribos y otras estructuras procedente de la excavación o préstamos incluso carga, transporte y compactación.	1	77,04			77,04	77,04
		-1	6,00	6,00	0,50	-18,00	
		-1	5,60	5,60	1,65	-51,74	
							7,30
028	M3 HORMIGÓN DE LIMPIEZA HL-150 Hormigón de limpieza HL-150, de consistencia plástica, árido de tamaño máximo 40 mm y cemento CEM-II-D/42,5/SR, para saneos y encachados, incluyendo fabricación y transporte totalmente colocado.	1	6,00	6,00	0,10	3,60	3,60
031	M3 HORMIGÓN HA-25/B/20/IIa Hormigón HA-25/B/20/IIa, con cemento CEM III/A-D/42,5/SR, incluyendo fabricación, transporte, puesta en obra y vibrado, totalmente ejecutado, incluso curado y juntas.	1	6,00	6,00	0,40	14,40	14,40
	Solera	2	5,60	0,30	1,85	6,22	
	Muros	2	5,00	0,30	1,85	5,55	11,77
	Pilares	4	0,25	0,25	2,85	0,71	
	Vigas	4	5,40	0,25	0,25	1,35	
							28,23
023	KG ACERO CORRUGADO B-500-S Acero redondo corrugado para armar tipo B-500-S elaborado y colocado.	1	14,40	70,00		1.008,00	
	Muros	1	11,77	85,00		1.000,45	
	Pilares	1	83,00			83,00	
	Vigas	1	115,00			115,00	
	Solapes y despuntes (5%)	0,05	2.206,45			110,32	
							2.316,77
025	M2 ENCOFRADO RECTO EN PARAMENTOS OCULTOS Encofrado recto en paramentos ocultos, incluso colocación, fijación y desencofrado.						

MEDICIONES

ABASTECIMIENTO A VARIOS MUNICIPIOS DE LA RIOJA. SISTEMA CIDACOS

CÓDIGO	RESUMEN	UDS	LONGITUD	ANCHURA	ALTURA	PARCIALES	CANTIDAD
	Arqueta entrada	1	2,20	1,60		3,52	
							9,60
026	M2 ENCOFRADO RECTO EN PARAMENTOS VISTOS 1C Encofrado recto en paramentos vistos a una cara, incluso colocación, fijación y desencofrado.						
	Muros	4	5,60		1,85	41,44	
		4	5,60		1,85	41,44	82,88
							82,88
026.2	M2 ENCOFRADO RECTO EN PILARES VISTOS Encofrado recto en pilares vistos, incluso colocación, fijación y desencofrado.						
	Pilares	16	0,25		2,85	11,40	
							11,40
026.3	M2 ENCOFRADO RECTO EN VIGAS VISTOS Encofrado recto en vigas vistos, incluso colocación, fijación, apuntalamiento o cimbras, y desencofrado.						
	Vigas	16	5,40		0,25	21,60	
		4	5,40	0,25		5,40	
							27,00
052	ML JUNTAS DE ESTANQUEIDAD DE PVC 32 CM Junta de trabajo interior de policloruro de vinilo (PVC) 100% virgen, con una fuerza máxima de dilatación > 250 %, de 32 cm de ancho, MASTERFLEX 2000 TI-24 de BASF o equivalente, colocada simétricamente en el eje de la losa o muro, incluso solapes y piezas especiales para cruces o ángulos. Medida la longitud ejecutada.						
		4	5,60			22,40	
							22,40
462	M2 FÁBRICA BLOQUES 40x20x20 cm TIPO SPLIT COLOR Fábrica de bloques de hormigón tipo Split, de medidas 40x20x20 cm color i/relleno de hormigón y colocación de armaduras s/normativa y recibido con mortero de cemento y arena de río 1/6 i/p.p. de piezas especiales para dinteles y materialización de jambas, roturas, nivelados, aplomados, llagueados y limpieza, todo ello según normativa.						
	Muros	2	5,60		2,85	31,92	
		2	5,60		3,40	38,08	
	A deducir puerta	-1	1,00		2,20	-2,20	
	A deducir ventanas	-3	0,80		0,60	-1,44	
							66,36
							31,36
520	M2 CUBIERTA PANEL SANDWICH (E=50 mm.) Cubierta con panel tipo sandwich espesor 50 cm., con doble chapa prelacada de 0,4 mm de espesor, y aislamiento térmico de poliuretano, fijada con gancho de acero galvanizado, incluso p.p de piezas de remate, totalmente colocada.						
		1	5,60	5,60		31,36	
							31,36
519	ML REMATE DE CHAPA PRELACADA CUBIERTA Remate de chapa prelacada en color, para cubrir parte superior de bloque o panel, hasta el panel sandwich de la cubierta por el interior del peto, fijado mediante tacos y/o ganchos anclado a muro y o cubierta, dispuesto según planos.						
		2	5,60			11,20	
							11,20
465.1	M2 PUERTA DOBLE CHAPA ACERO CON LAMAS Puerta de paso hojas abatibles de doble chapa lisa de acero de 1 mm de espesor, con aislamiento interno de fibre de vidrio, engatillada, realizada en dos bandejas, con rigidizadores de tubo rectangular, i/manillas de acero inoxidable y cerradura, con dos o cuatro rejillas de ventilación con malla anti insectos interior, patillas para recibir en fábricas, herrajes de colgar y de seguridad, imprimación antióxido y pintura al esmalte, totalmente colocada incluyendo el recibido de fábricas.						
		1	1,00		2,20	2,20	
							2,20

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CÓDIGO	RESUMEN	UDS	LONGITUD	ANCHURA	ALTURA	PARCIALES	CANTIDAD
464cf	M2 CARPINTERÍA FIJA ALUMINIO m². Carpintería fija con junquillos para la fijación del vidrio, de aluminio modelo con rotura de puente térmico, Alfil A54RPT de SAPAGROUP con un ancho de marco de 54 mm y con un ancho de hoja de 61 mm, medida del frente de 96,3 mm, con sistema de cámara europea, con espesor de perfil de 1,5 mm, con sistema de cierre por junta central de estanqueidad en EPDM, coplanar exteriormente y con resalte de hoja sobre el marco al interior, para un acristalamiento con altura de galce de 22 mm y anchura hasta 44 mm en marcos y 51 mm en hojas, lacado (entre 60-100 micras) en color estándar (RAL estándar: blanco, gris...), herrajes de colgar, p.p. de cerradura Tesa o similar y costes indirectos. Homologada con Clase 4 en el ensayo de permeabilidad al aire según norma UNE-EN 1026:2000. La transmitancia máxima del marco es de 2,90 W/m² K, y cumple en las zonas A, B, C, D y E, según el CTE/DB-HE 1.	1	0,80		0,60	0,48	
							0,48
464V3	M2 VIDRIO SEGURIDAD STADIP 44.1 INCOLORO (2B2) m². Acristalamiento de vidrio laminar de seguridad Stadip compuesto por dos vidrios de 4 mm de espesor unidos mediante lámina de butiral de polivinilo incolora de 0,38 mm, clasificado 2B2 según UNE-EN 12600, fijado sobre carpintería con acuíado mediante calzos de apoyo perimetrales y laterales y sellado en frío con silicona neutra, incluso colocación de junquillos, según UNE 85222:1985.						
		1	0,80		0,60	0,48	
							0,48
521	M2 CELOSIA FIJA VENTILACIÓN Celosía metálica fija para ventilación, formada por cerco con empanelado de lamas de acero de 60 mm, con abertura mínima de 1 cm entre lamas, malla de 2 mm para eviar entrada de insectos, garras de sujeción a soporte de 10 cm, elaborada en taller y montada en obra, totalmente colocada.						
		1	0,80		0,60	0,48	
							0,48
020	KG ACERO S 275 J PERFILES LAMINADOS Acero S 275 J en perfiles laminados elaborado y colocado.						
	Correas IPE-140	8	5,40	12,90		557,28	
	Vigas IPE-140	1	5,40	12,90		69,66	
	Vipa polipasto IPE-140	1	10,00	12,90		129,00	
	Chapas	2	7,50			15,00	
							770,94
474.1	ML CANALON CHAPA PRELACADA 50cm Canalón de chapa prelacada en color, de 50 cm. de desarrollo fijado mediante ganchos ocultos con tornillo autoroscante 40 cm., incluso p.p. de embocadura de bajante, codos y piezas especiales.						
		2	5,60			11,20	
							11,20
474.2	ML BAJANTE DE CHAPA PRELACADA DN110 Bajante de chapa prelacada en color, DN110, fijado mediante ganchos con tornillo autoroscante 20 cm., incluso p.p. de embocadura de bajante, codos y piezas especiales.						
		2			2,85	5,70	
							5,70
290B	M2 ESCALERA Y PASARELAS DE ACERO GALVANIZADO. BARANDILLAS GALVANIZ Escalera y pasarelas de acceso de forma segun planos, ejecutada en perfiles de acero galvanizado en caliente, incluso barandilla tubular del mismo material, de 90 cm de altura en uno o dos lados, rodapié de seguridad del mismo en uno o dos lados, así como entramado metálico de 30x30x3 en descansillos y peldaños, medida según su proyección en planta. Anclada a los muros y/o solera, instalada.						
	Escalera	1	3,10	1,00		3,10	
							3,10

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ABASTECIMIENTO A VARIOS MUNICIPIOS DE LA RIOJA. SISTEMA CIDACOS

CÓDIGO	RESUMEN	UDS	LONGITUD	ANCHURA	ALTURA	PARCIALES	CANTIDAD
620	UD APOYOS DE TUBERÍA Y VÁLVULAS SOBRE SOLERA Apoyos de tuberías y válvulas en soleras, mediante dado de hormigón HA-25/P/20/IIa, ligeramente armado y anclado a la solera, así como cintas o eslingas de acero con material de protección de tubería para sujeción de las mismas, incluyendo el hormigón, encofrados, acero, eslingas, material de PE de protección, montado.	6				6,00	6,00
APARTADO 07.12.02 EQUIPOS, VÁLVULAS Y ACCESORIOS							
EBMV02	UD BOMBA CENTRIFUGA MULTITAPETA VERTICAL Q=6,69 l/s H=90 mca Bomba centrífuga multietapa vertical tipo CR 20-10 A-F-A-E-HQQE de Grundfos o equivalente para bombeo de un caudal de 6,69 l/s y una altura de 90 m.c.a. Aspiración DN50 e impulsión DN50. Cuerpo de fundición, rodete en acero inoxidable. Motor eléctrico asíncrono, trifásico, cerrado, de 11 kW-4P-50Hz-380-415V-IP-55, estructura de soporte en perfiles de acero electrosoldado. Cuadro controlador y supervisor de bombas según E.T. Resto de características según E.T. de Proyecto. Instalada y probada en obra.	2				2,00	2,00
274.1	UD VÁLVULA ALIVIO DE PRESIÓN 2" PN 25 Válvula de alivio de presión de 2" brida PN 25 bar, incluso incluso válvula de corte de 2", juntas de unión, collarín de toma y tornillería, totalmente colocada y probada.	1				1,00	1,00
245.3	UD VENTOSA DN=50 (2") mm PN25 Válvula ventosa de tres funciones de DN=50 mm (2") y PN 25 bar incluido transporte, juntas, válvula de corte DN=50 mm y PN 25 y piezas especiales, totalmente colocada y probada.	1				1,00	1,00
245.1	UD VENTOSA DN=25 mm (1") PN16 Válvula ventosa de tres funciones de 1" (DN=25 mm) y PN 16 bar incluido transporte, juntas, válvula de corte DN=25 mm y PN 16 bar y piezas especiales, totalmente colocada y probada.	1				1,00	1,00
ETI316150	ML TUBERÍA DE INOXIDABLE AISI 316L DN 150 Tubería de acero inoxidable de diámetro DN 150 mm. Construcción: Mediante soldadura. Espesor 2 mm. Material: Acero inoxidable AISI -316 L. Material accesorios acero inoxidable AISI - 316L. Acabado: Decapado. Incluso p.p. de uniones, piezas especiales, bridas, codos, tes, injertos para otras tuberías y p.p. de estructuras y elementos de anclajes a solera y/o muros. Montada y probada. Colector de entrada	1 2	2,200 0,500			2,200 1,000	3,20
ETI316100	ML TUBERÍA DE INOXIDABLE AISI 316L DN 100 Tubería de acero inoxidable de diámetro DN 100 mm. Construcción: Mediante soldadura. Espesor 1,5 mm. Material: Acero inoxidable AISI -316 L. Material accesorios acero inoxidable AISI - 316L. Acabado: Decapado. Incluso p.p. de uniones, piezas especiales, bridas, codos, tes, injertos para otras tuberías y p.p. de estructuras y elementos de anclajes a solera y/o muros. Montada y probada. Colector de impulsión	1 2	4,200 0,600			4,200 1,200	5,40
ETI316065	ML TUBERÍA DE INOXIDABLE AISI 316L DN 65 Tubería de acero inoxidable de diámetro DN 65 mm. Construcción: Mediante soldadura. Espesor 2 mm. Material: Acero inoxidable AISI -316 L. Material accesorios acero inoxidable AISI - 316L. Acabado: Decapado. Incluso p.p. de uniones, piezas especiales, bridas, codos, tes, injertos para otras tuberías y p.p. de estructuras y elementos de anclajes a solera y/o muros. Montada y probada. Vaciados	1	4,000			4,000	4,00

MEDICIONES

ABASTECIMIENTO A VARIOS MUNICIPIOS DE LA RIOJA. SISTEMA CIDACOS

CÓDIGO	RESUMEN	UDS	LONGITUD	ANCHURA	ALTURA	PARCIALES	CANTIDAD
242	UD VÁLVULA DE COMPUERTA MANUAL DN50 PN16 Válvula de compuerta de accionamiento manual de diámetro nominal DN=50 mm de 16 bares de presión máxima admisible, con tornillería y juntas, totalmente instalada y probada, incluso volante de accionamiento. Entrada	2				2,00	2,00
242.1	UD VÁLVULA DE COMPUERTA MANUAL DN50 PN25 Válvula de compuerta de accionamiento manual de diámetro nominal DN=50 mm de 25 bares de presión máxima admisible, con tornillería y juntas, totalmente instalada y probada, incluso volante de accionamiento. Salida	2				2,00	2,00
150	UD CARRETE DE DESMONTAJE DN=50 mm PN16 Carrete de desmontaje autoportante de PFA 16 bar de D=50 mm, colocado. Entrada	2				2,00	2,00
150.1	UD CARRETE DE DESMONTAJE DN=50 mm PN25 Carrete de desmontaje autoportante de PFA 25 bar de D=50 mm, colocado. Salida	2				2,00	2,00
EMAV050	UD MANGUITO ANTIVIBRATORIO DN50 PN16 Manguito antivibratorio, con cuerpo de simple onda, PN10/16 de D=50 mm. EPDM y bridas locas zincadas. Resto de características según ET. Colocado. Entrada	2				2,00	2,00
EMAV050.1	UD MANGUITO ANTIVIBRATORIO DN50 PN25 Manguito antivibratorio, de fuelle multilamina de acero inoxidable AISI321, PN25 de D=50 mm. Bridas fijas planos de acero al carbono. Tirantes limitadores de acero zincado. Resto de características según ET. Colocado. Salida	2				2,00	2,00
EVRC050.1	UD VÁLVULA DE RETENCIÓN DE DISCO PARTIDO DN50 PN25 Válvula de retención de disco partido PN 25 y DN-50, con racores de bridas, totalmente instalada. Resto de características según E.T de Proyecto. Salida	2				2,00	2,00
240	UD VÁLVULA DE COMPUERTA MANUAL DN80 PN25 Válvula de compuerta de accionamiento manual de diámetro nominal DN=80 mm de 25 bares de presión máxima admisible, con tornillería y juntas, totalmente instalada y probada, incluso volante de accionamiento.	1				1,00	1,00
240.1	UD VÁLVULA DE COMPUERTA MOTORIZADA DN80 PN25 Válvula de compuerta de cierre elástico de 80 mm. de diámetro nominal y 25 At. de P.N., de accionamiento motorizado, de cuerpo de fundición nodular GGG-50, con eje de acero inoxidable al 13 % Cr. con roscas conformadas por laminación en frío, cierre en fundición nodular, tornillería de acero inoxidable, protegida contra la corrosión mediante aplicación de doble capa de pintura epoxy, totalmente colocada y probada. Resto de características según ET.	1				1,00	1,00
148	UD CARRETE DE DESMONTAJE DN=80 mm PN25 Carrete de desmontaje autoportante de PFA 25 bar de D=80 mm, colocado.	1				1,00	1,00

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CÓDIGO	RESUMEN	UDS	LONGITUD	ANCHURA	ALTURA	PARCIALES	CANTIDAD
EPOLM500	UD POLIPASTO MANUAL DE 500 KG Polipasto. Servicio: Izado de equipos. Características: Marca: VINCA, VICINAY o equivalente. Capacidad (kg): 500. Tipo de carro: monocarril. Cota mínima del gancho a la viga (mm): 880. Incluso transporte, montaje, pruebas de funcionamiento. Resto de características según E.T.	1				1,00	1,00
							1,00
APARTADO 07.12.03 INSTRUMENTACIÓN Y CONTROL							
ECELM080	UD CAUDALÍMETRO ELECTROMAGNÉTICO DN 80 mm PN10 Equipo medidor de caudal de DN80 mm. tipo electromagnético y PN=10 atm. con salida 4/20 mA, tensión 220 V y escala 0-240 m3/h, totalmente instalado y probado. Incluido transporte, montaje, conexiones eléctricas y pruebas de funcionamiento. Resto de características, según ET.	1				1,00	1,00
							1,00
EMANGL01	UD MANÓMETRO DE ESFERA TIPO MUELLE TUBULAR DN100 Manómetro de esfera DN100 tipo muelle tubular con accesorios, sifón, válvula de aislamiento y purga. Incluso instalación y pruebas. Resto de características según E.T de proyecto.	2				2,00	2,00
							2,00
APARTADO 07.12.04 INSTALACIÓN ELÉCTRICA DE BT							
ELE021	ML LÍNEA GENERAL DE ALIMENTACIÓN DE 4x6mm2 Cu 0,6/1 kV (AS) Línea general de alimentación con cuatro conductores unipolares de 1x6mm2 Cu 0.6/1kV RZ1-K(AS) instalada en canalización subterránea bajo tubo d=160mm.	20				20,000	20,00
							20,00
ELE030	UD CUADRO GENERAL BAJA TENSIÓN Cuadro general con aparamenta y envolvente de Schneider, formado por envolvente metálico con puertas montado sobre zócalo y conteniendo interruptor general automático NS 40A regulable, limitador de sobretensiones, analizador de redes, variadores de frecuencia 11 kW, protecciones magneto-térmicas y diferenciales según esquema unifilar, incluso cableado interior, perfiles omega y regletas de conexión. Armario: - Preparado para instalar un interruptor general automático de hasta 250A. - Ampliable por uno de los costados. - Con reserva de espacio de al menos el 50% de la aparamenta instalada.	1				1,000	1,00
							1,00
BT050	ML BANDEJA AISLANTE 60x150 MM Bandeja perforada de PVC, color gris RAL 7035, de 60x150 mm, resistencia al impacto 5 julios, propiedades eléctricas: aislante, no propagador de la llama, estable frente a los rayos UV y con resistencia a la intemperie y a los agentes químicos, con 1 compartimento, con soporte horizontal, de PVC, color gris RAL 7035.	1	20,000			20,000	20,00
							20,00
BT060	ML TUBO PVC RIGIDO d=20mm Tubo rígido de PVC d=16mm para canalización de conductores, incluso soportes y anclajes a pared, instalado.	1	20,000			20,000	20,00
							20,00
ELE01333	ML LÍNEA 4x6mm2 Cu 0.6/1kV RZ1-K (AS) Línea de alimentación con conductores unipolares 4x6 mm2 Cu 0.6/1kV RZ1-K (AS) en canalización existente, incluso conexionado en inicio y final de línea.	1	21,000			21,000	21,00
							21,00

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CÓDIGO	RESUMEN	UDS	LONGITUD	ANCHURA	ALTURA	PARCIALES	CANTIDAD
EL362	ML LÍNEA 5x2.5mm2 Cu 0.6/1kV RZ1-K (AS) Línea eléctrica con conductor multipolar 5x2.5mm2 RZ1-K (AS) en canalización existente, incluso conexionado en inicio y final de línea.	1	10,000			10,000	10,00
							10,00
EL380	ML LÍNEA 3x1.5mm2 Cu 0.6/1kV RZ1-K (AS) Línea eléctrica con conductor multipolares 3x1.5mm2 RZ1-K (AS) en canalización existente, incluso conexionado en inicio y final de línea.	1	60,000			60,000	60,00
							60,00
BT131	* ML LÍNEA 3x4mm2 Cu 0.6/1kV RZ1-K (AS) Línea eléctrica de 3x4mm2 Cu 0.6/kV RZ1-K (AS) en canalización existente, con parte proporcional de cajas de derivación.	1	1,000			1,000	1,00
							1,00
BT130	ML LÍNEA 3x2.5mm2 Cu 0.6/1kV RZ1-K (AS) Línea eléctrica de 3x2.5mm2 Cu 0.6/kV RZ1-K (AS) en canalización existente, con parte proporcional de cajas de derivación.	1	40,000			40,000	40,00
							40,00
ELE0118	UD ARQUETA ELÉCTRICA FÁBRICA 100x100 CM Arqueta de paso de líneas construida en fábrica de ladrillo de 12 cm. de espesor y enfoscado en paredes, dimensiones interiores 100 x 100 y 100 cm. de profundidad, incluso marco y tapa de fundición.	2				2,000	2,00
							2,00
BT150	UD INTERRUPTOR ALUMBRADO Interruptor de alumbrado con mecanismo completo y p/p de conductor, tubo y cajas de derivación.	1				1,000	1,00
							1,00
BT160	UD TOMA DE CORRIENTE Toma de corriente con mecanismo completo y p/p de conductor, tubo y cajas de derivación.	2				2,000	2,00
							2,00
BT190	UD PANTALLA ESTANCA Pantalla estanca WT120C L1500 1xLED60S/840 de Philips o equivalente, instalada y conexionada.	2				2,000	2,00
							2,00
BT220	UD EMERGENCIA 300 LM Emergencia Basic Led serie L de Luznor o equivalente, modelo LL-300-T de 300 lúmenes, instalada y conexionada.	1				1,000	1,00
							1,00
BT210	UD EMERGENCIA 100 LM Emergencia Basic Led serie L de Luznor o equivalente, modelo LLE-100 de 100 lúmenes, instalada y conexionada.	1				1,000	1,00
							1,00
BT2301	UD PUESTA A TIERRA DE LA INSTALACION Puesta a tierra de la nave con 65 metros de conductor de cobre desnudo de 35mm2 y 4 picas de acero cobrizado de 2 metros.	1				1,000	1,00
							1,00

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CÓDIGO	RESUMEN	UDS	LONGITUD	ANCHURA	ALTURA	PARCIALES	CANTIDAD
							1,00
BT181	UD LUMINARIA EXTERIOR NAVE Campana industrial BGP 307 T25 1xLED99-4S/740 DM11 de Philips o equivalente, instalada y conexiónada.	1				1,000	1,00
AL100	UD PALOMILLA BANDERA Palomilla bandera de tubo de acero galvanizado en caliente 50x40x4 mm. con dos anclajes a pared separados 50 cm. y vuelo comprendido entre 30 y 90 cm., galvanizado en caliente, tornillería de enlace de acero galvanizado, incluso obras auxiliares de apertura de huecos para anclajes y recibido en paramentos.	1				1,000	1,00
AL110	UD BRAZO SOPORTE RECTO/CURVO Brazo de tubo de acero estirado de 50 mm. de diámetro y 2,5 mm. de espesor, recto sin vuelo o con vuelo entre 0 y 1,5 m. y altura comprendida entre 2,00 y 5,00 m., galvanizado en caliente, tornillería de enlace de acero galvanizado, incluso obras auxiliares de adaptación a palomilla bandera existente o nueva.	1				1,000	1,00
BT260	Ud OCA Inspección inicial y certificado de Organismo de Control autorizado.	1				1,000	1,00
							1,00
APARTADO 07.12.05 VARIOS							
617.4	PA CONEXIÓN ALIVIOS CON POZO EXTERIOR Y DESAGÜE Partida Alzada de Abono Íntegro para conexión de la salida de los alivios de la nueva caseta de válvulas con pozo exterior y salida a cuneta y/o cauce, incluyendo, excavaciones, tuberías de PEAD DN de salida de alivio, rellenos, ayudas de albalñillería, demoliciones, relleno de huecos con morteros sin retracción, anclaje de tuberías, así como todos los medios auxiliares necesarios para la conexión entre ambas tuberías.	1				1,00	1,00
							1,00
SUBCAPÍTULO 07.13 OBRAS AUXILIARES							
0102	ML TRASLADO TUBERÍA PEAD DN=315 mm PN 10 Traslado de tubería PE DN315 PN10 de la derivación de Arnedo para conexión a tubería existente de PEAD DN315, incluso p.p. de elementos de unión, corte para traslado y nuevo soldadura en tramo de 100 m.	1	100,000			100,000	100,00
172.1	ML TUBERÍA PEAD DN=110 mm PN 10 Tubería de polietileno de alta densidad de 110 mm de diámetro exterior y PN=10 bar, colocada en zanja incluso banda de señalización, p.p. de junta de unión colocada, codos, tes, portabridas, así como piezas especiales y medios auxiliares, totalmente colocada.	1	100,00			100,00	100,00
0101	ML COLOCACIÓN DE TUBERÍA AUXILIAR PE DN315 PN10 Colocación de tubería auxiliar de PE DN315 PN10 a tubería existente de PEAD DN315, durante la ejecución de la excavación de la zanja de la nueva conducción, para tramos de 100 m, para mantenimiento de servicio de la tubería existente, incluso elementos de unión de la tubería auxiliar a dicha tubería, del llenado y vaciado del tramo de actuación, y de la tubería auxiliar para su desplazamiento, traslado de la tubería auxiliar a su nueva posición por tramos de 100 m, así como la colocación de los lastres de la tubería auxiliar. Ramal P410-P-430	1	3.219,000			3.219,000	3.219,00

MEDICIONES

ABASTECIMIENTO A VARIOS MUNICIPIOS DE LA RIOJA. SISTEMA CIDACOS

CÓDIGO	RESUMEN	UDS	LONGITUD	ANCHURA	ALTURA	PARCIALES	CANTIDAD
0103	ML COLOCACIÓN DE TUBERÍA AUXILIAR PE DN160-DN110 PN10 Colocación de tubería auxiliar de PE DN160-DN100 PN10 a tubería existente de PEAD DN160-DN110 y FD150, durante la ejecución de la excavación de la zanja de la nueva conducción, para tramos de 100 m, para mantenimiento de servicio de la tubería existente, incluso elementos de unión de la tubería auxiliar a dicha tubería, del llenado y vaciado del tramo de actuación, y de la tubería auxiliar para su desplazamiento, traslado de la tubería auxiliar a su nueva posición por tramos de 100 m, así como la colocación de los lastres de la tubería auxiliar. Ramal a Villar de Arnedo Ramal P-350 a P-410	1	1.297,000			1.297,000	1.297,000
		1	4.866,000			4.866,000	4.866,000
							6.163,00
CAPÍTULO 08 ACOMETIDAS ENTRADAS A DEPÓSITOS							
SUBCAPÍTULO 08.01 ACOMETIDA A DEPÓSITO DE ARNEDILLO							
APARTADO 08.1.01 OBRA CIVIL							
008	M2 DESPEJE Y DESBROCE Despeje y desbroce de capa de tierra vegetal con un espesor medio de 50 cm, incluso corte de árboles, extracción de tocones, nivelación de zona adyacente para el paso de maquinaria, transporte a lugar de acopio independiente para posterior reposición de tierra vegetal tras las obras y despedregado de las parcelas, así como transporte a vertedero de tierras sobrantes.	1	3,00	3,00		9,00	9,00
002	M3 EXCAVACIÓN EN ZANJAS Excavación en zanjas y zonas localizadas, en todo tipo de terrenos incluido terrenos en roca con medios mecánicos, incluso rasanteo, nivelación de la superficie de apoyo y transporte a lugar de empleo o vertedero.	1	3,40	3,20	1,35	14,69	14,69
010	M3 RELLENO ZANJAS, CIMIENTOS Y TRASDOSES DE MATERIAL SELECCIONADO Relleno con material seleccionado en zanjas, cimientos, trasdós de muros, estribos y otras estructuras procedente de la excavación o préstamos incluso carga, transporte y compactación.	1	14,69			14,69	14,69
		-1	3,40	3,20	0,30	-3,26	
		-1	3,00	2,80	0,95	-7,98	
							3,45
028	M3 HORMIGÓN DE LIMPIEZA HL-150 Hormigón de limpieza HL-150, de consistencia plástica, árido de tamaño máximo 40 mm y cemento CEM-II-D/42,5/SR, para saneos y encachados, incluyendo fabricación y transporte totalmente colocado.	1	3,40	3,20	0,10	1,09	1,09
031	M3 HORMIGÓN HA-25/B/20/IIa Hormigón HA-25/B/20/IIa, con cemento CEM III/A-D/42,5/SR, incluyendo fabricación, transporte, puesta en obra y vibrado, totalmente ejecutado, incluso curado y juntas. Solera Muros	1	3,40	3,20	0,30	3,26	3,26
		2	3,40	0,30	1,15	2,35	
		2	2,20	0,30	1,15	1,52	3,87
							7,13
023	KG ACERO CORRUGADO B-500-S Acero redondo corrugado para armar tipo B-500-S elaborado y colocado. Solera Muros Solapes y despuntes (5%)	1	3,26	70,00		228,20	228,20
		1	3,87	85,00		328,95	328,95
		0,05	557,15			27,86	27,86
							585,01
025	M2 ENCOFRADO RECTO EN PARAMENTOS OCULTOS Encofrado recto en paramentos ocultos, incluso colocación, fijación y desencofrado. Solera	2	3,40		0,30	2,04	2,04
		2	3,20		0,30	1,92	

MEDICIONES

ABASTECIMIENTO A VARIOS MUNICIPIOS DE LA RIOJA. SISTEMA CIDACOS

CÓDIGO	RESUMEN	UDS	LONGITUD	ANCHURA	ALTURA	PARCIALES	CANTIDAD
							3,96
026	M2 ENCOFRADO RECTO EN PARAMENTOS VISTOS 1C Encofrado recto en paramentos vistos a una cara, incluso colocación, fijación y desencofrado.						
	Muros	4	3,00		1,15	13,80	
		4	2,80		1,15	12,88	26,68
							26,68
052	ML JUNTAS DE ESTANQUEIDAD DE PVC 32 CM Junta de trabajo interior de policloruro de vinilo (PVC) 100% virgen, con una fuerza máxima de dilatación > 250 %, de 32 cm de ancho, MASTERFLEX 2000 TI-24 de BASF o equivalente, colocada simétricamente en el eje de la losa o muro, incluso solapes y piezas especiales para cruces o ángulos. Medida la longitud ejecutada.						
		2	3,00			6,00	
		2	2,80			5,60	
							11,60
462	M2 FÁBRICA BLOQUES 40x20x20 cm TIPO SPLIT COLOR Fábrica de bloques de hormigón tipo Split, de medidas 40x20x20 cm color i/relleno de hormigón y colocación de armaduras s/normativa y recibido con mortero de cemento y arena de río 1/6 i/p.p. de piezas especiales para dinteles y materialización de jambas, roturas, nivelados, aplomados, llagueados y limpieza, todo ello según normativa.						
	Muros	2	3,00		3,15	18,90	
		2	2,80		3,35	18,76	
	A deducir puerta	-1	0,80		2,20	-1,76	
	A deducir ventanas	-2	0,80		0,60	-0,96	
							34,94
520	M2 CUBIERTA PANEL SANDWICH (E=50 mm.) Cubierta con panel tipo sandwich espesor 50 cm., con doble chapa prelacada de 0,4 mm de espesor, y aislamiento térmico de poliuretano, fijada con gancho de acero galvanizado, incluso p.p de piezas de remate, totalmente colocada.						
		1	3,00	2,80		8,40	
							8,40
519	ML REMATE DE CHAPA PRELACADA CUBIERTA Remate de chapa prelacada en color, para cubrir parte superior de bloque o panel, hasta el panel sandwich de la cubierta por el interior del peto, fijado mediante tacos y/o ganchos anclado a muro y o cubierta, dispuesto según planos.						
		1	3,00			3,00	
		2	2,80			5,60	
							8,60
465.1	M2 PUERTA DOBLE CHAPA ACERO CON LAMAS Puerta de paso hojas abatibles de doble chapa lisa de acero de 1 mm de espesor, con aislamiento interno de fibre de vidrio, engatillada, realizada en dos bandejas, con rigidizadores de tubo rectangular, i/manillas de acero inoxidable y cerradura, con dos o cuatro rejillas de ventilación con malla anti insectos interior, patillas para recibir en fábricas, herrajes de colgar y de seguridad, imprimación antióxido y pintura al esmalte, totalmente colocada incluyendo el recibido de fábricas.						
		1	0,80		2,20	1,76	
							1,76
464cf	M2 CARPINTERÍA FIJA ALUMINIO m². Carpintería fija con junquillos para la fijación del vidrio, de aluminio modelo con rotura de puente térmico, Afili A54RPT de SAPAGROUP con un ancho de marco de 54 mm y con un ancho de hoja de 61 mm, medida del frente de 96,3 mm, con sistema de cámara europea, con espesor de perfil de 1,5 mm, con sistema de cierre por junta central de estanqueidad en EPDM, coplanar exteriormente y con resalte de hoja sobre el marco al interior, para un acristalamiento con altura de galce de 22 mm y anchura hasta 44 mm en marcos y 51 mm en hojas, lacado (entre 60-100 micras) en color estándar (RAL estándar: blanco, gris...), herrajes de colgar, p.p. de cerradura Tesa o similar y costes indirectos. Homologada con Clase 4 en el ensayo de permeabilidad al aire según norma UNE-EN 1026:2000. La transmitancia máxima del marco es de 2,90 W/m² K, y cumple en las zonas A, B, C, D y E, según el C TE/DB-HE 1.						
		1	0,80		0,60	0,48	

MEDICIONES

ABASTECIMIENTO A VARIOS MUNICIPIOS DE LA RIOJA. SISTEMA CIDACOS

CÓDIGO	RESUMEN	UDS	LONGITUD	ANCHURA	ALTURA	PARCIALES	CANTIDAD
							0,48
464V3	M2 VIDRIO SEGURIDAD STADIP 44.1 INCOLORO (2B2) m². Acristalamiento de vidrio laminar de seguridad Stadip compuesto por dos vidrios de 4 mm de espesor unidos mediante lámina de butiral de polivinilo incolora de 0,38 mm, clasificado 2B2 según UNE-EN 12600, fijado sobre carpintería con acuñado mediante calzos de apoyo perimetrales y laterales y sellado en frío con silicona neutra, incluso colocación de junquillos, según UNE 85222:1985.						
		1	0,80		0,60	0,48	
							0,48
521	M2 CELOSIA FIJA VENTILACIÓN Celosía metálica fija para ventilación, formada por cerco con empanelado de lamas de acero de 60 mm, con abertura mínima de 1 cm entre lamas, malla de 2 mm para evitar entrada de insectos, garras de sujeción a soporte de 10 cm, elaborada en taller y montada en obra, totalmente colocada.						
		1	0,80		0,60	0,48	
							0,48
020	KG ACERO S 275 J PERFILES LAMINADOS Acero S 275 J en perfiles laminados elaborado y colocado. Correas IPE-100						
		3	3,00	8,10		72,90	
							72,90
474.1	ML CANALON CHAPA PRELACADA 50cm Canalón de chapa prelacada en color, de 50 cm. de desarrollo fijado mediante ganchos ocultos con tornillo autoroscante 40 cm., incluso p.p. de embocadura de bajante, codos y piezas especiales.						
		1	3,00			3,00	
							3,00
474.2	ML BAJANTE DE CHAPA PRELACADA DN110 Bajante de chapa prelacada en color, DN110, fijado mediante ganchos con tornillo autoroscante 20 cm., incluso p.p. de embocadura de bajante, codos y piezas especiales.						
		1			2,60	2,60	
							2,60
290B	M2 ESCALERA Y PASARELAS DE ACERO GALVANIZADO. BARANDILLAS GALVANIZ Escalera y pasarelas de acceso de forma según planos, ejecutada en perfiles de acero galvanizado en caliente, incluso barandilla tubular del mismo material, de 90 cm de altura en uno o dos lados, rodapié de seguridad del mismo en uno o dos lados, así como entramado metálico de 30x30x3 en descansillos y peldaños, medida según su proyección en planta. Anclada a los muros y/o solera, instalada.						
	Escalera	1	2,15	0,90		1,94	
							1,94
620	UD APOYOS DE TUBERÍA Y VÁLVULAS SOBRE SOLERA Apoyos de tuberías y válvulas en soleras, mediante dado de hormigón HA-25/P/20/11a, ligeramente armado y anclado a la solera, así como cintas o eslingas de acero con material de protección de tubería para sujeción de las mismas, incluyendo el hormigón, encofrados, acero, eslingas, material de PE de protección, montado.						
		3				3,00	
							3,00
115.7	UD BRIDA ENCHUFE FD DN<150 mm PN16/25/40 Brida enchufe de fundición dúctil de PFA 16/25/40 bar para tubería de diámetro menor o igual de 150 mm, con un revestimiento interior y exterior epoxi, i/p.p. de junta de unión y medios auxiliares, totalmente colocada y probada.						
		2				2,00	
							2,00

APARTADO 08.1.02 VÁLVULAS Y ACCESORIOS

MEDICIONES

ABASTECIMIENTO A VARIOS MUNICIPIOS DE LA RIOJA. SISTEMA CIDACOS

CÓDIGO	RESUMEN	UDS	LONGITUD	ANCHURA	ALTURA	PARCIALES	CANTIDAD
132.1	UD TE FD BBB 100 mm PN16/25 SALIDA DN100/40 "T" de fundición dúctil de PFA 16 bar, con tres bridas para tubería de 100 mm con salida comprendida entre 100 y 40 mm, con un revestimiento interior y exterior epoxi, i/p.p. de junta de unión y medios auxiliares, totalmente colocada y probada. Ventosa	1				1,00	1,00
111	UD REDUCCIÓN FD 150 A 125/50 mm PN16/25 Reducción en fundición dúctil de 150 mm a 125-100-80-65-60-50 mm con dos bridas PN 16/25 bar, con un revestimiento interior y exterior epoxi, i/p.p. de junta de unión y medios auxiliares, totalmente colocada y probada.	2				2,00	2,00
162	UD MANGUITO FD DN100 A DN250 mm PN16/25 Manguito de fundición dúctil con bridas diámetros de 100 a 250 mm, longitud comprendida entre 0,20 y 1,00 m y PN16/25, incluso p.p. de tornillería y medios auxiliares, totalmente colocado y probado.	3				3,00	3,00
251	UD FILTRO COLADOR EN Y DN=100 mm PN16/25 Filtro colador en "Y" de diámetro nominal DN=100 mm y brida PN16/25 bar de presión, incluso juntas de unión y tornillería, totalmente instalado.	1				1,00	1,00
266.4	UD VÁLVULA LIMITADORA DE CAUDAL DN=100 mm PN16 Válvula limitadora de caudal de DN=100 mm PN16, incluso juntas de unión y tornillería, totalmente colocada y probada.	1				1,00	1,00
237	UD VÁLVULA DE COMPUERTA MANUAL DN100 PN25 Válvula de compuerta de cierre elástico de 100 mm. de diámetro nominal y 25 At. de P.N., de accionamiento manual por volante, de cuerpo de fundición nodular GGG-50, con eje de acero inoxidable al 13 % Cr. con roscas conformadas por laminación en frío, cierre en fundición nodular, tornillería de acero inoxidable, protegida contra la corrosión mediante aplicación de doble capa de pintura epoxy, totalmente colocada y probada. Resto de características según ET.	2				2,00	2,00
ECD010016	UD CARRETE DE DESMONTAJE DN=100 mm PN16 Carrete telescópico de desmontaje DN100 PN16, bridas de acero al carbono, virolas de acero inoxidable, protección epoxi, tornillos y tuercas en acero F-114, cincado y posterior baño de cromo-niquel, incluido p.p. de brida enchufe, totalmente instalado y probado en obra.	1				1,00	1,00
245.4	UD VENTOSA DN=50 (2") mm PN16 Válvula ventosa de tres funciones de DN=50 mm (2") y PN 16 bar incluido transporte, juntas, válvula de corte DN=50 mm y PN 16 y piezas especiales, totalmente colocada y probada.	1				1,00	1,00
087	UD CODO FD 1/4 A 1/32 100 mm Codo de fundición dúctil de 1/4 a 1/32 de diámetro interior 100 mm y PFA 40 bar, con un revestimiento interior y exterior epoxi, incluso p.p. de juntas y medios auxiliares, totalmente colocado y probado.	1				1,00	1,00

MEDICIONES

ABASTECIMIENTO A VARIOS MUNICIPIOS DE LA RIOJA. SISTEMA CIDACOS

CÓDIGO	RESUMEN	UDS	LONGITUD	ANCHURA	ALTURA	PARCIALES	CANTIDAD
APARTADO 08.1.03 INSTRUMENTACIÓN Y CONTROL							
300	UD BOYA DE NIVEL DE MÁXIMO Y MÍNIMO Boya de nivel cableada con la válvula de llenado, incluso montaje y pruebas.	2				2,00	2,00
ECELM100	UD CAUDALÍMETRO ELECTROMAGNÉTICO DN 100 mm Equipo medidor de caudal de DN100 mm. tipo electromagnético y PN=10 atm. con salida 4/20 mA, tensión 220 V y escala 0-240 m3/h, totalmente instalado y probado. Incluido transporte, montaje, conexiones eléctricas y pruebas de funcionamiento. Resto de características, según ET.	1				1,00	1,00
APARTADO 08.1.04 INSTALACIÓN ELÉCTRICA DE BT							
563.1	ud PANTALLA ESTANCA LED Luminaria estanca WT120C LED80S/840 de Philips o equivalente para montaje en superficie de dimensiones 1515x80, carcasa de policarbonato, óptica de polimetacrilato de metilo, flujo luminoso 8.000 lm, potencia 68 W, Tª color 4000 K, rango de Tª de 10°C a 35°C, protección IP-65 Clase I. Incluso p.p. de canalización y cableado, completamente instalado.	1				1,000	1,00
524.1	m LINEA 3x1.5mm2 Cu 0.6/1kV RZ1-K (AS) Línea eléctrica con conductor multipolares 3x1.5mm2 RZ1-K (AS) en canalización existente, incluso conexionado en inicio y final de línea.	1	15,000			15,000	15,00
571	ud INTERRUPTOR EMPOTRAR SIMO 32 BLANCO. Interruptor empotrar blanco, totalmente instalado.	1				1,000	1,00
204	m TUBO DE PVC RÍGIDO DE 25 MM DIÁMETRO Tubo rígido de PVC d=25mm para canalización de conductores, incluso soportes y anclajes a pared, instalado.	1	15,000			15,000	15,00
APARTADO 08.1.05 VARIOS							
618	PA CONEXIÓN RED ELÉCTRICA BT CON DEPÓSITOS EXISTENTES Partida Alzada de Abono Íntegro para conexión de la red eléctrica en BT con depósitos existentes.	1				1,00	1,00
617.1	PA CONEXIÓN RED NUEVA CASETA CON DEPÓSITOS EXISTENTES FD DN<300 Partida Alzada de Abono Íntegro para conexión de la red de abastecimiento desde la nueva caseta de válvulas con depósitos existentes, incluyendo, excavaciones, tuberías de fundición de diámetro hasta 300 mm, rellenos, ayudas de albañilería, demoliciones, relleno de huecos con morteros sin retracción, anclaje de tuberías, así como todos los medios auxiliares necesarios para la conexión entre la salida de la nueva caseta de válvula y su salida al depósito.	1				1,00	1,00
SUBCAPÍTULO 08.02 ACOMETIDA A DEPÓSITO DE ALFARO							

MEDICIONES

ABASTECIMIENTO A VARIOS MUNICIPIOS DE LA RIOJA. SISTEMA CIDACOS

CÓDIGO	RESUMEN	UDS	LONGITUD	ANCHURA	ALTURA	PARCIALES	CANTIDAD
APARTADO 08.02.01 OBRA CIVIL							
008	M2 DESPEJE Y DESBROCE Despeje y desbroce de capa de tierra vegetal con un espesor medio de 50 cm, incluso corte de árboles, extracción de tocones, nivelación de zona adyacente para el paso de maquinaria, transporte a lugar de acopio independiente para posterior reposición de tierra vegetal tras las obras y despedregado de las parcelas, así como transporte a vertedero de tierras sobrantes.	1	12,00	5,40		64,80	
							64,80
002	M3 EXCAVACIÓN EN ZANJAS Excavación en zanjas y zonas localizadas, en todo tipo de terrenos incluido terrenos en roca con medios mecánicos, incluso rasanteo, nivelación de la superficie de apoyo y transporte a lugar de empleo o vertedero.	1	12,00	5,40	2,50	162,00	
							162,00
010	M3 RELLENO ZANJAS, CIMIENTOS Y TRASDOSES DE MATERIAL SELECCIONADO Relleno con material seleccionado en zanjas, cimientos, trasdós de muros, estribos y otras estructuras procedente de la excavación o préstamos incluso carga, transporte y compactación.	1	162,00			162,00	
		-1	12,00	5,40	0,50	-32,40	
		-1	11,60	5,00	2,00	-116,00	
							13,60
028	M3 HORMIGÓN DE LIMPIEZA HL-150 Hormigón de limpieza HL-150, de consistencia plástica, árido de tamaño máximo 40 mm y cemento CEM-II-D/42,5/SR, para saneos y enchachados, incluyendo fabricación y transporte totalmente colocado.	1	12,00	5,40	0,10	6,48	
							6,48
031	M3 HORMIGÓN HA-25/B/20/IIa Hormigón HA-25/B/20/IIa, con cemento CEM II/A-D/42,5/SR, incluyendo fabricación, transporte, puesta en obra y vibrado, totalmente ejecutado, incluso curado y juntas.	1	12,00	5,40	0,40	25,92	25,92
	Solera	2	11,60	0,30	2,20	15,31	
	Muros	2	4,40	0,30	2,20	5,81	21,12
							47,04
023	KG ACERO CORRUGADO B-500-S Acero redondo corrugado para armar tipo B-500-S elaborado y colocado.	1	25,92	70,00		1.814,40	
	Muros	1	21,12	85,00		1.795,20	
	Solapes y despuntes (5%)	0,05	3.609,60			180,48	
							3.790,08
025	M2 ENCOFRADO RECTO EN PARAMENTOS OCULTOS Encofrado recto en paramentos ocultos, incluso colocación, fijación y desencofrado.	2	12,00		0,40	9,60	9,60
	Solera	2	5,40		0,40	4,32	
							13,92
026	M2 ENCOFRADO RECTO EN PARAMENTOS VISTOS 1C Encofrado recto en paramentos vistos a una cara, incluso colocación, fijación y desencofrado.	4	11,60		2,20	102,08	
	Muros	4	5,00		2,20	44,00	146,08
							146,08
052	ML JUNTAS DE ESTANQUEIDAD DE PVC 32 CM Junta de trabajo interior de policloruro de vinilo (PVC) 100% virgen, con una fuerza máxima de dilatación > 250 %, de 32 cm de ancho, MASTERFLEX 2000 TI-24 de BASF o equivalente, colocada simétricamente en el eje de la losa o muro, incluso solapes y piezas especiales para cruces o ángulos. Medida la longitud ejecutada.	2	0,80		0,60	0,96	
							0,96

MEDICIONES

ABASTECIMIENTO A VARIOS MUNICIPIOS DE LA RIOJA. SISTEMA CIDACOS

CÓDIGO	RESUMEN	UDS	LONGITUD	ANCHURA	ALTURA	PARCIALES	CANTIDAD
	Arqueta entrada	1	2,20	1,60		3,52	
		2	5,00			10,00	
							33,20
462	M2 FÁBRICA BLOQUES 40x20x20 cm TIPO SPLIT COLOR Fábrica de bloques de hormigón tipo Split, de medidas 40x20x20 cm color i/relleno de hormigón y colocación de armaduras s/normativa y recibido con mortero de cemento y arena de río 1/6 i/p.p. de piezas especiales para dinteles y materialización de jambas, roturas, nivelados, aplomados, llagueados y limpieza, todo ello según normativa.	2	11,60		3,75	87,00	
	Muros	2	5,00		3,75	37,50	
	A deducir puerta	-1	1,00		2,20	-2,20	
	A deducir ventanas	-3	0,80		0,60	-1,44	
							120,86
520	M2 CUBIERTA PANEL SANDWICH (E=50 mm.) Cubierta con panel tipo sandwich espesor 50 cm., con doble chapa prelacada de 0,4 mm de espesor, y aislamiento térmico de poliuretano, fijada con gancho de acero galvanizado, incluso p.p de piezas de remate, totalmente colocada.	1	11,60	5,00		58,00	
							58,00
519	ML REMATE DE CHAPA PRELACADA CUBIERTA Remate de chapa prelacada en color, para cubrir parte superior de bloque o panel, hasta el panel sandwich de la cubierta por el interior del peto, fijado mediante tacos y/o ganchos anclado a muro y o cubierta, dispuesto según planos.	1	11,60			11,60	
		2	5,00			10,00	
							21,60
465.1	M2 PUERTA DOBLE CHAPA ACERO CON LAMAS Puerta de paso hojas abatibles de doble chapa lisa de acero de 1 mm de espesor, con aislamiento interno de fibra de vidrio, engatillada, realizada en dos bandejas, con rigidizadores de tubo rectangular, i/manillas de acero inoxidable y cerradura, con dos o cuatro rejillas de ventilación con malla anti insectos interior, patillas para recibir en fábricas, herrajes de colgar y de seguridad, imprimación antióxido y pintura al esmalte, totalmente colocada incluyendo el recibido de fábricas.	1	1,00		2,20	2,20	
							2,20
464cf	M2 CARPINTERÍA FIJA ALUMINIO m². Carpintería fija con junquillos para la fijación del vidrio, de aluminio modelo con rotura de puente térmico, Alfil A54RPT de SAPAGROUP con un ancho de marco de 54 mm y con un ancho de hoja de 61 mm, medida del frente de 96,3 mm, con sistema de cámara europea, con espesor de perfil de 1,5 mm, con sistema de cierre por junta central de estanqueidad en EPDM, coplanar exteriormente y con resalte de hoja sobre el marco al interior, para un acristalamiento con altura de galce de 22 mm y anchura hasta 44 mm en marcos y 51 mm en hojas, lacado (entre 60-100 micras) en color estándar (RAL estándar: blanco, gris...), herrajes de colgar, p.p. de cerradura Tesa o similar y costes indirectos. Homologada con Clase 4 en el ensayo de permeabilidad al aire según norma UNE-EN 1026:2000. La transmitancia máxima del marco es de 2,90 W/m² K, y cumple en las zonas A, B, C, D y E, según el CTE/DB-HE 1.	2	0,80		0,60	0,96	
							0,96
464V3	M2 VIDRIO SEGURIDAD STADIP 44.1 INCOLORO (2B2) m². Acristalamiento de vidrio laminar de seguridad Stadip compuesto por dos vidrios de 4 mm de espesor unidos mediante lámina de butiral de polivinilo incolora de 0,38 mm, clasificado 2B2 según UNE-EN 12600, fijado sobre carpintería con acuíñado mediante calzos de apoyo perimetrales y laterales y sellado en frío con silicona neutra, incluso colocación de junquillos, según UNE 85222:1985.	2	0,80		0,60	0,96	
							0,96

MEDICIONES

ABASTECIMIENTO A VARIOS MUNICIPIOS DE LA RIOJA. SISTEMA CIDACOS

CÓDIGO	RESUMEN	UDS	LONGITUD	ANCHURA	ALTURA	PARCIALES	CANTIDAD
521	M2 CELOSIA FIJA VENTILACIÓN Celosía metálica fija para ventilación, formada por cerco con empanelado de lamas de acero de 60 mm, con abertura mínima de 1 cm entre lamas, malla de 2 mm para evitar entrada de insectos, garras de sujeción a soporte de 10 cm, elaborada en taller y montada en obra, totalmente colocada.	1	0,80		0,60	0,48	
							0,48
020	KG ACERO S 275 J PERFILES LAMINADOS Acero S 275 J en perfiles laminados elaborado y colocado.						
	Correas IPE-100	5	11,10	8,10		449,55	
	Vigas IPE-180	4	4,50	18,80		338,40	
	Pilar HEB-100	4	3,30	20,40		269,28	
		4	2,67	20,40		217,87	
	Polipasto IPE-180	2	11,20	18,80		421,12	
							1.696,22
474.1	ML CANALON CHAPA PRELACADA 50cm Canalón de chapa prelacada en color, de 50 cm. de desarrollo fijado mediante ganchos ocultos con tornillo autoroscante 40 cm., incluso p.p. de embocadura de bajante, codos y piezas especiales.	1	11,60			11,60	
							11,60
474.2	ML BAJANTE DE CHAPA PRELACADA DN110 Bajante de chapa prelacada en color, DN110, fijado mediante ganchos con tornillo autoroscante 20 cm., incluso p.p. de embocadura de bajante, codos y piezas especiales.	2		3,30		6,60	
							6,60
290B	M2 ESCALERA Y PASARELAS DE ACERO GALVANIZADO. BARANDILLAS GALVANIZ Escalera y pasarelas de acceso de forma según planos, ejecutada en perfiles de acero galvanizado en caliente, incluso barandilla tubular del mismo material, de 90 cm de altura en uno o dos lados, rodapié de seguridad del mismo en uno o dos lados, así como entramado metálico de 30x30x3 en descansillos y peldaños, medida según su proyección en planta. Anclada a los muros y/o solera, instalada.						
	Pasarela	1	4,40	1,00		4,40	
		2	1,20	0,80		1,92	
							6,32
620	UD APOYOS DE TUBERÍA Y VÁLVULAS SOBRE SOLERA Apoyos de tuberías y válvulas en soleras, mediante dado de hormigón HA-25/P/20/IIa, ligeramente armado y anclado a la solera, así como cintas o eslingas de acero con material de protección de tubería para sujeción de las mismas, incluyendo el hormigón, encofrados, acero, eslingas, material de PE de protección, montado.	14				14,00	
							14,00
290	UD PATE POLIPROPILENO Pate de polipropileno de dimensiones 30x25 cm, incluyendo fabricación, transporte a obra, perforación de anclajes y relleno con aportación de material de agarre, completamente colocado.	12				12,00	
							12,00
APARTADO 08.02.02 VÁLVULAS Y ACCESORIOS							
115.5	UD BRIDA ENCHUFE FD 400 mm PN16/25 Brida enchufe de fundición dúctil de PFA 16/25 bar para tubería de 400 mm, con un revestimiento interior y exterior epoxi, i/p.p. de junta de unión y medios auxiliares, totalmente colocada y probada.	1				1,00	
	Salida						1,00
							1,00
114.6	UD BRIDA LISO FD 400 mm PN16/25 Brida lisa de fundición dúctil de PFA 16/25 bar para tubería de 400 mm, con un revestimiento interior y exterior epoxi, i/p.p. de junta de unión y medios auxiliares, totalmente colocada y probada.	1				1,00	
	Entrada						1,00

MEDICIONES

ABASTECIMIENTO A VARIOS MUNICIPIOS DE LA RIOJA. SISTEMA CIDACOS

CÓDIGO	RESUMEN	UDS	LONGITUD	ANCHURA	ALTURA	PARCIALES	CANTIDAD
							1,00
134	UD TE FD BBB 250 mm PN16/25 SALIDA DN250/60 "T" de fundición dúctil de PFA 16/25 bar, con tres bridas para tubería de 250 mm con salida comprendida entre 250 y 60 mm, con un revestimiento interior y exterior epoxi, i/p.p. de junta de unión y medios auxiliares, totalmente colocada y probada.						
	Ventosa tras reductora	1				1,00	
	Alivio tras reductora	1				1,00	
							2,00
121.1	UD TE FD BBB 400 mm PN16/25 SALIDA DN400/80 "T" de fundición dúctil de PFA 16/25 bar, con tres bridas para tubería de 400 mm con salida comprendida entre 400 y 80 mm, con un revestimiento interior y exterior epoxi, i/p.p. de junta de unión y medios auxiliares, totalmente colocada y probada.						
	Ventosa entrada	1				1,00	
	Derivación línea	2				2,00	
							3,00
098	UD REDUCCIÓN FD 400 A 350/250 mm PN16/25 Reducción en fundición dúctil de 400 mm a 350-300-250 mm con dos bridas PN 16/25 bar, con un revestimiento interior y exterior epoxi, i/p.p. de junta de unión y medios auxiliares, totalmente colocada y probada.						
	Reducción 400-250	2				2,00	
	Reducción 400-300	2				2,00	
							4,00
162	UD MANGUITO FD DN100 A DN250 mm PN16/25 Manguito de fundición dúctil con bridas diámetros de 100 a 250 mm, longitud comprendida entre 0,20 y 1,00 m y PN16/25, incluso p.p. de tornillería y medios auxiliares, totalmente colocado y probado.	10				10,00	
							10,00
162.1	UD MANGUITO FD DN300 A DN400 mm PN16/25 Manguito de fundición dúctil con bridas diámetros de 300 a 400 mm, longitud comprendida entre 0,20 y 1,00 m y PN16/25, incluso p.p. de tornillería y medios auxiliares, totalmente colocado y probado.	4				4,00	
							4,00
250.1	UD FILTRO COLADOR EN Y DN=250 mm PN16 Filtro colador en "Y" de diámetro nominal DN=250 mm y brida PN=16 bar de presión, incluso juntas de unión y tornillería, totalmente instalado.	2				2,00	
							2,00
229	UD VÁLVULA DE COMPUERTA MANUAL DN250 PN16 Válvula de compuerta de accionamiento manual de diámetro nominal DN=250 mm de 16 bares de presión máxima admisible, con tornillería y juntas, totalmente instalada y probada, incluso volante de accionamiento.	4				4,00	
							4,00
255.1	UD VÁLVULA REDUCTORA DE PRESIÓN DN=250 mm PN16 Válvula reductora de presión de diámetro DN=250 mm y PN 16 bar, incluso juntas de unión y tornillería, totalmente colocada y probada.	2				2,00	
							2,00
266.2	UD VÁLVULA LIMITADORA DE CAUDAL DN=250 mm PN16 Válvula limitadora de caudal de DN=250 mm PN16, incluso juntas de unión y tornillería, totalmente colocada y probada.	2				2,00	
							2,00

MEDICIONES

ABASTECIMIENTO A VARIOS MUNICIPIOS DE LA RIOJA. SISTEMA CIDACOS

CÓDIGO	RESUMEN	UDS	LONGITUD	ANCHURA	ALTURA	PARCIALES	CANTIDAD
268.2	UD VÁLVULA DE LLENADO DN=250 mm PN16 CIERRE LENTO Y SOLENOIDE Válvula de llenado de asiento inoxidable, con cierre lento y solenoide de diámetro nominal DN=250 mm y PN=16 bar, totalmente instalado y probado.	2				2,00	2,00
ECD25016	UD CARRETE DE DESMONTAJE DN=250 mm PN16 Carrete telescópico de desmontaje DN250 PN16, bridas de acero al carbono, virolas de acero inoxidable, protección epoxi, tornillos y tuercas en acero F-114, cincado y posterior baño de cromo-niquel, incluido p.p. de brida enchufe, totalmente instalado y probado en obra.	4				4,00	4,00
273	UD VÁLVULA ALIVIO DE PRESIÓN 3" PN 16 Válvula de alivio de presión de 3" brida PN 16 bar, incluso válvula de corte de 3", juntas de unión, y tornillería, totalmente colocada y probada. Tras reductora	2				2,00	2,00
245.2	UD VENTOSA DN=80 (3") mm PN16 Válvula ventosa de tres funciones de DN=80 mm (3") y PN 16 bar incluido transporte, juntas, válvula de corte DN=80 mm y PN 16y piezas especiales, totalmente colocada y probada. Entrada Tras reductora	1 2				1,00 2,00	3,00
079	UD CODO FD 1/4 400 mm Codo de fundición dúctil de 1/4 de diámetro interior 400 mm y PFA 30 bar, con revestimiento interior y exterior epoxi, incluso p.p. de juntas y medios auxiliares, totalmente colocado y probado.	4				4,00	4,00
APARTADO 08.02.03 INSTRUMENTACIÓN Y CONTROL							
300	UD BOYA DE NIVEL DE MÁXIMO Y MÍNIMO Boya de nivel cableada con la válvula de llenado, incluso montaje y pruebas.	2				2,00	2,00
280.1	UD CAUDALÍMETRO ELECTROMAGNÉTICO DN 250 mm PN10 Equipo medidor de caudal de DN250 mm. tipo electromagnético y PN=10 atm. con salida 4/20 mA, tensión 220 V y escala 0-240 m3/h, totalmente instalado y probado. Incluido transporte, montaje, conexiones eléctricas y pruebas de funcionamiento. Resto de características, según ET.	2				2,00	2,00
EMUSO01	UD MEDIDOR DE NIVEL POR ULTRASONIDOS Medidor de nivel por ultrasonidos. Pértiga en PP con brida. Incluso instalación y pruebas. Resto de características según E.T de proyecto.	1				1,00	1,00
APARTADO 08.02.04 INSTALACIÓN ELÉCTRICA DE BT							
563.1	ud PANTALLA ESTANCA LED Luminaria estanca WT120C LED80S/840 de Philips o equivalente para montaje en superficie de dimensiones 151x80, carcasa de policarbonato, óptica de polimetacrilato de metilo, flujo luminoso 8.000 lm, potencia 68 W, Tª color 4000 K, rango de Tª de 10°C a 35°C, protección IP-65 Clase I. Incluso p.p. de canalización y cableado, completamente instalado.	2				2,000	2,00
524.1	m LINEA 3x1.5mm2 Cu 0.6/1kV RZ1-K (AS) Línea eléctrica con conductor multipolares 3x1.5mm2 RZ1-K (AS) en canalización existente, incluso conexionado en inicio y final de línea.						48,82

MEDICIONES

ABASTECIMIENTO A VARIOS MUNICIPIOS DE LA RIOJA. SISTEMA CIDACOS

CÓDIGO	RESUMEN	UDS	LONGITUD	ANCHURA	ALTURA	PARCIALES	CANTIDAD
	Arqueta entrada	1	2,20	1,60		3,52	30,00
571	ud INTERRUPTOR EMPOTRAR SIMO 32 BLANCO. Interruptor empotrar blanco, totalmente instalado.	1				1,000	1,00
204	m TUBO DE PVC RÍGIDO DE 25 MM DIÁMETRO Tubo rígido de PVC d=25mm para canalización de conductores, incluso soportes y anclajes a pared, instalado.	1	50,000			50,000	50,00
APARTADO 08.02.05 VARIOS							
618	PA CONEXIÓN RED ELÉCTRICA BT CON DEPÓSITOS EXISTENTES Partida Alzada de Abono Íntegro para conexión de la red eléctrica en BT con depósitos existentes.	1				1,00	1,00
617.2	PA CONEXIÓN RED NUEVA CASETA CON DEPÓSITOS EXISTENTES FD 300-DN<500 Partida Alzada de Abono Íntegro para conexión de la red de abastecimiento desde la nueva caseta de válvulas con depósitos existentes, incluyendo, excavaciones, tuberías de fundición de diámetro desde 350 a 500 mm, rellenos, ayudas de albañilería, demoliciones, relleno de huecos con morteros sin retracción, anclaje de tuberías, así como todos los medios auxiliares necesarios para la conexión entre la salida de la nueva caseta de válvula y su salida al depósito.	1				1,00	1,00
617.3	PA CONEXIÓN ALIVIOS CON RED VACIADOS DEPÓSITO. Partida Alzada de Abono Íntegro para conexión de la salida de los alivios de la nueva caseta de válvulas con la red de vaciados del depósito, incluyendo, excavaciones, tuberías de PEAD DN de salida de alivio, rellenos, ayudas de albañilería, demoliciones, relleno de huecos con morteros sin retracción, anclaje de tuberías, así como todos los medios auxiliares necesarios para la conexión entre ambas tuberías.	1				1,00	1,00
SUBCAPÍTULO 08.03 ACOMETIDA A DEPÓSITO DE CALAHORRA							
APARTADO 08.03.01 OBRA CIVIL							
008	M2 DESPEJE Y DESBROCE Despeje y desbroce de capa de tierra vegetal con un espesor medio de 50 cm, incluso corte de árboles, extracción de tocones, nivelación de zona adyacente para el paso de maquinaria, transporte a lugar de acopio independiente para posterior reposición de tierra vegetal tras las obras y despedregado de las parcelas, así como transporte a vertedero de tierras sobrantes.	1	16,80	5,20		87,36	87,36
002	M3 EXCAVACIÓN EN ZANJAS Excavación en zanjas y zonas localizadas, en todo tipo de terrenos incluido terrenos en roca con medios mecánicos, incluso rasanteo, nivelación de la superficie de apoyo y transporte a lugar de empleo o vertedero.	1	15,80	5,80	2,00	183,28	183,28
010	M3 RELLENO ZANJAS, CIMIENTOS Y TRASDOSES DE MATERIAL SELECCIONADO Relleno con material seleccionado en zanjas, cimientos, trasdós de muros, estribos y otras estructuras procedente de la excavación o préstamos incluso carga, transporte y compactación.	1 -1 -1	183,28 14,80 14,40	5,20 5,20 4,80	0,40 0,40 1,50	183,28 -30,78 -103,68	48,82

MEDICIONES

ABASTECIMIENTO A VARIOS MUNICIPIOS DE LA RIOJA. SISTEMA CIDACOS

CÓDIGO	RESUMEN	UDS	LONGITUD	ANCHURA	ALTURA	PARCIALES	CANTIDAD
028	M3 HORMIGÓN DE LIMPIEZA HL-150 Hormigón de limpieza HL-150, de consistencia plástica, árido de tamaño máximo 40 mm y cemento CEM-II-D/42,5/SR, para saneos y encachados, incluyendo fabricación y transporte totalmente colocado.	1	14,80	5,20	0,10	7,70	
							7,70
031	M3 HORMIGÓN HA-25/B/20/IIa Hormigón HA-25/B/20/IIa, con cemento CEM II/A-D/42,5/SR, incluyendo fabricación, transporte, puesta en obra y vibrado, totalmente ejecutado, incluso curado y juntas.	1	14,80	5,20	0,40	30,78	30,78
	Solera	2	14,40	0,30	1,90	16,42	
	Muros	2	4,20	0,30	1,90	4,79	21,21
							51,99
023	KG ACERO CORRUGADO B-500-S Acero redondo corrugado para armar tipo B-500-S elaborado y colocado.	1	30,78	70,00		2.154,60	
	Solera	1	21,21	85,00		1.802,85	
	Muros	0,05	3.957,45			197,87	
	Solapes y despuntes (5%)						4.155,32
025	M2 ENCOFRADO RECTO EN PARAMENTOS OCULTOS Encofrado recto en paramentos ocultos, incluso colocación, fijación y desencofrado.	2	14,80		0,40	11,84	11,84
	Solera	2	5,20		0,40	4,16	
							16,00
026	M2 ENCOFRADO RECTO EN PARAMENTOS VISTOS 1C Encofrado recto en paramentos vistos a una cara, incluso colocación, fijación y desencofrado.	2	14,40		1,90	54,72	
	Muros	2	4,80		1,90	18,24	72,96
							72,96
052	ML JUNTAS DE ESTANQUEIDAD DE PVC 32 CM Junta de trabajo interior de policloruro de vinilo (PVC) 100% virgen, con una fuerza máxima de dilatación > 250 %, de 32 cm de ancho, MASTERFLEX 2000 TI-24 de BASF o equivalente, colocada simétricamente en el eje de la losa o muro, incluso solapes y piezas especiales para cruces o ángulos. Medida la longitud ejecutada.	2	14,40			28,80	
		2	4,80			9,60	
							38,40
462	M2 FÁBRICA BLOQUES 40x20x20 cm TIPO SPLIT COLOR Fábrica de bloques de hormigón tipo Split, de medidas 40x20x20 cm color i/relleno de hormigón y colocación de armaduras s/normativa y recibido con mortero de cemento y arena de río 1/6 i/p.p. de piezas especiales para dinteles y materialización de jambas, roturas, nivelados, aplomados, llagueados y limpieza, todo ello según normativa.	1	14,40		3,75	54,00	
	Muros	1	14,40		2,85	41,04	
		2	4,80		3,75	36,00	
	A deducir puerta	-1	1,00		2,20	-2,20	
	A deducir ventanas	-5	0,80		0,60	-2,40	
							126,44
520	M2 CUBIERTA PANEL SANDWICH (E=50 mm.) Cubierta con panel tipo sandwich espesor 50 cm., con doble chapa prelacada de 0,4 mm de espesor, y aislamiento térmico de poliuretano, fijada con gancho de acero galvanizado, incluso p.p de piezas de remate, totalmente colocada.	1	14,40	4,80		69,12	
							69,12

MEDICIONES

ABASTECIMIENTO A VARIOS MUNICIPIOS DE LA RIOJA. SISTEMA CIDACOS

CÓDIGO	RESUMEN	UDS	LONGITUD	ANCHURA	ALTURA	PARCIALES	CANTIDAD
519	ML REMATE DE CHAPA PRELACADA CUBIERTA Remate de chapa prelacada en color, para cubrir parte superior de bloque o panel, hasta el panel sandwich de la cubierta por el interior del peto, fijado mediante tacos y/o ganchos anclado a muro y o cubierta, dispuesto según planos.	1	14,40			14,40	
		2	4,80			9,60	
							24,00
465.1	M2 PUERTA DOBLE CHAPA ACERO CON LAMAS Puerta de paso hojas abatibles de doble chapa lisa de acero de 1 mm de espesor, con aislamiento interno de fibre de vidrio, engatillada, realizada en dos bandejas, con rigidizadores de tubo rectangular, i/manillas de acero inoxidable y cerradura, con dos o cuatro rejillas de ventilación con malla anti insectos interior, patillas para recibir en fábricas, herrajes de colgar y de seguridad, imprimación antióxido y pintura al esmalte, totalmente colocada incluyendo el recibido de fábricas.	1	1,00		2,20	2,20	
							2,20
464cf	M2 CARPINTERÍA FIJA ALUMINIO m². Carpintería fija con junquillos para la fijación del vidrio, de aluminio modelo con rotura de puente térmico, Alfil A54RPT de SAPAGROUP con un ancho de marco de 54 mm y con un ancho de hoja de 61 mm, medida del frente de 96,3 mm, con sistema de cámara europea, con espesor de perfil de 1,5 mm, con sistema de cierre por junta central de estanqueidad en EPDM, coplanar exteriormente y con resalte de hoja sobre el marco al interior, para un acristalamiento con altura de galce de 22 mm y anchura hasta 44 mm en marcos y 51 mm en hojas, lacado (entre 60-100 micras) en color estándar (RAL estándar: blanco, gris...), herrajes de colgar, p.p. de cerradura Tesa o similar y costes indirectos. Homologada con Clase 4 en el ensayo de permeabilidad al aire según norma UNE-EN 1026:2000. La transmitancia máxima del marco es de 2,90 W/m² K, y cumple en las zonas A, B, C, D y E, según el CTE/DB-HE 1.	4	0,80		0,60	1,92	
							1,92
464V3	M2 VIDRIO SEGURIDAD STADIP 44.1 INCOLORO (2B2) m². Acristalamiento de vidrio laminar de seguridad Stadip compuesto por dos vidrios de 4 mm de espesor unidos mediante lámina de butiral de polivinilo incolora de 0,38 mm, clasificado 2B2 según UNE-EN 12600, fijado sobre carpintería con acuñado mediante calzos de apoyo perimetrales y laterales y sellado en frío con silicona neutra, incluso colocación de junquillos, según UNE 85222:1985.	4	0,80		0,60	1,92	
							1,92
521	M2 CELOSIA FIJA VENTILACIÓN Celosía metálica fija para ventilación, formada por cerco con empanelado de lamas de acero de 60 mm, con abertura mínima de 1 cm entre lamas, malla de 2 mm para evitar entrada de insectos, garras de sujeción a soporte de 10 cm, elaborada en taller y montada en obra, totalmente colocada.	1	0,80		0,60	0,48	
							0,48
020	KG ACERO S 275 J PERFILES LAMINADOS Acero S 275 J en perfiles laminados elaborado y colocado.	7	14,40	8,10		816,48	
	Correas IPE-100	5	4,80	18,80		451,20	
	Vigas IPE-180	5	3,30	20,40		336,60	
	Pilar HEB-100	5	2,67	20,40		272,34	
	Polipasto IPE-180	2	15,00	18,80		564,00	
							2.440,62
474.1	ML CANALON CHAPA PRELACADA 50cm Canalón de chapa prelacada en color, de 50 cm. de desarrollo fijado mediante ganchos ocultos con tornillo autoroscante 40 cm., incluso p.p. de embocadura de bajante, codos y piezas especiales.	1	16,40			16,40	
							16,40

MEDICIONES

ABASTECIMIENTO A VARIOS MUNICIPIOS DE LA RIOJA. SISTEMA CIDACOS

CÓDIGO	RESUMEN	UDS	LONGITUD	ANCHURA	ALTURA	PARCIALES	CANTIDAD
474.2	ML BAJANTE DE CHAPA PRELACADA DN110 Bajante de chapa prelacada en color, DN110, fijado mediante ganchos con tornillo autoroscante 20 cm., incluso p.p. de embocadura de bajante, codos y piezas especiales.	2			3,30	6,60	6,60
290B	M2 ESCALERA Y PASARELAS DE ACERO GALVANIZADO. BARANDILLAS GALVANIZ Escalera y pasarelas de acceso de forma segun planos, ejecutada en perfiles de acero galvanizado en caliente, incluso barandilla tubular del mismo material, de 90 cm de altura en uno o dos lados, rodapié de seguridad del mismo en uno o dos lados, así como entramado metálico de 30x30x3 en descansillos y peldaños, medida según su proyección en planta. Anclada a los muros y/o solera, instalada. Entrada Pasarela	1 2	4,20 1,00	1,00 0,60		4,20 1,20	5,40
620	UD APOYOS DE TUBERÍA Y VÁLVULAS SOBRE SOLERA Apoyos de tuberías y válvulas en soleras, mediante dado de hormigón HA-25/P/20/IIa, ligeramente armado y anclado a la solera, así como cintas o eslingas de acero con material de protección de tubería para sujeción de las mismas, incluyendo el hormigón, encofrados, acero, eslingas, material de PE de protección, montado.	14				14,00	14,00
290	UD PATE POLIPROPILENO Pate de polipropileno de dimensiones 30x25 cm, incluyendo fabricación, transporte a obra, perforación de anclajes y relleno con aportación de material de agarre, completamente colocado.	12				12,00	12,00
290AA	ML ESCALERA TUBULAR GALVANIZADO CON ELEMENTOS ANTICAIDA Formación de escalera tubular de 50 mm de diámetro, de acero galvanizado, incluso protecciones circulares contra caídas según normativa, anclada a la pared y/o muros, totalmente ejecutada.	1			3,10	3,10	3,10
APARTADO 08.03.02 VÁLVULAS Y ACCESORIOS							
115.4	UD BRIDA ENCHUFE FD 500 mm PN16/25 Brida enchufe de fundición dúctil de PFA 16 bar para tubería de 500 mm, con un revestimiento interior y exterior epoxi, i/p.p. de junta de unión y medios auxiliares, totalmente colocada y probada.	2				2,00	2,00
115.12	UD BRIDA ENCHUFE FD 300 mm PN16 Brida enchufe de fundición dúctil de PFA 16 bar para tubería de 300 mm, con un revestimiento interior y exterior epoxi, i/p.p. de junta de unión y medios auxiliares, totalmente colocada y probada. Salida	2				2,00	2,00
133	UD TE FD BBB 500 mm PN16/25 SALIDA DN500/100 "T" de fundición dúctil de PFA 16/25 bar, con tres bridas para tubería de 500 mm con salida comprendida entre 400 y 100 mm, con un revestimiento interior y exterior epoxi, i/p.p. de junta de unión y medios auxiliares, totalmente colocada y probada. Ventosa entrada	1				1,00	1,00
125	UD TE FD BBB 300 mm PN16/25 SALIDA DN300/40 "T" de fundición dúctil de PFA 16/25 bar, con tres bridas para tubería de 300 mm con salida comprendida entre 300 y 40 mm, con un revestimiento interior y exterior epoxi, i/p.p. de junta de unión y medios auxiliares, totalmente colocada y probada. Duplicación Ventosa Alivio	1 2 2				1,00 2,00 2,00	

MEDICIONES

ABASTECIMIENTO A VARIOS MUNICIPIOS DE LA RIOJA. SISTEMA CIDACOS

CÓDIGO	RESUMEN	UDS	LONGITUD	ANCHURA	ALTURA	PARCIALES	CANTIDAD
	Arqueta entrada	1	2,20	1,60		3,52	7,00
097	UD REDUCCIÓN FD 500 A 450/350 mm PN16/25 Reducción en fundición dúctil de 500 mm a 450-400-350 mm con dos bridas PN 16/25 bar, con un revestimiento interior y exterior epoxi, i/p.p. de junta de unión y medios auxiliares, totalmente colocada y probada. 500-400	1				1,00	1,00
162.1	UD MANGUITO FD DN300 A DN400 mm PN16/25 Manguito de fundición dúctil con bridas diámetros de 300 a 400 mm, longitud comprendida entre 0,20 y 1,00 m y PN16/25, incluso p.p. de tornillería y medios auxiliares, totalmente colocado y probado. Entre valuleria By-ass	2 2 2 2 1 2				2,00 2,00 2,00 2,00 1,00 2,00	11,00
255.3	UD VÁLVULA REDUCTORA DE PRESIÓN DN=300 mm PN25 Válvula reductora de presión de diámetro DN=300 mm y PN 25 bar, incluso juntas de unión y tornillería, totalmente colocada y probada.	3				3,00	3,00
268.5	UD VÁLVULA DE LLENADO DN=300 mm PN16 CIERRE LENTO Y SOLENOIDE Válvula de llenado de asiento inoxidable, con cierre lento y solenoide de diámetro nominal DN=300 mm y PN=16 bar, totalmente instalado y probado.	2				2,00	2,00
229.1	UD VÁLVULA DE COMPUERTA MANUAL DN300 PN16 Válvula de compuerta de accionamiento manual de diámetro nominal DN=300 mm de 16 bares de presión máxima admisible, con tornillería y juntas, totalmente instalada y probada, incluso volante de accionamiento. By-pass Anterior by-pass	1 2				1,00 2,00	3,00
229.2	UD VÁLVULA DE COMPUERTA MANUAL DN300 PN25 Válvula de compuerta de accionamiento manual de diámetro nominal DN=300 mm de 25 bares de presión máxima admisible, con tornillería y juntas, totalmente instalada y probada, incluso volante de accionamiento. Entrada	2				2,00	2,00
ECD0300	UD CARRETE DE DESMONTAJE DN=300 mm PN16 Carrete telescópico de desmontaje DN300 PN16, bridas de acero al carbono, virolas de acero inoxidable, protección epoxi, tornillos y tuercas en acero F-114, cincado y posterior baño de cromo-niquel, incluido p.p. de brida enchufe, totalmente instalado y probado en obra. Salida Caudalímetro	2 2				2,00 2,00	4,00
ECD0300.1	UD CARRETE DE DESMONTAJE DN=300 mm PN25 Carrete telescópico de desmontaje DN300 PN25, bridas de acero al carbono, virolas de acero inoxidable, protección epoxi, tornillos y tuercas en acero F-114, cincado y posterior baño de cromo-niquel, incluido p.p. de brida enchufe, totalmente instalado y probado en obra. Entrada	2				2,00	2,00

MEDICIONES

ABASTECIMIENTO A VARIOS MUNICIPIOS DE LA RIOJA. SISTEMA CIDACOS

CÓDIGO	RESUMEN	UDS	LONGITUD	ANCHURA	ALTURA	PARCIALES	CANTIDAD
244	UD VENTOSA DN=100 (4") mm PN25 Válvula ventosa de tres funciones de DN=100 mm y PN 25 bar incluido transporte, juntas, válvula de corte DN=100 mm y PN 25 bar y piezas especiales, totalmente colocada y probada. Entrada	1				1,00	1,00
244.1	UD VENTOSA DN=100 (4") mm PN16 Válvula ventosa de tres funciones de DN=100 mm y PN 16 bar incluido transporte, juntas, válvula de corte DN=100 mm y PN 16 bar y piezas especiales, totalmente colocada y probada. Tras reductora	2				2,00	2,00
079.1	UD CODO FD 1/4 300 mm Codo de fundición dúctil de 1/4 de diámetro interior 300 mm y PFA 30 bar, con revestimiento interior y exterior epoxi, incluso p.p. de juntas y medios auxiliares, totalmente colocado y probado.	2				2,00	2,00
250.2	UD FILTRO COLADOR EN Y DN=300 mm PN25 Filtro colador en "Y" de diámetro nominal DN=300 mm y brida PN=25 bar de presión, incluso juntas de unión y tornillería, totalmente instalado.	2				2,00	2,00
266.5	UD VÁLVULA LIMITADORA DE CAUDAL DN=300 mm PN16 Válvula limitadora de caudal de DN=300 mm PN16 tipo MULTINAR de Ross o equivalente, eléctrica, incluso juntas de unión y tornillería, conexión eléctrica, totalmente colocada y probada.	2				2,00	2,00
273.2	UD VÁLVULA ALIVIO DE PRESIÓN 4" PN 16 Válvula de alivio de presión de 4" brida PN 16 bar, incluso válvula de corte de 4", juntas de unión, y tornillería, totalmente colocada y probada. Tras reductora	2				2,00	2,00
062	ML TUBERÍA FD 300 mm Tubería de fundición dúctil de diámetro interior 300 mm y PFA de 49 bar, revestida interiormente con mortero de cemento y exteriormente con una capa de cinc y otra bituminosa, i/p.p. de junta automática flexible, banda de señalización y medios auxiliares, totalmente colocada y probada.	2	1,50			3,00	3,00
		2	0,90			1,80	1,80
							4,80
EGTM01	UD GRIFO TOMAMUESTRAS PN16/25 Grifo tomamuestras de 3/4" colocado en tubería de acero inoxidable por picaje, incluida la válvula PN16/25, montada y probada.	2				2,00	2,00
EVCMT300	UD VÁLVULA DE COMPUERTA MOTORIZADA DN300 PN16 Válvula de compuerta de cierre elástico de 300 mm. de diámetro nominal y 16 At. de P.N., de accionamiento motorizado, de cuerpo de fundición nodular GGG-50, con eje de acero inoxidable al 13 % Cr. con roscas conformadas por laminación en frío, cierre en fundición nodular, tornillería de acero inoxidable, protegida contra la corrosión mediante aplicación de doble capa de pintura epoxi, totalmente colocada y probada. Resto de características según ET. Salida	2				2,00	2,00

MEDICIONES

ABASTECIMIENTO A VARIOS MUNICIPIOS DE LA RIOJA. SISTEMA CIDACOS

CÓDIGO	RESUMEN	UDS	LONGITUD	ANCHURA	ALTURA	PARCIALES	CANTIDAD
APARTADO 08.03.03 INSTRUMENTACIÓN Y CONTROL							
300	UD BOYA DE NIVEL DE MÁXIMO Y MÍNIMO Boya de nivel cableada con la válvula de llenado, incluso montaje y pruebas. Elevado Superficial	1				1,00	1,00
		1				1,00	1,00
							2,00
280.2	UD CAUDALÍMETRO ELECTROMAGNÉTICO DN 300 mm PN10 Equipo medidor de caudal de DN300mm. tipo electromagnético y PN=10 atm. con salida 4/20 mA, tensión 220 V y escala 0-240 m3/h, totalmente instalado y probado. Incluido transporte, montaje, conexiones eléctricas y pruebas de funcionamiento. Resto de características, según ET.	2				2,00	2,00
EMUSO01	UD MEDIDOR DE NIVEL POR ULTRASONIDOS Medidor de nivel por ultrasonidos. Pértiga en PP con brida. Incluso instalación y pruebas. Resto de características según E.T de proyecto.	2				2,000	2,000
							2,00
APARTADO 08.03.04 INSTALACIÓN ELÉCTRICA DE BT							
563.1	ud PANTALLA ESTANCA LED Luminaria estanca WT120C LED80S/840 de Philips o equivalente para montaje en superficie de dimensiones 1515x80, carcasa de policarbonato, óptica de polimetacrilato de metilo, flujo luminoso 8.000 lm, potencia 68 W, Tª color 4000 K, rango de Tª de 10°C a 35°C, protección IP-65 Clase I. Incluso p.p. de canalización y cableado, completamente instalado.	2				2,000	2,000
							2,00
524.1	m LINEA 3x1.5mm2 Cu 0.6/1kV RZ1-K (AS) Línea eléctrica con conductor multipolares 3x1.5mm2 RZ1-K (AS) en canalización existente, incluso conexionado en inicio y final de línea.	1	30,000			30,000	30,000
							30,00
571	ud INTERRUPTOR EMPOTRAR SIMO 32 BLANCO. Interruptor empotrar blanco, totalmente instalado.	1				1,000	1,000
							1,00
204	m TUBO DE PVC RÍGIDO DE 25 MM DIÁMETRO Tubo rígido de PVC d=25mm para canalización de conductores, incluso soportes y anclajes a pared, instalado.	1	50,000			50,000	50,000
							50,00
APARTADO 08.03.05 VARIOS							
618	PA CONEXIÓN RED ELÉCTRICA BT CON DEPÓSITOS EXISTENTES Partida Alzada de Abono Íntegro para conexión de la red eléctrica en BT con depósitos existentes.	1				1,00	1,00
							1,00
617.1	PA CONEXIÓN RED NUEVA CASETA CON DEPÓSITOS EXISTENTES FD DN<300 Partida Alzada de Abono Íntegro para conexión de la red de abastecimiento desde la nueva caseta de válvulas con depósitos existentes, incluyendo, excavaciones, tuberías de fundición de diámetro hasta 300 mm, rellenos, ayudas de albañilería, demoliciones, relleno de huecos con morteros sin retracción, anclaje de tuberías, así como todos los medios auxiliares necesarios para la conexión entre la salida de la nueva caseta de válvula y su salida al depósito. Elevado Superficial	1				1,00	1,00
		1				1,00	1,00
							2,00

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ABASTECIMIENTO A VARIOS MUNICIPIOS DE LA RIOJA. SISTEMA CIDACOS

CÓDIGO	RESUMEN	UDS	LONGITUD	ANCHURA	ALTURA	PARCIALES	CANTIDAD
617.3	PA CONEXIÓN ALIVIOS CON RED VACIADOS DEPÓSITO. Partida Alzada de Abono Íntegro para conexión de la salida de los alivios de la nueva caseta de válvulas con la red de vaciados del depósito, incluyendo, excavaciones, tuberías de PEAD DN de salida de alivio, rellenos, ayudas de albañilería, demoliciones, relleno de huecos con morteros sin retracción, anclaje de tuberías, así como todos los medios auxiliares necesarios para la conexión entre ambas tuberías.	1				1,00	1,00
							1,00
SUBCAPÍTULO 08.04 ACOMETIDA A DEPÓSITO VALLE DE OCÓN							
APARTADO 08.04.01 OBRA CIVIL							
008	M2 DESPEJE Y DESBROCE Despeje y desbroce de capa de tierra vegetal con un espesor medio de 50 cm, incluso corte de árboles, extracción de tocones, nivelación de zona adyacente para el paso de maquinaria, transporte a lugar de acopio independiente para posterior reposición de tierra vegetal tras las obras y despedregado de las parcelas, así como transporte a vertedero de tierras sobrantes.	1	4,20	3,60		15,12	15,12
							20,41
002	M3 EXCAVACIÓN EN ZANJAS Excavación en zanjas y zonas localizadas, en todo tipo de terrenos incluido terrenos en roca con medios mecánicos, incluso rasanteo, nivelación de la superficie de apoyo y transporte a lugar de empleo o vertedero.	1	4,20	3,60	1,35	20,41	20,41
							2,81
010	M3 RELLENO ZANJAS, CIMIENTOS Y TRASDOSES DE MATERIAL SELECCIONADO Relleno con material seleccionado en zanjas, cimientos, trasdós de muros, estribos y otras estructuras procedente de la excavación o préstamos incluso carga, transporte y compactación.	1	20,41			20,41	20,41
							-6,05
							-11,55
							1,43
028	M3 HORMIGÓN DE LIMIPEZA HL-150 Hormigón de limpieza HL-150, de consistencia plástica, árido de tamaño máximo 40 mm y cemento CEM-II-D/42,5/SR, para saneos y encachados, incluyendo fabricación y transporte totalmente colocado.	1	4,20	3,40	0,10	1,43	1,43
							4,28
							2,62
							4,83
							9,11
023	KG ACERO CORRUGADO B-500-S Acero redondo corrugado para armar tipo B-500-S elaborado y colocado.	1	4,28	70,00		299,60	299,60
							410,55
							35,51
							745,66
025	M2 ENCOFRADO RECTO EN PARAMENTOS OCULTOS Encofrado recto en paramentos ocultos, incluso colocación, fijación y desencofrado.	2	4,20		0,30	2,52	2,52
							2,16
							4,68

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ABASTECIMIENTO A VARIOS MUNICIPIOS DE LA RIOJA. SISTEMA CIDACOS

CÓDIGO	RESUMEN	UDS	LONGITUD	ANCHURA	ALTURA	PARCIALES	CANTIDAD
026	M2 ENCOFRADO RECTO EN PARAMENTOS VISTOS 1C Encofrado recto en paramentos vistos a una cara, incluso colocación, fijación y desencofrado.	4	3,80		1,15	17,48	17,48
							14,72
							32,20
052	ML JUNTAS DE ESTANQUEIDAD DE PVC 32 CM Junta de trabajo interior de policloruro de vinilo (PVC) 100% virgen, con una fuerza máxima de dilatación > 250 % , de 32 cm de ancho, MASTERFLEX 2000 TI-24 de BASF o equivalente, colocada simétricamente en el eje de la losa o muro, incluso solapes y piezas especiales para cruces o ángulos. Medida la longitud ejecutada.	2	3,80			7,60	7,60
							6,40
							14,00
462	M2 FÁBRICA BLOQUES 40x20x20 cm TIPO SPLIT COLOR Fábrica de bloques de hormigón tipo Split, de medidas 40x20x20 cm color i/relleno de hormigón y colocación de armaduras s/normativa y recibido con mortero de cemento y arena de río 1/6 i/p.p. de piezas especiales para dinteles y materialización de jambas, roturas, nivelados, aplomados, llagueados y limpieza, todo ello según normativa.	2	3,80		3,15	23,94	23,94
							21,44
							-1,76
							-0,96
							42,66
520	M2 CUBIERTA PANEL SANDWICH (E=50 mm.) Cubierta con panel tipo sandwich espesor 50 cm., con doble chapa prelacada de 0,4 mm de espesor, y aislamiento térmico de poliuretano, fijada con gancho de acero galvanizado, incluso p.p de piezas de remate, totalmente colocada.	1	3,80	3,20		12,16	12,16
							3,80
							6,40
							10,20
519	ML REMATE DE CHAPA PRELACADA CUBIERTA Remate de chapa prelacada en color, para cubrir parte superior de bloque o panel, hasta el panel sandwich de la cubierta por el interior del peto, fijado mediante tacos y/o ganchos anclado a muro y o cubierta, dispuesto según planos.	1	3,80			3,80	3,80
							6,40
							1,76
							1,76
465.1	M2 PUERTA DOBLE CHAPA ACERO CON LAMAS Puerta de paso hojas abatibles de doble chapa lisa de acero de 1 mm de espesor, con aislamiento interno de fibra de vidrio, engatillada, realizada en dos bandejas, con rigidizadores de tubo rectangular, i/manillas de acero inoxidable y cerradura, con dos o cuatro rejillas de ventilación con malla anti insectos interior, patillas para recibir en fábricas, herrajes de colgar y de seguridad, imprimación antióxido y pintura al esmalte, totalmente colocada incluyendo el recibido de fábricas.	1	0,80		2,20	1,76	1,76
							0,48
							0,48

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CÓDIGO	RESUMEN	UDS	LONGITUD	ANCHURA	ALTURA	PARCIALES	CANTIDAD
464V3	M2 VIDRIO SEGURIDAD STADIP 44.1 INCOLORO (2B2) m². Acristalamiento de vidrio laminar de seguridad Stadip compuesto por dos vidrios de 4 mm de espesor unidos mediante lámina de butiral de polivinilo incolora de 0,38 mm, clasificado 2B2 según UNE-EN 12600, fijado sobre carpintería con acuíñado mediante calzos de apoyo perimetrales y laterales y sellado en frío con silicona neutra, incluso colocación de junquillos, según UNE 85222:1985.	1	0,80		0,60	0,48	0,48
521	M2 CELOSIA FIJA VENTILACIÓN Celosía metálica fija para ventilación, formada por cerco con empanelado de lamas de acero de 60 mm, con abertura mínima de 1 cm entre lamas, malla de 2 mm para evitar entrada de insectos, garras de sujeción a soporte de 10 cm, elaborada en taller y montada en obra, totalmente colocada.	1	0,80		0,60	0,48	0,48
020	KG ACERO S 275 J PERFILES LAMINADOS Acero S 275 J en perfiles laminados elaborado y colocado. Correas IPE-120 Vigas IPE-160 Pilares HEB-100	3 2 2 2	3,80 3,20 3,00 2,60	10,40 15,80 20,40 20,40		118,56 101,12 122,40 106,08	448,16
474.1	ML CANALON CHAPA PRELACADA 50cm Canalón de chapa prelacada en color, de 50 cm. de desarrollo fijado mediante ganchos ocultos con tornillo autoroscante 40 cm., incluso p.p. de embocadura de bajante, codos y piezas especiales.	1	3,80			3,80	3,80
474.2	ML BAJANTE DE CHAPA PRELACADA DN110 Bajante de chapa prelacada en color, DN110, fijado mediante ganchos con tornillo autoroscante 20 cm., incluso p.p. de embocadura de bajante, codos y piezas especiales.	1			2,60	2,60	2,60
290B	M2 ESCALERA Y PASARELAS DE ACERO GALVANIZADO. BARANDILLAS GALVANIZ Escalera y pasarelas de acceso de forma según planos, ejecutada en perfiles de acero galvanizado en caliente, incluso barandilla tubular del mismo material, de 90 cm de altura en uno o dos lados, rodapié de seguridad del mismo en uno o dos lados, así como entramado metálico de 30x30x3 en descansillos y peldaños, medida según su proyección en planta. Anclada a los muros y/o solera, instalada. Escalera	1	2,15	0,90		1,94	1,94
620	UD APOYOS DE TUBERÍA Y VÁLVULAS SOBRE SOLERA Apoyos de tuberías y válvulas en soleras, mediante dado de hormigón HA-25/P/20/IIa, ligeramente armado y anclado a la solera, así como cintas o eslingas de acero con material de protección de tubería para sujeción de las mismas, incluyendo el hormigón, encofrados, acero, eslingas, material de PE de protección, montado.	4				4,00	4,00

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CÓDIGO	RESUMEN	UDS	LONGITUD	ANCHURA	ALTURA	PARCIALES	CANTIDAD
APARTADO 08.04.02 VÁLVULAS Y ACCESORIOS							
115.6	UD BRIDA ENCHUFE FD 250 mm PN16/25 Brida enchufe de fundición dúctil de PFA 16/25 bar para tubería de 250 mm, con un revestimiento interior y exterior epoxi, i/p.p. de junta de unión y medios auxiliares, totalmente colocada y probada.	2				2,00	2,00
134	UD TE FD BBB 250 mm PN16/25 SALIDA DN250/60 "T" de fundición dúctil de PFA 16/25 bar, con tres bridas para tubería de 250 mm con salida comprendida entre 250 y 60 mm, con un revestimiento interior y exterior epoxi, i/p.p. de junta de unión y medios auxiliares, totalmente colocada y probada.	1				1,00	1,00
106	UD REDUCCIÓN FD 250 A 200/125 mm PN16 Reducción en fundición dúctil de 250 mm a 200-150-125 mm con dos bridas PN 25 bar, con un revestimiento interior y exterior epoxi, i/p.p. de junta de unión y medios auxiliares, totalmente colocada y probada.	2				2,00	2,00
109	UD REDUCCIÓN FD 200 A 150/100 mm PN16 Reducción en fundición dúctil de 200 mm a 150-125-100 mm con dos bridas PN 16 bar, con un revestimiento interior y exterior epoxi, i/p.p. de junta de unión y medios auxiliares, totalmente colocada y probada.	1				1,00	1,00
162	UD MANGUITO FD DN100 A DN250 mm PN16/25 Manguito de fundición dúctil con bridas diámetros de 100 a 250 mm, longitud comprendida entre 0,20 y 1,00 m y PN16/25, incluso p.p. de tornillería y medios auxiliares, totalmente colocado y probado.	3				3,00	3,00
248	UD FILTRO COLADOR EN Y DN=200 mm PN16 Filtro colador en "Y" de diámetro nominal DN=200 mm y brida PN=16 bar de presión, incluso juntas de unión y tornillería, totalmente instalado.	1				1,00	1,00
266.3	UD VÁLVULA LIMITADORA DE CAUDAL DN=200 mm PN16 Válvula limitadora de caudal de DN=200 mm PN16, incluso juntas de unión y tornillería, totalmente colocada y probada.	1				1,00	1,00
143	UD CARRETE DE DESMONTAJE DN=200 mm PN16 Carrete telescópico de desmontaje DN200 PN 16, bridas de acero al carbono, virolas de acero inoxidable, protección epoxi, tornillos y tuercas en acero F-114, cincado y posterior baño de cromo-niquel, incluido p.p. de brida enchufe, totalmente instalado y probado en obra.	1				1,00	1,00
ECD15016	UD CARRETE DE DESMONTAJE DN=150 mm PN16 Carrete telescópico de desmontaje DN150 PN16, bridas de acero al carbono, virolas de acero inoxidable, protección epoxi, tornillos y tuercas en acero F-114, cincado y posterior baño de cromo-niquel, incluido p.p. de brida enchufe, totalmente instalado y probado en obra.	1				1,00	1,00
245.4	UD VENTOSA DN=50 (2") mm PN16 Válvula ventosa de tres funciones de DN=50 mm (2") y PN 16 bar incluido transporte, juntas, válvula de corte DN=50 mm y PN 16 y piezas especiales, totalmente colocada y probada.						1,00

MEDICIONES

ABASTECIMIENTO A VARIOS MUNICIPIOS DE LA RIOJA. SISTEMA CIDACOS

CÓDIGO	RESUMEN	UDS	LONGITUD	ANCHURA	ALTURA	PARCIALES	CANTIDAD
	Arqueta entrada	1	2,20	1,60		3,52	
							1,00
084	UD CODO FD 1/4 200 mm Codo de fundición ductil de 1/4 de diámetro interior 200 mm y PFA 16 bar, con revestimiento interior y exterior epoxi, incluso p.p. de juntas y medios auxiliares, totalmente colocado y probado.	1				1,00	
							1,00
APARTADO 08.04.03 INSTRUMENTACIÓN Y CONTROL							
300	UD BOYA DE NIVEL DE MÁXIMO Y MÍNIMO Boya de nivel cableada con la válvula de llenado, incluso montaje y pruebas.	2				2,00	
							2,00
281	UD CAUDALÍMETRO ELECTROMAGNÉTICO DN 150 mm PN10 Equipo medidor de caudal de DN 150 mm. tipo electromagnético y PN=25 atm. con salida 4/20 mA, tensión 220 V y escala 0-240 m3/h, totalmente instalado y probado. Incluido transporte, montaje, conexiones eléctricas y pruebas de funcionamiento. Resto de características, según ET.	1				1,00	
							1,00
APARTADO 08.04.05 VARIOS							
618	PA CONEXIÓN RED ELÉCTRICA BT CON DEPÓSITOS EXISTENTES Partida Alzada de Abono Íntegro para conexión de la red eléctrica en BT con depósitos existentes.	1				1,00	
							1,00
617.1	PA CONEXIÓN RED NUEVA CASETA CON DEPÓSITOS EXISTENTES FD DN<300 Partida Alzada de Abono Íntegro para conexión de la red de abastecimiento desde la nueva caseta de válvulas con depósitos existentes, incluyendo, excavaciones, tuberías de fundición de diámetro hasta 300 mm, rellenos, ayudas de albañilería, demoliciones, relleno de huecos con morteros sin retracción, anclaje de tuberías, así como todos los medios auxiliares necesarios para la conexión entre la salida de la nueva caseta de válvula y su salida al depósito.	1				1,00	
							1,00
SUBCAPÍTULO 08.05 ACOMETIDA A DEPÓSITO DE PRADEJÓN							
APARTADO 08.05.01 OBRA CIVIL							
008	M2 DESPEJE Y DESBROCE Despeje y desbroce de capa de tierra vegetal con un espesor medio de 50 cm, incluso corte de árboles, extracción de tocones, nivelación de zona adyacente para el paso de maquinaria, transporte a lugar de acopio independiente para posterior reposición de tierra vegetal tras las obras y despedregado de las parcelas, así como transporte a vertedero de tierras sobrantes.					29,44	
	Solera	1	9,20	3,20		29,44	
							29,44
002	M3 EXCAVACIÓN EN ZANJAS Excavación en zanjas y zonas localizadas, en todo tipo de terrenos incluido terrenos en roca con medios mecánicos, incluso rasanteo, nivelación de la superficie de apoyo y transporte a lugar de empleo o vertedero.	1	9,20	3,20	1,50	44,16	
							44,16
010	M3 RELLENO ZANJAS, CIMIENTOS Y TRASDOSES DE MATERIAL SELECCIONADO Relleno con material seleccionado en zanjas, cimientos, trasdós de muros, estribos y otras estructuras procedente de la excavación o préstamos incluso carga, transporte y compactación.	1	44,16			44,16	
		-1	9,20	3,20	0,30	-8,83	
		-1	8,80	2,80	1,50	-36,96	
							-1,63

MEDICIONES

ABASTECIMIENTO A VARIOS MUNICIPIOS DE LA RIOJA. SISTEMA CIDACOS

CÓDIGO	RESUMEN	UDS	LONGITUD	ANCHURA	ALTURA	PARCIALES	CANTIDAD
028	M3 HORMIGÓN DE LIMPIEZA HL-150 Hormigón de limpieza HL-150, de consistencia plástica, árido de tamaño máximo 40 mm y cemento CEM-II-D/42,5/SR, para saneos y encachados, incluyendo fabricación y transporte totalmente colocado.	1	8,80	3,20	0,10	2,82	
							2,82
031	M3 HORMIGÓN HA-25/B/20/IIa Hormigón HA-25/B/20/IIa, con cemento CEM III/A-D/42,5/SR, incluyendo fabricación, transporte, puesta en obra y vibrado, totalmente ejecutado, incluso curado y juntas.						
	Solera	1	8,80	3,20	0,30	8,45	8,45
	Muros	2	8,40	0,30	1,50	7,56	
		2	2,00	0,30	1,50	1,80	9,36
							17,81
023	KG ACERO CORRUGADO B-500-S Acero redondo corrugado para armar tipo B-500-S elaborado y colocado.						
	Solera	1	8,44	70,00		590,80	
	Muros	1	9,36	85,00		795,60	
							1.386,40
025	M2 ENCOFRADO RECTO EN PARAMENTOS OCULTOS Encofrado recto en paramentos ocultos, incluso colocación, fijación y desencofrado.						
	Solera	2	9,20		0,40	7,36	7,36
		2	3,20		0,40	2,56	
							9,92
026	M2 ENCOFRADO RECTO EN PARAMENTOS VISTOS 1C Encofrado recto en paramentos vistos a una cara, incluso colocación, fijación y desencofrado.						
	Muros	4	8,40		1,50	50,40	
		4	2,00		1,50	12,00	62,40
							62,40
052	ML JUNTAS DE ESTANQUEIDAD DE PVC 32 CM Junta de trabajo interior de policloruro de vinilo (PVC) 100% virgen, con una fuerza máxima de dilatación > 250 % , de 32 cm de ancho, MASTERFLEX 2000 TI-24 de BASF o equivalente, colocada simétricamente en el eje de la losa o muro, incluso solapes y piezas especiales para cruces o ángulos. Medida la longitud ejecutada.						
		2	8,80			17,60	
		2	2,80			5,60	
							23,20
462	M2 FÁBRICA BLOQUES 40x20x20 cm TIPO SPLIT COLOR Fábrica de bloques de hormigón tipo Split, de medidas 40x20x20 cm color i/relleno de hormigón y colocación de armaduras s/normativa y recibido con mortero de cemento y arena de río 1/6 i/p.p. de piezas especiales para dinteles y materialización de jambas, roturas, nivelados, aplomados, llagueados y limpieza, todo ello según normativa.						
	Muros	1	8,80		3,50	30,80	
		1	8,80		2,85	25,08	
		2	2,80		3,50	19,60	
	A deducir puerta	-1	0,80		2,20	-1,76	
	A deducir ventanas	-2	0,80		0,60	-0,96	
							72,76
520	M2 CUBIERTA PANEL SANDWICH (E=50 mm.) Cubierta con panel tipo sandwich espesor 50 cm., con doble chapa prelacada de 0,4 mm de espesor, y aislamiento térmico de poliuretano, fijada con gancho de acero galvanizado, incluso p.p de piezas de remate, totalmente colocada.						
		1	8,80	2,80		24,64	
							24,64

MEDICIONES

ABASTECIMIENTO A VARIOS MUNICIPIOS DE LA RIOJA. SISTEMA CIDACOS

CÓDIGO	RESUMEN	UDS	LONGITUD	ANCHURA	ALTURA	PARCIALES	CANTIDAD
519	ML REMATE DE CHAPA PRELACADA CUBIERTA Remate de chapa prelacada en color, para cubrir parte superior de bloque o panel, hasta el panel sandwich de la cubierta por el interior del peto, fijado mediante tacos y/o ganchos anclado a muro y o cubierta, dispuesto según planos.	1	8,80			8,80	
		2	2,80			5,60	
							14,40
465.1	M2 PUERTA DOBLE CHAPA ACERO CON LAMAS Puerta de paso hojas abatibles de doble chapa lisa de acero de 1 mm de espesor, con aislamiento interno de fibre de vidrio, engatillada, realizada en dos bandejas, con rigidizadores de tubo rectangular, i/manillas de acero inoxidable y cerradura, con dos o cuatro rejillas de ventilación con malla anti insectos interior, patillas para recibir en fábricas, herrajes de colgar y de seguridad, imprimación antióxido y pintura al esmalte, totalmente colocada incluyendo el recibido de fábricas.	1	0,80		2,20	1,76	
							1,76
464cf	M2 CARPINTERÍA FIJA ALUMINIO m². Carpintería fija con junquillos para la fijación del vidrio, de aluminio modelo con rotura de puente térmico, Alfil A54RPT de SAPAGROUP con un ancho de marco de 54 mm y con un ancho de hoja de 61 mm, medida del frente de 96,3 mm, con sistema de cámara europea, con espesor de perfil de 1,5 mm, con sistema de cierre por junta central de estanqueidad en EPDM, coplanar exteriormente y con resalte de hoja sobre el marco al interior, para un acristalamiento con altura de galce de 22 mm y anchura hasta 44 mm en marcos y 51 mm en hojas, lacado (entre 60-100 micras) en color estándar (RAL estándar: blanco, gris...), herrajes de colgar, p.p. de cerradura Tesa o similar y costes indirectos. Homologada con Clase 4 en el ensayo de permeabilidad al aire según norma UNE-EN 1026:2000. La transmitancia máxima del marco es de 2,90 W/m² K, y cumple en las zonas A, B, C, D y E, según el CTE/DB-HE 1.	1	0,80		0,60	0,48	
							0,48
464V3	M2 VIDRIO SEGURIDAD STADIP 44.1 INCOLORO (2B2) m². Acristalamiento de vidrio laminar de seguridad Stadip compuesto por dos vidrios de 4 mm de espesor unidos mediante lámina de butiral de polivinilo incolora de 0,38 mm, clasificado 2B2 según UNE-EN 12600, fijado sobre carpintería con acuíñado mediante calzos de apoyo perimetrales y laterales y sellado en frío con silicona neutra, incluso colocación de junquillos, según UNE 8522:1985.	1	0,80		0,60	0,48	
							0,48
521	M2 CELOSIA FIJA VENTILACIÓN Celosía metálica fija para ventilación, formada por cerco con empanelado de lamas de acero de 60 mm, con abertura mínima de 1 cm entre lamas, malla de 2 mm para evitar entrada de insectos, garras de sujeción a soporte de 10 cm, elaborada en taller y montada en obra, totalmente colocada.	1	0,80		0,60	0,48	
							0,48
020	KG ACERO S 275 J PERFILES LAMINADOS Acero S 275 J en perfiles laminados elaborado y colocado. Vigas forjado IPE-100 Vigas IPE-160	3	8,80	8,10		213,84	
		3	2,80	15,80		132,72	
							346,56
474.1	ML CANALON CHAPA PRELACADA 50cm Canalón de chapa prelacada en color, de 50 cm. de desarrollo fijado mediante ganchos ocultos con tornillo autoroscante 40 cm., incluso p.p. de embocadura de bajante, codos y piezas especiales.	1	8,80			8,80	
							8,80

MEDICIONES

ABASTECIMIENTO A VARIOS MUNICIPIOS DE LA RIOJA. SISTEMA CIDACOS

CÓDIGO	RESUMEN	UDS	LONGITUD	ANCHURA	ALTURA	PARCIALES	CANTIDAD
290B	M2 ESCALERA Y PASARELAS DE ACERO GALVANIZADO. BARANDILLAS GALVANIZ Escalera y pasarelas de acceso de forma según planos, ejecutada en perfiles de acero galvanizado en caliente, incluso barandilla tubular del mismo material, de 90 cm de altura en uno o dos lados, rodapié de seguridad del mismo en uno o dos lados, así como entramado metálico de 30x30x3 en descansillos y peldaños, medida según su proyección en planta. Anclada a los muros y/o solera, instalada.	1	4,25	0,90		3,83	
							3,83
620	UD APOYOS DE TUBERÍA Y VÁLVULAS SOBRE SOLERA Apoyos de tuberías y válvulas en soleras, mediante dado de hormigón HA-25/P/20/IIa, ligeramente armado y anclado a la solera, así como cintas o eslingas de acero con material de protección de tubería para sujeción de las mismas, incluyendo el hormigón, encofrados, acero, eslingas, material de PE de protección, montado.	5				5,00	
							5,00
474.2	ML BAJANTE DE CHAPA PRELACADA DN110 Bajante de chapa prelacada en color, DN110, fijado mediante ganchos con tornillo autoroscante 20 cm., incluso p.p. de embocadura de bajante, codos y piezas especiales.	2			3,00	6,00	
							6,00
APARTADO 08.05.02 VÁLVULAS Y ACCESORIOS							
115.6	UD BRIDA ENCHUFE FD 250 mm PN16/25 Brida enchufe de fundición dúctil de PFA 16/25 bar para tubería de 250 mm, con un revestimiento interior y exterior epoxi, i/p.p. de junta de unión y medios auxiliares, totalmente colocada y probada. Entrada Salida	1				1,00	
		1				1,00	
							2,00
134	UD TE FD BBB 250 mm PN16/25 SALIDA DN250/60 "T" de fundición dúctil de PFA 16/25 bar, con tres bridas para tubería de 250 mm con salida comprendida entre 250 y 60 mm, con un revestimiento interior y exterior epoxi, i/p.p. de junta de unión y medios auxiliares, totalmente colocada y probada. Ventosa entrada DN80	1				1,00	
							1,00
137	UD TE FD BBB 200 mm PN16/25 SALIDA DN200/40 "T" de fundición dúctil de PFA 16 bar, con tres bridas para tubería de 200 mm con salida comprendida entre 200 y 40 mm, con un revestimiento interior y exterior epoxi, i/p.p. de junta de unión y medios auxiliares, totalmente colocada y probada. Ventosa tras reductora DN80 Alivio tras reductora Dn80	1				1,00	
		1				1,00	
							2,00
245.2	UD VENTOSA DN=80 (3") mm PN16 Válvula ventosa de tres funciones de DN=80 mm (3") y PN 16 bar incluido transporte, juntas, válvula de corte DN=80 mm y PN 16y piezas especiales, totalmente colocada y probada. Entrada TRas reductora	1				1,00	
		1				1,00	
							2,00
106	UD REDUCCIÓN FD 250 A 200/125 mm PN16 Reducción en fundición dúctil de 250 mm a 200-150-125 mm con dos bridas PN 25 bar, con un revestimiento interior y exterior epoxi, i/p.p. de junta de unión y medios auxiliares, totalmente colocada y probada. Entrada Salida	1				1,00	
		1				1,00	
							2,00

MEDICIONES

ABASTECIMIENTO A VARIOS MUNICIPIOS DE LA RIOJA. SISTEMA CIDACOS

CÓDIGO	RESUMEN	UDS	LONGITUD	ANCHURA	ALTURA	PARCIALES	CANTIDAD
162	UD MANGUITO FD DN100 A DN250 mm PN16/25 Manguito de fundición dúctil con bridas diámetros de 100 a 250 mm, longitud comprendida entre 0,20 y 1,00 m y PN16/25, incluso p.p. de tornillería y medios auxiliares, totalmente colocado y probado.	5				5,00	5,00
248	UD FILTRO COLADOR EN Y DN=200 mm PN16 Filtro colador en "Y" de diámetro nominal DN=200 mm y brida PN=16 bar de presión, incluso juntas de unión y tornillería, totalmente instalado.	1				1,00	1,00
143	UD CARRETE DE DESMONTAJE DN=200 mm PN16 Carrete telescópico de desmontaje DN200 PN 16, bridas de acero al carbono, virolas de acero inoxidable, protección epoxi, tornillos y tuercas en acero F-114, cincado y posterior baño de cromo-niquel, incluido p.p. de brida enchufe, totalmente instalado y probado en obra.	2				2,00	2,00
257	UD VÁLVULA REDUCTORA DE PRESIÓN DN=200 mm PN25 Válvula reductora de presión de diámetro DN=200 mm y PN 25 bar, incluso juntas de unión y tornillería, totalmente colocada y probada.	1				1,00	1,00
273	UD VÁLVULA ALIVIO DE PRESIÓN 3" PN 16 Válvula de alivio de presión de 3" brida PN 16 bar, incluso válvula de corte de 3", juntas de unión, y tornillería, totalmente colocada y probada.	1				1,00	1,00
266.3	UD VÁLVULA LIMITADORA DE CAUDAL DN=200 mm PN16 Válvula limitadora de caudal de DN=200 mm PN16, incluso juntas de unión y tornillería, totalmente colocada y probada.	1				1,00	1,00
268.3	UD VÁLVULA DE LLENADO DN=200 mm PN16 CIERRE LENTO Y SOLENOIDE Válvula de llenado de asiento inoxidable, con cierre lento y solenoide de diámetro nominal DN=200 mm y PN=16 bar, totalmente instalado y probado.	1				1,00	1,00
232	UD VÁLVULA DE COMPUERTA MANUAL DN200 PN16 Válvula de compuerta de cierre elástico de 200 mm. de diámetro nominal y 16 At. de P.N., de accionamiento manual por volante, de cuerpo de fundición nodular GGG-50, con eje de acero inoxidable al 13 % Cr. con roscas conformadas por laminación en frío, cierre en fundición nodular, tornillería de acero inoxidable, protegida contra la corrosión mediante aplicación de doble capa de pintura epoxy, totalmente colocada y probada. Resto de características según ET.	2				2,00	2,00
APARTADO 08.05.03 INSTRUMENTACIÓN Y CONTROL							
300	UD BOYA DE NIVEL DE MÁXIMO Y MÍNIMO Boya de nivel cableada con la válvula de llenado, incluso montaje y pruebas.	2				2,00	2,00
280	UD CAUDALÍMETRO ELECTROMAGNÉTICO DN 200 mm PN10 Equipo medidor de caudal de DN200 mm. tipo electromagnético y PN=10 atm. con salida 4/20 mA, tensión 220 V y escala 0-240 m3/h, totalmente instalado y probado. Incluido transporte, montaje, conexiones eléctricas y pruebas de funcionamiento. Resto de características, según ET.	1				1,00	1,00

MEDICIONES

ABASTECIMIENTO A VARIOS MUNICIPIOS DE LA RIOJA. SISTEMA CIDACOS

CÓDIGO	RESUMEN	UDS	LONGITUD	ANCHURA	ALTURA	PARCIALES	CANTIDAD
							1,00
APARTADO 08.05.04 INSTALACIÓN ELÉCTRICA DE BT							
563.1	ud PANTALLA ESTANCA LED Luminaria estanca WT120C LED80S/840 de Philips o equivalente para montaje en superficie de dimensiones 1515x80, carcasa de policarbonato, óptica de polimetacrilato de metilo, flujo luminoso 8.000 lm, potencia 68 W, Tª color 4000 K, rango de Tª de 10°C a 35°C, protección IP-65 Clase I. Incluso p.p. de canalización y cableado, completamente instalado.	1				1,000	1,00
524.1	m LINEA 3x1.5mm2 Cu 0.6/1kV RZ1-K (AS) Línea eléctrica con conductor multipolares 3x1.5mm2 RZ1-K (AS) en canalización existente, incluso conexionado en inicio y final de línea.	1	15,000			15,000	15,00
571	ud INTERRUPTOR EMPOTRAR SIMO 32 BLANCO. Interruptor empotrar blanco, totalmente instalado.	1				1,000	1,00
204	m TUBO DE PVC RÍGIDO DE 25 MM DIÁMETRO Tubo rígido de PVC d=25mm para canalización de conductores, incluso soportes y anclajes a pared, instalado.	1	25,000			25,000	25,00
APARTADO 08.05.05 VARIOS							
618	PA CONEXIÓN RED ELÉCTRICA BT CON DEPÓSITOS EXISTENTES Partida Alzada de Abono Íntegro para conexión de la red eléctrica en BT con depósitos existentes.	1				1,00	1,00
617.1	PA CONEXIÓN RED NUEVA CASETA CON DEPÓSITOS EXISTENTES FD DN<300 Partida Alzada de Abono Íntegro para conexión de la red de abastecimiento desde la nueva caseta de válvulas con depósitos existentes, incluyendo, excavaciones, tuberías de fundición de diámetro hasta 300 mm, rellenos, ayudas de albañilería, demoliciones, relleno de huecos con morteros sin retracción, anclaje de tuberías, así como todos los medios auxiliares necesarios para la conexión entre la salida de la nueva caseta de válvula y su salida al depósito.	1				1,00	1,00
617.3	PA CONEXIÓN ALIVIOS CON RED VACIADOS DEPÓSITO. Partida Alzada de Abono Íntegro para conexión de la salida de los alivios de la nueva caseta de válvulas con la red de vaciados del depósito, incluyendo, excavaciones, tuberías de PEAD DN de salida de alivio, rellenos, ayudas de albañilería, demoliciones, relleno de huecos con morteros sin retracción, anclaje de tuberías, así como todos los medios auxiliares necesarios para la conexión entre ambas tuberías.	1				1,00	1,00
SUBCAPÍTULO 08.06 ACOMETIDA A DEPÓSITO DE ALCANADRE							
APARTADO 08.06.01 OBRA CIVIL							
008	M2 DESPEJE Y DESBROCE Despeje y desbroce de capa de tierra vegetal con un espesor medio de 50 cm, incluso corte de árboles, extracción de tocones, nivelación de zona adyacente para el paso de maquinaria, transporte a lugar de acopio independiente para posterior reposición de tierra vegetal tras las obras y despedregado de las parcelas, así como transporte a vertedero de tierras sobrantes.	1	4,80	2,80		13,44	13,44

MEDICIONES

ABASTECIMIENTO A VARIOS MUNICIPIOS DE LA RIOJA. SISTEMA CIDACOS

CÓDIGO	RESUMEN	UDS	LONGITUD	ANCHURA	ALTURA	PARCIALES	CANTIDAD
002	M3 EXCAVACIÓN EN ZANJAS Excavación en zanjas y zonas localizadas, en todo tipo de terrenos incluido terrenos en roca con medios mecánicos, incluso rasanteo, nivelación de la superficie de apoyo y transporte a lugar de empleo o vertedero.	1	4,80	2,80	1,35	18,14	18,14
010	M3 RELLENO ZANJAS, CIMIENTOS Y TRASDOSES DE MATERIAL SELECCIONADO Relleno con material seleccionado en zanjas, cimientos, trasdós de muros, estribos y otras estructuras procedente de la excavación o préstamos incluso carga, transporte y compactación.	1	18,14			18,14	
		-1	4,80	2,80	0,40	-5,38	
		-1	4,40	2,40	0,95	-10,03	
							2,73
028	M3 HORMIGÓN DE LIMPIEZA HL-150 Hormigón de limpieza HL-150, de consistencia plástica, árido de tamaño máximo 40 mm y cemento CEM-II-D/42,5/SR, para saneos y encachados, incluyendo fabricación y transporte totalmente colocado.	1	4,80	2,80	0,10	1,34	1,34
031	M3 HORMIGÓN HA-25/B/20/IIa Hormigón HA-25/B/20/IIa, con cemento CEM II/A-D/42,5/SR, incluyendo fabricación, transporte, puesta en obra y vibrado, totalmente ejecutado, incluso curado y juntas.	1	4,80	2,80	0,30	4,03	4,03
	Solera	2	4,40	0,30	1,15	3,04	
	Muros	2	2,40	0,30	1,15	1,66	4,70
							8,73
023	KG ACERO CORRUGADO B-500-S Acero redondo corrugado para armar tipo B-500-S elaborado y colocado.	1	4,04	70,00		282,80	
	Muros	1	4,70	85,00		399,50	
	Solapes y despuntes (5%)	0,05	682,30			34,12	
							716,42
025	M2 ENCOFRADO RECTO EN PARAMENTOS OCULTOS Encofrado recto en paramentos ocultos, incluso colocación, fijación y desencofrado.	2	4,80		0,30	2,88	2,88
	Solera	2	2,80		0,30	1,68	
							4,56
026	M2 ENCOFRADO RECTO EN PARAMENTOS VISTOS 1C Encofrado recto en paramentos vistos a una cara, incluso colocación, fijación y desencofrado.	4	4,40		1,15	20,24	
	Muros	4	2,40		1,15	11,04	31,28
							31,28
052	ML JUNTAS DE ESTANQUEIDAD DE PVC 32 CM Junta de trabajo interior de policloruro de vinilo (PVC) 100% virgen, con una fuerza máxima de dilatación > 250 % , de 32 cm de ancho, MASTERFLEX 2000 TI-24 de BASF o equivalente, colocada simétricamente en el eje de la losa o muro, incluso solapes y piezas especiales para cruces o ángulos. Medida la longitud ejecutada.	2	4,40			8,80	
		2	2,40			4,80	
							13,60
462	M2 FÁBRICA BLOQUES 40x20x20 cm TIPO SPLIT COLOR Fábrica de bloques de hormigón tipo Split, de medidas 40x20x20 cm color i/relleno de hormigón y colocación de armaduras s/normativa y recibido con mortero de cemento y arena de río 1/6 i/p.p. de piezas especiales para dinteles y materialización de jambas, roturas, nivelados, aplomados, llagueados y limpieza, todo ello según normativa.						

MEDICIONES

ABASTECIMIENTO A VARIOS MUNICIPIOS DE LA RIOJA. SISTEMA CIDACOS

CÓDIGO	RESUMEN	UDS	LONGITUD	ANCHURA	ALTURA	PARCIALES	CANTIDAD
	Arqueta entrada	1	2,20	1,60		3,52	
		2	2,60		3,35	17,42	
	A deducir puerta	-1	0,80		2,20	-1,76	
	A deducir ventanas	-2	0,80		0,60	-0,96	
							42,42
520	M2 CUBIERTA PANEL SANDWICH (E=50 mm.) Cubierta con panel tipo sandwich espesor 50 cm., con doble chapa prelacada de 0,4 mm de espesor, y aislamiento térmico de poliuretano, fijada con gancho de acero galvanizado, incluso p.p de piezas de remate, totalmente colocada.	1	4,40	2,60		11,44	11,44
519	ML REMATE DE CHAPA PRELACADA CUBIERTA Remate de chapa prelacada en color, para cubrir parte superior de bloque o panel, hasta el panel sandwich de la cubierta por el interior del peto, fijado mediante tacos y/o ganchos anclado a muro y o cubierta, dispuesto según planos.	1	4,40			4,40	
		2	2,60			5,20	
							9,60
465.1	M2 PUERTA DOBLE CHAPA ACERO CON LAMAS Puerta de paso hojas abatibles de doble chapa lisa de acero de 1 mm de espesor, con aislamiento interno de fibre de vidrio, engatillada, realizada en dos bandejas, con rigidizadores de tubo rectangular, i/manillas de acero inoxidable y cerradura, con dos o cuatro rejillas de ventilación con malla anti insectos interior, patillas para recibir en fábricas, herrajes de colgar y de seguridad, imprimación antióxido y pintura al esmalte, totalmente colocada incluyendo el recibido de fábricas.	1	0,80		2,20	1,76	1,76
464cf	M2 CARPINTERÍA FIJA ALUMINIO m². Carpintería fija con junquillos para la fijación del vidrio, de aluminio modelo con rotura de puente térmico, Alfil A54RPT de SAPAGROUP con un ancho de marco de 54 mm y con un ancho de hoja de 61 mm, medida del frente de 96,3 mm, con sistema de cámara europea, con espesor de perfil de 1,5 mm, con sistema de cierre por junta central de estanqueidad en EPDM, coplanar exteriormente y con resalte de hoja sobre el marco al interior, para un acristalamiento con altura de galce de 22 mm y anchura hasta 44 mm en marcos y 51 mm en hojas, lacado (entre 60-100 micras) en color estándar (RAL estándar: blanco, gris...), herrajes de colgar, p.p. de cerradura Tesa o similar y costes indirectos. Homologada con Clase 4 en el ensayo de permeabilidad al aire según norma UNE-EN 1026:2000. La transmitancia máxima del marco es de 2,90 W/m² K, y cumple en las zonas A, B, C, D y E, según el CTE/DB-HE 1.	1	0,80		0,60	0,48	0,48
464V3	M2 VIDRIO SEGURIDAD STADIP 44.1 INCOLORO (2B2) m². Acristalamiento de vidrio laminar de seguridad Stadip compuesto por dos vidrios de 4 mm de espesor unidos mediante lámina de butiral de polivinilo incolora de 0,38 mm, clasificado 2B2 según UNE-EN 12600, fijado sobre carpintería con acuñado mediante calzos de apoyo perimetrales y laterales y sellado en frío con silicona neutra, incluso colocación de junquillos, según UNE 85222:1985.						
		1	0,80		0,60	0,48	0,48
521	M2 CELOSIA FIJA VENTILACIÓN Celosía metálica fija para ventilación, formada por cerco con empanelado de lamas de acero de 60 mm, con abertura mínima de 1 cm entre lamas, malla de 2 mm para evitar entrada de insectos, garras de sujeción a soporte de 10 cm, elaborada en taller y montada en obra, totalmente colocada.	1	0,80		0,60	0,48	0,48
020	KG ACERO S 275 J PERFILES LAMINADOS Acero S 275 J en perfiles laminados elaborado y colocado.						

MEDICIONES

ABASTECIMIENTO A VARIOS MUNICIPIOS DE LA RIOJA. SISTEMA CIDACOS

CÓDIGO	RESUMEN	UDS	LONGITUD	ANCHURA	ALTURA	PARCIALES	CANTIDAD
	Arqueta entrada	1	2,20	1,60		3,52	
							97,20
474.1	ML CANALON CHAPA PRELACADA 50cm Canalón de chapa prelacada en color, de 50 cm. de desarrollo fijado mediante ganchos ocultos con tornillo autoroscante 40 cm., incluso p.p. de embocadura de bajante, codos y piezas especiales.	1	4,00			4,00	
							4,00
474.2	ML BAJANTE DE CHAPA PRELACADA DN110 Bajante de chapa prelacada en color, DN110, fijado mediante ganchos con tornillo autoroscante 20 cm., incluso p.p. de embocadura de bajante, codos y piezas especiales.	1		2,60		2,60	
							2,60
290B	M2 ESCALERA Y PASARELAS DE ACERO GALVANIZADO. BARANDILLAS GALVANIZ Escalera y pasarelas de acceso de forma según planos, ejecutada en perfiles de acero galvanizado en caliente, incluso barandilla tubular del mismo material, de 90 cm de altura en uno o dos lados, rodapié de seguridad del mismo en uno o dos lados, así como entramado metálico de 30x30x3 en descansillos y peldaños, medida según su proyección en planta. Anclada a los muros y/o solera, instalada.	1	2,15	0,90		1,94	
							1,94
620	UD APOYOS DE TUBERÍA Y VÁLVULAS SOBRE SOLERA Apoyos de tuberías y válvulas en soleras, mediante dado de hormigón HA-25/P/20/IIa, ligeramente armado y anclado a la solera, así como cintas o eslingas de acero con material de protección de tubería para sujeción de las mismas, incluyendo el hormigón, encofrados, acero, eslingas, material de PE de protección, montado.	3				3,00	
							3,00
APARTADO 08.06.02 VÁLVULAS Y ACCESORIOS							
115.7	UD BRIDA ENCHUFE FD DN<150 mm PN16/25/40 Brida enchufe de fundición dúctil de PFA 16/25/40 bar para tubería de diámetro menor o igual de 150 mm, con un revestimiento interior y exterior epoxi, i/p.p. de junta de unión y medios auxiliares, totalmente colocada y probada.	2				2,00	
							2,00
114.10	UD REDUCCIÓN FD 125 A 100/50 mm PN16/25 Reducción en fundición dúctil de 125 mm a 80-65-60-50 mm con dos bridas PN 16/25 bar, con un revestimiento interior y exterior epoxi, i/p.p. de tornillería y medios auxiliares, totalmente colocada y probada.	2				2,00	
							2,00
EVCM080	UD VÁLVULA DE COMPUERTA MANUAL DN80 PN16 Válvula de compuerta de cierre elástico de 80 mm. de diámetro nominal y 16 At. de P.N., de accionamiento manual por volante, de cuerpo de fundición nodular GGG-50, con eje de acero inoxidable al 13 % Cr. con roscas conformadas por laminación en frío, cierre en fundición nodular, tornillería de acero inoxidable, protegida contra la corrosión mediante aplicación de doble capa de pintura epoxy, totalmente colocada y probada. Resto de características según ET.	1				1,00	
							1,00
164	UD MANGUITO FD 50 A 80 mm PN16 Manguito de fundición dúctil con bridas diámetros de 50 a 80 mm, longitud comprendida entre 0,20 y 1,00 m y PN 16, incluso p.p. de tornillería y medios auxiliares, totalmente colocado y probado.	3				3,00	
							3,00

MEDICIONES

ABASTECIMIENTO A VARIOS MUNICIPIOS DE LA RIOJA. SISTEMA CIDACOS

CÓDIGO	RESUMEN	UDS	LONGITUD	ANCHURA	ALTURA	PARCIALES	CANTIDAD
253	UD FILTRO COLADOR EN Y DN=80 mm PN16 Filtro colador en "Y" de diámetro nominal DN=80 mm y brida PN=16 bar de presión, incluso juntas de unión y tornillería, totalmente instalado.	1				1,00	
							1,00
149	UD CARRETE DE DESMONTAJE DN=80 mm PN16 Carrete de desmontaje autoportante de PFA 16 bar de D=80 mm, colocado.	2				2,00	
							2,00
132.2	UD TE FD BBB 80 mm PN16 SALIDA DN80/40 "T" de fundición dúctil de PFA 16 bar, con tres bridas para tubería de 80 mm con salida comprendida entre 80 y 40 mm, con un revestimiento interior y exterior epoxi, i/p.p. de junta de unión y medios auxiliares, totalmente colocada y probada.	2				2,00	
							2,00
273.1	UD VÁLVULA ALIVIO DE PRESIÓN 2" PN 16 Válvula de alivio de presión de 2" brida PN 16 bar, incluso válvula de corte de 2", juntas de unión, y tornillería, totalmente colocada y probada.	1				1,00	
							1,00
245.4	UD VENTOSA DN=50 (2") mm PN16 Válvula ventosa de tres funciones de DN=50 mm (2") y PN 16 bar incluido transporte, juntas, válvula de corte DN=50 mm y PN 16 y piezas especiales, totalmente colocada y probada.	1				1,00	
							1,00
265	UD VÁLVULA LIMITADORA DE CAUDAL DN=80 mm Válvula limitadora de caudal de DN=80 mm PN16, incluso juntas de unión y tornillería, totalmente colocada y probada.	1				1,00	
							1,00
262	UD VÁLVULA REDUCTORA DE PRESIÓN DN=80 mm PN25 Válvula reductora de presión de diámetro DN=80 mm y PN 25 bar, incluso juntas de unión y tornillería, totalmente colocada y probada.	1				1,00	
							1,00
240	UD VÁLVULA DE COMPUERTA MANUAL DN80 PN25 Válvula de compuerta de accionamiento manual de diámetro nominal DN=80 mm de 25 bares de presión máxima admisible, con tornillería y juntas, totalmente instalada y probada, incluso volante de accionamiento.	1				1,00	
							1,00
268.4	UD VÁLVULA DE LLENADO DN=80 mm PN16 CIERRE LENTO Y SOLENOIDE Válvula de llenado de asiento inoxidable, con cierre lento y solenoide de diámetro nominal DN=80 mm y PN=16 bar, totalmente instalado y probado.	1				1,00	
							1,00

MEDICIONES

ABASTECIMIENTO A VARIOS MUNICIPIOS DE LA RIOJA. SISTEMA CIDACOS

CÓDIGO	RESUMEN	UDS	LONGITUD	ANCHURA	ALTURA	PARCIALES	CANTIDAD
APARTADO 08.06.03 INSTRUMENTACIÓN Y CONTROL							
300	UD BOYA DE NIVEL DE MÁXIMO Y MÍNIMO Boya de nivel cableada con la válvula de llenado, incluso montaje y pruebas.	2				2,00	2,00
ECELM080	UD CAUDALÍMETRO ELECTROMAGNÉTICO DN 80 mm PN10 Equipo medidor de caudal de DN80 mm. tipo electromagnético y PN=10 atm. con salida 4/20 mA, tensión 220 V y escala 0-240 m3/h, totalmente instalado y probado. Incluido transporte, montaje, conexiones eléctricas y pruebas de funcionamiento. Resto de características, según ET.	1				1,00	1,00
APARTADO 08.06.04 INSTALACIÓN ELÉCTRICA DE BT							
563.1	ud PANTALLA ESTANCA LED Luminaria estanca WT120C LED80S/840 de Philips o equivalente para montaje en superficie de dimensiones 1515x80, carcasa de policarbonato, óptica de polimetacrilato de metilo, flujo luminoso 8.000 lm, potencia 68 W, Tª color 4000 K, rango de Tª de 10°C a 35°C, protección IP-65 Clase I. Incluso p.p. de canalización y cableado, completamente instalado.	1				1,000	1,00
524.1	m LINEA 3x1.5mm2 Cu 0.6/1kV RZ1-K (AS) Línea eléctrica con conductor multipolares 3x1.5mm2 RZ1-K (AS) en canalización existente, incluso conexionado en inicio y final de línea.	1	15,000			15,000	15,00
571	ud INTERRUPTOR EMPOTRAR SIMO 32 BLANCO. Interruptor empotrar blanco, totalmente instalado.	1				1,000	1,00
204	m TUBO DE PVC RÍGIDO DE 25 MM DIÁMETRO Tubo rígido de PVC d=25mm para canalización de conductores, incluso soportes y anclajes a pared, instalado.	1	15,000			15,000	15,00
APARTADO 08.06.05 VARIOS							
618	PA CONEXIÓN RED ELÉCTRICA BT CON DEPÓSITOS EXISTENTES Partida Alzada de Abono Íntegro para conexión de la red eléctrica en BT con depósitos existentes.	1				1,00	1,00
617.1	PA CONEXIÓN RED NUEVA CASETA CON DEPÓSITOS EXISTENTES FD DN<300 Partida Alzada de Abono Íntegro para conexión de la red de abastecimiento desde la nueva caseta de válvulas con depósitos existentes, incluyendo, excavaciones, tuberías de fundición de diámetro hasta 300 mm, rellenos, ayudas de albañilería, demoliciones, relleno de huecos con morteros sin retracción, anclaje de tuberías, así como todos los medios auxiliares necesarios para la conexión entre la salida de la nueva caseta de válvula y su salida al depósito.	1				1,00	1,00
617.3	PA CONEXIÓN ALIVIOS CON RED VACIADOS DEPÓSITO. Partida Alzada de Abono Íntegro para conexión de la salida de los alivios de la nueva caseta de válvulas con la red de vaciados del depósito, incluyendo, excavaciones, tuberías de PEAD DN de salida de alivio, rellenos, ayudas de albañilería, demoliciones, relleno de huecos con morteros sin retracción, anclaje de tuberías, así como todos los medios auxiliares necesarios para la conexión entre ambas tuberías.	1				1,00	1,00

MEDICIONES

ABASTECIMIENTO A VARIOS MUNICIPIOS DE LA RIOJA. SISTEMA CIDACOS

CÓDIGO	RESUMEN	UDS	LONGITUD	ANCHURA	ALTURA	PARCIALES	CANTIDAD
SUBCAPÍTULO 08.07 ACOMETIDA A DEPÓSITO DE AUSEJO							
APARTADO 08.07.01 OBRA CIVIL							
008	M2 DESPEJE Y DESBROCE Despeje y desbroce de capa de tierra vegetal con un espesor medio de 50 cm, incluso corte de árboles, extracción de tocones, nivelación de zona adyacente para el paso de maquinaria, transporte a lugar de acopio independiente para posterior reposición de tierra vegetal tras las obras y despedregado de las parcelas, así como transporte a vertedero de tierras sobrantes.	1	3,40	3,20		10,88	10,88
002	M3 EXCAVACIÓN EN ZANJAS Excavación en zanjas y zonas localizadas, en todo tipo de terrenos incluido terrenos en roca con medios mecánicos, incluso rasanteo, nivelación de la superficie de apoyo y transporte a lugar de empleo o vertedero.	1	3,40	3,20	1,35	14,69	14,69
010	M3 RELLENO ZANJAS, CIMIENTOS Y TRASDOSES DE MATERIAL SELECCIONADO Relleno con material seleccionado en zanjas, cimientos, trasdós de muros, estribos y otras estructuras procedente de la excavación o préstamos incluso carga, transporte y compactación.	1	14,69			14,69	14,69
		-1	3,40	3,20	0,40	-4,35	
		-1	3,00	2,80	0,95	-7,98	
028	M3 HORMIGÓN DE LIMIPEZA HL-150 Hormigón de limpieza HL-150, de consistencia plástica, árido de tamaño máximo 40 mm y cemento CEM-II-D/42,5/SR, para saneos y encachados, incluyendo fabricación y transporte totalmente colocado.	1	3,40	3,20	0,10	1,09	1,09
031	M3 HORMIGÓN HA-25/B/20/IIa Hormigón HA-25/B/20/IIa, con cemento CEM III/A-D/42,5/SR, incluyendo fabricación, transporte, puesta en obra y vibrado, totalmente ejecutado, incluso curado y juntas.	1	3,40	3,20	0,30	3,26	3,26
	Solera	2	3,00	0,30	1,15	2,07	
	Muros	2	2,80	0,30	1,15	1,93	4,00
							7,26
023	KG ACERO CORRUGADO B-500-S Acero redondo corrugado para armar tipo B-500-S elaborado y colocado.	1	3,26	70,00		228,20	228,20
	Solera	1	4,00	85,00		340,00	
	Muros	0,05	568,20			28,41	28,41
	Solapes y despuntes (5%)						596,61
025	M2 ENCOFRADO RECTO EN PARAMENTOS OCULTOS Encofrado recto en paramentos ocultos, incluso colocación, fijación y desencofrado.	2	3,40	0,30	2,04	2,04	2,04
	Solera	2	3,20	0,30	1,92		1,92
							3,96
026	M2 ENCOFRADO RECTO EN PARAMENTOS VISTOS 1C Encofrado recto en paramentos vistos a una cara, incluso colocación, fijación y desencofrado.	4	3,00	1,15	13,80		13,80
	Muros	4	2,80	1,15	12,88	26,68	26,68
							26,68

MEDICIONES

ABASTECIMIENTO A VARIOS MUNICIPIOS DE LA RIOJA. SISTEMA CIDACOS

CÓDIGO	RESUMEN	UDS	LONGITUD	ANCHURA	ALTURA	PARCIALES	CANTIDAD
052	ML JUNTAS DE ESTANQUEIDAD DE PVC 32 CM Junta de trabajo interior de policloruro de vinilo (PVC) 100% virgen, con una fuerza máxima de dilatación > 250 %, de 32 cm de ancho, MASTERFLEX 2000 TI-24 de BASF o equivalente, colocada simétricamente en el eje de la losa o muro, incluso solapes y piezas especiales para cruces o ángulos. Medida la longitud ejecutada.	2	3,00			6,00	
		2	2,80			5,60	
							11,60
462	M2 FÁBRICA BLOQUES 40x20x20 cm TIPO SPLIT COLOR Fábrica de bloques de hormigón tipo Split, de medidas 40x20x20 cm color i/relleno de hormigón y colocación de armaduras s/normativa y recibido con mortero de cemento y arena de río 1/6 i/p.p. de piezas especiales para dinteles y materialización de jambas, roturas, nivelados, aplomados, llagueados y limpieza, todo ello según normativa.						
	Muros	2	3,00		3,15	18,90	
		2	2,80		3,35	18,76	
	A deducir puerta	-1	0,80		2,20	-1,76	
	A deducir ventanas	-2	0,80		0,60	-0,96	
							34,94
520	M2 CUBIERTA PANEL SANDWICH (E=50 mm.) Cubierta con panel tipo sandwich espesor 50 cm., con doble chapa prelacada de 0,4 mm de espesor, y aislamiento térmico de poliuretano, fijada con gancho de acero galvanizado, incluso p.p de piezas de remate, totalmente colocada.	1	3,00	2,80		8,40	
							8,40
519	ML REMATE DE CHAPA PRELACADA CUBIERTA Remate de chapa prelacada en color, para cubrir parte superior de bloque o panel, hasta el panel sandwich de la cubierta por el interior del peto, fijado mediante tacos y/o ganchos anclado a muro y o cubierta, dispuesto según planos.	1	3,00			3,00	
		2	2,80			5,60	
							8,60
465.1	M2 PUERTA DOBLE CHAPA ACERO CON LAMAS Puerta de paso hojas abatibles de doble chapa lisa de acero de 1 mm de espesor, con aislamiento interno de fibre de vidrio, engatillada, realizada en dos bandejas, con rigidizadores de tubo rectangular, i/manillas de acero inoxidable y cerradura, con dos o cuatro rejillas de ventilación con malla anti insectos interior, patillas para recibir en fábricas, herrajes de colgar y de seguridad, imprimación antióxido y pintura al esmalte, totalmente colocada incluyendo el recibido de fábricas.	1	0,80		2,20	1,76	
							1,76
464cf	M2 CARPINTERÍA FIJA ALUMINIO m². Carpintería fija con junquillos para la fijación del vidrio, de aluminio modelo con rotura de puente térmico, Alfil A54RPT de SAPAGROUP con un ancho de marco de 54 mm y con un ancho de hoja de 61 mm, medida del frente de 96,3 mm, con sistema de cámara europea, con espesor de perfil de 1,5 mm, con sistema de cierre por junta central de estanqueidad en EPDM, coplanar exteriormente y con resalte de hoja sobre el marco al interior, para un acristalamiento con altura de galce de 22 mm y anchura hasta 44 mm en marcos y 51 mm en hojas, lacado (entre 60-100 micras) en color estándar (RAL estándar: blanco, gris...), herrajes de colgar, p.p. de cerradura Tesa o similar y costes indirectos. Homologada con Clase 4 en el ensayo de permeabilidad al aire según norma UNE-EN 1026:2000. La transmitancia máxima del marco es de 2,90 W/m² K, y cumple en las zonas A, B, C, D y E, según el C TE/DB-HE 1.	1	0,80		0,60	0,48	
							0,48

MEDICIONES

ABASTECIMIENTO A VARIOS MUNICIPIOS DE LA RIOJA. SISTEMA CIDACOS

CÓDIGO	RESUMEN	UDS	LONGITUD	ANCHURA	ALTURA	PARCIALES	CANTIDAD
464V3	M2 VIDRIO SEGURIDAD STADIP 44.1 INCOLORO (2B2) m². Acristalamiento de vidrio laminar de seguridad Stadip compuesto por dos vidrios de 4 mm de espesor unidos mediante lámina de butiral de polivinilo incolora de 0,38 mm, clasificado 2B2 según UNE-EN 12600, fijado sobre carpintería con acuíado mediante calzos de apoyo perimetrales y laterales y sellado en frío con silicona neutra, incluso colocación de junquillos, según UNE 85222:1985.	1	0,80		0,60	0,48	
							0,48
521	M2 CELOSIA FIJA VENTILACIÓN Celosía metálica fija para ventilación, formada por cerco con empanelado de lamas de acero de 60 mm, con abertura mínima de 1 cm entre lamas, malla de 2 mm para eviar entrada de insectos, garras de sujeción a soporte de 10 cm, elaborada en taller y montada en obra, totalmente colocada.	1	0,80		0,60	0,48	
							0,48
020	KG ACERO S 275 J PERFILES LAMINADOS Acero S 275 J en perfiles laminados elaborado y colocado.						
	Correas IPE-100	3	3,00	8,10		72,90	
							72,90
474.1	ML CANALON CHAPA PRELACADA 50cm Canalón de chapa prelacada en color, de 50 cm. de desarrollo fijado mediante ganchos ocultos con tornillo autoroscante 40 cm., incluso p.p. de embocadura de bajante, codos y piezas especiales.	1	3,00			3,00	
							3,00
474.2	ML BAJANTE DE CHAPA PRELACADA DN110 Bajante de chapa prelacada en color, DN110, fijado mediante ganchos con tornillo autoroscante 20 cm., incluso p.p. de embocadura de bajante, codos y piezas especiales.	1			2,60	2,60	
							2,60
290B	M2 ESCALERA Y PASARELAS DE ACERO GALVANIZADO. BARANDILLAS GALVANIZ Escalera y pasarelas de acceso de forma segun planos, ejecutada en perfiles de acero galvanizado en caliente, incluso barandilla tubular del mismo material, de 90 cm de altura en uno o dos lados, rodapié de seguridad del mismo en uno o dos lados, así como entramado metálico de 30x30x3 en descansillos y peldaños, medida según su proyección en planta. Anclada a los muros y/o solera, instalada.	1	2,15	0,90		1,94	
	Escalera						1,94
							1,94
620	UD APOYOS DE TUBERÍA Y VÁLVULAS SOBRE SOLERA Apoyos de tuberías y válvulas en soleras, mediante dado de hormigón HA-25/P/20/IIa, ligeramente armado y anclado a la solera, así como cintas o eslingas de acero con material de protección de tubería para sujeción de las mismas, incluyendo el hormigón, encofrados, acero, eslingas, material de PE de protección, montado.	3				3,00	
							3,00
115.7	UD BRIDA ENCHUFE FD DN<150 mm PN16/25/40 Brida enchufe de fundición dúctil de PFA 16/25/40 bar para tubería de diámetro menor o igual de 150 mm, con un revestimiento interior y exterior epoxi, i/p.p. de junta de unión y medios auxiliares, totalmente colocada y probada.	2				2,00	
							2,00

MEDICIONES

ABASTECIMIENTO A VARIOS MUNICIPIOS DE LA RIOJA. SISTEMA CIDACOS

CÓDIGO	RESUMEN	UDS	LONGITUD	ANCHURA	ALTURA	PARCIALES	CANTIDAD
132.1	UD TE FD BBB 100 mm PN16/25 SALIDA DN100/40 "T" de fundición dúctil de PFA 16 bar, con tres bridas para tubería de 100 mm con salida comprendida entre 100 y 40 mm, con un revestimiento interior y exterior epoxi, i/p.p. de junta de unión y medios auxiliares, totalmente colocada y probada. Ventosa	1				1,00	1,00
138	UD TE FD BBB 150 mm PN16/25 SALIDA DN150/40 "T" de fundición dúctil de PFA 16 bar, con tres bridas para tubería de 150 mm con salida comprendida entre 150 y 40 mm, con un revestimiento interior y exterior epoxi, i/p.p. de junta de unión y medios auxiliares, totalmente colocada y probada.	1				1,00	1,00
111	UD REDUCCIÓN FD 150 A 125/50 mm PN16/25 Reducción en fundición dúctil de 150 mm a 125-100-80-65-60-50 mm con dos bridas PN 16/25 bar, con un revestimiento interior y exterior epoxi, i/p.p. de junta de unión y medios auxiliares, totalmente colocada y probada.	2				2,00	2,00
162	UD MANGUITO FD DN100 A DN250 mm PN16/25 Manguito de fundición dúctil con bridas diámetros de 100 a 250 mm, longitud comprendida entre 0,20 y 1,00 m y PN 16/25, incluso p.p. de tornillería y medios auxiliares, totalmente colocado y probado.	4				4,00	4,00
251	UD FILTRO COLADOR EN Y DN=100 mm PN16/25 Filtro colador en "Y" de diámetro nominal DN=100 mm y brida PN 16/25 bar de presión, incluso juntas de unión y tornillería, totalmente instalado.	1				1,00	1,00
266.4	UD VÁLVULA LIMITADORA DE CAUDAL DN=100 mm PN16 Válvula limitadora de caudal de DN=100 mm PN16, incluso juntas de unión y tornillería, totalmente colocada y probada.	1				1,00	1,00
ECD010016	UD CARRETE DE DESMONTAJE DN=100 mm PN16 Carrete telescópico de desmontaje DN100 PN16, bridas de acero al carbono, virolas de acero inoxidable, protección epoxi, tornillos y tuercas en acero F-114, cincado y posterior baño de cromo-niquel, incluido p.p. de brida enchufe, totalmente instalado y probado en obra.	2				2,00	2,00
245.4	UD VENTOSA DN=50 (2") mm PN16 Válvula ventosa de tres funciones de DN=50 mm (2") y PN 16 bar incluido transporte, juntas, válvula de corte DN=50 mm y PN 16 y piezas especiales, totalmente colocada y probada.	1				1,00	1,00
087	UD CODO FD 1/4 A 1/32 100 mm Codo de fundición dúctil de 1/4 a 1/32 de diámetro interior 100 mm y PFA 40 bar, con un revestimiento interior y exterior epoxi, incluso p.p. de juntas y medios auxiliares, totalmente colocado y probado.	1				1,00	1,00

MEDICIONES

ABASTECIMIENTO A VARIOS MUNICIPIOS DE LA RIOJA. SISTEMA CIDACOS

CÓDIGO	RESUMEN	UDS	LONGITUD	ANCHURA	ALTURA	PARCIALES	CANTIDAD
APARTADO 08.07.03 INSTRUMENTACIÓN Y CONTROL							
300	UD BOYA DE NIVEL DE MÁXIMO Y MÍNIMO Boya de nivel cableada con la válvula de llenado, incluso montaje y pruebas.	2				2,00	2,00
ECELM100	UD CAUDALÍMETRO ELECTROMAGNÉTICO DN 100 mm Equipo medidor de caudal de DN100 mm. tipo electromagnético y PN=10 atm. con salida 4/20 mA, tensión 220 V y escala 0-240 m3/h, totalmente instalado y probado. Incluido transporte, montaje, conexiones eléctricas y pruebas de funcionamiento. Resto de características, según ET.	1				1,00	1,00
APARTADO 08.07.04 INSTALACIÓN ELÉCTRICA DE BT							
563.1	ud PANTALLA ESTANCA LED Luminaria estanca WT120C LED80S/840 de Philips o equivalente para montaje en superficie de dimensiones 1515x80, carcasa de policarbonato, óptica de polimetacrilato de metilo, flujo luminoso 8.000 lm, potencia 68 W, Tª color 4000 K, rango de Tª de 10°C a 35°C, protección IP-65 Clase I. Incluso p.p. de canalización y cableado, completamente instalado.	1				1,000	1,00
524.1	m LINEA 3x1.5mm2 Cu 0.6/1kV RZ1-K (AS) Línea eléctrica con conductor multipolares 3x1.5mm2 RZ1-K (AS) en canalización existente, incluso conexionado en inicio y final de línea.	1	15,000			15,000	15,00
571	ud INTERRUPTOR EMPOTRAR SIMO 32 BLANCO. Interruptor empotrar blanco, totalmente instalado.	1				1,000	1,00
204	m TUBO DE PVC RÍGIDO DE 25 MM DIÁMETRO Tubo rígido de PVC d=25mm para canalización de conductores, incluso soportes y anclajes a pared, instalado.	1	15,000			15,000	15,00
APARTADO 08.07.05 VARIOS							
618	PA CONEXIÓN RED ELÉCTRICA BT CON DEPÓSITOS EXISTENTES Partida Alzada de Abono Íntegro para conexión de la red eléctrica en BT con depósitos existentes.	1				1,00	1,00
617.1	PA CONEXIÓN RED NUEVA CASETA CON DEPÓSITOS EXISTENTES FD DN<300 Partida Alzada de Abono Íntegro para conexión de la red de abastecimiento desde la nueva caseta de válvulas con depósitos existentes, incluyendo, excavaciones, tuberías de fundición de diámetro hasta 300 mm, rellenos, ayudas de albañilería, demoliciones, relleno de huecos con morteros sin retracción, anclaje de tuberías, así como todos los medios auxiliares necesarios para la conexión entre la salida de la nueva caseta de válvula y su salida al depósito.	1				1,00	1,00
SUBCAPÍTULO 08.08 ACOMETIDA A DEPÓSITO DE SANTA EULALIA BAJERA							

MEDICIONES

ABASTECIMIENTO A VARIOS MUNICIPIOS DE LA RIOJA. SISTEMA CIDACOS

CÓDIGO	RESUMEN	UDS	LONGITUD	ANCHURA	ALTURA	PARCIALES	CANTIDAD
APARTADO 08.08.01 OBRA CIVIL							
008	M2 DESPEJE Y DESBROCE Despeje y desbroce de capa de tierra vegetal con un espesor medio de 50 cm, incluso corte de árboles, extracción de tocones, nivelación de zona adyacente para el paso de maquinaria, transporte a lugar de acopio independiente para posterior reposición de tierra vegetal tras las obras y despedregado de las parcelas, así como transporte a vertedero de tierras sobrantes. Solera	1	3,20	2,00		6,40	6,40
002	M3 EXCAVACIÓN EN ZANJAS Excavación en zanjas y zonas localizadas, en todo tipo de terrenos incluido terrenos en roca con medios mecánicos, incluso rasanteo, nivelación de la superficie de apoyo y transporte a lugar de empleo o vertedero. Solera	1	3,20	2,00	0,35	2,24	2,24
028	M3 HORMIGÓN DE LIMPIEZA HL-150 Hormigón de limpieza HL-150, de consistencia plástica, árido de tamaño máximo 40 mm y cemento CEM-II-D/42,5/SR, para saneos y encachados, incluyendo fabricación y transporte totalmente colocado. Solera	1	3,20	2,00	0,10	0,64	0,64
031	M3 HORMIGÓN HA-25/B/20/IIa Hormigón HA-25/B/20/IIa, con cemento CEM II/A-D/42,5/SR, incluyendo fabricación, transporte, puesta en obra y vibrado, totalmente ejecutado, incluso curado y juntas. Solera	1	3,20	2,00	0,25	1,60	1,60
023	KG ACERO CORRUGADO B-500-S Acero redondo corrugado para armar tipo B-500-S elaborado y colocado. Solera	1	1,60	70,00		112,00	112,00
025	M2 ENCOFRADO RECTO EN PARAMENTOS OCULTOS Encofrado recto en paramentos ocultos, incluso colocación, fijación y desencofrado.	2 2	3,20 2,00		0,25 0,25	1,60 1,00	2,60
462	M2 FÁBRICA BLOQUES 40x20x20 cm TIPO SPLIT COLOR Fábrica de bloques de hormigón tipo Split, de medidas 40x20x20 cm color i/relleno de hormigón y colocación de armaduras s/normativa y recibido con mortero de cemento y arena de río 1/6 i/p.p. de piezas especiales para dinteles y materialización de jambas, roturas, nivelados, aplomados, llagueados y limpieza, todo ello según normativa. Edificio A deducir puerta A deducir ventana y rejilla	2 -1 -2	3,20 1,00 0,80	3,20	20,48 2,20 -0,96		17,32
464cf	M2 CARPINTERÍA FIJA ALUMINIO m². Carpintería fija con junquillos para la fijación del vidrio, de aluminio modelo con rotura de puente térmico, Alfil A54RPT de SAPAGROUP con un ancho de marco de 54 mm y con un ancho de hoja de 61 mm, medida del frente de 96,3 mm, con sistema de cámara europea, con espesor de perfil de 1,5 mm, con sistema de cierre por junta central de estanqueidad en EPDM, coplanar exteriormente y con resalte de hoja sobre el marco al interior, para un acristalamiento con altura de galce de 22 mm y anchura hasta 44 mm en marcos y 51 mm en hojas, lacado (entre 60-100 micras) en color estándar (RAL estándar: blanco, gris...), herrajes de colgar, p.p. de cerradura Tesa o similar y costes indirectos. Homologada con Clase 4 en el ensayo de permeabilidad al aire según norma UNE-EN 1026:2000. La transmitancia máxima del marco es de 2,90 W/m² K, y cumple en las zonas A, B, C, D y E, según el CTE/DB-HE 1. Ventana	1	0,80	0,60		0,48	0,48

MEDICIONES

ABASTECIMIENTO A VARIOS MUNICIPIOS DE LA RIOJA. SISTEMA CIDACOS

CÓDIGO	RESUMEN	UDS	LONGITUD	ANCHURA	ALTURA	PARCIALES	CANTIDAD
464V3	M2 VIDRIO SEGURIDAD STADIP 44.1 INCOLORO (2B2) m². Acristalamiento de vidrio laminar de seguridad Stadip compuesto por dos vidrios de 4 mm de espesor unidos mediante lámina de butiral de polivinilo incolora de 0,38 mm, clasificado 2B2 según UNE-EN 12600, fijado sobre carpintería con acuíñado mediante calzos de apoyo perimetrales y laterales y sellado en frío con silicona neutra, incluso colocación de junquillos, según UNE 85222:1985. Ventana	1	0,80	0,60		0,48	0,48
520	M2 CUBIERTA PANEL SANDWICH (E=50 mm.) Cubierta con panel tipo sandwich espesor 50 cm., con doble chapa prelacada de 0,4 mm de espesor, y aislamiento térmico de poliuretano, fijada con gancho de acero galvanizado, incluso p.p de piezas de remate, totalmente colocada. 1	3,20	2,00		6,40	6,40	
521	M2 CELOSIA FIJA VENTILACIÓN Celosía metálica fija para ventilación, formada por cerco con empanelado de lamas de acero de 60 mm, con abertura mínima de 1 cm entre lamas, malla de 2 mm para evitar entrada de insectos, garras de sujeción a soporte de 10 cm, elaborada en taller y montada en obra, totalmente colocada. 1	0,80	0,60		0,48	0,48	
465.1	M2 PUERTA DOBLE CHAPA ACERO CON LAMAS Puerta de paso hojas abatibles de doble chapa lisa de acero de 1 mm de espesor, con aislamiento interno de fibra de vidrio, engatillada, realizada en dos bandejas, con rigidizadores de tubo rectangular, i/manillas de acero inoxidable y cerradura, con dos o cuatro rejillas de ventilación con malla anti insectos interior, patillas para recibir en fábricas, herrajes de colgar y de seguridad, imprimación antióxido y pintura al esmalte, totalmente colocada incluyendo el recibido de fábricas. 1	1,00	2,20		2,20	2,20	
519	ML REMATE DE CHAPA PRELACADA CUBIERTA Remate de chapa prelacada en color, para cubrir parte superior de bloque o panel, hasta el panel sandwich de la cubierta por el interior del peto, fijado mediante tacos y/o ganchos anclado a muro y o cubierta, dispuesto según planos. 1 2	3,20 2,00			3,20 4,00	7,20	
020	KG ACERO S 275 J PERFILES LAMINADOS Acero S 275 J en perfiles laminados elaborado y colocado. Correa IPE-100	3	3,00	8,10		72,90	72,90
474.1	ML CANALON CHAPA PRELACADA 50cm Canalón de chapa prelacada en color, de 50 cm. de desarrollo fijado mediante ganchos ocultos con tornillo autoroscante 40 cm., incluso p.p. de embocadura de bajante, codos y piezas especiales. 1	2,80			2,80	2,80	
APARTADO 08.08.02 VÁLVULAS Y ACCESORIOS							
177.1	UD REDUCCIÓN PEAD 63 A 50 mm DIÁMETRO Reducción en polietileno de alta densidad de 63 mm a 50 mm de diámetro, totalmente colocada y probada. Entrada Salida	1 1			1,00 1,00		2,00

MEDICIONES

ABASTECIMIENTO A VARIOS MUNICIPIOS DE LA RIOJA. SISTEMA CIDACOS

CÓDIGO	RESUMEN	UDS	LONGITUD	ANCHURA	ALTURA	PARCIALES	CANTIDAD
177.8	UD COLLARÍN DE TOMA PEAD 63 A 25 mm DIÁMETRO Collarín de toma en polietileno de alta densidad de 63 mm a 25 mm de diámetro, totalmente colocada y probada.						
	Ventosa entrada	1				1,00	
	Ventosa salida	1				1,00	
							2,00
245.1	UD VENTOSA DN=25 mm (1") PN16 Válvula ventosa de tres funciones de 1" (DN=25 mm) y PN 16 bar incluido transporte, juntas, válvula de corte DN=25 mm y PN 16 bar y piezas especiales, totalmente colocada y probada.						
	Entrada	1				1,00	
	Salida	1				1,00	
							2,00
EVMMT050	UD VÁLVULA DE MARIPOSA DN=50 mm PN16 MOTORIZADA Válvula de mariposa de 50 mm de diámetro y PN16, motorizada, incluso carrete, mecanismo de accionamiento, maniobra y control, transporte, montaje, juntas, tornillería y pintura totalmente instalada y probada.						
		1				1,00	
							1,00
254	UD FILTRO COLADOR EN Y DN=50 mm PN16 Filtro colador en "Y" de diámetro nominal DN=50 mm y brida PN=16 bar de presión, incluso juntas de unión y tornillería, totalmente instalado.						
		1				1,00	
							1,00
150	UD CARRETE DE DESMONTAJE DN=50 mm PN16 Carrete de desmontaje autoportante de PFA 16 bar de D=50 mm, colocado.						
		1				1,00	
							1,00
270	UD VÁLVULA DE LLENADO DN=50 mm PN16 APERTURA DIFERIDA Válvula de llenado de asiento inoxidable y apertura diferida de diámetro nominal DN=50 mm y PN=16 bar, totalmente instalado y probado.						
		1				1,00	
							1,00
242	UD VÁLVULA DE COMPUERTA MANUAL DN50 PN16 Válvula de compuerta de accionamiento manual de diámetro nominal DN=50 mm de 16 bares de presión máxima admisible, con tornillería y juntas, totalmente instalada y probada, incluso volante de accionamiento.						
	Salida	1				1,00	
							1,00
APARTADO 08.08.03 INSTRUMENTACIÓN Y CONTROL							
300	UD BOYA DE NIVEL DE MÁXIMO Y MÍNIMO Boya de nivel cableada con la válvula de llenado, incluso montaje y pruebas.						
		2				2,00	
							2,00
288	UD CONTADOR CON EMISOR DE PULSOS DN=25 mm Contador con emisor de pulsos para tubería de diámetro nominal DN=25 mm, incluso juntas de unión y tornillería, totalmente colocado y probado.						
		1				1,00	
							1,00

MEDICIONES

ABASTECIMIENTO A VARIOS MUNICIPIOS DE LA RIOJA. SISTEMA CIDACOS

CÓDIGO	RESUMEN	UDS	LONGITUD	ANCHURA	ALTURA	PARCIALES	CANTIDAD
APARTADO 08.08.04 INSTALACIÓN ELÉCTRICA DE BT							
563.1	ud PANTALLA ESTANCA LED Luminaria estanca WT120C LED80S/840 de Philips o equivalente para montaje en superficie de dimensiones 1515x80, carcasa de policarbonato, óptica de polimetacrilato de metilo, flujo luminoso 8.000 lm, potencia 68 W, Tª color 4000 K, rango de Tª de 10°C a 35°C, protección IP-65 Clase I. Incluso p.p. de canalización y cableado, completamente instalado.						
		1				1,000	
							1,00
524.1	m LINEA 3x1.5mm2 Cu 0.6/1kV RZ1-K (AS) Línea eléctrica con conductor multipolares 3x1.5mm2 RZ1-K (AS) en canalización existente, incluso conexionado en inicio y final de línea.						
		1	15,000			15,000	
							15,00
571	ud INTERRUPTOR EMPOTRAR SIMO 32 BLANCO. Interruptor empotrar blanco, totalmente instalado.						
		1				1,000	
							1,00
204	m TUBO DE PVC RÍGIDO DE 25 MM DIÁMETRO Tubo rígido de PVC d=25mm para canalización de conductores, incluso soportes y anclajes a pared, instalado.						
		1	15,000			15,000	
							15,00
APARTADO 08.08.05 VARIOS							
617	PA CONEXIÓN RED NUEVA CASETA CON DEPÓSITOS EXISTENTES PEAD Partida Alzada de Abono Íntegro para conexión de la red de abastecimiento desde la nueva caseta de válvulas con depósitos existentes, incluyendo, excavaciones, tuberías de PEAD de cualquier diámetro, rellenos, ayudas de albañilería, demoliciones, relleno de huecos con morteros sin retracción, anclaje de tuberías, así como todos los medios auxiliares necesarios para la conexión entre la salida de la nueva caseta de válvula y su salida al depósito.						
		1				1,00	
							1,00
618	PA CONEXIÓN RED ELÉCTRICA BT CON DEPÓSITOS EXISTENTES Partida Alzada de Abono Íntegro para conexión de la red eléctrica en BT con depósitos existentes.						
		1				1,00	
							1,00
SUBCAPÍTULO 08.09 ACOMETIDA A DEPÓSITO DE SANTA EULALIA SOMERA							
APARTADO 08.09.01 OBRA CIVIL							
008	M2 DESPEJE Y DESBROCE Despeje y desbroce de capa de tierra vegetal con un espesor medio de 50 cm, incluso corte de árboles, extracción de tocones, nivelación de zona adyacente para el paso de maquinaria, transporte a lugar de acopio independiente para posterior reposición de tierra vegetal tras las obras y despedregado de las parcelas, así como transporte a vertedero de tierras sobrantes.						
	Solera	1	3,20	2,00		6,40	
							6,40
002	M3 EXCAVACIÓN EN ZANJAS Excavación en zanjas y zonas localizadas, en todo tipo de terrenos incluido terrenos en roca con medios mecánicos, incluso rasanteo, nivelación de la superficie de apoyo y transporte a lugar de empleo o vertedero.						
	Solera	1	3,20	2,00	0,35	2,24	
							2,24
028	M3 HORMIGÓN DE LIMPIEZA HL-150 Hormigón de limpieza HL-150, de consistencia plástica, árido de tamaño máximo 40 mm y cemento CEM-II-D/42,5/SR, para saneos y enchachados, incluyendo fabricación y transporte totalmente colocado.						
	Solera	1	3,20	2,00	0,10	0,64	

MEDICIONES

ABASTECIMIENTO A VARIOS MUNICIPIOS DE LA RIOJA. SISTEMA CIDACOS

CÓDIGO	RESUMEN	UDS	LONGITUD	ANCHURA	ALTURA	PARCIALES	CANTIDAD
							0,64
031	M3 HORMIGÓN HA-25/B/20/IIa Hormigón HA-25/B/20/IIa, con cemento CEM II/A-D/42,5/SR, incluyendo fabricación, transporte, puesta en obra y vibrado, totalmente ejecutado, incluso curado y juntas. Solera	1	3,20	2,00	0,25	1,60	1,60
023	KG ACERO CORRUGADO B-500-S Acero redondo corrugado para armar tipo B-500-S elaborado y colocado. Solera	1	1,60	70,00		112,00	112,00
025	M2 ENCOFRADO RECTO EN PARAMENTOS OCULTOS Encofrado recto en paramentos ocultos, incluso colocación, fijación y desencofrado.	2	3,20		0,25	1,60	2,60
		2	2,00		0,25	1,00	
462	M2 FÁBRICA BLOQUES 40x20x20 cm TIPO SPLIT COLOR Fábrica de bloques de hormigón tipo Split, de medidas 40x20x20 cm color i/relleno de hormigón y colocación de armaduras s/normativa y recibido con mortero de cemento y arena de río 1/6 i/p.p. de piezas especiales para dinteles y materialización de jambas, roturas, nivelados, aplomados, llagueados y limpieza, todo ello según normativa. Edificio A deducir puerta A deducir ventana y rejilla	2	3,20		3,20	20,48	17,32
		-1	1,00		2,20	-2,20	
		-2	0,80		0,60	-0,96	
464cf	M2 CARPINTERÍA FIJA ALUMINIO m². Carpintería fija con junquillos para la fijación del vidrio, de aluminio modelo con rotura de puente térmico, Alfil A54RPT de SAPAGROUP con un ancho de marco de 54 mm y con un ancho de hoja de 61 mm, medida del frente de 96,3 mm, con sistema de cámara europea, con espesor de perfil de 1,5 mm, con sistema de cierre por junta central de estanqueidad en EPDM, coplanar exteriormente y con resalte de hoja sobre el marco al interior, para un acristalamiento con altura de galce de 22 mm y anchura hasta 44 mm en marcos y 51 mm en hojas, lacado (entre 60-100 micras) en color estándar (RAL estándar: blanco, gris...), herrajes de colgar, p.p. de cerradura Tesa o similar y costes indirectos. Homologada con Clase 4 en el ensayo de permeabilidad al aire según norma UNE-EN 1026:2000. La transmitancia máxima del marco es de 2,90 W/m² K, y cumple en las zonas A, B, C, D y E, según el CTE/DB-HE 1. Ventana	1	0,80		0,60	0,48	0,48
464V3	M2 VIDRIO SEGURIDAD STADIP 44.1 INCOLORO (2B2) m². Acristalamiento de vidrio laminar de seguridad Stadip compuesto por dos vidrios de 4 mm de espesor unidos mediante lámina de butiral de polivinilo incolora de 0,38 mm, clasificado 2B2 según UNE-EN 12600, fijado sobre carpintería con acuíado mediante calzos de apoyo perimetrales y laterales y sellado en frío con silicona neutra, incluso colocación de junquillos, según UNE 85222:1985. Ventana	1	0,80		0,60	0,48	0,48
520	M2 CUBIERTA PANEL SANDWICH (E=50 mm.) Cubierta con panel tipo sandwich espesor 50 cm., con doble chapa prelacada de 0,4 mm de espesor, y aislamiento térmico de poliuretano, fijada con gancho de acero galvanizado, incluso p.p de piezas de remate, totalmente colocada.	1	3,20	2,00		6,40	6,40

MEDICIONES

ABASTECIMIENTO A VARIOS MUNICIPIOS DE LA RIOJA. SISTEMA CIDACOS

CÓDIGO	RESUMEN	UDS	LONGITUD	ANCHURA	ALTURA	PARCIALES	CANTIDAD
521	M2 CELOSIA FIJA VENTILACIÓN Celosía metálica fija para ventilación, formada por cerco con empanelado de lamas de acero de 60 mm, con abertura mínima de 1 cm entre lamas, malla de 2 mm para evitar entrada de insectos, garras de sujeción a soporte de 10 cm, elaborada en taller y montada en obra, totalmente colocada.	1	0,80		0,60	0,48	0,48
465.1	M2 PUERTA DOBLE CHAPA ACERO CON LAMAS Puerta de paso hojas abatibles de doble chapa lisa de acero de 1 mm de espesor, con aislamiento interno de fibra de vidrio, engatillada, realizada en dos bandejas, con rigidizadores de tubo rectangular, i/manillas de acero inoxidable y cerradura, con dos o cuatro rejillas de ventilación con malla anti insectos interior, patillas para recibir en fábricas, herrajes de colgar y de seguridad, imprimación antióxido y pintura al esmalte, totalmente colocada incluyendo el recibido de fábricas.	1	1,00		2,20	2,20	2,20
519	ML REMATE DE CHAPA PRELACADA CUBIERTA Remate de chapa prelacada en color, para cubrir parte superior de bloque o panel, hasta el panel sandwich de la cubierta por el interior del peto, fijado mediante tacos y/o ganchos anclado a muro y o cubierta, dispuesto según planos.	1	3,20			3,20	7,20
		2	2,00			4,00	
020	KG ACERO S 275 J PERFILES LAMINADOS Acero S 275 J en perfiles laminados elaborado y colocado. Correa IPE-100	3	3,00	8,10		72,90	72,90
474.1	ML CANALON CHAPA PRELACADA 50cm Canalón de chapa prelacada en color, de 50 cm. de desarrollo fijado mediante ganchos ocultos con tornillo autoroscante 40 cm., incluso p.p. de embocadura de bajante, codos y piezas especiales.	1	2,80			2,80	2,80
APARTADO 08.09.02 VÁLVULAS Y ACCESORIOS							
177.1	UD REDUCCIÓN PEAD 63 A 50 mm DIÁMETRO Reducción en polietileno de alta densidad de 63 mm a 50 mm de diámetro, totalmente colocada y probada. Entrada Salida	1				1,00	2,00
		1				1,00	
177.8	UD COLLARÍN DE TOMA PEAD 63 A 25 mm DIÁMETRO Collarín de toma en polietileno de alta densidad de 63 mm a 25 mm de diámetro, totalmente colocada y probada. Ventosa entrada Ventosa salida	1				1,00	2,00
		1				1,00	
245.1	UD VENTOSA DN=25 mm (1") PN16 Válvula ventosa de tres funciones de 1" (DN=25 mm) y PN 16 bar incluido transporte, juntas, válvula de corte DN=25 mm y PN 16 bar y piezas especiales, totalmente colocada y probada. Entrada Salida	1				1,00	2,00
		1				1,00	
EVMMT050	UD VÁLVULA DE MARIPOSA DN=50 mm PN16 MOTORIZADA Válvula de mariposa de 50 mm de diámetro y PN16, motorizada, incluso carrete, mecanismo de accionamiento, maniobra y control, transporte, montaje, juntas, tornillería y pintura totalmente instalada y probada.	1				1,00	1,00

MEDICIONES

ABASTECIMIENTO A VARIOS MUNICIPIOS DE LA RIOJA. SISTEMA CIDACOS

CÓDIGO	RESUMEN	UDS	LONGITUD	ANCHURA	ALTURA	PARCIALES	CANTIDAD
							1,00
254	UD FILTRO COLADOR EN Y DN=50 mm PN16 Filtro colador en "Y" de diámetro nominal DN=50 mm y brida PN=16 bar de presión, incluso juntas de unión y tornillería, totalmente instalado.	1				1,00	1,00
150	UD CARRETE DE DESMONTAJE DN=50 mm PN16 Carrete de desmontaje autoportante de PFA 16 bar de D=50 mm, colocado.	1				1,00	1,00
270	UD VÁLVULA DE LLENADO DN=50 mm PN16 APERTURA DIFERIDA Válvula de llenado de asiento inoxidable y apertura diferida de diámetro nominal DN=50 mm y PN=16 bar, totalmente instalado y probado.	1				1,00	1,00
242	UD VÁLVULA DE COMPUERTA MANUAL DN50 PN16 Válvula de compuerta de accionamiento manual de diámetro nominal DN=50 mm de 16 bares de presión máxima admisible, con tornillería y juntas, totalmente instalada y probada, incluso volante de accionamiento. Salida	1				1,00	1,00
APARTADO 08.09.03 INSTRUMENTACIÓN Y CONTROL							1,00
300	UD BOYA DE NIVEL DE MÁXIMO Y MÍNIMO Boya de nivel cableada con la válvula de llenado, incluso montaje y pruebas.	2				2,00	2,00
288	UD CONTADOR CON EMISOR DE PULSOS DN=25 mm Contador con emisor de pulsos para tubería de diámetro nominal DN=25 mm, incluso juntas de unión y tornillería, totalmente colocado y probado.	1				1,00	1,00
APARTADO 08.09.04 INSTALACIÓN ELÉCTRICA DE BT							1,00
563.1	ud PANTALLA ESTANCA LED Luminaria estanca WT120C LED80S/840 de Philips o equivalente para montaje en superficie de dimensiones 1515x80, carcasa de policarbonato, óptica de polimetacrilato de metilo, flujo luminoso 8.000 lm, potencia 68 W, Tª color 4000 K, rango de Tª de 10°C a 35°C, protección IP-65 Clase I. Incluso p.p. de canalización y cableado, completamente instalado.	1				1,000	1,00
524.1	m LINEA 3x1.5mm2 Cu 0.6/1kV RZ1-K (AS) Línea eléctrica con conductor multipolares 3x1.5mm2 RZ1-K (AS) en canalización existente, incluso conexionado en inicio y final de línea.	1	15,000			15,000	15,00
571	ud INTERRUPTOR EMPOTRAR SIMO 32 BLANCO. Interruptor empotrar blanco, totalmente instalado.	1				1,000	1,00
204	m TUBO DE PVC RÍGIDO DE 25 MM DIÁMETRO Tubo rígido de PVC d=25mm para canalización de conductores, incluso soportes y anclajes a pared, instalado.	1	15,000			15,000	15,00

MEDICIONES

ABASTECIMIENTO A VARIOS MUNICIPIOS DE LA RIOJA. SISTEMA CIDACOS

CÓDIGO	RESUMEN	UDS	LONGITUD	ANCHURA	ALTURA	PARCIALES	CANTIDAD
APARTADO 08.09.05 VARIOS							
617	PA CONEXIÓN RED NUEVA CASETA CON DEPÓSITOS EXISTENTES PEAD Partida Alzada de Abono Íntegro para conexión de la red de abastecimiento desde la nueva caseta de válvulas con depósitos existentes, incluyendo, excavaciones, tuberías de PEAD de cualquier diámetro, rellenos, ayudas de albañilería, demoliciones, relleno de huecos con morteros sin retracción, anclaje de tuberías, así como todos los medios auxiliares necesarios para la conexión entre la salida de la nueva caseta de válvula y su salida al depósito.	1				1,00	1,00
618	PA CONEXIÓN RED ELÉCTRICA BT CON DEPÓSITOS EXISTENTES Partida Alzada de Abono Íntegro para conexión de la red eléctrica en BT con depósitos existentes.	1				1,00	1,00
SUBCAPÍTULO 08.10 ACOMETIDA A DEPÓSITO DE HERCE							
APARTADO 08.10.01 OBRA CIVIL							
008	M2 DESPEJE Y DESBROCE Despeje y desbroce de capa de tierra vegetal con un espesor medio de 50 cm, incluso corte de árboles, extracción de tocones, nivelación de zona adyacente para el paso de maquinaria, transporte a lugar de acopio independiente para posterior reposición de tierra vegetal tras las obras y despedregado de las parcelas, así como transporte a vertedero de tierras sobrantes. Solera	1	3,20	2,00		6,40	6,40
002	M3 EXCAVACIÓN EN ZANJAS Excavación en zanjas y zonas localizadas, en todo tipo de terrenos incluido terrenos en roca con medios mecánicos, incluso rasanteo, nivelación de la superficie de apoyo y transporte a lugar de empleo o vertedero. Solera	1	3,20	2,00	0,35	2,24	2,24
028	M3 HORMIGÓN DE LIMPIEZA HL-150 Hormigón de limpieza HL-150, de consistencia plástica, árido de tamaño máximo 40 mm y cemento CEM-II-D/42,5/SR, para saneos y encachados, incluyendo fabricación y transporte totalmente colocado. Solera	1	3,20	2,00	0,10	0,64	0,64
031	M3 HORMIGÓN HA-25/B/20/IIa Hormigón HA-25/B/20/IIa, con cemento CEM II/A-D/42,5/SR, incluyendo fabricación, transporte, puesta en obra y vibrado, totalmente ejecutado, incluso curado y juntas. Solera	1	3,20	2,00	0,25	1,60	1,60
023	KG ACERO CORRUGADO B-500-S Acero redondo corrugado para armar tipo B-500-S elaborado y colocado. Solera	1	1,60	70,00		112,00	112,00
025	M2 ENCOFRADO RECTO EN PARAMENTOS OCULTOS Encofrado recto en paramentos ocultos, incluso colocación, fijación y desencofrado.	2	3,20		0,25	1,60	
		2	2,00		0,25	1,00	
							2,60
462	M2 FÁBRICA BLOQUES 40x20x20 cm TIPO SPLIT COLOR Fábrica de bloques de hormigón tipo Split, de medidas 40x20x20 cm color i/relleno de hormigón y colocación de armaduras s/normativa y recibido con mortero de cemento y arena de río 1/6 i/p.p. de piezas especiales para dinteles y materialización de jambas, roturas, nivelados, aplomados, llagueados y limpieza, todo ello según normativa. Edificio A deducir puerta	2	3,20		3,20	20,48	
		-1	1,00		2,20	-2,20	

MEDICIONES

ABASTECIMIENTO A VARIOS MUNICIPIOS DE LA RIOJA. SISTEMA CIDACOS

CÓDIGO	RESUMEN	UDS	LONGITUD	ANCHURA	ALTURA	PARCIALES	CANTIDAD
	Arqueta entrada	1	2,20	1,60		3,52	
							17,32
464cf	M2 CARPINTERÍA FIJA ALUMINIO m². Carpintería fija con junquillos para la fijación del vidrio, de aluminio modelo con rotura de puente térmico, Alfil A54RPT de SAPAGROUP con un ancho de marco de 54 mm y con un ancho de hoja de 61 mm, medida del frente de 96,3 mm, con sistema de cámara europea, con espesor de perfil de 1,5 mm, con sistema de cierre por junta central de estanqueidad en EPDM, coplanar exteriormente y con resalte de hoja sobre el marco al interior, para un acristalamiento con altura de galce de 22 mm y anchura hasta 44 mm en marcos y 51 mm en hojas, lacado (entre 60-100 micras) en color estándar (RAL estándar: blanco, gris...), herrajes de colgar, p.p. de cerradura Tesa o similar y costes indirectos. Homologada con Clase 4 en el ensayo de permeabilidad al aire según norma UNE-EN 1026:2000. La transmitancia máxima del marco es de 2,90 W/m² K, y cumple en las zonas A, B, C, D y E, según el CTE/DB-HE 1. Ventana	1	0,80		0,60	0,48	
							0,48
464V3	M2 VIDRIO SEGURIDAD STADIP 44.1 INCOLORO (2B2) m². Acristalamiento de vidrio laminar de seguridad Stadip compuesto por dos vidrios de 4 mm de espesor unidos mediante lámina de butiral de polivinilo incolora de 0,38 mm, clasificado 2B2 según UNE-EN 12600, fijado sobre carpintería con acuíñado mediante calzos de apoyo perimetrales y laterales y sellado en frío con silicona neutra, incluso colocación de junquillos, según UNE 85222:1985. Ventana	1	0,80		0,60	0,48	
							0,48
520	M2 CUBIERTA PANEL SANDWICH (E=50 mm.) Cubierta con panel tipo sandwich espesor 50 cm., con doble chapa prelacada de 0,4 mm de espesor, y aislamiento térmico de poliuretano, fijada con gancho de acero galvanizado, incluso p.p de piezas de remate, totalmente colocada.	1	3,20	2,00		6,40	
							6,40
521	M2 CELOSIA FIJA VENTILACIÓN Celosía metálica fija para ventilación, formada por cerco con empanelado de lamas de acero de 60 mm, con abertura mínima de 1 cm entre lamas, malla de 2 mm para evitar entrada de insectos, garras de sujeción a soporte de 10 cm, elaborada en taller y montada en obra, totalmente colocada.	1	0,80		0,60	0,48	
							0,48
465.1	M2 PUERTA DOBLE CHAPA ACERO CON LAMAS Puerta de paso hojas abatibles de doble chapa lisa de acero de 1 mm de espesor, con aislamiento interno de fibra de vidrio, engatillada, realizada en dos bandejas, con rigidizadores de tubo rectangular, i/manillas de acero inoxidable y cerradura, con dos o cuatro rejillas de ventilación con malla anti insectos interior, patillas para recibir en fábricas, herrajes de colgar y de seguridad, imprimación antióxido y pintura al esmalte, totalmente colocada incluyendo el recibido de fábricas.	1	1,00		2,20	2,20	
							2,20
519	ML REMATE DE CHAPA PRELACADA CUBIERTA Remate de chapa prelacada en color, para cubrir parte superior de bloque o panel, hasta el panel sandwich de la cubierta por el interior del peto, fijado mediante tacos y/o ganchos anclado a muro y o cubierta, dispuesto según planos.	1	3,20			3,20	
		2	2,00			4,00	
							7,20
020	KG ACERO S 275 J PERFILES LAMINADOS Acero S 275 J en perfiles laminados elaborado y colocado. Correa IPE-100	3	3,00	8,10		72,90	
							72,90

MEDICIONES

ABASTECIMIENTO A VARIOS MUNICIPIOS DE LA RIOJA. SISTEMA CIDACOS

CÓDIGO	RESUMEN	UDS	LONGITUD	ANCHURA	ALTURA	PARCIALES	CANTIDAD
474.1	ML CANALON CHAPA PRELACADA 50cm Canalón de chapa prelacada en color, de 50 cm. de desarrollo fijado mediante ganchos ocultos con tornillo autoroscante 40 cm., incluso p.p. de embocadura de bajante, codos y piezas especiales.	1	2,80			2,80	
							2,80
APARTADO 08.10.02 VÁLVULAS Y ACCESORIOS							
177.2	UD REDUCCIÓN PEAD 75 A 50 mm DIÁMETRO Reducción en polietileno de alta densidad de 75 mm a 50 mm de diámetro, totalmente colocada y probada.	1				1,00	
	Entrada	1				1,00	
	Salida	1				1,00	
							2,00
177.9	UD COLLARÍN DE TOMA PEAD 75 A 25 mm DIÁMETRO Collarín de toma en polietileno de alta densidad de 75 mm a 25 mm de diámetro, totalmente colocada y probada.	1				1,00	
	Ventosa entrada	1				1,00	
	Ventosa salida	1				1,00	
							2,00
245.1	UD VENTOSA DN=25 mm (1") PN16 Válvula ventosa de tres funciones de 1" (DN=25 mm) y PN 16 bar incluido transporte, juntas, válvula de corte DN=25 mm y PN 16 bar y piezas especiales, totalmente colocada y probada.	1				1,00	
	Entrada	1				1,00	
	Salida	1				1,00	
							2,00
EVMMT050	UD VÁLVULA DE MARIPOSA DN=50 mm PN16 MOTORIZADA Válvula de mariposa de 50 mm de diámetro y PN16, motorizada, incluso carrete, mecanismo de accionamiento, maniobra y control, transporte, montaje, juntas, tomillería y pintura totalmente instalada y probada.	1				1,00	
							1,00
254	UD FILTRO COLADOR EN Y DN=50 mm PN16 Filtro colador en "Y" de diámetro nominal DN=50 mm y brida PN=16 bar de presión, incluso juntas de unión y tomillería, totalmente instalado.	1				1,00	
							1,00
150	UD CARRETE DE DESMONTAJE DN=50 mm PN16 Carrete de desmontaje autoportante de PFA 16 bar de D=50 mm, colocado.	1				1,00	
							1,00
270	UD VÁLVULA DE LLENADO DN=50 mm PN16 APERTURA DIFERIDA Válvula de llenado de asiento inoxidable y apertura diferida de diámetro nominal DN=50 mm y PN=16 bar, totalmente instalado y probado.	1				1,00	
							1,00
242	UD VÁLVULA DE COMPUERTA MANUAL DN50 PN16 Válvula de compuerta de accionamiento manual de diámetro nominal DN=50 mm de 16 bares de presión máxima admisible, con tomillería y juntas, totalmente instalada y probada, incluso volante de accionamiento.	1				1,00	
	Salida	1				1,00	
							1,00

MEDICIONES

ABASTECIMIENTO A VARIOS MUNICIPIOS DE LA RIOJA. SISTEMA CIDACOS

CÓDIGO	RESUMEN	UDS	LONGITUD	ANCHURA	ALTURA	PARCIALES	CANTIDAD
APARTADO 08.10.03 INSTRUMENTACIÓN Y CONTROL							
300	UD BOYA DE NIVEL DE MÁXIMO Y MÍNIMO Boya de nivel cableada con la válvula de llenado, incluso montaje y pruebas.	2				2,00	2,00
288	UD CONTADOR CON EMISOR DE PULSOS DN=25 mm Contador con emisor de pulsos para tubería de diámetro nominal DN=25 mm, incluso juntas de unión y tornillería, totalmente colocado y probado.	1				1,00	1,00
APARTADO 08.10.04 INSTALACIÓN ELÉCTRICA DE BT							
563.1	ud PANTALLA ESTANCA LED Luminaria estanca WT120C LED80S/840 de Philips o equivalente para montaje en superficie de dimensiones 1515x80, carcasa de policarbonato, óptica de polimetacrilato de metilo, flujo luminoso 8.000 lm, potencia 68 W, Tª color 4000 K, rango de Tª de 10°C a 35°C, protección IP-65 Clase I. Incluso p.p. de canalización y cableado, completamente instalado.	1				1,000	1,00
524.1	m LINEA 3x1.5mm2 Cu 0.6/1kV RZ1-K (AS) Línea eléctrica con conductor multipolares 3x1.5mm2 RZ1-K (AS) en canalización existente, incluso conexionado en inicio y final de línea.	1	15,000			15,000	15,00
571	ud INTERRUPTOR EMPOTRAR SIMO 32 BLANCO. Interruptor empotrar blanco, totalmente instalado.	1				1,000	1,00
204	m TUBO DE PVC RÍGIDO DE 25 MM DIÁMETRO Tubo rígido de PVC d=25mm para canalización de conductores, incluso soportes y anclajes a pared, instalado.	1	15,000			15,000	15,00
APARTADO 08.10.05 VARIOS							
617	PA CONEXIÓN RED NUEVA CASETA CON DEPÓSITOS EXISTENTES PEAD Partida Alzada de Abono Íntegro para conexión de la red de abastecimiento desde la nueva caseta de válvulas con depósitos existentes, incluyendo, excavaciones, tuberías de PEAD de cualquier diámetro, rellenos, ayudas de albañilería, demoliciones, relleno de huevos con morteros sin retracción, anclaje de tuberías, así como todos los medios auxiliares necesarios para la conexión entre la salida de la nueva caseta de válvula y su salida al depósito.	1				1,00	1,00
618	PA CONEXIÓN RED ELÉCTRICA BT CON DEPÓSITOS EXISTENTES Partida Alzada de Abono Íntegro para conexión de la red eléctrica en BT con depósitos existentes.	1				1,00	1,00
SUBCAPÍTULO 08.11 ACOMETIDA A DEPÓSITO DE ARNEDO							
APARTADO 08.11.01 OBRA CIVIL							
002	M3 EXCAVACIÓN EN ZANJAS Excavación en zanjas y zonas localizadas, en todo tipo de terrenos incluido terrenos en roca con medios mecánicos, incluso rasanteo, nivelación de la superficie de apoyo y transporte a lugar de empleo o vertedero.	1	102,44		2,17	222,29	222,29

MEDICIONES

ABASTECIMIENTO A VARIOS MUNICIPIOS DE LA RIOJA. SISTEMA CIDACOS

CÓDIGO	RESUMEN	UDS	LONGITUD	ANCHURA	ALTURA	PARCIALES	CANTIDAD
010	M3 RELLENO ZANJAS, CIMIENTOS Y TRASDOSES DE MATERIAL SELECCIONADO Relleno con material seleccionado en zanjas, cimientos, trasdós de muros, estribos y otras estructuras procedente de la excavación o préstamos incluso carga, transporte y compactación.	1	222,29			222,29	222,29
		-1	80,67		0,50	-40,34	
		-1	72,48		1,67	-121,04	
							60,91
028	M3 HORMIGÓN DE LIMPIEZA HL-150 Hormigón de limpieza HL-150, de consistencia plástica, árido de tamaño máximo 40 mm y cemento CEM-II-D/42,5/SR, para saneos y encachados, incluyendo fabricación y transporte totalmente colocado.	1	8,64		0,10	0,86	0,86
031	M3 HORMIGÓN HA-25/B/20/IIa Hormigón HA-25/B/20/IIa, con cemento CEM III/A-D/42,5/SR, incluyendo fabricación, transporte, puesta en obra y vibrado, totalmente ejecutado, incluso curado y juntas.	1	80,64		0,40	32,26	32,26
	Solera	2	12,40	0,30	1,88	13,99	
	Muros	1	3,80	0,30	1,88	2,14	
		1	2,90	0,30	1,88	1,64	
		1	7,00	0,30	1,88	3,95	21,72
	Pilares	8	0,25	0,25	3,30	1,65	
	Vigas	1	40,00	0,25	0,25	2,50	
							58,13
023	KG ACERO CORRUGADO B-500-S Acero redondo corrugado para armar tipo B-500-S elaborado y colocado.	1	32,26	70,00		2.258,20	
	Muros	1	21,72	85,00		1.846,20	
	Pilares	1	1,65	120,00		198,00	
	Vigas	1	2,20	100,00		220,00	
	Solapes y despuntes (5%)	0,05	4.214,70			210,74	
							4.733,14
025	M2 ENCOFRADO RECTO EN PARAMENTOS OCULTOS Encofrado recto en paramentos ocultos, incluso colocación, fijación y desencofrado.	1	41,60		0,40	16,64	16,64
026	M2 ENCOFRADO RECTO EN PARAMENTOS VISTOS 1C Encofrado recto en paramentos vistos a una cara, incluso colocación, fijación y desencofrado.	1	40,00		1,88	75,20	
	Muros	1	37,60		1,88	70,69	145,89
							145,89
026.2	M2 ENCOFRADO RECTO EN PILARES VISTOS Encofrado recto en pilares vistos, incluso colocación, fijación y desencofrado.	24	0,25		3,30	19,80	19,80
026.3	M2 ENCOFRADO RECTO EN VIGAS VISTOS Encofrado recto en vigas vistas, incluso colocación, fijación, apuntalamiento o cimbras, y desencofrado.	2	39,60		0,25	19,80	
		1	38,60	0,25		9,65	
							29,45

MEDICIONES

ABASTECIMIENTO A VARIOS MUNICIPIOS DE LA RIOJA. SISTEMA CIDACOS

CÓDIGO	RESUMEN	UDS	LONGITUD	ANCHURA	ALTURA	PARCIALES	CANTIDAD
052	ML JUNTAS DE ESTANQUEIDAD DE PVC 32 CM Junta de trabajo interior de policloruro de vinilo (PVC) 100% virgen, con una fuerza máxima de dilatación > 250 %, de 32 cm de ancho, MASTERFLEX 2000 TI-24 de BASF o equivalente, colocada simétricamente en el eje de la losa o muro, incluso solapes y piezas especiales para cruces o ángulos. Medida la longitud ejecutada.	1	38,80			38,80	
							38,80
462	M2 FÁBRICA BLOQUES 40x20x20 cm TIPO SPLIT COLOR Fábrica de bloques de hormigón tipo Split, de medidas 40x20x20 cm color i/relleno de hormigón y colocación de armaduras s/normativa y recibido con mortero de cemento y arena de río 1/6 i/p.p. de piezas especiales para dinteles y materialización de jambas, roturas, niv elados, aplomados, llagueados y limpieza, todo ello según normativa. Muros A deducir puerta A deducir ventanas	1 -1 -5	38,80 1,00 0,80		3,75 2,20 0,60	145,50 -2,20 -2,40	
							140,90
520	M2 CUBIERTA PANEL SANDWICH (E=50 mm.) Cubierta con panel tipo sandwich espesor 50 cm., con doble chapa prelacada de 0,4 mm de espesor, y aislamiento térmico de poliuretano, fijada con gancho de acero galvanizado, incluso p.p de piezas de remate, totalmente colocada.	1	66,57			66,57	
							66,57
519	ML REMATE DE CHAPA PRELACADA CUBIERTA Remate de chapa prelacada en color, para cubrir parte superior de bloque o panel, hasta el panel sandwich de la cubierta por el interior del peto, fijado mediante tacos y/o ganchos anclado a muro y o cubierta, dispuesto según planos.	1	40,00			40,00	
							40,00
465.1	M2 PUERTA DOBLE CHAPA ACERO CON LAMAS Puerta de paso hojas abatibles de doble chapa lisa de acero de 1 mm de espesor, con aislamiento interno de fibre de vidrio, engatillada, realizada en dos bandejas, con rigidizadores de tubo rectangular, i/manillas de acero inoxidable y cerradura, con dos o cuatro rejillas de ventilación con malla anti insectos interior, patillas para recibir en fábricas, herrajes de colgar y de seguridad, imprimación antióxido y pintura al esmalte, totalmente colocada incluyendo el recibido de fábricas.	1	1,00		2,20	2,20	
							2,20
464cf	M2 CARPINTERÍA FIJA ALUMINIO m². Carpintería fija con junquillos para la fijación del vidrio, de aluminio modelo con rotura de puente térmico, Alfil A54RPT de SAPAGROUP con un ancho de marco de 54 mm y con un ancho de hoja de 61 mm, medida del frente de 96,3 mm, con sistema de cámara europea, con espesor de perfil de 1,5 mm, con sistema de cierre por junta central de estanqueidad en EPDM, coplanar exteriormente y con resalte de hoja sobre el marco al interior, para un acristalamiento con altura de galce de 22 mm y anchura hasta 44 mm en marcos y 51 mm en hojas, lacado (entre 60-100 micras) en color estándar (RAL estándar: blanco, gris...), herrajes de colgar, p.p. de cerradura Tesa o similar y costes indirectos. Homologada con Clase 4 en el ensayo de permeabilidad al aire según norma UNE-EN 1026:2000. La transmitancia máxima del marco es de 2,90 W/m² K, y cumple en las zonas A, B, C, D y E, según el CTE/DB-HE 1.	4	0,80		0,60	1,92	
							1,92
464V3	M2 VIDRIO SEGURIDAD STADIP 44.1 INCOLORO (2B2) m². Acristalamiento de vidrio laminar de seguridad Stadip compuesto por dos vidrios de 4 mm de espesor unidos mediante lámina de butiral de polivinilo incolora de 0,38 mm, clasificado 2B2 según UNE-EN 12600, fijado sobre carpintería con acuíñado mediante calzos de apoyo perimetrales y laterales y sellado en frío con silicona neutra, incluso colocación de junquillos, según UNE 85222:1985.	4	0,80		0,60	1,92	
							1,92

MEDICIONES

ABASTECIMIENTO A VARIOS MUNICIPIOS DE LA RIOJA. SISTEMA CIDACOS

CÓDIGO	RESUMEN	UDS	LONGITUD	ANCHURA	ALTURA	PARCIALES	CANTIDAD
							1,92
521	M2 CELOSIA FIJA VENTILACIÓN Celosía metálica fija para ventilación, formada por cerco con empanelado de lamas de acero de 60 mm, con abertura mínima de 1 cm entre lamas, malla de 2 mm para eviar entrada de insectos, garras de sujección a soporte de 10 cm, elaborada en taller y montada en obra, totalmente colocada.	1	0,80		0,60	0,48	
							0,48
020	KG ACERO S 275 J PERFILES LAMINADOS Acero S 275 J en perfiles laminados elaborado y colocado. Correas IPE-100 Vigas IPE-160 Pilar HEB-120	1 1 1 1 2 1 1 1	9,90 7,95 4,50 4,75 4,05 6,05 6,95 3,30	8,10 8,10 8,10 8,10 15,80 15,80 15,80 26,70		80,19 64,40 36,45 38,48 127,98 95,59 109,81 88,11	
							641,01
474.1	ML CANALON CHAPA PRELACADA 50cm Canalón de chapa prelacada en color, de 50 cm. de desarrollo fijado mediante ganchos ocultos con tornillo autoroscante 40 cm., incluso p.p. de embocadura de bajante, codos y piezas especiales.	1	20,00			20,00	
							20,00
474.2	ML BAJANTE DE CHAPA PRELACADA DN110 Bajante de chapa prelacada en color, DN110, fijado mediante ganchos con tornillo autoroscante 20 cm., incluso p.p. de embocadura de bajante, codos y piezas especiales.	2			3,30	6,60	
							6,60
290B	M2 ESCALERA Y PASARELAS DE ACERO GALVANIZADO. BARANDILLAS GALVANIZ Escalera y pasarelas de acceso de forma segun planos, ejecutada en perfiles de acero galvanizado en caliente, incluso barandilla tubular del mismo material, de 90 cm de altura en uno o dos lados, rodapié de seguridad del mismo en uno o dos lados, así como entramado metálico de 30x30x3 en descansillos y peldaños, medida según su proyección en planta. Anclada a los muros y/o solera, instalada. Escalera Pasarela	1 3	3,10 1,00	1,10 0,60		3,41 1,80	
							5,21
620	UD APOYOS DE TUBERÍA Y VÁLVULAS SOBRE SOLERA Apoyos de tuberías y válvulas en soleras, mediante dado de hormigón HA-25/P/20/IIa, ligeramente armado y anclado a la solera, así como cintas o eslingas de acero con material de protección de tubería para sujeción de las mismas, incluyendo el hormigón, encofrados, acero, eslingas, material de PE de protección, montado.	14				14,00	
							14,00
290	UD PATE POLIPROPILENO Pate de polipropileno de dimensiones 30x25 cm, incluyendo fabricación, transporte a obra, perforación de anclajes y relleno con aportación de material de agarre, completamente colocado.	12				12,00	
							12,00

MEDICIONES

ABASTECIMIENTO A VARIOS MUNICIPIOS DE LA RIOJA. SISTEMA CIDACOS

CÓDIGO	RESUMEN	UDS	LONGITUD	ANCHURA	ALTURA	PARCIALES	CANTIDAD
0100	ML COLOCACIÓN DE TUBERÍA AUXILIAR PE DN315 PN10 Colocación de tubería auxiliar de PE DN315 PN10 a tubería existente de ficrocemento DN400, durante la ejecución de la excavación de la zanja de la nueva conducción, para tramos de 100 m, para mantenimiento de servicio de la tubería existente, incluso elementos de unión de la tubería auxiliar a dicha tubería, del llenado y vaciado del tramo de actuación, y de la tubería auxiliar para su desplazamiento, traslado de la tubería auxiliar a su nueva posición por tramos de 100 m, así como la colocación de los lastres de la tubería auxiliar.	3	100,000			300,000	
							300,00
0105	ML TUBERÍA PEAD DN=315 mm PN 10 Tubería de PE DN315 PN10 para conexión a tubería existente de ficrocemento DN400, incluso p.p. de elementos de unión a tubería de ficrocemento DN400.	1	100,000			100,000	
							100,00
APARTADO 08.11.02 VÁLVULAS Y ACCESORIOS							
115.5	UD BRIDA ENCHUFE FD 400 mm PN16/25 Brida enchufe de fundición dúctil de PFA 16/25 bar para tubería de 400 mm, con un revestimiento interior y exterior epoxi, i/p.p. de junta de unión y medios auxiliares, totalmente colocada y probada.	1				1,00	
							1,00
114.6	UD BRIDA LISO FD 400 mm PN16/25 Brida lisa de fundición dúctil de PFA 16/25 bar para tubería de 400 mm, con un revestimiento interior y exterior epoxi, i/p.p. de junta de unión y medios auxiliares, totalmente colocada y probada.	1				1,00	
							1,00
134	UD TE FD BBB 250 mm PN16/25 SALIDA DN250/60 "T" de fundición dúctil de PFA 16/25 bar, con tres bridas para tubería de 250 mm con salida comprendida entre 250 y 60 mm, con un revestimiento interior y exterior epoxi, i/p.p. de junta de unión y medios auxiliares, totalmente colocada y probada. Ventosa tras reductora 1 1,00 Alivio tras reductora 1 1,00	1				1,00	
							2,00
121.1	UD TE FD BBB 400 mm PN16/25 SALIDA DN400/80 "T" de fundición dúctil de PFA 16/25 bar, con tres bridas para tubería de 400 mm con salida comprendida entre 400 y 80 mm, con un revestimiento interior y exterior epoxi, i/p.p. de junta de unión y medios auxiliares, totalmente colocada y probada. Ventosa entrada 1 1,00 Derivación línea 2 2,00	1				1,00	
							3,00
098	UD REDUCCIÓN FD 400 A 350/250 mm PN16/25 Reducción en fundición dúctil de 400 mm a 350-300-250 mm con dos bridas PN 16/25 bar, con un revestimiento interior y exterior epoxi, i/p.p. de junta de unión y medios auxiliares, totalmente colocada y probada. Reducción 400-250 2 2,00 Reducción 400-300 2 2,00	2				2,00	
							4,00
105	UD REDUCCIÓN FD 300 A 250/150 mm PN16 Reducción en fundición dúctil de 300 mm a 250-200-150 mm con dos bridas PN 16 bar, con un revestimiento interior y exterior epoxi, i/p.p. de junta de unión y medios auxiliares, totalmente colocada y probada. Caudalímetro 2 2,00	2				2,00	
							2,00
162	UD MANGUITO FD DN100 A DN250 mm PN16/25 Manguito de fundición dúctil con bridas diámetros de 100 a 250 mm, longitud comprendida entre 0,20 y 1,00 m y PN16/25, incluso p.p. de tornillería y medios auxiliares, totalmente colocado y probado.						

MEDICIONES

ABASTECIMIENTO A VARIOS MUNICIPIOS DE LA RIOJA. SISTEMA CIDACOS

CÓDIGO	RESUMEN	UDS	LONGITUD	ANCHURA	ALTURA	PARCIALES	CANTIDAD
	Arqueta entrada	1	2,20	1,60		3,52	
							6,00
162.1	UD MANGUITO FD DN300 A DN400 mm PN16/25 Manguito de fundición dúctil con bridas diámetros de 300 a 400 mm, longitud comprendida entre 0,20 y 1,00 m y PN16/25, incluso p.p. de tornillería y medios auxiliares, totalmente colocado y probado. 8 8,00	8				8,00	
							8,00
250.1	UD FILTRO COLADOR EN Y DN=250 mm PN16 Filtro colador en "Y" de diámetro nominal DN=250 mm y brida PN=16 bar de presión, incluso juntas de unión y tornillería, totalmente instalado. 2 2,00	2				2,00	
							2,00
229	UD VÁLVULA DE COMPUERTA MANUAL DN250 PN16 Válvula de compuerta de accionamiento manual de diámetro nominal DN=250 mm de 16 bares de presión máxima admisible, con tornillería y juntas, totalmente instalada y probada, incluso volante de accionamiento. 2 2,00	2				2,00	
							2,00
255.1	UD VÁLVULA REDUCTORA DE PRESIÓN DN=250 mm PN16 Válvula reductora de presión de diámetro DN=250 mm y PN 16 bar, incluso juntas de unión y tornillería, totalmente colocada y probada. 2 2,00	2				2,00	
							2,00
266.2	UD VÁLVULA LIMITADORA DE CAUDAL DN=250 mm PN16 Válvula limitadora de caudal de DN=250 mm PN16, incluso juntas de unión y tornillería, totalmente colocada y probada. 2 2,00	2				2,00	
							2,00
268.2	UD VÁLVULA DE LLENADO DN=250 mm PN16 CIERRE LENTO Y SOLENOIDE Válvula de llenado de asiento inoxidable, con cierre lento y solenoide de diámetro nominal DN=250 mm y PN=16 bar, totalmente instalado y probado. 2 2,00	2				2,00	
							2,00
ECD25016	UD CARRETE DE DESMONTAJE DN=250 mm PN16 Carrete telescópico de desmontaje DN250 PN16, bridas de acero al carbono, virolas de acero inoxidable, protección epoxi, tornillos y tuercas en acero F-114, cincado y posterior baño de cromo-niquel, incluido p.p. de brida enchufe, totalmente instalado y probado en obra. 2 2,00	2				2,00	
							2,00
273	UD VÁLVULA ALIVIO DE PRESIÓN 3" PN 16 Válvula de alivio de presión de 3" brida PN 16 bar, incluso válvula de corte de 3", juntas de unión, y tornillería, totalmente colocada y probada. Tras reductora 2 2,00	2				2,00	
							2,00
245.2	UD VENTOSA DN=80 (3") mm PN16 Válvula ventosa de tres funciones de DN=80 mm (3") y PN 16 bar incluido transporte, juntas, válvula de corte DN=80 mm y PN 16y piezas especiales, totalmente colocada y probada. Entrada 1 1,00 Tras reductora 2 2,00	1				1,00	
							2,00
							3,00
079	UD CODO FD 1/4 400 mm Codo de fundición dúctil de 1/4 de diámetro interior 400 mm y PFA 30 bar, con revestimiento interior y exterior epoxi, incluso p.p. de juntas y medios auxiliares, totalmente colocado y probado.						

MEDICIONES

ABASTECIMIENTO A VARIOS MUNICIPIOS DE LA RIOJA. SISTEMA CIDACOS

CÓDIGO	RESUMEN	UDS	LONGITUD	ANCHURA	ALTURA	PARCIALES	CANTIDAD
	Arqueta entrada	1	2,20	1,60		3,52	
							4,00
082	UD CODO FD 1/4 250 mm Codo de fundición dúctil de 1/8 de diámetro interior 250 mm y PFA 40 bar, con revestimiento interior y exterior epoxi, incluso p.p. de juntas y medios auxiliares, totalmente colocado y probado.	2				2,00	2,00
229.1	UD VÁLVULA DE COMPUERTA MANUAL DN300 PN16 Válvula de compuerta de accionamiento manual de diámetro nominal DN=300 mm de 16 bares de presión máxima admisible, con tornillería y juntas, totalmente instalada y probada, incluso volante de accionamiento.	2				2,00	2,00
ECD0300	UD CARRETE DE DESMONTAJE DN=300 mm PN16 Carrete telescópico de desmontaje DN300 PN16, bridas de acero al carbono, virolas de acero inoxidable, protección epoxi, tornillos y tuercas en acero F-114, cincado y posterior baño de cromo-niquel, incluido p.p. de brida enchufe, totalmente instalado y probado en obra.	2				2,00	2,00
APARTADO 08.11.03 INSTRUMENTACIÓN Y CONTROL							
300	UD BOYA DE NIVEL DE MÁXIMO Y MÍNIMO Boya de nivel cableada con la válvula de llenado, incluso montaje y pruebas.	2				2,00	2,00
280.2	UD CAUDALÍMETRO ELECTROMAGNÉTICO DN 300 mm PN10 Equipo medidor de caudal de DN300mm. tipo electromagnético y PN=10 atm. con salida 4/20 mA, tensión 220 V y escala 0-240 m3/h, totalmente instalado y probado. Incluido transporte, montaje, conexiones eléctricas y pruebas de funcionamiento. Resto de características, según ET.	2				2,00	2,00
EMUS001	UD MEDIDOR DE NIVEL POR ULTRASONIDOS Medidor de nivel por ultrasonidos. Pértiga en PP con brida. Incluso instalación y pruebas. Resto de características según E.T de proyecto.	1				1,00	1,00
APARTADO 08.11.04 INSTALACIÓN ELÉCTRICA DE BT							
563.1	ud PANTALLA ESTANCA LED Luminaria estanca WT120C LED80S/840 de Philips o equivalente para montaje en superficie de dimensiones 1515x80, carcasa de policarbonato, óptica de polimetacrilato de metilo, flujo luminoso 8.000 lm, potencia 68 W, Tª color 4000 K, rango de Tª de 10°C a 35°C, protección IP-65 Clase I. Incluso p.p. de canalización y cableado, completamente instalado.	2				2,000	2,00
524.1	m LINEA 3x1.5mm2 Cu 0.6/1kV RZ1-K (AS) Línea eléctrica con conductor multipolares 3x1.5mm2 RZ1-K (AS) en canalización existente, incluso conexionado en inicio y final de línea.	1	30,000			30,000	30,00
571	ud INTERRUPTOR EMPOTRAR SIMO 32 BLANCO. Interruptor empotrar blanco, totalmente instalado.	1				1,000	1,00

MEDICIONES

ABASTECIMIENTO A VARIOS MUNICIPIOS DE LA RIOJA. SISTEMA CIDACOS

CÓDIGO	RESUMEN	UDS	LONGITUD	ANCHURA	ALTURA	PARCIALES	CANTIDAD
204	m TUBO DE PVC RÍGIDO DE 25 MM DIÁMETRO Tubo rígido de PVC d=25mm para canalización de conductores, incluso soportes y anclajes a pared, instalado.	1	50,000			50,000	50,00
APARTADO 08.11.05 VARIOS							
618	PA CONEXIÓN RED ELÉCTRICA BT CON DEPÓSITOS EXISTENTES Partida Alzada de Abono Íntegro para conexión de la red eléctrica en BT con depósitos existentes.	1				1,00	1,00
617.2	PA CONEXIÓN RED NUEVA CASETA CON DEPÓSITOS EXISTENTES FD 300-DN<500 Partida Alzada de Abono Íntegro para conexión de la red de abastecimiento desde la nueva caseta de válvulas con depósitos existentes, incluyendo, excavaciones, tuberías de fundición de diámetro desde 350 a 500 mm, rellenos, ayudas de albañilería, demoliciones, relleno de huecos con morteros sin retracción, anclaje de tuberías, así como todos los medios auxiliares necesarios para la conexión entre la salida de la nueva caseta de válvula y su salida al depósito.	1				1,00	1,00
617.3	PA CONEXIÓN ALIVIOS CON RED VACIADOS DEPÓSITO. Partida Alzada de Abono Íntegro para conexión de la salida de los alivios de la nueva caseta de válvulas con la red de vaciados del depósito, incluyendo, excavaciones, tuberías de PEAD DN de salida de alivio, rellenos, ayudas de albañilería, demoliciones, relleno de huecos con morteros sin retracción, anclaje de tuberías, así como todos los medios auxiliares necesarios para la conexión entre ambas tuberías.	1				1,00	1,00
SUBCAPÍTULO 08.12 ACOMETIDA A DEPÓSITO DE QUEL							
APARTADO 08.12.01 OBRA CIVIL							
008	M2 DESPEJE Y DESBROCE Despeje y desbroce de capa de tierra vegetal con un espesor medio de 50 cm, incluso corte de árboles, extracción de tocones, nivelación de zona adyacente para el paso de maquinaria, transporte a lugar de acopio independiente para posterior reposición de tierra vegetal tras las obras y despedregado de las parcelas, así como transporte a vertedero de tierras sobrantes.	1	7,80	2,80		21,84	21,84
002	M3 EXCAVACIÓN EN ZANJAS Excavación en zanjas y zonas localizadas, en todo tipo de terrenos incluido terrenos en roca con medios mecánicos, incluso rasanteo, nivelación de la superficie de apoyo y transporte a lugar de empleo o vertedero.	1	7,80	2,80	2,25	49,14	49,14
010	M3 RELLENO ZANJAS, CIMIENTOS Y TRASDOSES DE MATERIAL SELECCIONADO Relleno con material seleccionado en zanjas, cimientos, trasdós de muros, estribos y otras estructuras procedente de la excavación o préstamos incluso carga, transporte y compactación.	1	49,14			49,14	
		-1	7,80	2,80	0,50	-10,92	
		-1	7,40	2,40	1,75	-31,08	
							7,14
028	M3 HORMIGÓN DE LIMIPEZA HL-150 Hormigón de limpieza HL-150, de consistencia plástica, árido de tamaño máximo 40 mm y cemento CEM-II-D/42,5/SR, para saneos y encachados, incluyendo fabricación y transporte totalmente colocado.	1	7,80	2,80	0,10	2,18	2,18

MEDICIONES

ABASTECIMIENTO A VARIOS MUNICIPIOS DE LA RIOJA. SISTEMA CIDACOS

CÓDIGO	RESUMEN	UDS	LONGITUD	ANCHURA	ALTURA	PARCIALES	CANTIDAD
031	M3 HORMIGÓN HA-25/B/20/IIa Hormigón HA-25/B/20/IIa, con cemento CEM II/A-D/42,5/SR, incluyendo fabricación, transporte, puesta en obra y vibrado, totalmente ejecutado, incluso curado y juntas.						
	Solera	1	7,40	2,40	0,30	5,33	5,33
	Muros	2	7,40	0,30	1,75	7,77	
		2	1,80	0,30	1,75	1,89	9,66
							14,99
023	KG ACERO CORRUGADO B-500-S Acero redondo corrugado para armar tipo B-500-S elaborado y colocado.						
	Solera	1	5,33	70,00		373,10	
	Muros	1	9,68	85,00		822,80	
							1.195,90
025	M2 ENCOFRADO RECTO EN PARAMENTOS OCULTOS Encofrado recto en paramentos ocultos, incluso colocación, fijación y desencofrado.						
	Solera	2	7,80	0,30		4,68	4,68
		2	2,80	0,30		1,68	
							6,36
026	M2 ENCOFRADO RECTO EN PARAMENTOS VISTOS 1C Encofrado recto en paramentos vistos a una cara, incluso colocación, fijación y desencofrado.						
	Muros	4	7,40	1,75		51,80	
		4	2,40	1,75		16,80	68,60
							68,60
052	ML JUNTAS DE ESTANQUEIDAD DE PVC 32 CM Junta de trabajo interior de policloruro de vinilo (PVC) 100% virgen, con una fuerza máxima de dilatación > 250 %, de 32 cm de ancho, MASTERFLEX 2000 TI-24 de BASF o equivalente, colocada simétricamente en el eje de la losa o muro, incluso solapes y piezas especiales para cruces o ángulos. Medida la longitud ejecutada.						
		2	7,40			14,80	
		2	2,40			4,80	
							19,60
462	M2 FÁBRICA BLOQUES 40x20x20 cm TIPO SPLIT COLOR Fábrica de bloques de hormigón tipo Split, de medidas 40x20x20 cm color i/relleno de hormigón y colocación de armaduras s/normativa y recibido con mortero de cemento y arena de río 1/6 i/p.p. de piezas especiales para dinteles y materialización de jambas, roturas, nivelados, aplomados, llagueados y limpieza, todo ello según normativa.						
	Muros	2	7,40	3,50		51,80	
		2	2,40	3,50		16,80	
	A deducir puerta	-1	0,80	2,20		-1,76	
	A deducir ventanas	-2	0,80	0,60		-0,96	
							65,88
520	M2 CUBIERTA PANEL SANDWICH (E=50 mm.) Cubierta con panel tipo sandwich espesor 50 cm., con doble chapa prelacada de 0,4 mm de espesor, y aislamiento térmico de poliuretano, fijada con gancho de acero galvanizado, incluso p.p de piezas de remate, totalmente colocada.						
		1	7,40	2,40		17,76	
							17,76
519	ML REMATE DE CHAPA PRELACADA CUBIERTA Remate de chapa prelacada en color, para cubrir parte superior de bloque o panel, hasta el panel sandwich de la cubierta por el interior del peto, fijado mediante tacos y/o ganchos anclado a muro y o cubierta, dispuesto según planos.						
		1	7,40			7,40	
		2	2,40			4,80	
							12,20

MEDICIONES

ABASTECIMIENTO A VARIOS MUNICIPIOS DE LA RIOJA. SISTEMA CIDACOS

CÓDIGO	RESUMEN	UDS	LONGITUD	ANCHURA	ALTURA	PARCIALES	CANTIDAD
465.1	M2 PUERTA DOBLE CHAPA ACERO CON LAMAS Puerta de paso hojas abatibles de doble chapa lisa de acero de 1 mm de espesor, con aislamiento interno de fibre de vidrio, engatillada, realizada en dos bandejas, con rigidizadores de tubo rectangular, i/manillas de acero inoxidable y cerradura, con dos o cuatro rejillas de ventilación con malla anti insectos interior, patillas para recibir en fábricas, herrajes de colgar y de seguridad, imprimación antióxido y pintura al esmalte, totalmente colocada incluyendo el recibido de fábricas.						
		1	0,80		2,20	1,76	
							1,76
464cf	M2 CARPINTERÍA FIJA ALUMINIO m². Carpintería fija con junquillos para la fijación del vidrio, de aluminio modelo con rotura de puente térmico, Alfil A54RPT de SAPAGROUP con un ancho de marco de 54 mm y con un ancho de hoja de 61 mm, medida del frente de 96,3 mm, con sistema de cámara europea, con espesor de perfil de 1,5 mm, con sistema de cierre por junta central de estanqueidad en EPDM, coplanar exteriormente y con resalte de hoja sobre el marco al interior, para un acristalamiento con altura de galce de 22 mm y anchura hasta 44 mm en marcos y 51 mm en hojas, lacado (entre 60-100 micras) en color estándar (RAL estándar: blanco, gris...), herrajes de colgar, p.p. de cerradura Tesa o similar y costes indirectos. Homologada con Clase 4 en el ensayo de permeabilidad al aire según norma UNE-EN 1026:2000. La transmitancia máxima del marco es de 2,90 W/m² K, y cumple en las zonas A, B, C, D y E, según el CTE/DB-HE 1.						
		1	0,80		0,60	0,48	
							0,48
464V3	M2 VIDRIO SEGURIDAD STADIP 44.1 INCOLORO (2B2) m². Acristalamiento de vidrio laminar de seguridad Stadip compuesto por dos vidrios de 4 mm de espesor unidos mediante lámina de butiral de polivinilo incolora de 0,38 mm, clasificado 2B2 según UNE-EN 12600, fijado sobre carpintería con acuñado mediante calzos de apoyo perimetrales y laterales y sellado en frío con silicona neutra, incluso colocación de junquillos, según UNE 85222:1985.						
		1	0,80		0,60	0,48	
							0,48
521	M2 CELOSIA FIJA VENTILACIÓN Celosía metálica fija para ventilación, formada por cerco con empanelado de lamas de acero de 60 mm, con abertura mínima de 1 cm entre lamas, malla de 2 mm para evitar entrada de insectos, garras de sujeción a soporte de 10 cm, elaborada en taller y montada en obra, totalmente colocada.						
		1	0,80		0,60	0,48	
							0,48
020	KG ACERO S 275 J PERFILES LAMINADOS Acero S 275 J en perfiles laminados elaborado y colocado.						
	Vigas forjado IPE-100	3	7,40	8,10		179,82	
	Vigas IPE-120	3	2,40	10,40		74,88	
	Pilares HEB-100	3	3,00	20,40		183,60	
		3	2,60	20,40		159,12	
							597,42
474.1	ML CANALON CHAPA PRELACADA 50cm Canalón de chapa prelacada en color, de 50 cm. de desarrollo fijado mediante ganchos ocultos con tornillo autoroscante 40 cm., incluso p.p. de embocadura de bajante, codos y piezas especiales.						
		1	7,40			7,40	
							7,40
290B	M2 ESCALERA Y PASARELAS DE ACERO GALVANIZADO. BARANDILLAS GALVANIZ Escalera y pasarelas de acceso de forma según planos, ejecutada en perfiles de acero galvanizado en caliente, incluso barandilla tubular del mismo material, de 90 cm de altura en uno o dos lados, rodapié de seguridad del mismo en uno o dos lados, así como entramado metálico de 30x30x3 en descansillos y peldaños, medida según su proyección en planta. Anclada a los muros y/o solera, instalada.						
		1	2,15	0,90		1,94	
							1,94

MEDICIONES

ABASTECIMIENTO A VARIOS MUNICIPIOS DE LA RIOJA. SISTEMA CIDACOS

CÓDIGO	RESUMEN	UDS	LONGITUD	ANCHURA	ALTURA	PARCIALES	CANTIDAD
620	UD APOYOS DE TUBERÍA Y VÁLVULAS SOBRE SOLERA Apoyos de tuberías y válvulas en soleras, mediante dado de hormigón HA-25/P/20/IIa, ligeramente armado y anclado a la solera, así como cintas o eslingas de acero con material de protección de tubería para sujeción de las mismas, incluyendo el hormigón, encofrados, acero, eslingas, material de PE de protección, montado.	5				5,00	5,00
474.2	ML BAJANTE DE CHAPA PRELACADA DN110 Bajante de chapa prelacada en color, DN110, fijado mediante ganchos con tornillo autoroscante 20 cm., incluso p.p. de embocadura de bajante, codos y piezas especiales.	1			3,00	3,00	3,00
APARTADO 08.12.02 VÁLVULAS Y ACCESORIOS							
115.6	UD BRIDA ENCHUFE FD 250 mm PN16/25 Brida enchufe de fundición dúctil de PFA 16/25 bar para tubería de 250 mm, con un revestimiento interior y exterior epoxi, i/p.p. de junta de unión y medios auxiliares, totalmente colocada y probada.	1				1,00	1,00
	Entrada	1				1,00	
	Salida	1				1,00	
							2,00
134	UD TE FD BBB 250 mm PN16/25 SALIDA DN250/60 "T" de fundición dúctil de PFA 16/25 bar, con tres bridas para tubería de 250 mm con salida comprendida entre 250 y 60 mm, con un revestimiento interior y exterior epoxi, i/p.p. de junta de unión y medios auxiliares, totalmente colocada y probada.	1				1,00	1,00
	Ventosa entrada	1				1,00	
							1,00
138	UD TE FD BBB 150 mm PN16/25 SALIDA DN150/40 "T" de fundición dúctil de PFA 16 bar, con tres bridas para tubería de 150 mm con salida comprendida entre 150 y 40 mm, con un revestimiento interior y exterior epoxi, i/p.p. de junta de unión y medios auxiliares, totalmente colocada y probada.	1				1,00	1,00
	Ventosa tras reductora	1				1,00	
	Alivio	1				1,00	
							2,00
245.3	UD VENTOSA DN=50 (2") mm PN25 Válvula ventosa de tres funciones de DN=50 mm (2") y PN 25 bar incluido transporte, juntas, válvula de corte DN=50 mm y PN 25 y piezas especiales, totalmente colocada y probada.	1				1,00	1,00
245.4	UD VENTOSA DN=50 (2") mm PN16 Válvula ventosa de tres funciones de DN=50 mm (2") y PN 16 bar incluido transporte, juntas, válvula de corte DN=50 mm y PN 16 y piezas especiales, totalmente colocada y probada.	1				1,00	1,00
	Tras reductora	1				1,00	
							1,00
106	UD REDUCCIÓN FD 250 A 200/125 mm PN16 Reducción en fundición dúctil de 250 mm a 200-150-125 mm con dos bridas PN 25 bar, con un revestimiento interior y exterior epoxi, i/p.p. de junta de unión y medios auxiliares, totalmente colocada y probada.	1				1,00	1,00
		1				1,00	
							2,00
162	UD MANGUITO FD DN100 A DN250 mm PN16/25 Manguito de fundición dúctil con bridas diámetros de 100 a 250 mm, longitud comprendida entre 0,20 y 1,00 m y PN 16/25, incluso p.p. de tornillería y medios auxiliares, totalmente colocado y probado.	4				4,00	4,00
							4,00

MEDICIONES

ABASTECIMIENTO A VARIOS MUNICIPIOS DE LA RIOJA. SISTEMA CIDACOS

CÓDIGO	RESUMEN	UDS	LONGITUD	ANCHURA	ALTURA	PARCIALES	CANTIDAD
249	UD FILTRO COLADOR EN Y DN=150 mm PN25 Filtro colador en "Y" de diámetro nominal DN=150 mm y brida PN=25 bar de presión, incluso juntas de unión y tornillería, totalmente instalado.	1				1,00	1,00
145	UD CARRETE DE DESMONTAJE DN=150 mm PN25 Carrete telescópico de desmontaje DN150 PN25, bridas de acero al carbono, virolas de acero inoxidable, protección epoxi, tornillos y tuercas en acero F-114, cincado y posterior baño de cromo-niquel, incluido p.p. de brida enchufe, totalmente instalado y probado en obra.	1				1,00	1,00
ECD15016	UD CARRETE DE DESMONTAJE DN=150 mm PN16 Carrete telescópico de desmontaje DN150 PN16, bridas de acero al carbono, virolas de acero inoxidable, protección epoxi, tornillos y tuercas en acero F-114, cincado y posterior baño de cromo-niquel, incluido p.p. de brida enchufe, totalmente instalado y probado en obra.	1				1,00	1,00
259	UD VÁLVULA REDUCTORA DE PRESIÓN DN=150 mm PN25 Válvula reductora de presión de diámetro DN=150 mm y PN 25 bar, incluso juntas de unión y tornillería, totalmente colocada y probada.	1				1,00	1,00
266.1	UD VÁLVULA LIMITADORA DE CAUDAL DN=150 mm PN16 Válvula limitadora de caudal de DN=150 mm PN16, incluso juntas de unión y tornillería, totalmente colocada y probada.	1				1,00	1,00
268.1	UD VÁLVULA DE LLENADO DN=150 mm PN16 CIERRE LENTO Y SOLENOIDE Válvula de llenado de asiento inoxidable, con cierre lento y solenoide de diámetro nominal DN=150 mm y PN=16 bar, totalmente instalado y probado.	1				1,00	1,00
234	UD VÁLVULA DE COMPUERTA MANUAL DN150 PN25 Válvula de compuerta de cierre elástico de 150 mm. de diámetro nominal y 25 At. de P.N., de accionamiento manual por volante, de cuerpo de fundición nodular GGG-50, con eje de acero inoxidable al 13 % Cr. con rosca conformada por laminación en frío, cierre en fundición nodular, tornillería de acero inoxidable, protegida contra la corrosión mediante aplicación de doble capa de pintura epoxy, totalmente colocada y probada. Resto de características según ET.	1				1,00	1,00
273.1	UD VÁLVULA ALIVIO DE PRESIÓN 2" PN 16 Válvula de alivio de presión de 2" brida PN 16 bar, incluso válvula de corte de 2", juntas de unión, y tornillería, totalmente colocada y probada.	1				1,00	1,00
	Tras reductora	1				1,00	
							1,00
235	UD VÁLVULA DE COMPUERTA MANUAL DN150 PN16 Válvula de compuerta de accionamiento manual de diámetro nominal DN=150 mm de 16 bares de presión máxima admisible, con tornillería y juntas, totalmente instalada y probada, incluso volante de accionamiento.	1				1,00	1,00
							1,00

MEDICIONES

ABASTECIMIENTO A VARIOS MUNICIPIOS DE LA RIOJA. SISTEMA CIDACOS

CÓDIGO	RESUMEN	UDS	LONGITUD	ANCHURA	ALTURA	PARCIALES	CANTIDAD
APARTADO 08.12.03 INSTRUMENTACIÓN Y CONTROL							
300	UD BOYA DE NIVEL DE MÁXIMO Y MÍNIMO Boya de nivel cableada con la válvula de llenado, incluso montaje y pruebas.	2				2,00	2,00
281	UD CAUDALÍMETRO ELECTROMAGNÉTICO DN 150 mm PN10 Equipo medidor de caudal de DN 150 mm. tipo electromagnético y PN=25 atm. con salida 4/20 mA, tensión 220 V y escala 0-240 m3/h, totalmente instalado y probado. Incluido transporte, montaje, conexiones eléctricas y pruebas de funcionamiento. Resto de características, según ET.	1				1,00	1,00
APARTADO 08.12.04 INSTALACIÓN ELÉCTRICA DE BT							
563.1	ud PANTALLA ESTANCA LED Luminaria estanca WT120C LED80S/840 de Philips o equivalente para montaje en superficie de dimensiones 1515x80, carcasa de policarbonato, óptica de polimetacrilato de metilo, flujo luminoso 8.000 lm, potencia 68 W, Tª color 4000 K, rango de Tª de 10°C a 35°C, protección IP-65 Clase I. Incluso p.p. de canalización y cableado, completamente instalado.	1				1,000	1,00
524.1	m LINEA 3x1.5mm2 Cu 0.6/1kV RZ1-K (AS) Línea eléctrica con conductor multipolares 3x1.5mm2 RZ1-K (AS) en canalización existente, incluso conexionado en inicio y final de línea.	1	15,000			15,000	15,00
571	ud INTERRUPTOR EMPOTRAR SIMO 32 BLANCO. Interruptor empotrar blanco, totalmente instalado.	1				1,000	1,00
204	m TUBO DE PVC RÍGIDO DE 25 MM DIÁMETRO Tubo rígido de PVC d=25mm para canalización de conductores, incluso soportes y anclajes a pared, instalado.	1	25,000			25,000	25,00
APARTADO 08.12.05 VARIOS							
618	PA CONEXIÓN RED ELÉCTRICA BT CON DEPÓSITOS EXISTENTES Partida Alzada de Abono Íntegro para conexión de la red eléctrica en BT con depósitos existentes.	1				1,00	1,00
617.1	PA CONEXIÓN RED NUEVA CASETA CON DEPÓSITOS EXISTENTES FD DN<300 Partida Alzada de Abono Íntegro para conexión de la red de abastecimiento desde la nueva caseta de válvulas con depósitos existentes, incluyendo, excavaciones, tuberías de fundición de diámetro hasta 300 mm, rellenos, ayudas de albañilería, demoliciones, relleno de huecos con morteros sin retracción, anclaje de tuberías, así como todos los medios auxiliares necesarios para la conexión entre la salida de la nueva caseta de válvula y su depósito.	1				1,00	1,00
617.3	PA CONEXIÓN ALIVIOS CON RED VACIADOS DEPÓSITO. Partida Alzada de Abono Íntegro para conexión de la salida de los alivios de la nueva caseta de válvulas con la red de vaciados del depósito, incluyendo, excavaciones, tuberías de PEAD DN de salida de alivio, rellenos, ayudas de albañilería, demoliciones, relleno de huecos con morteros sin retracción, anclaje de tuberías, así como todos los medios auxiliares necesarios para la conexión entre ambas tuberías.	1				1,00	1,00

MEDICIONES

ABASTECIMIENTO A VARIOS MUNICIPIOS DE LA RIOJA. SISTEMA CIDACOS

CÓDIGO	RESUMEN	UDS	LONGITUD	ANCHURA	ALTURA	PARCIALES	CANTIDAD
SUBCAPÍTULO 08.13 ACOMETIDA A DEPÓSITO DE AUTOL							
APARTADO 08.13.01 OBRA CIVIL							
008	M2 DESPEJE Y DESBROCE Despeje y desbroce de capa de tierra vegetal con un espesor medio de 50 cm, incluso corte de árboles, extracción de tocones, nivelación de zona adyacente para el paso de maquinaria, transporte a lugar de acopio independiente para posterior reposición de tierra vegetal tras las obras y despedregado de las parcelas, así como transporte a vertedero de tierras sobrantes. Solera	1	5,00	9,00		45,00	45,00
002	M3 EXCAVACIÓN EN ZANJAS Excavación en zanjas y zonas localizadas, en todo tipo de terrenos incluido terrenos en roca con medios mecánicos, incluso rasanteo, nivelación de la superficie de apoyo y transporte a lugar de empleo o vertedero.	1	5,00	9,00	2,10	94,50	94,50
010	M3 RELLENO ZANJAS, CIMIENTOS Y TRASDOSES DE MATERIAL SELECCIONADO Relleno con material seleccionado en zanjas, cimientos, trasdós de muros, estribos y otras estructuras procedente de la excavación o préstamos incluso carga, transporte y compactación.	1	94,50			94,50	94,50
		-1	3,00	8,80	0,50	-13,20	
		-1	2,60	8,40	2,10	-45,86	
							35,44
028	M3 HORMIGÓN DE LIMPIEZA HL-150 Hormigón de limpieza HL-150, de consistencia plástica, árido de tamaño máximo 40 mm y cemento CEM-II-D/42,5/SR, para saneos y enchachados, incluyendo fabricación y transporte totalmente colocado.	1	8,80	3,00	0,10	2,64	2,64
031	M3 HORMIGÓN HA-25/B/20/IIa Hormigón HA-25/B/20/IIa, con cemento CEM III/A-D/42,5/SR, incluyendo fabricación, transporte, puesta en obra y vibrado, totalmente ejecutado, incluso curado y juntas. Solera Muros	1	8,80	3,00	0,30	7,92	7,92
		2	8,40	0,30	1,80	9,07	
		2	2,00	0,30	1,80	2,16	11,23
							19,15
023	KG ACERO CORRUGADO B-500-S Acero redondo corrugado para armar tipo B-500-S elaborado y colocado. Solera Muros	1	7,92	70,00		554,40	554,40
		1	11,23	85,00		954,55	954,55
							1.508,95
025	M2 ENCOFRADO RECTO EN PARAMENTOS OCULTOS Encofrado recto en paramentos ocultos, incluso colocación, fijación y desencofrado. Solera	2	8,80	0,30		5,28	5,28
		2	3,00	0,30		1,80	
							7,08
026	M2 ENCOFRADO RECTO EN PARAMENTOS VISTOS 1C Encofrado recto en paramentos vistos a una cara, incluso colocación, fijación y desencofrado. Muros	4	8,40	1,80		60,48	60,48
		4	2,00	1,80		14,40	74,88
							74,88
052	ML JUNTAS DE ESTANQUEIDAD DE PVC 32 CM Junta de trabajo interior de policloruro de vinilo (PVC) 100% virgen, con una fuerza máxima de dilatación > 250 % , de 32 cm de ancho, MASTERFLEX 2000 TI-24 de BASF o equivalente, colocada simétricamente en el eje de la losa o muro, incluso solapes y piezas especiales para cruces o ángulos. Medida la longitud ejecutada.						

MEDICIONES

ABASTECIMIENTO A VARIOS MUNICIPIOS DE LA RIOJA. SISTEMA CIDACOS

CÓDIGO	RESUMEN	UDS	LONGITUD	ANCHURA	ALTURA	PARCIALES	CANTIDAD
	Arqueta entrada	1	2,20	1,60		3,52	
		2	2,30			4,60	
							21,00
462	M2 FÁBRICA BLOQUES 40x20x20 cm TIPO SPLIT COLOR Fábrica de bloques de hormigón tipo Split, de medidas 40x20x20 cm color i/relleno de hormigón y colocación de armaduras s/normativa y recibido con mortero de cemento y arena de río 1/6 i/p.p. de piezas especiales para dinteles y materialización de jambas, roturas, nivelados, aplomados, llagueados y limpieza, todo ello según normativa. Muros	2	8,40		3,50	58,80	
		2	2,00		3,50	14,00	
	A deducir puerta	-1	0,80		2,20	-1,76	
	A deducir ventanas	-2	0,80		0,60	-0,96	
							70,08
520	M2 CUBIERTA PANEL SANDWICH (E=50 mm.) Cubierta con panel tipo sandwich espesor 50 cm., con doble chapa prelacada de 0,4 mm de espesor, y aislamiento térmico de poliuretano, fijada con gancho de acero galvanizado, incluso p.p de piezas de remate, totalmente colocada.	1	7,80	2,20		17,16	
							17,16
519	ML REMATE DE CHAPA PRELACADA CUBIERTA Remate de chapa prelacada en color, para cubrir parte superior de bloque o panel, hasta el panel sandwich de la cubierta por el interior del peto, fijado mediante tacos y/o ganchos anclado a muro y o cubierta, dispuesto según planos.	1	8,40			8,40	
		2	2,60			5,20	
							13,60
465.1	M2 PUERTA DOBLE CHAPA ACERO CON LAMAS Puerta de paso hojas abatibles de doble chapa lisa de acero de 1 mm de espesor, con aislamiento interno de fibre de vidrio, engatillada, realizada en dos bandejas, con rigidizadores de tubo rectangular, i/manillas de acero inoxidable y cerradura, con dos o cuatro rejillas de ventilación con malla anti insectos interior, patillas para recibir en fábricas, herrajes de colgar y de seguridad, imprimación antióxido y pintura al esmalte, totalmente colocada incluyendo el recibido de fábricas.	1	0,80		2,20	1,76	
							1,76
464cf	M2 CARPINTERÍA FIJA ALUMINIO m². Carpintería fija con junquillos para la fijación del vidrio, de aluminio modelo con rotura de puente térmico, Alfil A54RPT de SAPAGROUP con un ancho de marco de 54 mm y con un ancho de hoja de 61 mm, medida del frente de 96,3 mm, con sistema de cámara europea, con espesor de perfil de 1,5 mm, con sistema de cierre por junta central de estanqueidad en EPDM, coplanar exteriormente y con resalte de hoja sobre el marco al interior, para un acristalamiento con altura de galce de 22 mm y anchura hasta 44 mm en marcos y 51 mm en hojas, lacado (entre 60-100 micras) en color estándar (RAL estándar: blanco, gris...), herrajes de colgar, p.p. de cerradura Tesa o similar y costes indirectos. Homologada con Clase 4 en el ensayo de permeabilidad al aire según norma UNE-EN 1026:2000. La transmitancia máxima del marco es de 2,90 W/m² K, y cumple en las zonas A, B, C, D y E, según el CTE/DB-HE 1.	1	0,80		0,60	0,48	
							0,48
464V3	M2 VIDRIO SEGURIDAD STADIP 44.1 INCOLORO (2B2) m². Acristalamiento de vidrio laminar de seguridad Stadip compuesto por dos vidrios de 4 mm de espesor unidos mediante lámina de butiral de polivinilo incolora de 0,38 mm, clasificado 2B2 según UNE-EN 12600, fijado sobre carpintería con acuíado mediante calzos de apoyo perimetrales y laterales y sellado en frío con silicona neutra, incluso colocación de junquillos, según UNE 85222:1985.	1	0,80		0,60	0,48	
							0,48

MEDICIONES

ABASTECIMIENTO A VARIOS MUNICIPIOS DE LA RIOJA. SISTEMA CIDACOS

CÓDIGO	RESUMEN	UDS	LONGITUD	ANCHURA	ALTURA	PARCIALES	CANTIDAD
521	M2 CELOSIA FIJA VENTILACIÓN Celosía metálica fija para ventilación, formada por cerco con empanelado de lamas de acero de 60 mm, con abertura mínima de 1 cm entre lamas, malla de 2 mm para eviar entrada de insectos, garras de sujeción a soporte de 10 cm, elaborada en taller y montada en obra, totalmente colocada.	1	0,80		0,60	0,48	
							0,48
020	KG ACERO S 275 J PERFILES LAMINADOS Acero S 275 J en perfiles laminados elaborado y colocado. Vigas forjado IPE-100 Vigas IPE-120 Pilares HEB-100	3	8,00	8,10		194,40	
		4	2,20	10,40		91,52	
		4	3,00	20,40		244,80	
		4	2,60	20,40		212,16	
							742,88
474.1	ML CANALON CHAPA PRELACADA 50cm Canalón de chapa prelacada en color, de 50 cm. de desarrollo fijado mediante ganchos ocultos con tornillo autoroscante 40 cm., incluso p.p. de embocadura de bajante, codos y piezas especiales.	1	8,40			8,40	
							8,40
290B	M2 ESCALERA Y PASARELAS DE ACERO GALVANIZADO. BARANDILLAS GALVANIZ Escalera y pasarelas de acceso de forma según planos, ejecutada en perfiles de acero galvanizado en caliente, incluso barandilla tubular del mismo material, de 90 cm de altura en uno o dos lados, rodapié de seguridad del mismo en uno o dos lados, así como entramado metálico de 30x30x3 en descansillos y peldaños, medida según su proyección en planta. Anclada a los muros y/o solera, instalada.	1	3,10	0,90		2,79	
							2,79
620	UD APOYOS DE TUBERÍA Y VÁLVULAS SOBRE SOLERA Apoyos de tuberías y válvulas en soleras, mediante dado de hormigón HA-25/P/20/IIa, ligeramente armado y anclado a la solera, así como cintas o eslingas de acero con material de protección de tubería para sujeción de las mismas, incluyendo el hormigón, encofrados, acero, eslingas, material de PE de protección, montado.	4				4,00	
							4,00
474.2	ML BAJANTE DE CHAPA PRELACADA DN110 Bajante de chapa prelacada en color, DN110, fijado mediante ganchos con tornillo autoroscante 20 cm., incluso p.p. de embocadura de bajante, codos y piezas especiales.	1		3,00		3,00	
							3,00
APARTADO 08.13.02 VÁLVULAS Y ACCESORIOS							
115.6	UD BRIDA ENCHUFE FD 250 mm PN16/25 Brida enchufe de fundición dúctil de PFA 16/25 bar para tubería de 250 mm, con un revestimiento interior y exterior epoxi, i/p.p. de junta de unión y medios auxiliares, totalmente colocada y probada. Salida	1				1,00	
							1,00
114.3	UD BRIDA LISO FD 250 mm PN16/25 Brida lisa de fundición dúctil de PFA 16/25 bar para tubería de 250 mm, con un revestimiento interior y exterior epoxi, i/p.p. de junta de unión y medios auxiliares, totalmente colocada y probada. Entrada	1				1,00	
							1,00
134	UD TE FD BBB 250 mm PN16/25 SALIDA DN250/60 "T" de fundición dúctil de PFA 16/25 bar, con tres bridas para tubería de 250 mm con salida comprendida entre 250 y 60 mm, con un revestimiento interior y exterior epoxi, i/p.p. de junta de unión y medios auxiliares, totalmente colocada y probada. Ventosa	1				1,00	
							1,00

MEDICIONES

ABASTECIMIENTO A VARIOS MUNICIPIOS DE LA RIOJA. SISTEMA CIDACOS

CÓDIGO	RESUMEN	UDS	LONGITUD	ANCHURA	ALTURA	PARCIALES	CANTIDAD
							1,00
245.2	UD VENTOSA DN=80 (3") mm PN16 Válvula ventosa de tres funciones de DN=80 mm (3") y PN 16 bar incluido transporte, juntas, válvula de corte DN=80 mm y PN 16y piezas especiales, totalmente colocada y probada.						
	Entrada	1				1,00	
	TRas reductora	1				1,00	
							2,00
106	UD REDUCCIÓN FD 250 A 200/125 mm PN16 Reducción en fundición dúctil de 250 mm a 200-150-125 mm con dos bridas PN 25 bar, con un revestimiento interior y exterior epoxi, i/p.p. de junta de unión y medios auxiliares, totalmente colocada y probada.						
		1				1,00	
							1,00
162	UD MANGUITO FD DN100 A DN250 mm PN16/25 Manguito de fundición dúctil con bridas diámetros de 100 a 250 mm, longitud comprendida entre 0,20 y 1,00 m y PN 16/25, incluso p.p. de tornillería y medios auxiliares, totalmente colocado y probado.						
		4				4,00	
							4,00
250	UD FILTRO COLADOR EN Y DN=150 mm PN16 Filtro colador en "Y" de diámetro nominal DN=150 mm y brida PN=16 bar de presión, incluso juntas de unión y tornillería, totalmente instalado.						
		1				1,00	
							1,00
138	UD TE FD BBB 150 mm PN16/25 SALIDA DN150/40 "T" de fundición dúctil de PFA 16 bar, con tres bridas para tubería de 150 mm con salida comprendida entre 150 y 40 mm, con un revestimiento interior y exterior epoxi, i/p.p. de junta de unión y medios auxiliares, totalmente colocada y probada.						
	Ventosa tras reductora	1				1,00	
	PAra válvula de alivio	1				1,00	
							2,00
260	UD VÁLVULA REDUCTORA DE PRESIÓN DN=150 mm PN16 Válvula reductora de presión de diámetro DN=150 mm y PN 16 bar, incluso juntas de unión y tornillería, totalmente colocada y probada.						
		1				1,00	
							1,00
273	UD VÁLVULA ALIVIO DE PRESIÓN 3" PN 16 Válvula de alivio de presión de 3" brida PN 16 bar, incluso válvula de corte de 3", juntas de unión, y tornillería, totalmente colocada y probada.						
		1				1,00	
							1,00
266.1	UD VÁLVULA LIMITADORA DE CAUDAL DN=150 mm PN16 Válvula limitadora de caudal de DN=150 mm PN16, incluso juntas de unión y tornillería, totalmente colocada y probada.						
		1				1,00	
							1,00
268.1	UD VÁLVULA DE LLENADO DN=150 mm PN16 CIERRE LENTO Y SOLENOIDE Válvula de llenado de asiento inoxidable, con cierre lento y solenoide de diámetro nominal DN=150 mm y PN=16 bar, totalmente instalado y probado.						
		1				1,00	
							1,00

MEDICIONES

ABASTECIMIENTO A VARIOS MUNICIPIOS DE LA RIOJA. SISTEMA CIDACOS

CÓDIGO	RESUMEN	UDS	LONGITUD	ANCHURA	ALTURA	PARCIALES	CANTIDAD
109	UD REDUCCIÓN FD 200 A 150/100 mm PN16 Reducción en fundición dúctil de 200 mm a 150-125-100 mm con dos bridas PN 16 bar, con un revestimiento interior y exterior epoxi, i/p.p. de junta de unión y medios auxiliares, totalmente colocada y probada.						
		1				1,00	
							1,00
143	UD CARRETE DE DESMONTAJE DN=200 mm PN16 Carrete telescópico de desmontaje DN200 PN 16, bridas de acero al carbono, virolas de acero inoxidable, protección epoxi, tornillos y tuercas en acero F-114, cincado y posterior baño de cromo-niquel, incluido p.p. de brida enchufe, totalmente instalado y probado en obra.						
		1				1,00	
							1,00
232	UD VÁLVULA DE COMPUERTA MANUAL DN200 PN16 Válvula de compuerta de cierre elástico de 200 mm. de diámetro nominal y 16 At. de P.N., de accionamiento manual por volante, de cuerpo de fundición nodular GGG-50, con eje de acero inoxidable al 13 % Cr. con roscas conformadas por laminación en frío, cierre en fundición nodular, tornillería de acero inoxidable, protegida contra la corrosión mediante aplicación de doble capa de pintura epoxy, totalmente colocada y probada. Resto de características según ET.						
		1				1,00	
							1,00
235	UD VÁLVULA DE COMPUERTA MANUAL DN150 PN16 Válvula de compuerta de accionamiento manual de diámetro nominal DN=150 mm de 16 bares de presión máxima admisible, con tornillería y juntas, totalmente instalada y probada, incluso volante de accionamiento.						
		1				1,00	
							1,00
ECD15016	UD CARRETE DE DESMONTAJE DN=150 mm PN16 Carrete telescópico de desmontaje DN 150 PN 16, bridas de acero al carbono, virolas de acero inoxidable, protección epoxi, tornillos y tuercas en acero F-114, cincado y posterior baño de cromo-niquel, incluido p.p. de brida enchufe, totalmente instalado y probado en obra.						
		1				1,00	
							1,00
APARTADO 08.13.03 INSTRUMENTACIÓN Y CONTROL							
300	UD BOYA DE NIVEL DE MÁXIMO Y MÍNIMO Boya de nivel cableada con la válvula de llenado, incluso montaje y pruebas.						
		2				2,00	
							2,00
280	UD CAUDALÍMETRO ELECTROMAGNÉTICO DN 200 mm PN10 Equipo medidor de caudal de DN200 mm. tipo electromagnético y PN=10 atm. con salida 4/20 mA, tensión 220 V y escala 0-240 m3/h, totalmente instalado y probado. Incluido transporte, montaje, conexiones eléctricas y pruebas de funcionamiento. Resto de características, según ET.						
		1				1,00	
							1,00
APARTADO 08.13.04 INSTALACIÓN ELÉCTRICA DE BT							
563.1	ud PANTALLA ESTANCA LED Luminaria estanca WT120C LED80S/840 de Philips o equivalente para montaje en superficie de dimensiones 1515x80, carcasa de policarbonato, óptica de polimetacrilato de metilo, flujo luminoso 8.000 lm, potencia 68 W, Tª color 4000 K, rango de Tª de 10°C a 35°C., protección IP-65 Clase I. Incluso p.p. de canalización y cableado, completamente instalado.						
		1				1,000	
							1,000
524.1	m LINEA 3x1.5mm2 Cu 0.6/1kV RZ1-K (AS) Línea eléctrica con conductor multipolares 3x1.5mm2 RZ1-K (AS) en canalización existente, incluso conexionado en inicio y final de línea.						
		1	15,000			15,000	

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ABASTECIMIENTO A VARIOS MUNICIPIOS DE LA RIOJA. SISTEMA CIDACOS

CÓDIGO	RESUMEN	UDS	LONGITUD	ANCHURA	ALTURA	PARCIALES	CANTIDAD
							15,00
571	ud INTERRUPTOR EMPOTRAR SIMO 32 BLANCO. Interruptor empotrar blanco, totalmente instalado.	1				1,000	
							1,00
204	m TUBO DE PVC RÍGIDO DE 25 MM DIÁMETRO Tubo rígido de PVC d=25mm para canalización de conductores, incluso soportes y anclajes a pared, instalado.	1	25,000			25,000	
							25,00
APARTADO 08.13.05 VARIOS							
618	PA CONEXIÓN RED ELÉCTRICA BT CON DEPÓSITOS EXISTENTES Partida Alzada de Abono Íntegro para conexión de la red eléctrica en BT con depósitos existentes.	1				1,00	
							1,00
617.1	PA CONEXIÓN RED NUEVA CASETA CON DEPÓSITOS EXISTENTES FD DN<300 Partida Alzada de Abono Íntegro para conexión de la red de abastecimiento desde la nueva caseta de válvulas con depósitos existentes, incluyendo, excavaciones, tuberías de fundición de diámetro hasta 300 mm, rellenos, ayudas de albañilería, demoliciones, relleno de huecos con morteros sin retracción, anclaje de tuberías, así como todos los medios auxiliares necesarios para la conexión entre la salida de la nueva caseta de válvula y su salida al depósito.	1				1,00	
							1,00
617.3	PA CONEXIÓN ALIVIOS CON RED VACIADOS DEPÓSITO. Partida Alzada de Abono Íntegro para conexión de la salida de los alivios de la nueva caseta de válvulas con la red de vaciados del depósito, incluyendo, excavaciones, tuberías de PEAD DN de salida de alivio, rellenos, ayudas de albañilería, demoliciones, relleno de huecos con morteros sin retracción, anclaje de tuberías, así como todos los medios auxiliares necesarios para la conexión entre ambas tuberías.	1				1,00	
							1,00
SUBCAPÍTULO 08.14 ACOMETIDA A DEPÓSITO DE ALDEANUEVA DE EBRO							
APARTADO 08.14.01 OBRA CIVIL							
008	M2 DESPEJE Y DESBROCE Despeje y desbroce de capa de tierra vegetal con un espesor medio de 50 cm, incluso corte de árboles, extracción de tocones, nivelación de zona adyacente para el paso de maquinaria, transporte a lugar de acopio independiente para posterior reposición de tierra vegetal tras las obras y despedregado de las parcelas, así como transporte a vertedero de tierras sobrantes.	1	9,00	3,00		27,00	
							27,00
002	M3 EXCAVACIÓN EN ZANJAS Excavación en zanjas y zonas localizadas, en todo tipo de terrenos incluido terrenos en roca con medios mecánicos, incluso rasanteo, nivelación de la superficie de apoyo y transporte a lugar de empleo o vertedero.	1	9,00	3,00	2,25	60,75	
							60,75
010	M3 RELLENO ZANJAS, CIMIENTOS Y TRASDOSES DE MATERIAL SELECCIONADO Relleno con material seleccionado en zanjas, cimientos, trasdós de muros, estribos y otras estructuras procedente de la excavación o préstamos incluso carga, transporte y compactación.	1	60,75			60,75	
		-1	8,40	3,00	0,30	-7,56	
		-1	8,00	2,60	1,75	-36,40	
							16,79

MEDICIONES

ABASTECIMIENTO A VARIOS MUNICIPIOS DE LA RIOJA. SISTEMA CIDACOS

CÓDIGO	RESUMEN	UDS	LONGITUD	ANCHURA	ALTURA	PARCIALES	CANTIDAD
028	M3 HORMIGÓN DE LIMPIEZA HL-150 Hormigón de limpieza HL-150, de consistencia plástica, árido de tamaño máximo 40 mm y cemento CEM-II-D/42,5/SR, para saneos y encachados, incluyendo fabricación y transporte totalmente colocado.	1	8,40	3,00	0,10	2,52	
							2,52
031	M3 HORMIGÓN HA-25/B/20/IIa Hormigón HA-25/B/20/IIa, con cemento CEM III/A-D/42,5/SR, incluyendo fabricación, transporte, puesta en obra y vibrado, totalmente ejecutado, incluso curado y juntas.	1	8,40	3,00	0,30	7,56	7,56
	Solera	2	8,40	0,30	1,75	8,82	
	Muros	2	2,40	0,30	1,75	2,52	11,34
							18,90
023	KG ACERO CORRUGADO B-500-S Acero redondo corrugado para armar tipo B-500-S elaborado y colocado.	1	7,56	70,00		529,20	
	Solera	1	11,34	85,00		963,90	
	Muros						1.493,10
025	M2 ENCOFRADO RECTO EN PARAMENTOS OCULTOS Encofrado recto en paramentos ocultos, incluso colocación, fijación y desencofrado.	2	8,40		0,30	5,04	5,04
	Solera	2	3,00		0,30	1,80	
							6,84
026	M2 ENCOFRADO RECTO EN PARAMENTOS VISTOS 1C Encofrado recto en paramentos vistos a una cara, incluso colocación, fijación y desencofrado.	4	8,00		1,75	56,00	
	Muros	4	2,60		1,75	18,20	74,20
							74,20
052	ML JUNTAS DE ESTANQUEIDAD DE PVC 32 CM Junta de trabajo interior de policloruro de vinilo (PVC) 100% virgen, con una fuerza máxima de dilatación > 250 % , de 32 cm de ancho, MASTERFLEX 2000 TI-24 de BASF o equivalente, colocada simétricamente en el eje de la losa o muro, incluso solapes y piezas especiales para cruces o ángulos. Medida la longitud ejecutada.	2	8,00			16,00	
		2	2,60			5,20	
							21,20
462	M2 FÁBRICA BLOQUES 40x20x20 cm TIPO SPLIT COLOR Fábrica de bloques de hormigón tipo Split, de medidas 40x20x20 cm color i/relleno de hormigón y colocación de armaduras s/normativa y recibido con mortero de cemento y arena de río 1/6 i/p.p. de piezas especiales para dinteles y materialización de jambas, roturas, nivelados, aplomados, llagueados y limpieza, todo ello según normativa.	2	8,00		3,50	56,00	
	Muros	2	2,60		3,50	18,20	
	A deducir puerta	-1	0,80		2,20	-1,76	
	A deducir ventanas	-2	0,80		0,60	-0,96	
							71,48
520	M2 CUBIERTA PANEL SANDWICH (E=50 mm.) Cubierta con panel tipo sandwich espesor 50 cm., con doble chapa prelacada de 0,4 mm de espesor, y aislamiento térmico de poliuretano, fijada con gancho de acero galvanizado, incluso p.p de piezas de remate, totalmente colocada.	1	8,00	2,60		20,80	
							20,80

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CÓDIGO	RESUMEN	UDS	LONGITUD	ANCHURA	ALTURA	PARCIALES	CANTIDAD
519	ML REMATE DE CHAPA PRELACADA CUBIERTA Remate de chapa prelacada en color, para cubrir parte superior de bloque o panel, hasta el panel sandwich de la cubierta por el interior del peto, fijado mediante tacos y/o ganchos anclado a muro y o cubierta, dispuesto según planos.	1	8,00			8,00	
		2	2,60			5,20	
							13,20
465.1	M2 PUERTA DOBLE CHAPA ACERO CON LAMAS Puerta de paso hojas abatibles de doble chapa lisa de acero de 1 mm de espesor, con aislamiento interno de fibre de vidrio, engatillada, realizada en dos bandejas, con rigidizadores de tubo rectangular, i/manillas de acero inoxidable y cerradura, con dos o cuatro rejillas de ventilación con malla anti insectos interior, patillas para recibir en fábricas, herrajes de colgar y de seguridad, imprimación antióxido y pintura al esmalte, totalmente colocada incluyendo el recibido de fábricas.	1	0,80		2,20	1,76	
							1,76
464cf	M2 CARPINTERÍA FIJA ALUMINIO m². Carpintería fija con junquillos para la fijación del vidrio, de aluminio modelo con rotura de puente térmico, Alfil A54RPT de SAPAGROUP con un ancho de marco de 54 mm y con un ancho de hoja de 61 mm, medida del frente de 96,3 mm, con sistema de cámara europea, con espesor de perfil de 1,5 mm, con sistema de cierre por junta central de estanqueidad en EPDM, coplanar exteriormente y con resalte de hoja sobre el marco al interior, para un acristalamiento con altura de galce de 22 mm y anchura hasta 44 mm en marcos y 51 mm en hojas, lacado (entre 60-100 micras) en color estándar (RAL estándar: blanco, gris...), herrajes de colgar, p.p. de cerradura Tesa o similar y costes indirectos. Homologada con Clase 4 en el ensayo de permeabilidad al aire según norma UNE-EN 1026:2000. La transmitancia máxima del marco es de 2,90 W/m² K, y cumple en las zonas A, B, C, D y E, según el CTE/DB-HE 1.	1	0,80		0,60	0,48	
							0,48
464V3	M2 VIDRIO SEGURIDAD STADIP 44.1 INCOLORO (2B2) m². Acristalamiento de vidrio laminar de seguridad Stadip compuesto por dos vidrios de 4 mm de espesor unidos mediante lámina de butiral de polivinilo incolora de 0,38 mm, clasificado 2B2 según UNE-EN 12600, fijado sobre carpintería con acuíñado mediante calzos de apoyo perimetrales y laterales y sellado en frío con silicona neutra, incluso colocación de junquillos, según UNE 8522:1985.	1	0,80		0,60	0,48	
							0,48
521	M2 CELOSIA FIJA VENTILACIÓN Celosía metálica fija para ventilación, formada por cerco con empanelado de lamas de acero de 60 mm, con abertura mínima de 1 cm entre lamas, malla de 2 mm para evitar entrada de insectos, garras de sujeción a soporte de 10 cm, elaborada en taller y montada en obra, totalmente colocada.	1	0,80		0,60	0,48	
							0,48
020	KG ACERO S 275 J PERFILES LAMINADOS Acero S 275 J en perfiles laminados elaborado y colocado. Vigas forjado IPE-100 Vigas IPE-160 Pilares HEB-100	3 3 3 3	8,00 2,60 3,00 2,60	8,10 15,80 20,40 20,40		194,40 123,24 183,60 159,12	
							660,36
474.1	ML CANALON CHAPA PRELACADA 50cm Canalón de chapa prelacada en color, de 50 cm. de desarrollo fijado mediante ganchos ocultos con tornillo autoroscante 40 cm., incluso p.p. de embocadura de bajante, codos y piezas especiales.	1	7,40			7,40	
							7,40

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CÓDIGO	RESUMEN	UDS	LONGITUD	ANCHURA	ALTURA	PARCIALES	CANTIDAD
290B	M2 ESCALERA Y PASARELAS DE ACERO GALVANIZADO. BARANDILLAS GALVANIZ Escalera y pasarelas de acceso de forma según planos, ejecutada en perfiles de acero galvanizado en caliente, incluso barandilla tubular del mismo material, de 90 cm de altura en uno o dos lados, rodapié de seguridad del mismo en uno o dos lados, así como entramado metálico de 30x30x3 en descansillos y peldaños, medida según su proyección en planta. Anclada a los muros y/o solera, instalada.	1	3,20	0,90		2,88	
							2,88
620	UD APOYOS DE TUBERÍA Y VÁLVULAS SOBRE SOLERA Apoyos de tuberías y válvulas en soleras, mediante dado de hormigón HA-25/P/20/IIa, ligeramente armado y anclado a la solera, así como cintas o eslingas de acero con material de protección de tubería para sujeción de las mismas, incluyendo el hormigón, encofrados, acero, eslingas, material de PE de protección, montado.	5				5,00	
							5,00
474.2	ML BAJANTE DE CHAPA PRELACADA DN110 Bajante de chapa prelacada en color, DN110, fijado mediante ganchos con tornillo autoroscante 20 cm., incluso p.p. de embocadura de bajante, codos y piezas especiales.	1			3,00	3,00	
							3,00
APARTADO 08.14.02 VÁLVULAS Y ACCESORIOS							
115.11	UD BRIDA ENCHUFE FD 250 mm PN40 Brida enchufe de fundición dúctil de PFA 40 bar para tubería de 250 mm, con un revestimiento interior y exterior epoxi, i/p.p. de junta de unión y medios auxiliares, totalmente colocada y probada.	1				1,00	
							1,00
115.6	UD BRIDA ENCHUFE FD 250 mm PN16/25 Brida enchufe de fundición dúctil de PFA 16/25 bar para tubería de 250 mm, con un revestimiento interior y exterior epoxi, i/p.p. de junta de unión y medios auxiliares, totalmente colocada y probada.	1				1,00	
							1,00
126	UD TE FD BBB 250 mm PN40 SALIDA DN250/60 "T" de fundición dúctil de PFA 40 bar, con tres bridas para tubería de 250 mm con salida comprendida entre 250 y 60 mm, con un revestimiento interior y exterior epoxi, i/p.p. de junta de unión y medios auxiliares, totalmente colocada y probada. Ventosa	1				1,00	
							1,00
138	UD TE FD BBB 150 mm PN16/25 SALIDA DN150/40 "T" de fundición dúctil de PFA 16 bar, con tres bridas para tubería de 150 mm con salida comprendida entre 150 y 40 mm, con un revestimiento interior y exterior epoxi, i/p.p. de junta de unión y medios auxiliares, totalmente colocada y probada.	2				2,00	
							2,00
245.6	UD VENTOSA DN=80 (3") mm PN40 Válvula ventosa de tres funciones de DN=80 mm (3") y PN 40 bar incluido transporte, juntas, válvula de corte DN=80 mm y PN 40 y piezas especiales, totalmente colocada y probada.	1				1,00	
							1,00
245.2	UD VENTOSA DN=80 (3") mm PN16 Válvula ventosa de tres funciones de DN=80 mm (3") y PN 16 bar incluido transporte, juntas, válvula de corte DN=80 mm y PN 16y piezas especiales, totalmente colocada y probada.	1				1,00	
							1,00

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ABASTECIMIENTO A VARIOS MUNICIPIOS DE LA RIOJA. SISTEMA CIDACOS

CÓDIGO	RESUMEN	UDS	LONGITUD	ANCHURA	ALTURA	PARCIALES	CANTIDAD
107	UD REDUCCIÓN FD 250 A 200/125 mm PN25 Reducción en fundición dúctil de 250 mm a 200-150-125 mm con dos bridas PN 16 bar, con un revestimiento interior y exterior epoxi, i/p.p. de junta de unión y medios auxiliares, totalmente colocada y probada.	1				1,00	1,00
							1,00
107.1	UD REDUCCIÓN FD 250 A 200/125 mm PN40 Reducción en fundición dúctil de 250 mm a 200-150-125 mm con dos bridas PN 40 bar, con un revestimiento interior y exterior epoxi, i/p.p. de junta de unión y medios auxiliares, totalmente colocada y probada.	1				1,00	1,00
							1,00
160	UD MANGUITO FD 100 A 250 mm PN40 Manguito de fundición dúctil con bridas diámetros de 100 a 250 mm, longitud comprendida entre 0,20 y 1,00 m y PN40, incluso p.p. de tornillería y medios auxiliares, totalmente colocado y probado.	1				1,00	1,00
							1,00
162	UD MANGUITO FD DN100 A DN250 mm PN16/25 Manguito de fundición dúctil con bridas diámetros de 100 a 250 mm, longitud comprendida entre 0,20 y 1,00 m y PN16/25, incluso p.p. de tornillería y medios auxiliares, totalmente colocado y probado.	3				3,00	3,00
							3,00
249.1	UD FILTRO COLADOR EN Y DN=150 mm PN40 Filtro colador en "Y" de diámetro nominal DN=150 mm y brida PN=40 bar de presión, incluso juntas de unión y tornillería, totalmente instalado.	1				1,00	1,00
							1,00
ECD15016	UD CARRETE DE DESMONTAJE DN=150 mm PN16 Carrete telescópico de desmontaje DN150 PN16, bridas de acero al carbono, virolas de acero inoxidable, protección epoxi, tornillos y tuercas en acero F-114, cincado y posterior baño de cromo-niquel, incluido p.p. de brida enchufe, totalmente instalado y probado en obra.	1				1,00	1,00
							1,00
145.1	UD CARRETE DE DESMONTAJE DN=150 mm PN40 Carrete telescópico de desmontaje DN150 PN40, bridas de acero al carbono, virolas de acero inoxidable, protección epoxi, tornillos y tuercas en acero F-114, cincado y posterior baño de cromo-niquel, incluido p.p. de brida enchufe, totalmente instalado y probado en obra.	1				1,00	1,00
							1,00
259.1	UD VÁLVULA REDUCTORA DE PRESIÓN DN=150 mm PN40 Válvula reductora de presión de diámetro DN=150 mm y PN 40 bar, incluso juntas de unión y tornillería, totalmente colocada y probada.	1				1,00	1,00
							1,00
273	UD VÁLVULA ALIVIO DE PRESIÓN 3" PN 16 Válvula de alivio de presión de 3" brida PN 16 bar, incluso válvula de corte de 3", juntas de unión, y tornillería, totalmente colocada y probada.	1				1,00	1,00
							1,00
266.1	UD VÁLVULA LIMITADORA DE CAUDAL DN=150 mm PN16 Válvula limitadora de caudal de DN=150 mm PN16, incluso juntas de unión y tornillería, totalmente colocada y probada.	1				1,00	1,00
							1,00

MEDICIONES

ABASTECIMIENTO A VARIOS MUNICIPIOS DE LA RIOJA. SISTEMA CIDACOS

CÓDIGO	RESUMEN	UDS	LONGITUD	ANCHURA	ALTURA	PARCIALES	CANTIDAD
268.1	UD VÁLVULA DE LLENADO DN=150 mm PN16 CIERRE LENTO Y SOLENOIDE Válvula de llenado de asiento inoxidable, con cierre lento y solenoide de diámetro nominal DN=150 mm y PN=16 bar, totalmente instalado y probado.	1				1,00	1,00
							1,00
235	UD VÁLVULA DE COMPUERTA MANUAL DN150 PN16 Válvula de compuerta de accionamiento manual de diámetro nominal DN=150 mm de 16 bares de presión máxima admisible, con tornillería y juntas, totalmente instalada y probada, incluso volante de accionamiento.	1				1,00	1,00
							1,00
233	UD VÁLVULA DE COMPUERTA MANUAL DN150 PN40 Válvula de compuerta de accionamiento manual de diámetro nominal DN=150 mm de 40 bares de presión máxima admisible, con tornillería y juntas, totalmente instalada y probada, incluso volante de accionamiento.	1				1,00	1,00
							1,00
APARTADO 08.14.03 INSTRUMENTACIÓN Y CONTROL							
300	UD BOYA DE NIVEL DE MÁXIMO Y MÍNIMO Boya de nivel cableada con la válvula de llenado, incluso montaje y pruebas.	2				2,00	2,00
							2,00
281	UD CAUDALÍMETRO ELECTROMAGNÉTICO DN 150 mm PN10 Equipo medidor de caudal de DN150 mm. tipo electromagnético y PN=25 atm. con salida 4/20 mA, tensión 220 V y escala 0-240 m3/h, totalmente instalado y probado. Incluido transporte, montaje, conexiones eléctricas y pruebas de funcionamiento. Resto de características, según ET.	1				1,00	1,00
							1,00
APARTADO 08.14.04 INSTALACIÓN ELÉCTRICA DE BT							
563.1	ud PANTALLA ESTANCA LED Luminaria estanca WT120C LED80S/840 de Philips o equivalente para montaje en superficie de dimensiones 1515x80, carcasa de policarbonato, óptica de polimetacrilato de metilo, flujo luminoso 8.000 lm, potencia 68 W, Tª color 4000 K, rango de Tª de 10°C a 35°C, protección IP-65 Clase I. Incluso p.p. de canalización y cableado, completamente instalado.	1				1,000	1,00
							1,00
524.1	m LINEA 3x1.5mm2 Cu 0.6/1kV RZ1-K (AS) Línea eléctrica con conductor multipolares 3x1.5mm2 RZ1-K (AS) en canalización existente, incluso conexionado en inicio y final de línea.	1	15,000			15,000	15,00
							15,00
571	ud INTERRUPTOR EMPOTRAR SIMO 32 BLANCO. Interruptor empotrar blanco, totalmente instalado.	1				1,000	1,00
							1,00
204	m TUBO DE PVC RÍGIDO DE 25 MM DIÁMETRO Tubo rígido de PVC d=25mm para canalización de conductores, incluso soportes y anclajes a pared, instalado.	1	25,000			25,000	25,00
							25,00

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ABASTECIMIENTO A VARIOS MUNICIPIOS DE LA RIOJA. SISTEMA CIDACOS

CÓDIGO	RESUMEN	UDS	LONGITUD	ANCHURA	ALTURA	PARCIALES	CANTIDAD
APARTADO 08.14.05 VARIOS							
618	PA CONEXIÓN RED ELÉCTRICA BT CON DEPÓSITOS EXISTENTES Partida Alzada de Abono Íntegro para conexión de la red eléctrica en BT con depósitos existentes.	1				1,00	1,00
617.1	PA CONEXIÓN RED NUEVA CASETA CON DEPÓSITOS EXISTENTES FD DN<300 Partida Alzada de Abono Íntegro para conexión de la red de abastecimiento desde la nueva caseta de válvulas con depósitos existentes, incluyendo, excavaciones, tuberías de fundición de diámetro hasta 300 mm, rellenos, ayudas de albañilería, demoliciones, relleno de huecos con morteros sin retracción, anclaje de tuberías, así como todos los medios auxiliares necesarios para la conexión entre la salida de la nueva caseta de válvula y su salida al depósito.	1				1,00	1,00
617.3	PA CONEXIÓN ALIVIOS CON RED VACIADOS DEPÓSITO. Partida Alzada de Abono Íntegro para conexión de la salida de los alivios de la nueva caseta de válvulas con la red de vaciados del depósito, incluyendo, excavaciones, tuberías de PEAD DN de salida de alivio, rellenos, ayudas de albañilería, demoliciones, relleno de huecos con morteros sin retracción, anclaje de tuberías, así como todos los medios auxiliares necesarios para la conexión entre ambas tuberías.	1				1,00	1,00
SUBCAPÍTULO 08.15 ACOMETIDA A DEPÓSITO DE RINCÓN DE SOTO							
APARTADO 08.15.01 OBRA CIVIL							
008	M2 DESPEJE Y DESBROCE Despeje y desbroce de capa de tierra vegetal con un espesor medio de 50 cm, incluso corte de árboles, extracción de tocones, nivelación de zona adyacente para el paso de maquinaria, transporte a lugar de acopio independiente para posterior reposición de tierra vegetal tras las obras y despedregado de las parcelas, así como transporte a vertedero de tierras sobrantes.	1	9,00	5,00		45,00	45,00
002	M3 EXCAVACIÓN EN ZANJAS Excavación en zanjás y zonas localizadas, en todo tipo de terrenos incluido terrenos en roca con medios mecánicos, incluso rasanteo, nivelación de la superficie de apoyo y transporte a lugar de empleo o vertedero.	1	9,00	5,00	3,40	153,00	153,00
010	M3 RELLENO ZANJAS, CIMIENTOS Y TRASDOSES DE MATERIAL SELECCIONADO Relleno con material seleccionado en zanjás, cimientos, trasdós de muros, estribos y otras estructuras procedente de la excavación o préstamos incluso carga, transporte y compactación.	1	153,00			153,00	
		-1	3,00	8,80	0,50	-13,20	
		-1	2,60	8,40	2,90	-63,34	
							76,46
028	M3 HORMIGÓN DE LIMPIEZA HL-150 Hormigón de limpieza HL-150, de consistencia plástica, árido de tamaño máximo 40 mm y cemento CEM-II-D/42,5/SR, para saneos y encachados, incluyendo fabricación y transporte totalmente colocado.	1	8,80	3,00	0,10	2,64	2,64
031	M3 HORMIGÓN HA-25/B/20/IIa Hormigón HA-25/B/20/IIa, con cemento CEM II/A-D/42,5/SR, incluyendo fabricación, transporte, puesta en obra y vibrado, totalmente ejecutado, incluso curado y juntas.	1	8,80	3,00	0,40	10,56	10,56
	Solera	2	8,40	0,30	2,90	14,62	
	Muros	2	2,00	0,30	2,90	3,48	18,10

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CÓDIGO	RESUMEN	UDS	LONGITUD	ANCHURA	ALTURA	PARCIALES	CANTIDAD
023	KG ACERO CORRUGADO B-500-S Acero redondo corrugado para armar tipo B-500-S elaborado y colocado.	1	10,56	70,00		739,20	28,66
	Solera	1	10,56	70,00		739,20	
	Muros	1	18,10	85,00		1.538,50	
							2.277,70
025	M2 ENCOFRADO RECTO EN PARAMENTOS OCULTOS Encofrado recto en paramentos ocultos, incluso colocación, fijación y desencofrado.	2	8,80	0,40	7,04	7,04	7,04
	Solera	2	3,00	0,40	2,40	2,40	
							9,44
026	M2 ENCOFRADO RECTO EN PARAMENTOS VISTOS 1C Encofrado recto en paramentos vistos a una cara, incluso colocación, fijación y desencofrado.	4	8,40	2,90	97,44	97,44	97,44
	Muros	4	2,00	2,90	23,20	23,20	120,64
							120,64
052	ML JUNTAS DE ESTANQUEIDAD DE PVC 32 CM Junta de trabajo interior de policloruro de vinilo (PVC) 100% virgen, con una fuerza máxima de dilatación > 250 % , de 32 cm de ancho, MASTERFLEX 2000 TI-24 de BASF o equivalente, colocada simétricamente en el eje de la losa o muro, incluso solapes y piezas especiales para cruces o ángulos. Medida la longitud ejecutada.	2	8,20			16,40	
		2	2,30			4,60	
							21,00
462	M2 FÁBRICA BLOQUES 40x20x20 cm TIPO SPLIT COLOR Fábrica de bloques de hormigón tipo Split, de medidas 40x20x20 cm color i/relleno de hormigón y colocación de armaduras s/normativa y recibido con mortero de cemento y arena de río 1/6 i/p.p. de piezas especiales para dinteles y materialización de jambas, roturas, nivelados, aplomados, llagueados y limpieza, todo ello según normativa.	2	8,40	3,50	58,80	58,80	58,80
	Muros	2	2,00	3,50	14,00	14,00	
	A deducir puerta	-1	0,80	2,20	-1,76	-1,76	
	A deducir ventanas	-2	0,80	0,60	-0,96	-0,96	
							70,08
520	M2 CUBIERTA PANEL SANDWICH (E=50 mm.) Cubierta con panel tipo sandwich espesor 50 cm., con doble chapa prelacada de 0,4 mm de espesor, y aislamiento térmico de poliuretano, fijada con gancho de acero galvanizado, incluso p.p de piezas de remate, totalmente colocada.	1	7,80	2,20	17,16	17,16	17,16
519	ML REMATE DE CHAPA PRELACADA CUBIERTA Remate de chapa prelacada en color, para cubrir parte superior de bloque o panel, hasta el panel sandwich de la cubierta por el interior del peto, fijado mediante tacos y/o ganchos anclado a muro y o cubierta, dispuesto según planos.	1	8,40		8,40	8,40	8,40
		2	2,60		5,20	5,20	
							13,60
465.1	M2 PUERTA DOBLE CHAPA ACERO CON LAMAS Puerta de paso hojas abatibles de doble chapa lisa de acero de 1 mm de espesor, con aislamiento interno de fibre de vidrio, engatillada, realizada en dos bandejas, con rigidizadores de tubo rectangular, i/manillas de acero inoxidable y cerradura, con dos o cuatro rejillas de ventilación con malla anti insectos interior, patillas para recibir en fábricas, herrajes de colgar y de seguridad, imprimación antióxido y pintura al esmalte, totalmente colocada incluyendo el recibido de fábricas.	1	0,80	2,20	1,76	1,76	1,76

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CÓDIGO	RESUMEN	UDS	LONGITUD	ANCHURA	ALTURA	PARCIALES	CANTIDAD
464cf	M2 CARPINTERÍA FIJA ALUMINIO m². Carpintería fija con junquillos para la fijación del vidrio, de aluminio modelo con rotura de puente térmico, Alfil A54RPT de SAPAGROUP con un ancho de marco de 54 mm y con un ancho de hoja de 61 mm, medida del frente de 96,3 mm, con sistema de cámara europea, con espesor de perfil de 1,5 mm, con sistema de cierre por junta central de estanqueidad en EPDM, coplanar exteriormente y con resalte de hoja sobre el marco al interior, para un acristalamiento con altura de galce de 22 mm y anchura hasta 44 mm en marcos y 51 mm en hojas, lacado (entre 60-100 micras) en color estándar (RAL estándar: blanco, gris...), herrajes de colgar, p.p. de cerradura Tesa o similar y costes indirectos. Homologada con Clase 4 en el ensayo de permeabilidad al aire según norma UNE-EN 1026:2000. La transmitancia máxima del marco es de 2,90 W/m² K, y cumple en las zonas A, B, C, D y E, según el CTE/DB-HE 1.	1	0,80		0,60	0,48	0,48
464V3	M2 VIDRIO SEGURIDAD STADIP 44.1 INCOLORO (2B2) m². Acristalamiento de vidrio laminar de seguridad Stadip compuesto por dos vidrios de 4 mm de espesor unidos mediante lámina de butiral de polivinilo incolora de 0,38 mm, clasificado 2B2 según UNE-EN 12600, fijado sobre carpintería con acuíado mediante calzos de apoyo perimetrales y laterales y sellado en frío con silicona neutra, incluso colocación de junquillos, según UNE 85222:1985.	1	0,80		0,60	0,48	0,48
521	M2 CELOSIA FIJA VENTILACIÓN Celosía metálica fija para ventilación, formada por cerco con empanelado de lamas de acero de 60 mm, con abertura mínima de 1 cm entre lamas, malla de 2 mm para evitar entrada de insectos, garras de sujeción a soporte de 10 cm, elaborada en taller y montada en obra, totalmente colocada.	1	0,80		0,60	0,48	0,48
020	KG ACERO S 275 J PERFILES LAMINADOS Acero S 275 J en perfiles laminados elaborado y colocado. Vigas forjado IPE-100 Vigas IPE-120	3 3	8,40 2,60	8,10 10,40		204,12 81,12	285,24
474.1	ML CANALON CHAPA PRELACADA 50cm Canalón de chapa prelacada en color, de 50 cm. de desarrollo fijado mediante ganchos ocultos con tornillo autoroscante 40 cm., incluso p.p. de embocadura de bajante, codos y piezas especiales.	1	8,40			8,40	8,40
290B	M2 ESCALERA Y PASARELAS DE ACERO GALVANIZADO. BARANDILLAS GALVANIZ Escalera y pasarelas de acceso de forma según planos, ejecutada en perfiles de acero galvanizado en caliente, incluso barandilla tubular del mismo material, de 90 cm de altura en uno o dos lados, rodapié de seguridad del mismo en uno o dos lados, así como entramado metálico de 30x30x3 en descansillos y peldaños, medida según su proyección en planta. Anclada a los muros y/o solera, instalada.	1	4,25	0,90		3,83	3,83
620	UD APOYOS DE TUBERÍA Y VÁLVULAS SOBRE SOLERA Apoyos de tuberías y válvulas en soleras, mediante dado de hormigón HA-25/P/20/IIa, ligeramente armado y anclado a la solera, así como cintas o eslingas de acero con material de protección de tubería para sujeción de las mismas, incluyendo el hormigón, encofrados, acero, eslingas, material de PE de protección, montado.	5				5,00	5,00
474.2	ML BAJANTE DE CHAPA PRELACADA DN110 Bajante de chapa prelacada en color, DN110, fijado mediante ganchos con tornillo autoroscante 20 cm., incluso p.p. de embocadura de bajante, codos y piezas especiales.						

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CÓDIGO	RESUMEN	UDS	LONGITUD	ANCHURA	ALTURA	PARCIALES	CANTIDAD
	Arqueta entrada	1	2,20	1,60		3,52	6,00
APARTADO 08.15.02 VÁLVULAS Y ACCESORIOS							
115.6	UD BRIDA ENCHUFE FD 250 mm PN16/25 Brida enchufe de fundición dúctil de PFA 16/25 bar para tubería de 250 mm, con un revestimiento interior y exterior epoxi, i/p.p. de junta de unión y medios auxiliares, totalmente colocada y probada.	1				1,00	2,00
	Entrada	1				1,00	
	Salida	1				1,00	
137	UD TE FD BBB 200 mm PN16/25 SALIDA DN200/40 "T" de fundición dúctil de PFA 16 bar, con tres bridas para tubería de 200 mm con salida comprendida entre 200 y 40 mm, con un revestimiento interior y exterior epoxi, i/p.p. de junta de unión y medios auxiliares, totalmente colocada y probada.	1				1,00	2,00
	Ventosa	1				1,00	
	Alivio	1				1,00	
245.4	UD VENTOSA DN=50 (2") mm PN16 Válvula ventosa de tres funciones de DN=50 mm (2") y PN 16 bar incluido transporte, juntas, válvula de corte DN=50 mm y PN 16 y piezas especiales, totalmente colocada y probada.	1				1,00	1,00
106	UD REDUCCIÓN FD 250 A 200/125 mm PN16 Reducción en fundición dúctil de 250 mm a 200-150-125 mm con dos bridas PN 25 bar, con un revestimiento interior y exterior epoxi, i/p.p. de junta de unión y medios auxiliares, totalmente colocada y probada.	1				1,00	1,00
107	UD REDUCCIÓN FD 250 A 200/125 mm PN25 Reducción en fundición dúctil de 250 mm a 200-150-125 mm con dos bridas PN 16 bar, con un revestimiento interior y exterior epoxi, i/p.p. de junta de unión y medios auxiliares, totalmente colocada y probada.	1				1,00	1,00
162	UD MANGUITO FD DN100 A DN250 mm PN16/25 Manguito de fundición dúctil con bridas diámetros de 100 a 250 mm, longitud comprendida entre 0,20 y 1,00 m y PN16/25, incluso p.p. de tornillería y medios auxiliares, totalmente colocado y probado.	5				5,00	5,00
247	UD FILTRO COLADOR EN Y DN=200 mm PN25 Filtro colador en "Y" de diámetro nominal DN=200 mm y brida PN=25 bar de presión, incluso juntas de unión y tornillería, totalmente instalado.	1				1,00	1,00
144	UD CARRETE DE DESMONTAJE DN=200 mm PN25 Carrete de desmontaje autoportante de PFA 25 bar de D=200 mm, colocado.	1				1,00	1,00
143	UD CARRETE DE DESMONTAJE DN=200 mm PN16 Carrete telescópico de desmontaje DN200 PN 16, bridas de acero al carbono, virolas de acero inoxidable, protección epoxi, tornillos y tuercas en acero F-114, cincado y posterior baño de cromo-niquel, incluido p.p. de brida enchufe, totalmente instalado y probado en obra.	1				1,00	1,00

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CÓDIGO	RESUMEN	UDS	LONGITUD	ANCHURA	ALTURA	PARCIALES	CANTIDAD
260	UD VÁLVULA REDUCTORA DE PRESIÓN DN=150 mm PN16 Válvula reductora de presión de diámetro DN=150 mm y PN 16 bar, incluso juntas de unión y tornillería, totalmente colocada y probada.	1				1,00	1,00
257	UD VÁLVULA REDUCTORA DE PRESIÓN DN=200 mm PN25 Válvula reductora de presión de diámetro DN=200 mm y PN 25 bar, incluso juntas de unión y tornillería, totalmente colocada y probada.	1				1,00	1,00
266.3	UD VÁLVULA LIMITADORA DE CAUDAL DN=200 mm PN16 Válvula limitadora de caudal de DN=200 mm PN16, incluso juntas de unión y tornillería, totalmente colocada y probada.	1				1,00	1,00
268.3	UD VÁLVULA DE LLENADO DN=200 mm PN16 CIERRE LENTO Y SOLENOIDE Válvula de llenado de asiento inoxidable, con cierre lento y solenoide de diámetro nominal DN=200 mm y PN=16 bar, totalmente instalado y probado.	1				1,00	1,00
231	UD VÁLVULA DE COMPUERTA MANUAL DN200 PN25 Válvula de compuerta de cierre elástico de 200 mm. de diámetro nominal y 25 At. de P.N., de accionamiento manual por volante, de cuerpo de fundición nodular GGG-50, con eje de acero inoxidable al 13 % Cr. con roscas conformadas por laminación en frío, cierre en fundición nodular, tornillería de acero inoxidable, protegida contra la corrosión mediante aplicación de doble capa de pintura epoxy, totalmente colocada y probada. Resto de características según ET.	1				1,00	1,00
232	UD VÁLVULA DE COMPUERTA MANUAL DN200 PN16 Válvula de compuerta de cierre elástico de 200 mm. de diámetro nominal y 16 At. de P.N., de accionamiento manual por volante, de cuerpo de fundición nodular GGG-50, con eje de acero inoxidable al 13 % Cr. con roscas conformadas por laminación en frío, cierre en fundición nodular, tornillería de acero inoxidable, protegida contra la corrosión mediante aplicación de doble capa de pintura epoxy, totalmente colocada y probada. Resto de características según ET.	1				1,00	1,00
273.1	UD VÁLVULA ALIVIO DE PRESIÓN 2" PN 16 Válvula de alivio de presión de 2" brida PN 16 bar, incluso válvula de corte de 2", juntas de unión, y tornillería, totalmente colocada y probada.	1				1,00	1,00
APARTADO 08.15.03 INSTRUMENTACIÓN Y CONTROL							
300	UD BOYA DE NIVEL DE MÁXIMO Y MÍNIMO Boya de nivel cableada con la válvula de llenado, incluso montaje y pruebas.	2				2,00	2,00
280	UD CAUDALÍMETRO ELECTROMAGNÉTICO DN 200 mm PN10 Equipo medidor de caudal de DN200 mm. tipo electromagnético y PN=10 atm. con salida 4/20 mA, tensión 220 V y escala 0-240 m3/h, totalmente instalado y probado. Incluido transporte, montaje, conexiones eléctricas y pruebas de funcionamiento. Resto de características, según ET.	1				1,00	1,00

MEDICIONES

ABASTECIMIENTO A VARIOS MUNICIPIOS DE LA RIOJA. SISTEMA CIDACOS

CÓDIGO	RESUMEN	UDS	LONGITUD	ANCHURA	ALTURA	PARCIALES	CANTIDAD
APARTADO 08.15.04 INSTALACIÓN ELÉCTRICA DE BT							
563.1	ud PANTALLA ESTANCA LED Luminaria estanca WT120C LED80S/840 de Philips o equivalente para montaje en superficie de dimensiones 1515x80, carcasa de policarbonato, óptica de polimetacrilato de metilo, flujo luminoso 8.000 lm, potencia 68 W, Tª color 4000 K, rango de Tª de 10°C a 35°C, protección IP-65 Clase I. Incluso p.p. de canalización y cableado, completamente instalado.	1				1,000	1,00
524.1	m LINEA 3x1.5mm2 Cu 0.6/1kV RZ1-K (AS) Línea eléctrica con conductor multipolares 3x1.5mm2 RZ1-K (AS) en canalización existente, incluso conexionado en inicio y final de línea.	1	15,000			15,000	15,00
571	ud INTERRUPTOR EMPOTRAR SIMO 32 BLANCO. Interruptor empotrar blanco, totalmente instalado.	1				1,000	1,00
204	m TUBO DE PVC RÍGIDO DE 25 MM DIÁMETRO Tubo rígido de PVC d=25mm para canalización de conductores, incluso soportes y anclajes a pared, instalado.	1	25,000			25,000	25,00
APARTADO 08.15.05 VARIOS							
618	PA CONEXIÓN RED ELÉCTRICA BT CON DEPÓSITOS EXISTENTES Partida Alzada de Abono Íntegro para conexión de la red eléctrica en BT con depósitos existentes.	1				1,00	1,00
617.1	PA CONEXIÓN RED NUEVA CASETA CON DEPÓSITOS EXISTENTES FD DN<300 Partida Alzada de Abono Íntegro para conexión de la red de abastecimiento desde la nueva caseta de válvulas con depósitos existentes, incluyendo, excavaciones, tuberías de fundición de diámetro hasta 300 mm, rellenos, ayudas de albañilería, demoliciones, relleno de huecos con morteros sin retracción, anclaje de tuberías, así como todos los medios auxiliares necesarios para la conexión entre la salida de la nueva caseta de válvula y su salida al depósito.	1				1,00	1,00
617.3	PA CONEXIÓN ALIVIOS CON RED VACIADOS DEPÓSITO. Partida Alzada de Abono Íntegro para conexión de la salida de los alivios de la nueva caseta de válvulas con la red de vaciados del depósito, incluyendo, excavaciones, tuberías de PEAD DN de salida de alivio, rellenos, ayudas de albañilería, demoliciones, relleno de huecos con morteros sin retracción, anclaje de tuberías, así como todos los medios auxiliares necesarios para la conexión entre ambas tuberías.	1				1,00	1,00
SUBCAPÍTULO 08.16 ACOMETIDA A DEPÓSITO DE BERGASA							
APARTADO 08.16.01 OBRA CIVIL							
008	M2 DESPEJE Y DESBROCE Despeje y desbroce de capa de tierra vegetal con un espesor medio de 50 cm, incluso corte de árboles, extracción de tocones, nivelación de zona adyacente para el paso de maquinaria, transporte a lugar de acopio independiente para posterior reposición de tierra vegetal tras las obras y despedregado de las parcelas, así como transporte a vertedero de tierras sobrantes.	1	4,80	2,80		13,44	13,44

MEDICIONES

ABASTECIMIENTO A VARIOS MUNICIPIOS DE LA RIOJA. SISTEMA CIDACOS

CÓDIGO	RESUMEN	UDS	LONGITUD	ANCHURA	ALTURA	PARCIALES	CANTIDAD
002	M3 EXCAVACIÓN EN ZANJAS Excavación en zanjas y zonas localizadas, en todo tipo de terrenos incluido terrenos en roca con medios mecánicos, incluso rasanteo, nivelación de la superficie de apoyo y transporte a lugar de empleo o vertedero.	1	4,80	2,80	1,35	18,14	
							18,14
010	M3 RELLENO ZANJAS, CIMIENTOS Y TRASDOSES DE MATERIAL SELECCIONADO Relleno con material seleccionado en zanjas, cimientos, trasdós de muros, estribos y otras estructuras procedente de la excavación o préstamos incluso carga, transporte y compactación.	1	18,14			18,14	
		-1	4,80	2,80	0,40	-5,38	
		-1	4,40	2,40	0,95	-10,03	
							2,73
028	M3 HORMIGÓN DE LIMPEZA HL-150 Hormigón de limpieza HL-150, de consistencia plástica, árido de tamaño máximo 40 mm y cemento CEM-II-D/42,5/SR, para saneos y encachados, incluyendo fabricación y transporte totalmente colocado.	1	4,80	2,80	0,10	1,34	
							1,34
031	M3 HORMIGÓN HA-25/B/20/IIa Hormigón HA-25/B/20/IIa, con cemento CEM II/A-D/42,5/SR, incluyendo fabricación, transporte, puesta en obra y vibrado, totalmente ejecutado, incluso curado y juntas.	1	4,80	2,80	0,30	4,03	4,03
	Solera	2	4,40	0,30	1,15	3,04	
	Muros	2	2,40	0,30	1,15	1,66	4,70
							8,73
023	KG ACERO CORRUGADO B-500-S Acero redondo corrugado para armar tipo B-500-S elaborado y colocado.	1	4,04	70,00		282,80	
	Solera	1	4,70	85,00		399,50	
	Muros	0,05	682,30			34,12	
	Solapes y despuntes (5%)						716,42
025	M2 ENCOFRADO RECTO EN PARAMENTOS OCULTOS Encofrado recto en paramentos ocultos, incluso colocación, fijación y desencofrado.	2	4,80		0,30	2,88	2,88
	Solera	2	2,80		0,30	1,68	
							4,56
026	M2 ENCOFRADO RECTO EN PARAMENTOS VISTOS 1C Encofrado recto en paramentos vistos a una cara, incluso colocación, fijación y desencofrado.	4	4,40		1,15	20,24	
	Muros	4	2,40		1,15	11,04	31,28
							31,28
052	ML JUNTAS DE ESTANQUEIDAD DE PVC 32 CM Junta de trabajo interior de policloruro de vinilo (PVC) 100% virgen, con una fuerza máxima de dilatación > 250 % , de 32 cm de ancho, MASTERFLEX 2000 TI-24 de BASF o equivalente, colocada simétricamente en el eje de la losa o muro, incluso solapes y piezas especiales para cruces o ángulos. Medida la longitud ejecutada.	2	4,40			8,80	
		2	2,40			4,80	
							13,60
462	M2 FÁBRICA BLOQUES 40x20x20 cm TIPO SPLIT COLOR Fábrica de bloques de hormigón tipo Split, de medidas 40x20x20 cm color i/relleno de hormigón y colocación de armaduras s/normativa y recibido con mortero de cemento y arena de río 1/6 i/p.p. de piezas especiales para dinteles y materialización de jambas, roturas, nivelados, aplomados, llagueados y limpieza, todo ello según normativa.						

MEDICIONES

ABASTECIMIENTO A VARIOS MUNICIPIOS DE LA RIOJA. SISTEMA CIDACOS

CÓDIGO	RESUMEN	UDS	LONGITUD	ANCHURA	ALTURA	PARCIALES	CANTIDAD
	Arqueta entrada	1	2,20	1,60		3,52	
		2	2,40		3,35	16,08	
	A deducir puerta	-1	0,80		2,20	-1,76	
	A deducir ventanas	-2	0,80		0,60	-0,96	
							41,08
520	M2 CUBIERTA PANEL SANDWICH (E=50 mm.) Cubierta con panel tipo sandwich espesor 50 cm., con doble chapa prelacada de 0,4 mm de espesor, y aislamiento térmico de poliuretano, fijada con gancho de acero galvanizado, incluso p.p de piezas de remate, totalmente colocada.	1	4,40	2,40		10,56	
							10,56
519	ML REMATE DE CHAPA PRELACADA CUBIERTA Remate de chapa prelacada en color, para cubrir parte superior de bloque o panel, hasta el panel sandwich de la cubierta por el interior del peto, fijado mediante tacos y/o ganchos anclado a muro y o cubierta, dispuesto según planos.	1	4,40			4,40	
		2	2,40			4,80	
							9,20
465.1	M2 PUERTA DOBLE CHAPA ACERO CON LAMAS Puerta de paso hojas abatibles de doble chapa lisa de acero de 1 mm de espesor, con aislamiento interno de fibre de vidrio, engatillada, realizada en dos bandejas, con rigidizadores de tubo rectangular, i/manillas de acero inoxidable y cerradura, con dos o cuatro rejillas de ventilación con malla anti insectos interior, patillas para recibir en fábricas, herrajes de colgar y de seguridad, imprimación antióxido y pintura al esmalte, totalmente colocada incluyendo el recibido de fábricas.	1	0,80		2,20	1,76	
							1,76
464cf	M2 CARPINTERÍA FIJA ALUMINIO m². Carpintería fija con junquillos para la fijación del vidrio, de aluminio modelo con rotura de puente térmico, Alfil A54RPT de SAPAGROUP con un ancho de marco de 54 mm y con un ancho de hoja de 61 mm, medida del frente de 96,3 mm, con sistema de cámara europea, con espesor de perfil de 1,5 mm, con sistema de cierre por junta central de estanqueidad en EPDM, coplanar exteriormente y con resalte de hoja sobre el marco al interior, para un acristalamiento con altura de galce de 22 mm y anchura hasta 44 mm en marcos y 51 mm en hojas, lacado (entre 60-100 micras) en color estándar (RAL estándar: blanco, gris...), herrajes de colgar, p.p. de cerradura Tesa o similar y costes indirectos. Homologada con Clase 4 en el ensayo de permeabilidad al aire según norma UNE-EN 1026:2000. La transmitancia máxima del marco es de 2,90 W/m² K, y cumple en las zonas A, B, C, D y E, según el CTE/DB-HE 1.	1	0,80		0,60	0,48	
							0,48
464V3	M2 VIDRIO SEGURIDAD STADIP 44.1 INCOLORO (2B2) m². Acristalamiento de vidrio laminar de seguridad Stadip compuesto por dos vidrios de 4 mm de espesor unidos mediante lámina de butiral de polivinilo incolora de 0,38 mm, clasificado 2B2 según UNE-EN 12600, fijado sobre carpintería con acuñado mediante calzos de apoyo perimetrales y laterales y sellado en frío con silicona neutra, incluso colocación de junquillos, según UNE 85222:1985.						
		1	0,80		0,60	0,48	
							0,48
521	M2 CELOSIA FIJA VENTILACIÓN Celosía metálica fija para ventilación, formada por cerco con empanelado de lamas de acero de 60 mm, con abertura mínima de 1 cm entre lamas, malla de 2 mm para evitar entrada de insectos, garras de sujeción a soporte de 10 cm, elaborada en taller y montada en obra, totalmente colocada.	1	0,80		0,60	0,48	
							0,48
020	KG ACERO S 275 J PERFILES LAMINADOS Acero S 275 J en perfiles laminados elaborado y colocado.						

MEDICIONES

ABASTECIMIENTO A VARIOS MUNICIPIOS DE LA RIOJA. SISTEMA CIDACOS

CÓDIGO	RESUMEN	UDS	LONGITUD	ANCHURA	ALTURA	PARCIALES	CANTIDAD
	Arqueta entrada	1	2,20	1,60		3,52	
							106,92
474.1	ML CANALON CHAPA PRELACADA 50cm Canalón de chapa prelacada en color, de 50 cm. de desarrollo fijado mediante ganchos ocultos con tornillo autoroscante 40 cm., incluso p.p. de embocadura de bajante, codos y piezas especiales.	1	4,40			4,40	
							4,40
474.2	ML BAJANTE DE CHAPA PRELACADA DN110 Bajante de chapa prelacada en color, DN110, fijado mediante ganchos con tornillo autoroscante 20 cm., incluso p.p. de embocadura de bajante, codos y piezas especiales.	1		2,60		2,60	
							2,60
290B	M2 ESCALERA Y PASARELAS DE ACERO GALVANIZADO. BARANDILLAS GALVANIZ Escalera y pasarelas de acceso de forma según planos, ejecutada en perfiles de acero galvanizado en caliente, incluso barandilla tubular del mismo material, de 90 cm de altura en uno o dos lados, rodapié de seguridad del mismo en uno o dos lados, así como entramado metálico de 30x30x3 en descansillos y peldaños, medida según su proyección en planta. Anclada a los muros y/o solera, instalada.	1	2,15	0,90		1,94	
							1,94
620	UD APOYOS DE TUBERÍA Y VÁLVULAS SOBRE SOLERA Apoyos de tuberías y válvulas en soleras, mediante dado de hormigón HA-25/P/20/IIa, ligeramente armado y anclado a la solera, así como cintas o eslingas de acero con material de protección de tubería para sujeción de las mismas, incluyendo el hormigón, encofrados, acero, eslingas, material de PE de protección, montado.	3				3,00	
							3,00
APARTADO 08.16.02 VÁLVULAS Y ACCESORIOS							
115.7	UD BRIDA ENCHUFE FD DN<150 mm PN16/25/40 Brida enchufe de fundición dúctil de PFA 16/25/40 bar para tubería de diámetro menor o igual de 150 mm, con un revestimiento interior y exterior epoxi, i/p.p. de junta de unión y medios auxiliares, totalmente colocada y probada.	2				2,00	
							2,00
132.1	UD TE FD BBB 100 mm PN16/25 SALIDA DN100/40 "T" de fundición dúctil de PFA 16 bar, con tres bridas para tubería de 100 mm con salida comprendida entre 100 y 40 mm, con un revestimiento interior y exterior epoxi, i/p.p. de junta de unión y medios auxiliares, totalmente colocada y probada.	1				1,00	
							1,00
114	UD REDUCCIÓN FD 100 A 80/50 mm PN16/25 Reducción en fundición dúctil de 100 mm a 80-65-60-50 mm con dos bridas PN 16/25 bar, con un revestimiento interior y exterior epoxi, i/p.p. de tornillería y medios auxiliares, totalmente colocada y probada.	2				2,00	
							2,00
162	UD MANGUITO FD DN100 A DN250 mm PN16/25 Manguito de fundición dúctil con bridas diámetros de 100 a 250 mm, longitud comprendida entre 0,20 y 1,00 m y PN 16/25, incluso p.p. de tornillería y medios auxiliares, totalmente colocado y probado.	3				3,00	
							3,00
251	UD FILTRO COLADOR EN Y DN=100 mm PN16/25 Filtro colador en "Y" de diámetro nominal DN=100 mm y brida PN 16/25 bar de presión, incluso juntas de unión y tornillería, totalmente instalado.	1				1,00	

MEDICIONES

ABASTECIMIENTO A VARIOS MUNICIPIOS DE LA RIOJA. SISTEMA CIDACOS

CÓDIGO	RESUMEN	UDS	LONGITUD	ANCHURA	ALTURA	PARCIALES	CANTIDAD
							1,00
266.4	UD VÁLVULA LIMITADORA DE CAUDAL DN=100 mm PN16 Válvula limitadora de caudal de DN=100 mm PN16, incluso juntas de unión y tornillería, totalmente colocada y probada.	1				1,00	
							1,00
237	UD VÁLVULA DE COMPUERTA MANUAL DN100 PN25 Válvula de compuerta de cierre elástico de 100 mm. de diámetro nominal y 25 At. de P.N., de accionamiento manual por volante, de cuerpo de fundición nodular GGG-50, con eje de acero inoxidable al 13 % Cr. con roscas conformadas por laminación en frío, cierre en fundición nodular, tornillería de acero inoxidable, protegida contra la corrosión mediante aplicación de doble capa de pintura epoxi, totalmente colocada y probada. Resto de características según ET.	1				1,00	
							1,00
ECD010016	UD CARRETE DE DESMONTAJE DN=100 mm PN16 Carrete telescópico de desmontaje DN100 PN16, bridas de acero al carbono, virolas de acero inoxidable, protección epoxi, tornillos y tuercas en acero F-114, cincado y posterior baño de cromo-niquel, incluido p.p. de brida enchufe, totalmente instalado y probado en obra.	1				1,00	
							1,00
APARTADO 08.16.03 INSTRUMENTACIÓN Y CONTROL							
300	UD BOYA DE NIVEL DE MÁXIMO Y MÍNIMO Boya de nivel cableada con la válvula de llenado, incluso montaje y pruebas.	2				2,00	
							2,00
ECELM080	UD CAUDALÍMETRO ELECTROMAGNÉTICO DN 80 mm PN10 Equipo medidor de caudal de DN80 mm. tipo electromagnético y PN=10 atm. con salida 4/20 mA, tensión 220 V y escala 0-240 m3/h, totalmente instalado y probado. Incluido transporte, montaje, conexiones eléctricas y pruebas de funcionamiento. Resto de características, según ET.	1				1,00	
							1,00
APARTADO 08.16.04 INSTALACIÓN ELÉCTRICA DE BT							
563.1	ud PANTALLA ESTANCA LED Luminaria estanca WT120C LED80S/840 de Philips o equivalente para montaje en superficie de dimensiones 1515x80, carcasa de policarbonato, óptica de polimetacrilato de metilo, flujo luminoso 8.000 lm, potencia 68 W, Tª color 4000 K, rango de Tª de 10°C a 35°C, protección IP-65 Clase I. Incluso p.p. de canalización y cableado, completamente instalado.	1				1,000	
							1,00
524.1	m LINEA 3x1.5mm2 Cu 0.6/1KV RZ1-K (AS) Línea eléctrica con conductor multipolares 3x1.5mm2 RZ1-K (AS) en canalización existente, incluso conexionado en inicio y final de línea.	1	15,000			15,000	
							15,00
571	ud INTERRUPTOR EMPOTRAR SIMO 32 BLANCO. Interruptor empotrar blanco, totalmente instalado.	1				1,000	
							1,00
204	m TUBO DE PVC RÍGIDO DE 25 MM DIÁMETRO Tubo rígido de PVC d=25mm para canalización de conductores, incluso soportes y anclajes a pared, instalado.	1	15,000			15,000	
							15,00

MEDICIONES

ABASTECIMIENTO A VARIOS MUNICIPIOS DE LA RIOJA. SISTEMA CIDACOS

CÓDIGO	RESUMEN	UDS	LONGITUD	ANCHURA	ALTURA	PARCIALES	CANTIDAD
APARTADO 08.16.05 VARIOS							
618	PA CONEXIÓN RED ELÉCTRICA BT CON DEPÓSITOS EXISTENTES Partida Alzada de Abono Íntegro para conexión de la red eléctrica en BT con depósitos existentes.	1				1,00	1,00
							1,00
617.1	PA CONEXIÓN RED NUEVA CASETA CON DEPÓSITOS EXISTENTES FD DN<300 Partida Alzada de Abono Íntegro para conexión de la red de abastecimiento desde la nueva caseta de válvulas con depósitos existentes, incluyendo, excavaciones, tuberías de fundición de diámetro hasta 300 mm, rellenos, ayudas de albañilería, demoliciones, relleno de huecos con morteros sin retracción, anclaje de tuberías, así como todos los medios auxiliares necesarios para la conexión entre la salida de la nueva caseta de válvula y su salida al depósito.	1				1,00	1,00
							1,00
SUBCAPÍTULO 08.17 ACOMETIDA A DEPÓSITO DE TUDELILLA							
APARTADO 08.17.01 VÁLVULAS Y ACCESORIOS							
115.7	UD BRIDA ENCHUFE FD DN<150 mm PN16/25/40 Brida enchufe de fundición dúctil de PFA 16/25/40 bar para tubería de diámetro menor o igual de 150 mm, con un revestimiento interior y exterior epoxi, i/p.p. de junta de unión y medios auxiliares, totalmente colocada y probada.	1				1,00	1,00
							1,00
EVCM080	UD VÁLVULA DE COMPUERTA MANUAL DN80 PN16 Válvula de compuerta de cierre elástico de 80 mm. de diámetro nominal y 16 At. de P.N., de accionamiento manual por volante, de cuerpo de fundición nodular GGG-50, con eje de acero inoxidable al 13 % Cr. con roscas conformadas por laminación en frío, cierre en fundición nodular, tornillería de acero inoxidable, protegida contra la corrosión mediante aplicación de doble capa de pintura epoxy, totalmente colocada y probada. Resto de características según ET.	2				2,00	2,00
							2,00
164	UD MANGUITO FD 50 A 80 mm PN16 Manguito de fundición dúctil con bridas diámetros de 50 a 80 mm, longitud comprendida entre 0,20 y 1,00 m y PN 16, incluso p.p. de tornillería y medios auxiliares, totalmente colocado y probado.	3				3,00	3,00
							3,00
253	UD FILTRO COLADOR EN Y DN=80 mm PN16 Filtro colador en "Y" de diámetro nominal DN=80 mm y brida PN=16 bar de presión, incluso juntas de unión y tornillería, totalmente instalado.	1				1,00	1,00
							1,00
149	UD CARRETE DE DESMONTAJE DN=80 mm PN16 Carrete de desmontaje autoportante de PFA 16 bar de D=80 mm, colocado.	2				2,00	2,00
							2,00
132.2	UD TE FD BBB 80 mm PN16 SALIDA DN80/40 "T" de fundición dúctil de PFA 16 bar, con tres bridas para tubería de 80 mm con salida comprendida entre 80 y 40 mm, con un revestimiento interior y exterior epoxi, i/p.p. de junta de unión y medios auxiliares, totalmente colocada y probada. Ventosa Alivio	1 1				1,00 1,00	1,00 1,00
							2,00
265	UD VÁLVULA LIMITADORA DE CAUDAL DN=80 mm Válvula limitadora de caudal de DN=80 mm PN16, incluso juntas de unión y tornillería, totalmente colocada y probada.	1				1,00	1,00

MEDICIONES

ABASTECIMIENTO A VARIOS MUNICIPIOS DE LA RIOJA. SISTEMA CIDACOS

CÓDIGO	RESUMEN	UDS	LONGITUD	ANCHURA	ALTURA	PARCIALES	CANTIDAD
							1,00
268.4	UD VÁLVULA DE LLENADO DN=80 mm PN16 CIERRE LENTO Y SOLENOIDE Válvula de llenado de asiento inoxidable, con cierre lento y solenoide de diámetro nominal DN=80 mm y PN=16 bar, totalmente instalado y probado.	1				1,00	1,00
							1,00
262.1	UD VÁLVULA REDUCTORA DE PRESIÓN DN=80 mm PN16 Válvula reductora de presión de diámetro DN=80 mm y PN 16 bar, incluso juntas de unión y tornillería, totalmente colocada y probada.	1				1,00	1,00
							1,00
132.1	UD TE FD BBB 100 mm PN16/25 SALIDA DN100/40 "T" de fundición dúctil de PFA 16 bar, con tres bridas para tubería de 100 mm con salida comprendida entre 100 y 40 mm, con un revestimiento interior y exterior epoxi, i/p.p. de junta de unión y medios auxiliares, totalmente colocada y probada.	1				1,00	1,00
							1,00
245.1	UD VENTOSA DN=25 mm (1") PN16 Válvula ventosa de tres funciones de 1" (DN=25 mm) y PN 16 bar incluido transporte, juntas, válvula de corte DN=25 mm y PN 16 bar y piezas especiales, totalmente colocada y probada.	2				2,00	2,00
							2,00
275	UD VÁLVULA ALIVIO DE PRESIÓN 1" PN16 Válvula de alivio de presión de 1" NPT roscada y PN 16 bar, incluso juntas de unión, collarín de toma y tornillería, totalmente colocada y probada.	1				1,00	1,00
							1,00
APARTADO 08.17.02 INSTRUMENTACIÓN Y CONTROL							
300	UD BOYA DE NIVEL DE MÁXIMO Y MÍNIMO Boya de nivel cableada con la válvula de llenado, incluso montaje y pruebas.	2				2,00	2,00
							2,00
ECELM080	UD CAUDALÍMETRO ELECTROMAGNÉTICO DN 80 mm PN10 Equipo medidor de caudal de DN80 mm. tipo electromagnético y PN=10 atm. con salida 4/20 mA, tensión 220 V y escala 0-240 m3/h, totalmente instalado y probado. Incluido transporte, montaje, conexiones eléctricas y pruebas de funcionamiento. Resto de características, según ET.	1				1,00	1,00
							1,00
APARTADO 08.17.03 VARIOS							
617	PA CONEXIÓN RED NUEVA CASETA CON DEPÓSITOS EXISTENTES PEAD Partida Alzada de Abono Íntegro para conexión de la red de abastecimiento desde la nueva caseta de válvulas con depósitos existentes, incluyendo, excavaciones, tuberías de PEAD de cualquier diámetro, rellenos, ayudas de albañilería, demoliciones, relleno de huecos con morteros sin retracción, anclaje de tuberías, así como todos los medios auxiliares necesarios para la conexión entre la salida de la nueva caseta de válvula y su salida al depósito.	1				1,00	1,00

MEDICIONES

ABASTECIMIENTO A VARIOS MUNICIPIOS DE LA RIOJA. SISTEMA CIDACOS

CÓDIGO	RESUMEN	UDS	LONGITUD	ANCHURA	ALTURA	PARCIALES	CANTIDAD
SUBCAPÍTULO 08.18 ACOMETIDA A DEPÓSITO DE VILLAR DE ARNEDO							
APARTADO 08.18.01 OBRA CIVIL							
008	M2 DESPEJE Y DESBROCE Despeje y desbroce de capa de tierra vegetal con un espesor medio de 50 cm, incluso corte de árboles, extracción de tocones, nivelación de zona adyacente para el paso de maquinaria, transporte a lugar de acopio independiente para posterior reposición de tierra vegetal tras las obras y despedregado de las parcelas, así como transporte a vertedero de tierras sobrantes.	1	4,80	3,40			16,32
							16,32
002	M3 EXCAVACIÓN EN ZANJAS Excavación en zanjas y zonas localizadas, en todo tipo de terrenos incluido terrenos en roca con medios mecánicos, incluso rasanteo, nivelación de la superficie de apoyo y transporte a lugar de empleo o vertedero.	1	4,80	3,20	1,35		20,74
							20,74
010	M3 RELLENO ZANJAS, CIMIENTOS Y TRASDOSES DE MATERIAL SELECCIONADO Relleno con material seleccionado en zanjas, cimientos, trasdós de muros, estribos y otras estructuras procedente de la excavación o préstamos incluso carga, transporte y compactación.	1	18,14				18,14
		-1	4,80	2,80	0,40		-5,38
		-1	3,40	2,40	0,95		-7,75
							5,01
028	M3 HORMIGÓN DE LIMPIEZA HL-150 Hormigón de limpieza HL-150, de consistencia plástica, árido de tamaño máximo 40 mm y cemento CEM-II-D/42,5/SR, para saneos y encachados, incluyendo fabricación y transporte totalmente colocado.	1	4,60	3,40	0,10		1,56
							1,56
031	M3 HORMIGÓN HA-25/B/20/IIa Hormigón HA-25/B/20/IIa, con cemento CEM II/A-D/42,5/SR, incluyendo fabricación, transporte, puesta en obra y vibrado, totalmente ejecutado, incluso curado y juntas.	1	4,60	3,40	0,30		4,69
	Solera	2	4,20	0,30	1,15		2,90
	Muros	2	3,00	0,30	1,15		2,07
							9,66
023	KG ACERO CORRUGADO B-500-S Acero redondo corrugado para armar tipo B-500-S elaborado y colocado.	1	4,69	70,00			328,30
	Solera	1	4,97	85,00			422,45
	Muros	0,05	750,76				37,54
							788,29
025	M2 ENCOFRADO RECTO EN PARAMENTOS OCULTOS Encofrado recto en paramentos ocultos, incluso colocación, fijación y desencofrado.	2	4,60		0,30		2,76
	Solera	2	3,00		0,30		1,80
							4,56
026	M2 ENCOFRADO RECTO EN PARAMENTOS VISTOS 1C Encofrado recto en paramentos vistos a una cara, incluso colocación, fijación y desencofrado.	4	4,60		1,15		21,16
	Muros	4	2,40		1,15		11,04
							32,20
							32,20

MEDICIONES

ABASTECIMIENTO A VARIOS MUNICIPIOS DE LA RIOJA. SISTEMA CIDACOS

CÓDIGO	RESUMEN	UDS	LONGITUD	ANCHURA	ALTURA	PARCIALES	CANTIDAD
052	ML JUNTAS DE ESTANQUEIDAD DE PVC 32 CM Junta de trabajo interior de policloruro de vinilo (PVC) 100% virgen, con una fuerza máxima de dilatación > 250 %, de 32 cm de ancho, MASTERFLEX 2000 TI-24 de BASF o equivalente, colocada simétricamente en el eje de la losa o muro, incluso solapes y piezas especiales para cruces o ángulos. Medida la longitud ejecutada.	2	4,60				9,20
		2	3,00				6,00
							15,20
462	M2 FÁBRICA BLOQUES 40x20x20 cm TIPO SPLIT COLOR Fábrica de bloques de hormigón tipo Split, de medidas 40x20x20 cm color i/relleno de hormigón y colocación de armaduras s/normativa y recibido con mortero de cemento y arena de río 1/6 i/p.p. de piezas especiales para dinteles y materialización de jambas, roturas, nivelados, aplomados, llagueados y limpieza, todo ello según normativa.	2	4,60		3,15		28,98
	Muros	2	3,00		3,35		20,10
	A deducir puerta	-1	0,80		2,20		-1,76
	A deducir ventanas	-2	0,80		0,60		-0,96
							46,36
520	M2 CUBIERTA PANEL SANDWICH (E=50 mm.) Cubierta con panel tipo sandwich espesor 50 cm., con doble chapa prelacada de 0,4 mm de espesor, y aislamiento térmico de poliuretano, fijada con gancho de acero galvanizado, incluso p.p de piezas de remate, totalmente colocada.	1	4,20	3,00			12,60
							12,60
519	ML REMATE DE CHAPA PRELACADA CUBIERTA Remate de chapa prelacada en color, para cubrir parte superior de bloque o panel, hasta el panel sandwich de la cubierta por el interior del peto, fijado mediante tacos y/o ganchos anclado a muro y o cubierta, dispuesto según planos.	1	4,20				4,20
		2	3,00				6,00
		3					10,20
465.1	M2 PUERTA DOBLE CHAPA ACERO CON LAMAS Puerta de paso hojas abatibles de doble chapa lisa de acero de 1 mm de espesor, con aislamiento interno de fibra de vidrio, engatillada, realizada en dos bandejas, con rigidizadores de tubo rectangular, i/manillas de acero inoxidable y cerradura, con dos o cuatro rejillas de ventilación con malla anti insectos interior, patillas para recibir en fábricas, herrajes de colgar y de seguridad, imprimación antióxido y pintura al esmalte, totalmente colocada incluyendo el recibido de fábricas.	1	0,80		2,20		1,76
							1,76
464cf	M2 CARPINTERÍA FIJA ALUMINIO m². Carpintería fija con junquillos para la fijación del vidrio, de aluminio modelo con rotura de puente térmico, Alfil A54RPT de SAPAGROUP con un ancho de marco de 54 mm y con un ancho de hoja de 61 mm, medida del frente de 96,3 mm, con sistema de cámara europea, con espesor de perfil de 1,5 mm, con sistema de cierre por junta central de estanqueidad en EPDM, coplanar exteriormente y con resalte de hoja sobre el marco al interior, para un acristalamiento con altura de galce de 22 mm y anchura hasta 44 mm en marcos y 51 mm en hojas, lacado (entre 60-100 micras) en color estándar (RAL estándar: blanco, gris...), herrajes de colgar, p.p. de cerradura Tesa o similar y costes indirectos. Homologada con Clase 4 en el ensayo de permeabilidad al aire según norma UNE-EN 1026:2000. La transmitancia máxima del marco es de 2,90 W/m² K, y cumple en las zonas A, B, C, D y E, según el CTE/DB-HE 1.	1	0,80		0,60		0,48
							0,48

MEDICIONES

ABASTECIMIENTO A VARIOS MUNICIPIOS DE LA RIOJA. SISTEMA CIDACOS

CÓDIGO	RESUMEN	UDS	LONGITUD	ANCHURA	ALTURA	PARCIALES	CANTIDAD
464V3	M2 VIDRIO SEGURIDAD STADIP 44.1 INCOLORO (2B2) m². Acristalamiento de vidrio laminar de seguridad Stadip compuesto por dos vidrios de 4 mm de espesor unidos mediante lámina de butiral de polivinilo incolora de 0,38 mm, clasificado 2B2 según UNE-EN 12600, fijado sobre carpintería con acuíñado mediante calzos de apoyo perimetrales y laterales y sellado en frío con silicona neutra, incluso colocación de junquillos, según UNE 85222:1985.	1	0,80		0,60	0,48	0,48
521	M2 CELOSIA FIJA VENTILACIÓN Celosía metálica fija para ventilación, formada por cerco con empanelado de lamas de acero de 60 mm, con abertura mínima de 1 cm entre lamas, malla de 2 mm para evitar entrada de insectos, garras de sujeción a soporte de 10 cm, elaborada en taller y montada en obra, totalmente colocada.	1	0,80		0,60	0,48	0,48
020	KG ACERO S 275 J PERFILES LAMINADOS Acero S 275 J en perfiles laminados elaborado y colocado. Correas IPE-100 Vigas IPE-120 Pilares HEB-100	3 3 2 2	4,20 3,00 3,00 2,60	8,10 10,40 20,40 20,40		102,06 93,60 122,40 106,08	424,14
474.1	ML CANALON CHAPA PRELACADA 50cm Canalón de chapa prelacada en color, de 50 cm. de desarrollo fijado mediante ganchos ocultos con tornillo autoroscante 40 cm., incluso p.p. de embocadura de bajante, codos y piezas especiales.	1	4,20			4,20	4,20
474.2	ML BAJANTE DE CHAPA PRELACADA DN110 Bajante de chapa prelacada en color, DN110, fijado mediante ganchos con tornillo autoroscante 20 cm., incluso p.p. de embocadura de bajante, codos y piezas especiales.	1		2,60		2,60	2,60
290B	M2 ESCALERA Y PASARELAS DE ACERO GALVANIZADO. BARANDILLAS GALVANIZ Escalera y pasarelas de acceso de forma según planos, ejecutada en perfiles de acero galvanizado en caliente, incluso barandilla tubular del mismo material, de 90 cm de altura en uno o dos lados, rodapié de seguridad del mismo en uno o dos lados, así como entramado metálico de 30x30x3 en descansillos y peldaños, medida según su proyección en planta. Anclada a los muros y/o solera, instalada. Escalera	1	2,15	0,90		1,94	1,94
620	UD APOYOS DE TUBERÍA Y VÁLVULAS SOBRE SOLERA Apoyos de tuberías y válvulas en soleras, mediante dado de hormigón HA-25/P/20/IIa, ligeramente armado y anclado a la solera, así como cintas o eslingas de acero con material de protección de tubería para sujeción de las mismas, incluyendo el hormigón, encofrados, acero, eslingas, material de PE de protección, montado.	3				3,00	3,00

MEDICIONES

ABASTECIMIENTO A VARIOS MUNICIPIOS DE LA RIOJA. SISTEMA CIDACOS

CÓDIGO	RESUMEN	UDS	LONGITUD	ANCHURA	ALTURA	PARCIALES	CANTIDAD
APARTADO 08.18.02 VÁLVULAS Y ACCESORIOS							
115.7	UD BRIDA ENCHUFE FD DN<150 mm PN16/25/40 Brida enchufe de fundición dúctil de PFA 16/25/40 bar para tubería de diámetro menor o igual de 150 mm, con un revestimiento interior y exterior epoxi, i/p.p. de junta de unión y medios auxiliares, totalmente colocada y probada.	2				2,00	2,00
EVCM080	UD VÁLVULA DE COMPUERTA MANUAL DN80 PN16 Válvula de compuerta de cierre elástico de 80 mm. de diámetro nominal y 16 At. de P.N., de accionamiento manual por volante, de cuerpo de fundición nodular GGG-50, con eje de acero inoxidable al 13 % Cr. con roscas conformadas por laminación en frío, cierre en fundición nodular, tornillería de acero inoxidable, protegida contra la corrosión mediante aplicación de doble capa de pintura epoxy, totalmente colocada y probada. Resto de características según ET.	2				2,00	2,00
164	UD MANGUITO FD 50 A 80 mm PN16 Manguito de fundición dúctil con bridas diámetros de 50 a 80 mm, longitud comprendida entre 0,20 y 1,00 m y PN16, incluso p.p. de tornillería y medios auxiliares, totalmente colocado y probado.	3				3,00	3,00
253	UD FILTRO COLADOR EN Y DN=80 mm PN16 Filtro colador en "Y" de diámetro nominal DN=80 mm y brida PN=16 bar de presión, incluso juntas de unión y tornillería, totalmente instalado.	1				1,00	1,00
149	UD CARRETE DE DESMONTAJE DN=80 mm PN16 Carrete de desmontaje autoportante de PFA 16 bar de D=80 mm, colocado.	2				2,00	2,00
132.2	UD TE FD BBB 80 mm PN16 SALIDA DN80/40 "T" de fundición dúctil de PFA 16 bar, con tres bridas para tubería de 80 mm con salida comprendida entre 80 y 40 mm, con un revestimiento interior y exterior epoxi, i/p.p. de junta de unión y medios auxiliares, totalmente colocada y probada. Ventosa Alivio	1 1				1,00 1,00	2,00
265	UD VÁLVULA LIMITADORA DE CAUDAL DN=80 mm Válvula limitadora de caudal de DN=80 mm PN16, incluso juntas de unión y tornillería, totalmente colocada y probada.	1				1,00	1,00
268.4	UD VÁLVULA DE LLENADO DN=80 mm PN16 CIERRE LENTO Y SOLENOIDE Válvula de llenado de asiento inoxidable, con cierre lento y solenoide de diámetro nominal DN=80 mm y PN=16 bar, totalmente instalado y probado.	1				1,00	1,00
262.1	UD VÁLVULA REDUCTORA DE PRESIÓN DN=80 mm PN16 Válvula reductora de presión de diámetro DN=80 mm y PN 16 bar, incluso juntas de unión y tornillería, totalmente colocada y probada.	1				1,00	1,00

MEDICIONES

ABASTECIMIENTO A VARIOS MUNICIPIOS DE LA RIOJA. SISTEMA CIDACOS

CÓDIGO	RESUMEN	UDS	LONGITUD	ANCHURA	ALTURA	PARCIALES	CANTIDAD
132.1	UD TE FD BBB 100 mm PN16/25 SALIDA DN100/40 "T" de fundición dúctil de PFA 16 bar, con tres bridas para tubería de 100 mm con salida comprendida entre 100 y 40 mm, con un revestimiento interior y exterior epoxi, i/p.p. de junta de unión y medios auxiliares, totalmente colocada y probada.	1				1,00	1,00
245.1	UD VENTOSA DN=25 mm (1") PN16 Válvula ventosa de tres funciones de 1" (DN=25 mm) y PN 16 bar incluido transporte, juntas, válvula de corte DN=25 mm y PN 16 bar y piezas especiales, totalmente colocada y probada.	2				2,00	2,00
114	UD REDUCCIÓN FD 100 A 80/50 mm PN16/25 Reducción en fundición dúctil de 100 mm a 80-65-60-50 mm con dos bridas PN 16/25 bar, con un revestimiento interior y exterior epoxi, i/p.p. de tornillería y medios auxiliares, totalmente colocada y probada.	2				2,00	2,00
275	UD VÁLVULA ALIVIO DE PRESIÓN 1" PN16 Válvula de alivio de presión de 1" NPT roscada y PN 16 bar, incluso juntas de unión, collarín de toma y tornillería, totalmente colocada y probada.	1				1,00	1,00
087	UD CODO FD 1/4 A 1/32 100 mm Codo de fundición dúctil de 1/4 a 1/32 de diámetro interior 100 mm y PFA 40 bar, con un revestimiento interior y exterior epoxi, incluso p.p. de juntas y medios auxiliares, totalmente colocado y probado.	1				1,00	1,00
APARTADO 08.18.03 INSTRUMENTACIÓN Y CONTROL							
300	UD BOYA DE NIVEL DE MÁXIMO Y MÍNIMO Boya de nivel cableada con la válvula de llenado, incluso montaje y pruebas.	2				2,00	2,00
ECELM080	UD CAUDALÍMETRO ELECTROMAGNÉTICO DN 80 mm PN10 Equipo medidor de caudal de DN80 mm. tipo electromagnético y PN=10 atm. con salida 4/20 mA, tensión 220 V y escala 0-240 m3/h, totalmente instalado y probado. Incluido transporte, montaje, conexiones eléctricas y pruebas de funcionamiento. Resto de características, según ET.	1				1,00	1,00
APARTADO 08.18.04 INSTALACIÓN ELÉCTRICA DE BT							
563.1	ud PANTALLA ESTANCA LED Luminaria estanca WT120C LED80S/840 de Philips o equivalente para montaje en superficie de dimensiones 1515x80, carcasa de policarbonato, óptica de polimetacrilato de metilo, flujo luminoso 8.000 lm, potencia 68 W, Tª color 4000 K, rango de Tª de 10°C a 35°C, protección IP-65 Clase I. Incluso p.p. de canalización y cableado, completamente instalado.	1				1,000	1,00
524.1	m LINEA 3x1.5mm2 Cu 0.6/1kV RZ1-K (AS) Línea eléctrica con conductor multipolares 3x1.5mm2 RZ1-K (AS) en canalización existente, incluso conexionado en inicio y final de línea.	1	15,000			15,000	15,00
571	ud INTERRUPTOR EMPOTRAR SIMO 32 BLANCO. Interruptor empotrar blanco, totalmente instalado.						

MEDICIONES

ABASTECIMIENTO A VARIOS MUNICIPIOS DE LA RIOJA. SISTEMA CIDACOS

CÓDIGO	RESUMEN	UDS	LONGITUD	ANCHURA	ALTURA	PARCIALES	CANTIDAD
	Arqueta entrada	1	2,20	1,60		3,52	1,00
204	m TUBO DE PVC RÍGIDO DE 25 MM DIÁMETRO Tubo rígido de PVC d=25mm para canalización de conductores, incluso soportes y anclajes a pared, instalado.	1	15,000			15,000	15,00
APARTADO 08.18.05 VARIOS							
618	PA CONEXIÓN RED ELÉCTRICA BT CON DEPÓSITOS EXISTENTES Partida Alzada de Abono Íntegro para conexión de la red eléctrica en BT con depósitos existentes.	1				1,00	1,00
617	PA CONEXIÓN RED NUEVA CASETA CON DEPÓSITOS EXISTENTES PEAD Partida Alzada de Abono Íntegro para conexión de la red de abastecimiento desde la nueva caseta de válvulas con depósitos existentes, incluyendo, excavaciones, tuberías de PEAD de cualquier diámetro, rellenos, ayudas de albañilería, demoliciones, relleno de huecos con morteros sin retracción, anclaje de tuberías, así como todos los medios auxiliares necesarios para la conexión entre la salida de la nueva caseta de válvula y su salida al depósito.	1				1,00	1,00
CAPÍTULO 09 ACOMETIDAS ELÉCTRICAS							
SUBCAPÍTULO 09.01 ACOMETIDA A.T Y C.T. BOMBEO BERGASA.							
ELM003	UD APOYO TIPO CELOSÍA C10-2000, INCLUYENDO HORMIGONADO E IZADO Apoyo de celosía 16C-1000, incluyendo hormigonado e izado, y realización de tierras	3				3,00	3,00
ELM004	UD APOYO TIPO CELOSÍA C14-500, INCLUYENDO HORMIGONADO E IZADO Apoyo de celosía 14C-500, incluyendo hormigonado e izado, y realización de tierras	1				1,00	1,00
ELM005	UD APOYO TIPO CELOSÍA C12-500, INCLUYENDO HORMIGONADO E IZADO Apoyo de celosía 12C-500, incluyendo hormigonado e izado, y realización de tierras	2				2,00	2,00
ELM0051	UD APOYO TIPO CELOSÍA C10-500, INCLUYENDO HORMIGONADO E IZADO Apoyo de celosía 12C-500, incluyendo hormigonado e izado, y realización de tierras	5				5,00	5,00
ELM006	UD APOYO TIPO CELOSÍA C10-1000, INCLUYENDO HORMIGONADO E IZADO Apoyo de celosía 10C-1000, incluyendo hormigonado e izado, y realización de tierras	1				1,00	1,00
ELM007	UD APOYO TIPO CELOSÍA C12-1000, INCLUYENDO HORMIGONADO E IZADO Apoyo de celosía 12C-1000, incluyendo hormigonado e izado, y realización de tierras	2				2,00	2,00
ELM008	UD APOYO TIPO CELOSÍA C12-3000, INCLUYENDO HORMIGONADO E IZADO Apoyo de celosía 12C-3000, incluyendo hormigonado e izado, y realización de tierras	1				1,00	1,00
ELM009	UD APOYO TIPO CELOSÍA C12-4500, INCLUYENDO HORMIGONADO E IZADO Apoyo de celosía 12C-4500, incluyendo hormigonado e izado, y realización de tierras						

MEDICIONES

ABASTECIMIENTO A VARIOS MUNICIPIOS DE LA RIOJA. SISTEMA CIDACOS

CÓDIGO	RESUMEN	UDS	LONGITUD	ANCHURA	ALTURA	PARCIALES	CANTIDAD
	Arqueta entrada	1	2,20	1,60		3,52	
							1,00
ELM016	UD CRUCETA TIPO BOVEDA PARA APOYO DE HORMIGON TIPO BC Suministro e instalación de cruceta tipo bóveda para apoyo de celosía metálica tipo BC.	16				16,00	16,00
ELM010	UD CRUCETA RECTA PARA APOYO TIPO CELOSIA TIPO H-35 Suministro e instalación de cruceta recta para apoyo tipo celosía tipo H-35	1				1,00	1,00
ELM014	UD CRUCETA DE DERIVACIÓN Suministro e instalación de cruceta de derivación	1				1,00	1,00
ELM032-1	UD SOPORTE Y SECCIONALIZADORES DE EXPULSIÓN TIPO UD. SOPORTE Y SECCIONALIZADORES DE EXPULSIÓN TIPO	1				1,00	1,00
ELM034	UD SOPORTE Y SECCIONADORES TIPO X/S Suministro e instalación de soporte y seccionadores de expulsión tipo X/S	1				1,00	1,00
ELM030	UD CADENA DE AMARRE AISLADORES DE COMPOSITE NIVEL II UD. CADENA DE AMARRE AISLADORES DE COMPOSITE NIVEL II	66				66,00	66,00
ELM031	UD CADENA DE SUSPENSIÓN AISLADORES DE COMPOSITE NIVEL II UD. CADENA DE SUSPENSIÓN AISLADORES DE COMPOSITE NIVEL II	30				30,00	30,00
1-46	m COND. UNIP. ALUMIN.-ACERO LA-56 CONDUCTOR UNIPOLAR DE ALUMINIO ACERO LA-56, TOTALMENTE INSTALADO, TENSIONADO Y COLOCADO SEGUN NORMAS DE LA COMPAÑIA SUMINISTRADORA.	1	6.426,00			6.426,00	6.426,00
ELM041	UD RED DE TIERRAS TIPO ANILLO DIFUSOR Instalación de red de tierras tipo anillo difusor	2				2,00	2,00
ELM040	UD CHAPA ANTIESCALO Instalación de chapa antiescalo	2				2,00	2,00

MEDICIONES

ABASTECIMIENTO A VARIOS MUNICIPIOS DE LA RIOJA. SISTEMA CIDACOS

CÓDIGO	RESUMEN	UDS	LONGITUD	ANCHURA	ALTURA	PARCIALES	CANTIDAD
ELM066	UD CENTRO DE TRANSFORMACIÓN DE 25 KVA DE INTEMPERIE SOBRE APOYO Suministro e instalación de Centro de Transformación incluyendo los siguientes conceptos: -Transformador de 25 kVA 20 KV/400 V: 1 ud. -Bajada de trafo a equipo de medida -Puentes de M.T. -Autoválvulas -Puentes de B.T. -Red de tierra de herrajes -Placas de peligro y maniobra	1				1,00	1,00
ELM212	ML CABLE DE ALUMINIO DE 4(1x240) 12/20 KV HEPRZ-1 Suministro y tendido de cable de aluminio de 4(1x240) 12/20 KV HEPRZ-1	1	10,00			10,00	10,00
ELM033	UD PASO AEREO-SUBTERRANEO SOBRE TORRE METÁLICA Paso aéreo-subterráneo sobre torre metálica incluyendo los siguientes conceptos: -Seccionadores tipo SELA: 3 uds. -Pararrayos autoválvulas: 3 uds. -Tubo de protección: 1 ud. -Terminaciones de exterior para cable tipo HEPRZ1 1x240 12/20 kV: 3 uds.	1				1,00	1,00
ELM062	UD CAJA DE PROTECCIÓN TIPO CGP-7-250A Suministro e instalación de caja de protección tipo CGP-7-250A, incluso fusibles y terminales	1				1,00	1,00
ELM102	UD NUMERACIÓN Y COLOCACIÓN DE PLACAS DE PELIGRO EN LINEA Instalación de la numeración de apoyos y colocación de placas de peligro en línea	17				17,00	17,00
ELM060	UD EQUIPO MEDIDA NORMALIZADO POR UNION FENOSA Suministro y montaje de equipo de medida normalizado por IBERDROLA. Incluido bancada de hormigón	1				1,00	1,00
ELM106	UD JORNADA DE BRIGADA DE TRABAJOS EN TENSION Jornada de brigada de trabajos en tensión método a contacto para incluyendo los siguientes conceptos: * Apertura de puentes: 6 ud. * Instalación de puevos puentes de M.T: 6 ud. * Conexión de Autoválvulas: 6 ud. * Conexión de Terminaciones de Exterior: 6 ud. * Conexión de derivación aérea simple circuito:2 ud.	1				1,00	1,00
ELM101	UD MONTAJE CRUCETA Y AMARRE DE CABLES 3 FASES TRABAJOS EN TENSION Montaje de cruceta y amarre de cables 3 fases mediante trabajos en tensión método a contacto	1				1,00	1,00
ELM104	UD PROYECTO Y DIRECCIÓN DE OBRA VISADO POR COLEGIO OFICIAL MT Proyecto y dirección de obra visado por Colegio Oficial de Ingenieros Industriales, legalización en consejería de industria, inspección por parte de OCA y realización de crokis de Media Tensión	1				1,00	1,00

MEDICIONES

ABASTECIMIENTO A VARIOS MUNICIPIOS DE LA RIOJA. SISTEMA CIDACOS

CÓDIGO	RESUMEN	UDS	LONGITUD	ANCHURA	ALTURA	PARCIALES	CANTIDAD
400-00	UD P.A. DE DERECHOS DE ENGANCHE PARTIDA ALZADA A JUSTIFICAR EN CONCEPTO DE DERECHOS DE ENGANCHE, ACOMETIDA Y VERIFICACION A SATIFACER A LA COMPAÑIA SUMINISTRADORA.	1				1,00	1,00
ELM0526	UD P.A. TRABAJOS DE REFUERZO Y ADECUACIÓN DE LÍNEA EXISTENTE	1				1,00	1,00
SUBCAPÍTULO 09.02 ACOMETIDA A.T Y C.T. BOMBEO VALLE DE OCÓN Y AUSEJO.							
ELM003	UD APOYO TIPO CELOSÍA C10-2000, INCLUYENDO HORMIGONADO E IZADO Apoyo de celosía 16C-1000, incluyendo hormigonado e izado, y realización de tierras	2				2,00	2,00
ELM011	UD APOYO TIPO CELOSÍA C16-2000, INCLUYENDO HORMIGONADO E IZADO Apoyo de celosía 16C-2000, incluyendo hormigonado e izado, y realización de tierras	1				1,00	1,00
ELM001	UD APOYO TIPO CELOSÍA C12-2000, INCLUYENDO HORMIGONADO E IZADO Apoyo de celosía 12C-2000, incluyendo hormigonado e izado, y realización de tierras	1				1,00	1,00
ELM006	UD APOYO TIPO CELOSÍA C10-1000, INCLUYENDO HORMIGONADO E IZADO Apoyo de celosía 10C-1000, incluyendo hormigonado e izado, y realización de tierras	1				1,00	1,00
ELM007	UD APOYO TIPO CELOSÍA C12-1000, INCLUYENDO HORMIGONADO E IZADO Apoyo de celosía 12C-1000, incluyendo hormigonado e izado, y realización de tierras	2				2,00	2,00
ELM0071	UD APOYO TIPO CELOSÍA C16-1000, INCLUYENDO HORMIGONADO E IZADO Apoyo de celosía 16C-1000, incluyendo hormigonado e izado, y realización de tierras	1				1,00	1,00
ELM008	UD APOYO TIPO CELOSÍA C12-3000, INCLUYENDO HORMIGONADO E IZADO Apoyo de celosía 12C-3000, incluyendo hormigonado e izado, y realización de tierras	1				1,00	1,00
ELM0091	UD APOYO TIPO CELOSÍA C14-4500, INCLUYENDO HORMIGONADO E IZADO Apoyo de celosía 14C-4500, incluyendo hormigonado e izado, y realización de tierras	1				1,00	1,00
ELM016	UD CRUCETA TIPO BOVEDA PARA APOYO DE HORMIGON TIPO BC Suministro e instalación de cruceta tipo bóveda para apoyo de celosía metélica tipo BC.	8				8,00	8,00
ELM010	UD CRUCETA RECTA PARA APOYO TIPO CELOSÍA TIPO H-35 Suministro e instalación de cruceta recta para apoyo tipo celosía tipo H-35	1				1,00	1,00

MEDICIONES

ABASTECIMIENTO A VARIOS MUNICIPIOS DE LA RIOJA. SISTEMA CIDACOS

CÓDIGO	RESUMEN	UDS	LONGITUD	ANCHURA	ALTURA	PARCIALES	CANTIDAD
ELM014	UD CRUCETA DE DERIVACIÓN Suministro e instalación de cruceta de derivación	1				1,00	1,00
ELM032-1	UD SOPORTE Y SECCIONALIZADORES DE EXPULSIÓN TIPO UD. SOPORTE Y SECCIONALIZADORES DE EXPULSIÓN TIPO	1				1,00	1,00
ELM034	UD SOPORTE Y SECCIONADORES TIPO X/S Suministro e instalación de soporte y seccionadores de expulsión tipo X/S	1				1,00	1,00
ELM030	UD CADENA DE AMARRE AISLADORES DE COMPOSITE NIVEL II UD. CADENA DE AMARRE AISLADORES DE COMPOSITE NIVEL II	54				54,00	54,00
1-46	m COND. UNIP. ALUMIN.-ACERO LA-56 CONDUCTOR UNIPOLAR DE ALUMINIO ACERO LA-56, TOTALMENTE INSTALADO, TENSIONADO Y COLOCADO SEGUN NORMAS DE LA COMPAÑIA SUMINISTRADO- RA.	1	3.516,00			3.516,00	3.516,00
ELM041	UD RED DE TIERRAS TIPO ANILLO DIFUSOR Instalación de red de tierras tipo anillo difusor	2				2,00	2,00
ELM040	UD CHAPA ANTIESCALO Instalación de chapa antiescalo	2				2,00	2,00
ELM068	UD CENTRO DE TRANSFORMACIÓN DE 160 KVA DE INTEMPERIE SOBRE APOYO Suministro e instalación de Centro de Transformación incluyendo los siguientes conceptos: -Transformador de 160 kVA 20 KV/400 V: 1 ud. -Bajada de trafo a equipo de medida -Puentes de M.T. -Autoválvulas -Puentes de B.T. -Red de tierra de herrajes -Placas de peligro y maniobra	1				1,00	1,00
ELM033	UD PASO AEREO-SUBTERRANEO SOBRE TORRE METÁLICA Paso aéreo-subterráneo sobre torre metélica incluyendo los siguientes conceptos: -Seccionadores tipo SELA: 3 uds. -Pararrayos autoválvulas: 3 uds. -Tubo de protección: 1 ud. -Terminaciones de exterior para cable tipo HEPRZ1 1x240 12/20 kV: 3 uds.	1				1,00	1,00
ELM212	ML CABLE DE ALUMINIO DE 4(1x240) 12/20 kV HEPRZ-1 Suministro y tendido de cable de aluminio de 4(1x240) 12/20 kV HEPRZ-1	1	10,00			10,00	10,00

MEDICIONES

ABASTECIMIENTO A VARIOS MUNICIPIOS DE LA RIOJA. SISTEMA CIDACOS

CÓDIGO	RESUMEN	UDS	LONGITUD	ANCHURA	ALTURA	PARCIALES	CANTIDAD
ELM062	UD CAJA DE PROTECCIÓN TIPO CGP-7-250A Suministro e instalación de caja de protección tipo CGP-7-250A, incluso fusibles y terminales	1				1,00	1,00
ELM102	UD NUMERACIÓN Y COLOCACIÓN DE PLACAS DE PELIGRO EN LINEA Instalación de la numeración de apoyos y colocación de placas de peligro en línea	10				10,00	10,00
ELM060	UD EQUIPO MEDIDA NORMALIZADO POR UNION FENOSA Suministro y montaje de equipo de medida normalizado por IBERDROLA. Incluido bancada de hormigón	1				1,00	1,00
ELM106	UD JORNADA DE BRIGADA DE TRABAJOS EN TENSION Jornada de brigada de trabajos en tensión método a contacto para incluyendo los siguientes conceptos: * Apertura de puentes: 6 ud. * Instalación de nuevos puentes de M.T: 6 ud. * Conexión de Autoválvulas: 6 ud. * Conexión de Terminaciones de Exterior: 6 ud. * Conexión de derivación aérea simple circuito: 2 ud.	1				1,00	1,00
ELM101	UD MONTAJE CRUCETA Y AMARRE DE CABLES 3 FASES TRABAJOS EN TENSION Montaje de cruceta y amarre de cables 3 fases mediante trabajos en tensión método a contacto	1				1,00	1,00
ELM104	UD PROYECTO Y DIRECCIÓN DE OBRA VISADO POR COLEGIO OFICIAL MT Proyecto y dirección de obra visado por Colegio Oficial de Ingenieros Industriales, legalización en consejería de industria, inspección por parte de OCA y realización de croquis de Media Tensión	1				1,00	1,00
400-00	UD P.A. DE DERECHOS DE ENGANCHE PARTIDA ALZADA A JUSTIFICAR EN CONCEPTO DE DERECHOS DE ENGANCHE, ACOMETIDA Y VERIFICACION A SATIFACER A LA COMPAÑIA SUMINISTRADORA.	1				1,00	1,00
ELM0526	UD P.A. TRABAJOS DE REFUERZO Y ADECUACIÓN DE LINEA EXISTENTE	1				1,00	1,00
SUBCAPÍTULO 09.03 ELECTRICIDAD EN REDUCTORA DE PRESIÓN (P260) A RINCÓN-ALFARO							
KS01	ud Panel solar fotovoltaico 200Wp 12V, incluido acumulador monobloc Panel solar fotovoltaico 200Wp, 12V, con estructura soporte para 1 módulo fotovoltaico, regulador de carga tecnología PWM 20 Amp, 12V, acumulador monobloc 185Ah C-100, 12V e inversor de onda senoidal pura 500 W, 12Vcc/220Vca, totalmente colocado y probado.	1				1,00	1,00

MEDICIONES

ABASTECIMIENTO A VARIOS MUNICIPIOS DE LA RIOJA. SISTEMA CIDACOS

CÓDIGO	RESUMEN	UDS	LONGITUD	ANCHURA	ALTURA	PARCIALES	CANTIDAD
SUBCAPÍTULO 09.04 ACOMETIDA REDUCTORA DE PRESIÓN ALTO DE QUEL-ALCANADRE (P190)							
596	m Línea aérea en BT sobre apoyos de hormigón Tendido de línea aérea, formada por conductores aislados RZ, RZ 0,6/1KV 3x50 mm² AL + 1x54,6 mm² alm, sobre apoyos de hormigón. Alzado, tensado y retencionado de conductores. Incluso transporte y devolución de bobina y material sobrante a almacén	1	88,00			88,00	88,00
609	ud Poste de hormigón armado de 630 daN de esfuerzo útil y 9 m Poste de hormigón armado de 630 daN de esfuerzo útil en punta y 9 metros de altura. Herrajes para el fijado de conductor. Incluso excavación, izado y anclaje de poste, colocación de herrajes, acopio y transporte de elementos, etc.	2				2,00	2,00
610	ud Poste de hormigón armado de 400 daN de esfuerzo útil y 9 m Poste de hormigón armado de 400 daN de esfuerzo útil en punta y 9 metros de altura. Herrajes para el fijado de conductor. Incluso excavación, izado y anclaje de poste, colocación de herrajes, acopio y transporte de elementos, etc.	1				1,00	1,00
612	ud Caja general de protección, equipada con portafusibles Caja general de protección, equipada con portafusibles Incluso fijación de caja, conexionado, etc., totalmente instalada.	1				1,00	1,00
339	ud Caja de protección y medida para 1 contador trifásico más reloj Caja de protección y medida para 1 contador trifásico más reloj. Montado con panel de montaje y bases portafusibles con soporte de caja para poste de hormigón incluso fijación de caja, totalmente instalado y conexionado.	1				1,00	1,00
SUBCAPÍTULO 09.05 ELECTRICIDAD EN REDUCTORA DE PRESIÓN (P410) A VILLAR-PRADE-ALCAN							
KS01	ud Panel solar fotovoltaico 200Wp 12V, incluido acumulador monobloc Panel solar fotovoltaico 200Wp, 12V, con estructura soporte para 1 módulo fotovoltaico, regulador de carga tecnología PWM 20 Amp, 12V, acumulador monobloc 185Ah C-100, 12V e inversor de onda senoidal pura 500 W, 12Vcc/220Vca, totalmente colocado y probado.	1				1,00	1,00
SUBCAPÍTULO 09.06 ACOMETIDA ETAP AT							
ELM003	UD APOYO TIPO CELOSÍA C10-2000, INCLUYENDO HORMIGONADO E IZADO Apoyo de celosía 16C-1000, incluyendo hormigonado e izado, y realización de tierras	1				1,00	1,00
ELM001	UD APOYO TIPO CELOSÍA C12-2000, INCLUYENDO HORMIGONADO E IZADO Apoyo de celosía 12C-2000, incluyendo hormigonado e izado, y realización de tierras	1				1,00	1,00
ELM006	UD APOYO TIPO CELOSÍA C10-1000, INCLUYENDO HORMIGONADO E IZADO Apoyo de celosía 10C-1000, incluyendo hormigonado e izado, y realización de tierras	1				1,00	1,00
ELM016	UD CRUCETA TIPO BOVEDA PARA APOYO DE HORMIGON TIPO BC Suministro e instalación de cruceta tipo bóveda para apoyo de celosía metélica tipo BC.	2				2,00	2,00

MEDICIONES

ABASTECIMIENTO A VARIOS MUNICIPIOS DE LA RIOJA. SISTEMA CIDACOS

CÓDIGO	RESUMEN	UDS	LONGITUD	ANCHURA	ALTURA	PARCIALES	CANTIDAD
							2,00
ELM010	UD CRUCETA RECTA PARA APOYO TIPO CELOSÍA TIPO H-35 Suministro e instalación de cruceta recta para apoyo tipo celosía tipo H-35	1				1,00	1,00
ELM014	UD CRUCETA DE DERIVACIÓN Suministro e instalación de cruceta de derivación	1				1,00	1,00
ELM032-1	UD SOPORTE Y SECCIONALIZADORES DE EXPULSIÓN TIPO UD. SOPORTE Y SECCIONALIZADORES DE EXPULSIÓN TIPO	1				1,00	1,00
ELM034	UD SOPORTE Y SECCIONADORES TIPO X/S Suministro e instalación de soporte y seccionadores de expulsión tipo X/S	1				1,00	1,00
ELM030	UD CADENA DE AMARRE AISLADORES DE COMPOSITE NIVEL II UD. CADENA DE AMARRE AISLADORES DE COMPOSITE NIVEL II	18				18,00	18,00
1-46	m COND. UNIP. ALUMIN.-ACERO LA-56 CONDUCTOR UNIPOLAR DE ALUMINIO ACERO LA-56, TOTALMENTE INSTALADO, TENSIONADO Y COLOCADO SEGUN NORMAS DE LA COMPAÑIA SUMINISTRADORA.	1	414,00			414,00	414,00
ELM041	UD RED DE TIERRAS TIPO ANILLO DIFUSOR Instalación de red de tierras tipo anillo difusor	2				2,00	2,00
ELM040	UD CHAPA ANTIESCALO Instalación de chapa antiescalo	2				2,00	2,00
ELM102	UD NUMERACIÓN Y COLOCACIÓN DE PLACAS DE PELIGRO EN LINEA Instalación de la numeración de apoyos y colocación de placas de peligro en línea	4				4,00	4,00
ELM106	UD JORNADA DE BRIGADA DE TRABAJOS EN TENSION Jornada de brigada de trabajos en tensión método a contacto para incluyendo los siguientes conceptos: * Apertura de puentes: 6 ud. * Instalación de puevos puentes de M.T: 6 ud. * Conexión de Autoválvulas: 6 ud. * Conexión de Terminaciones de Exterior: 6 ud. * Conexión de derivación aérea simple circuito:2 ud.	1				1,00	1,00
ELM101	UD MONTAJE CRUCETA Y AMARRE DE CABLES 3 FASES TRABAJOS EN TENSION Montaje de cruceta y amarre de cables 3 fases mediante trabajos en tensión método a contacto	1				1,00	1,00

MEDICIONES

ABASTECIMIENTO A VARIOS MUNICIPIOS DE LA RIOJA. SISTEMA CIDACOS

CÓDIGO	RESUMEN	UDS	LONGITUD	ANCHURA	ALTURA	PARCIALES	CANTIDAD
							1,00
ELM033	UD PASO AEREO-SUBTERRANEO SOBRE TORRE METÁLICA Paso aéreo-subterráneo sobre torre metálica incluyendo los siguientes conceptos: -Seccionadores tipo SELA: 3 uds. -Pararrayos autoválvulas: 3 uds. -Tubo de protección: 1 ud. -Terminaciones de exterior para cable tipo HEPRZ1 1x240 12/20 kV: 3 uds.	1				1,00	1,00
ELM200	ML ZANJA PARA LÍNEA DE MEDIA TENSION (0,6x0,9 m) Zanja para línea subterránea de media tensión (0,6x0,9 m)	1	30,00			30,00	30,00
ELM215	ML CABLE DE ALUMINIO DE 3(1x95) 12/20 kV HEPRZ-1 CABLE DE ALUMINIO DE 3(1x95) 12/20 kV HEPRZ-1	1	30,00			30,00	30,00
ELM201	ML CANALIZACION 2 TUBOS PLASTICO ROJO DE 160 MM Canalización 2 tubos plástico rojo de 160 mm, incluida cinta señalización de cables	1	30,00			30,00	30,00
ELM214	UD SUMINISTRO Y MONTAJE DE TERMINACIONES DE INTERIOR Suministro y Montaje de Terminaciones de interior enchufables-acodadas	3				3,00	3,00
ELM104	UD PROYECTO Y DIRECCIÓN DE OBRA VISADO POR COLEGIO OFICIAL MT Proyecto y dirección de obra visado por Colegio Oficial de Ingenieros Industriales, legalización en consejería de industria, inspección por parte de OCA y realización de crokis de Media Tensión	1				1,00	1,00
400-00	UD P.A. DE DERECHOS DE ENGANCHE PARTIDA ALZADA A JUSTIFICAR EN CONCEPTO DE DERECHOS DE ENGANCHE, ACOMETIDA Y VERIFICACION A SATIFACER A LA COMPAÑIA SUMINISTRADORA.	1				1,00	1,00
ELM0526	UD P.A. TRABAJOS DE REFUERZO Y ADECUACIÓN DE LÍNEA EXISTENTE	1				1,00	1,00
SUBCAPÍTULO 09.07 ACOMETIDA AZUD AT							
ELM003	UD APOYO TIPO CELOSÍA C10-2000, INCLUYENDO HORMIGONADO E IZADO Apoyo de celosía 16C-1000, incluyendo hormigonado e izado, y realización de tierras	2				2,00	2,00
ELM0051	UD APOYO TIPO CELOSÍA C10-500, INCLUYENDO HORMIGONADO E IZADO Apoyo de celosía 12C-500, incluyendo hormigonado e izado, y realización de tierras	1				1,00	1,00
ELM006	UD APOYO TIPO CELOSÍA C10-1000, INCLUYENDO HORMIGONADO E IZADO Apoyo de celosía 10C-1000, incluyendo hormigonado e izado, y realización de tierras	1				1,00	1,00

MEDICIONES

ABASTECIMIENTO A VARIOS MUNICIPIOS DE LA RIOJA. SISTEMA CIDACOS

CÓDIGO	RESUMEN	UDS	LONGITUD	ANCHURA	ALTURA	PARCIALES	CANTIDAD
ELM016	UD CRUCETA TIPO BOVEDA PARA APOYO DE HORMIGON TIPO BC Suministro e instalación de cruceta tipo bóveda para apoyo de celosía metélica tipo BC.	3				3,00	3,00
ELM010	UD CRUCETA RECTA PARA APOYO TIPO CELOSIA TIPO H-35 Suministro e instalación de cruceta recta para apoyo tipo celosía tipo H-35	1				1,00	1,00
ELM014	UD CRUCETA DE DERIVACIÓN Suministro e instalación de cruceta de derivación	1				1,00	1,00
ELM032-1	UD SOPORTE Y SECCIONALIZADORES DE EXPULSIÓN TIPO UD. SOPORTE Y SECCIONALIZADORES DE EXPULSIÓN TIPO	1				1,00	1,00
ELM034	UD SOPORTE Y SECCIONADORES TIPO X/S Suministro e instalación de soporte y seccionadores de expulsión tipo X/S	1				1,00	1,00
ELM030	UD CADENA DE AMARRE AISLADORES DE COMPOSITE NIVEL II UD. CADENA DE AMARRE AISLADORES DE COMPOSITE NIVEL II	24				24,00	24,00
1-46	m COND. UNIP. ALUMIN.-ACERO LA-56 CONDUCTOR UNIPOLAR DE ALUMINIO ACERO LA-56, TOTALMENTE INSTALADO, TENSIONADO Y COLOCADO SEGUN NORMAS DE LA COMPAÑIA SUMINISTRADO-RA.	1	366,00			366,00	366,00
ELM041	UD RED DE TIERRAS TIPO ANILLO DIFUSOR Instalación de red de tierras tipo anillo difusor	2				2,00	2,00
ELM040	UD CHAPA ANTIESCALO Instalación de chapa antiescalo	2				2,00	2,00
ELM066	UD CENTRO DE TRANSFORMACIÓN DE 25 KVA DE INTEMPERIE SOBRE APOYO Suministro e instalación de Centro de Transformación incluyendo los siguientes conceptos: -Transformador de 25 kVA 20 KV/400 V: 1 ud. -Bajada de trafo a equipo de medida -Puentes de M. T. -Autoválvulas -Puentes de B. T. -Red de tierra de herrajes -Placas de peligro y maniobra	1				1,00	1,00
ELM212	ML CABLE DE ALUMINIO DE 4(1x240) 12/20 kV HEPRZ-1 Suministro y tendido de cable de aluminio de 4(1x240) 12/20 kV HEPRZ-1	1	30,00			30,00	30,00

MEDICIONES

ABASTECIMIENTO A VARIOS MUNICIPIOS DE LA RIOJA. SISTEMA CIDACOS

CÓDIGO	RESUMEN	UDS	LONGITUD	ANCHURA	ALTURA	PARCIALES	CANTIDAD
ELM062	UD CAJA DE PROTECCIÓN TIPO CGP-7-250A Suministro e instalación de caja de protección tipo CGP-7-250A, incluso fusibles y terminales	1				1,00	1,00
ELM102	UD NUMERACIÓN Y COLOCACIÓN DE PLACAS DE PELIGRO EN LINEA Instalación de la numeración de apoyos y colocación de placas de peligro en línea	5				5,00	5,00
ELM060	UD EQUIPO MEDIDA NORMALIZADO POR UNION FENOSA Suministro y montaje de equipo de medida normalizado por IBERDROLA. Incluido bancada de hormigón	1				1,00	1,00
ELM106	UD JORNADA DE BRIGADA DE TRABAJOS EN TENSION Jornada de brigada de trabajos en tensión método a contacto para incluyendo los siguientes conceptos: * Apertura de puentes: 6 ud. * Instalación de puevos puentes de M.T: 6 ud. * Conexión de Autoválvulas: 6 ud. * Conexión de Terminaciones de Exterior: 6 ud. * Conexión de derivación aérea simple circuito:2 ud.	1				1,00	1,00
ELM101	UD MONTAJE CRUCETA Y AMARRE DE CABLES 3 FASES TRABAJOS EN TENSION Montaje de cruceta y amarre de cables 3 fases mediante trabajos en tensión método a contacto	1				1,00	1,00
ELM104	UD PROYECTO Y DIRECCIÓN DE OBRA VISADO POR COLEGIO OFICIAL MT Proyecto y dirección de obra visado por Colegio Oficial de Ingenieros Industriales, legalización en consejería de industria, inspección por parte de OCA y realización de crokis de Media Tensión	1				1,00	1,00
400-00	UD P.A. DE DERECHOS DE ENGANCHE PARTIDA ALZADA A JUSTIFICAR EN CONCEPTO DE DERECHOS DE ENGANCHE, ACOMETIDA Y VERIFICACION A SATIFACER A LA COMPAÑIA SUMINISTRADORA.	1				1,00	1,00
ELM05261	UD P.A. TRABAJOS DE REFUERZO Y ADECUACIÓN DE LÍNEA EXISTENTE	1				1,00	1,00

CAPÍTULO 10 TELEMANDO Y TELECONTROL

MEDICIONES

ABASTECIMIENTO A VARIOS MUNICIPIOS DE LA RIOJA. SISTEMA CIDACOS

CÓDIGO	RESUMEN	UDS	LONGITUD	ANCHURA	ALTURA	PARCIALES	CANTIDAD
410	ud Centro de control de telemando y telecontrol del Sistema Cidacos Centro de control del Sistema Cidacos de abastecimiento, totalmente instalado y puesto a punto compuesto por: -2 PC de centro de control con procesador de primera marca con procesador Intel Core i9-9880H o equivalente, 16 GB RAM, unidad de back-up DVD-RW, Ethernet 10/100, garantía 2 años y ratón ergonómicos e inalámbricos, monitor de 22". CD-RW, tarjeta de red, módem de línea 56k, impresora A3 color y B/N, sistema operativo Windows profesional de última generación con licencia, paquete de Microsoft Office con licencia, totalmente instalado y probado. -Licencias de Software. - 2 servidores redundantes. Configuración RAIS-5. - 2 Switch de comunicación redundantes. - 1 ordenador supervisor de telecontrol de las remotas. - System Builder hasta 20 RTU's. -Módulo DPN-3 MASTER/SLAVE SUPPORT con mejora de la aplicación TOOLBOX proporcionando soporte para el DPN3. -RIX-2 CENTRAL SOFTWARE. -Armario de conexiones con Router y concentrador de red.	1				1,00	1,00
EQSAI5000	UD UNIDAD SUM. AUTON. ENERGIA 5000 VA 1 HORA Unidad de suministro autónomo de energía, con potencia de salida de 5000 VA y autonomía de 1 hora. Tensión nominal de entrada: 230 V - 50 Hz. Tensión nominal de salida: 230 V - 50 Hz. Sistema on-line. Montado y probado.	1				1,000	1,00
EQTLP060	UD PANTALLA OLED 4K DE 77 PULGADAS Televisor OLED 4K de 77". Instalada en pared, conexiones y probada.	1				1,000	1,00
411	m Canalización con 2 tubos de PVC de 90 mm y banda señalización Realización de canalización con 2 tubos de PVC y diámetro de 90 mm sobre canalización abierta para colector de agua, incluido suministro de material y mandrilado de conductos y banda de señalización. Azud - ETAP Etap - Arnedillo ETAP - Acometida Arnedo Acometida Arnedo - Arqueta principal Arqueta principal - Derivación Aldeanueva de Ebro Derivación Aldeanueva de Ebro - Alfaro Arqueta principal - Calahorra Arqueta principal - Tudelilla Tudelilla - ETAP Ocón Tudelilla - Villar de Arnedo Villar de Arnedo - Pradejón Pradejón - Alcanadre Tudelilla - Ausejo Acometida Santa Eulalia Bajera Acometida Herce Acometida Arnedo Acometida Quel Acometida Autol Acometida Aldeanueva de Ebro Acometida Rincón de Soto Acometida Bergasa Acometida Tudelilla Acometida Villar de Arnedo Acometida Santa Eulalia Somera	1	6.939,00			6.939,00	122.667,00

122.667,00

MEDICIONES

ABASTECIMIENTO A VARIOS MUNICIPIOS DE LA RIOJA. SISTEMA CIDACOS

CÓDIGO	RESUMEN	UDS	LONGITUD	ANCHURA	ALTURA	PARCIALES	CANTIDAD
412	ud Arquetas de empalme tipo H de dimensiones exteriores 104x94x97cm Arquetas de empalme tipo H de dimensiones exteriores 104x94x97 cm, incluso tapa, totalmente colocada.	140				140,00	140,00
413	m Suministro e instalación de cable de 16 fo monomodo con armadura Suministro e instalación de cable de 16 fo monomodo con armadura de acero por conducto de 90 mm. Azud - ETAP Etap - Arnedillo ETAP - Acometida Arnedo Acometida Arnedo - Arqueta principal Arqueta principal - Derivación Aldeanueva de Ebro Derivación Aldeanueva de Ebro - Alfaro Arqueta principal - Calahorra Arqueta principal - Tudelilla Tudelilla - ETAP Ocón Tudelilla - Villar de Arnedo Villar de Arnedo - Pradejón Pradejón - Alcanadre Tudelilla - Ausejo Acometida Santa Eulalia Bajera Acometida Herce Acometida Arnedo Acometida Quel Acometida Autol Acometida Aldeanueva de Ebro Acometida Rincón de Soto Acometida Bergasa Acometida Tudelilla Acometida Villar de Arnedo Acometida Santa Eulalia Somera Por solapes y demás (0,2%)	1	6.939,00			6.939,00	122.912,33
414	ud Realización de torpedo de empalme de paso (8/16 fo) con entrada Realización de torpedo de empalme de paso (8/16 fo) con entrada de 2 cables, incluido material y preparación de extremos.	70				70,00	70,00
415	ud Realización de torpedo de empalme de segregación (8/16 fo) con e Realización de torpedo de empalme de segregación (8/16 fo) con entrada de 3 cables, incluido material y preparación de extremos.	16				16,00	16,00
435.1	UD CUADROS PARA PLC 2000 x 800 x 400 mm Equipamiento y componentes para estación de automatización y control de ozonización, formada por autómatas programables con configuración según planos y Anejo de Telecontrol en ED, SD, EA y SA (no incluidas), con bastidor de expansión y fuente de alimentación 220 VCA, comunicaciones por tarjeta ETHERNET, instalada en armario metálico de dimensiones 2000 x 800 x 400 mm, protecciones contra sobretensiones y separadores galvánicos, totalmente instalado, incluso programación de los algoritmos de automatización y puesta en servicio. PLC REACTIVOS/DESHIDRATACIÓN PLC FILTRACIÓN PLC AGUA TRATADA	1				1,00	3,00

3,00

MEDICIONES

ABASTECIMIENTO A VARIOS MUNICIPIOS DE LA RIOJA. SISTEMA CIDACOS

CÓDIGO	RESUMEN	UDS	LONGITUD	ANCHURA	ALTURA	PARCIALES	CANTIDAD
	Arqueta entrada	1	2,20	1,60		3,52	
	P200-P210	1				1,00	
	PK 0+900 - 1+300	1		8.714,41		8.714,41	
	P090-P100						
	PK 0+000 - 0+160	1		2.353,08		2.353,08	
	P100-P110						
	PK 0+000 - 0+046	1		604,44		604,44	
	P100-P120						
	PK 0+000 - 0+019	1		246,29		246,29	
	P130-P140						
	PK 0+100 - 0+240	1		2.085,68		2.085,68	
	P150-P160						
	PK 0+100 - 0+160	1		629,50		629,50	
	P170-P180						
	PK 0+000 - 1+000	1		12.277,38		12.277,38	
	RAMAL ALFARO: P190-P280						
	P190-P220						
	PK 4+700 - 5+380	1		13.251,35		13.251,35	
	P220-P240						
	PK 1+250 - 1+350	1		6.901,41		6.901,41	
	P260-P280						
	PK 3+820 - 4+640	1		11.490,80		11.490,80	
	P260-P270						
	PK 0+500 - 0+900	1		4.433,46		4.433,46	
	RAMAL ALCANADRE: P190-P450						
	P200-P290						
	PK 0+000 -1+650	1		25.672,27		25.672,27	
	P410-P430						
	PK 2+250 - 2+360	1		1.290,70		1.290,70	
	P430-P450						
	PK 0+840 - 1+100	1		3.972,84		3.972,84	
	P290-P310						
	PK 1+550 - 1+760	1		601,92		601,92	
	P360-P400						
	PK 0+660 - 3+910	1		45.494,72		45.494,72	
							219.095,33
403	M3 RELLENO DE TIERRA VEGETAL EN PLANTACIONES						
	Relleno de tierra vegetal en reposición de cultivos, plantaciones y cubrimiento de vertederos, procedente de la excavación o préstamos, incluso carga, transporte y extendido.						
	Zona de desbroce	1	165.950,35		0,30	49.785,11	
							49.785,11
	CAPÍTULO 12 SEGURIDAD Y SALUD						
E2010	PA SEGURIDAD Y SALUD DURANTE LAS OBRAS						
	Partida alzada a justificar de acuerdo con el Anejo nº 15 para Seguridad y Salud durante las obras.						
		1				1,00	
							1,00
	CAPÍTULO 13 GESTIÓN DE RESIDUOS EN FASE DE CONTRUCCIÓN						
GR001	M3 GESTIÓN DE RESIDUOS DE TIERRAS Y PIEDRAS (17 05 04)						
	Canon de gestión de residuos de tierras y tierras (17 05 04).						
		1	230.090,880			230.090,880	
							230.090,88
GR005	M3 GESTIÓN DE RESIDUOS NATURALEZA PÉTREA						
	Canon de gestión de residuos de naturaleza pétreo (17 01 01, 17 01 02, 17 01 03, 17 01 07, 17 09 04).						
		1	3.232,950			3.232,950	
							3.232,95

MEDICIONES

ABASTECIMIENTO A VARIOS MUNICIPIOS DE LA RIOJA. SISTEMA CIDACOS

CÓDIGO	RESUMEN	UDS	LONGITUD	ANCHURA	ALTURA	PARCIALES	CANTIDAD
GR010	M3 GESTIÓN DE RESIDUOS NATURALEZA NO PÉTREA						
	Canon de gestión de residuos de naturaleza no pétreo (17 03 02, 17 02 01, 17 04 05, 17 02 03, 17 02 02, 17 08 02).						
		1	3.235,930			3.235,930	
							3.235,93
GR029	M3 GESTIÓN DE RESIDUOS PELIGROSOS						
	Transporte y gestión de residuos peligrosos en Gestor Autorizado.						
		1	0,160			0,160	
							0,16
GR030	UD BALSAS DE LAVADO DE CUBAS DE HORMIGÓN						
	Construcción de balsas de lavado de cubas de hormigón, incluso p/p. de retira y Gestión a Gestor autorizado.						
		3				3,000	
							3,00
GR031	UD PUNTO LIMPIO PARA RPs						
	Montaje y desmontaje de punto limpio para residuos peligrosos.						
		1				1,000	
							1,00



2. CUADRO DE PRECIOS Nº 1

CUADRO DE PRECIOS 1

ABASTECIMIENTO A VARIOS MUNICIPIOS DE LA RIOJA. SISTEMA CIDACOS

Nº	CÓDIGO	UD	DESCRIPCIÓN	PRECIO EN LETRA	IMPORTE
0001	001	M3	EXCAVACIÓN A CIELO ABIERTO Excavación a cielo abierto en todo tipo de terrenos incluido terrenos en roca, incluso agotamiento y transporte a lugar de empleo o vertedero.	TRES EUROS con SESENTA Y DOS CÉNTIMOS	3,62
0002	002	M3	EXCAVACIÓN EN ZANJAS Excavación en zanjas y zonas localizadas, en todo tipo de terrenos incluido terrenos en roca con medios mecánicos, incluso rasanteo, nivelación de la superficie de apoyo y transporte a lugar de empleo o vertedero.	TRES EUROS con SETENTA Y CUATRO CÉNTIMOS	3,74
0003	003	M3	EXCAVACIÓN EN ZANJAS CON AGOTAMIENTO Excavación en zanjas y zonas localizadas, en todo tipo de terrenos incluido terrenos en roca con medios mecánicos, incluso rasanteo, nivelación de la superficie de apoyo, agotamiento y transporte a lugar de empleo o vertedero.	TRES EUROS con OCHENTA Y CUATRO CÉNTIMOS	3,84
0004	004	M3	EXCAVACIÓN EN ZANJAS MANUAL Excavación en zanjas y zonas localizadas, en todo tipo de terrenos por medios manuales, incluso transporte a lugar de empleo o vertedero.	VEINTIUN EUROS con CUARENTA Y NUEVE CÉNTIMOS	21,49
0005	005	M3	TERRAPLENADO DE MATERIAL ADECUADO Terraplenado con material adecuado procedente de las excavaciones o préstamos, incluso material, carga, transporte, extendido y compactación.	CUATRO EUROS con TREINTA CÉNTIMOS	4,30
0006	006	M3	RELLENOS CON MATERIAL DE BOLO Relleno con material seleccionado de bolo, para eviatar asentamientos, en trasdós de muros, estribos y otras estructuras procedente de préstamos incluso carga, transporte y extendido.	SEIS EUROS con CATORCE CÉNTIMOS	6,14
0007	007	M2	ENTIBACIÓN MÓDULOS METÁLICOS Entibación a dos caras mediante módulos metálicos y articulados, en zonas de protección de zanja, medida la superficie efectiva.	OCHO EUROS con SESENTA Y NUEVE CÉNTIMOS	8,69
0008	008	M2	DESPEJE Y DESBROCE Despeje y desbroce de capa de tierra vegetal con un espesor medio de 50 cm, incluso corte de árboles, extracción de tocones, nivelación de zona adyacente para el paso de maquinaria, transporte a lugar de acopio independiente para posterior reposición de tierra vegetal tras las obras y despedregado de las parcelas, así como transporte a vertedero de tierras sobrantes.	CERO EUROS con CINCUENTA Y SIETE CÉNTIMOS	0,57
0009	0092REC	M2	RECRECIDO DE MORTERO m². Recrecido pegar un pavimento cerámico o similar, de 6 cm de espesor, realizada con mortero de cemento y arena de río 1/3 (M15), i/nivelación, maestreado y fratasado, s/NTE-RSS.	SIETE EUROS con OCHENTA CÉNTIMOS	7,80

CUADRO DE PRECIOS 1

ABASTECIMIENTO A VARIOS MUNICIPIOS DE LA RIOJA. SISTEMA CIDACOS

Nº	CÓDIGO	UD	DESCRIPCIÓN	PRECIO EN LETRA	IMPORTE
0010	0092sole	M2	SOLERA ARMADA + ENCACHADO+LAMINA m². Solera pulida de 15 cm de espesor, realizada con hormigón HA-25/P/20/11a N/mm², tamaño máximo del árido 20 mm elaborado en central, i/vertido, colocación y armado con mallazo electrosoldado #150x150x6 mm, incluso p.p. de juntas, aserrado de las mismas y fratasado. Según EHE-08, sobre lámina impermeabilizante PVC 1,5 mm, encachado de piedra machacada 40/80 de 15 cm de espesor, extendida y compactada.	VEINTICINCO EUROS con NUEVE CÉNTIMOS	25,09
0011	010	M3	RELLENO ZANJAS, CIMIENTOS Y TRASDOSES DE MATERIAL SELECCIONADO Relleno con material seleccionado en zanjas, cimientos, trasdós de muros, estribos y otras estructuras procedente de la excavación o préstamos incluso carga, transporte y compactación.	TRES EUROS con TREINTA Y DOS CÉNTIMOS	3,32
0012	0100	ML	COLOCACIÓN DE TUBERÍA AUXILIAR PE DN315 PN10 Colocación de tubería auxiliar de PE DN315 PN10 a tubería existente de ficrocemento DN400, durante la ejecución de la excavación de la zanja de la nueva conducción, para tramos de 100 m, para mantenimiento de servicio de la tubería existente, incluso elementos de unión de la tubería auxiliar a dicha tubería, del llenado y vaciado del tramo de actuación, y de la tubería auxiliar para su desplazamiento, traslado de la tubería auxiliar a su nueva posición por tramos de 100 m, así como la colocación de los lastres de la tubería auxiliar.	DIECISEIS EUROS con OCHENTA Y NUEVE CÉNTIMOS	16,89
0013	0101	ML	COLOCACIÓN DE TUBERÍA AUXILIAR PE DN315 PN10 Colocación de tubería auxiliar de PE DN315 PN10 a tubería existente de PEAD DN315, durante la ejecución de la excavación de la zanja de la nueva conducción, para tramos de 100 m, para mantenimiento de servicio de la tubería existente, incluso elementos de unión de la tubería auxiliar a dicha tubería, del llenado y vaciado del tramo de actuación, y de la tubería auxiliar para su desplazamiento, traslado de la tubería auxiliar a su nueva posición por tramos de 100 m, así como la colocación de los lastres de la tubería auxiliar.	DIECISEIS EUROS con TREINTA Y DOS CÉNTIMOS	16,32
0014	0102	ML	TRASLADO TUBERÍA PEAD DN=315 mm PN 10 Traslado de tubería PE DN315 PN10 de la derivación de Amedo para conexión a tubería existente de PEAD DN315, incluso p.p. de elementos de unión, corte para tralado y nuevo soldadura en tramo de 100 m.	ONCE EUROS con NOVENTA Y SIETE CÉNTIMOS	11,97
0015	0103	ML	COLOCACIÓN DE TUBERÍA AUXILIAR PE DN160-DN110 PN10 Colocación de tubería auxiliar de PE DN160-DN100 PN10 a tubería existente de PEAD DN160-DN110 y FD150, durante la ejecución de la excavación de la zanja de la nueva conducción, para tramos de 100 m, para mantenimiento de servicio de la tubería existente, incluso elementos de unión de la tubería auxiliar a dicha tubería, del llenado y vaciado del tramo de actuación, y de la tubería auxiliar para su desplazamiento, traslado de la tubería auxiliar a su nueva posición por tramos de 100 m, así como la colocación de los lastres de la tubería auxiliar.	DOCE EUROS con OCHENTA CÉNTIMOS	12,80
0016	0105	ML	TUBERÍA PEAD DN=315 mm PN 10 Tubería de PE DN315 PN10 para conexión a tubería existente de ficrocemento DN400, incluso p.p. de elementos de unión a tubería de ficrocemento DN400.	VEINTITRES EUROS con NOVENTA Y SIETE CÉNTIMOS	23,97

CUADRO DE PRECIOS 1

ABASTECIMIENTO A VARIOS MUNICIPIOS DE LA RIOJA. SISTEMA CIDACOS

Nº	CÓDIGO	UD	DESCRIPCIÓN	PRECIO EN LETRA	IMPORTE
0017	011	M3	RELLENO DE ARENA Arena para apoyo y protección de tuberías incluso carga, transporte, colocación, compactación y nivelación.	DOCE EUROS con NUEVE CÉNTIMOS	12,09
0018	012	M3	TERRAPLÉN O PEDRAPLÉN Terraplén o pedraplén procedente de las excavaciones o préstamos para carreteras, caminos y obras accesorias, incluso carga, transporte, extendido, humectación y compactación.	DOS EUROS con SESENTA Y DOS CÉNTIMOS	2,62
0019	013	M3	ESCOLLERA D50 = 1,30 m Escollera caliza muy pesada de D50 = 1,30 m colocada en protección de cauces, incluido suministro y preparación de la superficie de apoyo, perfectamente rasanteada y terminada.	VEINTIOCHO EUROS con SESENTA Y OCHO CÉNTIMOS	28,68
0020	014	M3	ESCOLLERA D50 = 1,00 m Escollera caliza pesada de D50 = 1,00 m colocada en protección de cauces, incluido suministro y preparación de la superficie de apoyo, perfectamente rasanteada y terminada.	TREINTA Y DOS EUROS con NOVENTA Y SIETE CÉNTIMOS	32,97
0021	015	M3	ESCOLLERA D50 = 0,65 m Escollera caliza media de D50 = 0,65 m colocada en protección de cauces, incluido suministro y preparación de la superficie de apoyo, perfectamente rasanteada y terminada.	TREINTA Y SIETE EUROS con TREINTA CÉNTIMOS	37,30
0022	016	M3	ESCOLLERA D50 = 0,65 m HORMIGONADA	CUARENTA Y SEIS EUROS con OCHENTA CÉNTIMOS	46,80
0023	017	M2	CHAPADO DE PIEDRA CALIZA Chapado de piedra caliza, incluso preparación de paramento, hormigón o mortero de agarre y elementos auxiliares de amarre con acero de sujeción, malla, etc.	OCHENTA Y TRES EUROS con CUARENTA Y NUEVE CÉNTIMOS	83,49
0024	018	M3	DEMOLICIÓN DE HORMIGÓN Demolición de hormigón en masa o armado en estructuras, pozos y arquetas, con máquina retroexcavadora con martillo, incluso carga y transporte a vertedero.	DIECINUEVE EUROS con TREINTA Y SEIS CÉNTIMOS	19,36
0025	019	M2	DEMOLICIÓN DE FIRMES Demolición de firmes de cualquier tipo, incluso precorte, carga y transporte a vertedero, posterior perfilado y compactación del terreno.	DOS EUROS con CINCUENTA CÉNTIMOS	2,50
0026	020	KG	ACERO S 275 J PERFILES LAMINADOS Acero S 275 J en perfiles laminados elaborado y colocado.	UN EUROS con NOVENTA Y CINCO CÉNTIMOS	1,95
0027	023	KG	ACERO CORRUGADO B-500-S Acero redondo corrugado para armar tipo B-500-S elaborado y colocado.	CERO EUROS con NOVENTA Y SEIS CÉNTIMOS	0,96

CUADRO DE PRECIOS 1

ABASTECIMIENTO A VARIOS MUNICIPIOS DE LA RIOJA. SISTEMA CIDACOS

Nº	CÓDIGO	UD	DESCRIPCIÓN	PRECIO EN LETRA	IMPORTE
0028	025	M2	ENCOFRADO RECTO EN PARAMENTOS OCULTOS Encofrado recto en paramentos ocultos, incluso colocación, fijación y desencofrado.	DIECISIETE EUROS con SESENTA Y CINCO CÉNTIMOS	17,65
0029	026	M2	ENCOFRADO RECTO EN PARAMENTOS VISTOS 1C Encofrado recto en paramentos vistos a una cara, incluso colocación, fijación y desencofrado.	VEINTIUN EUROS con DIECIOCHO CÉNTIMOS	21,18
0030	026.1	M2	ENCOFRADO RECTO EN LOSAS VISTOS Encofrado recto en losas vistos, incluso colocación, fijación y desencofrado.	VEINTISIETE EUROS con SESENTA Y OCHO CÉNTIMOS	27,68
0031	026.2	M2	ENCOFRADO RECTO EN PILARES VISTOS Encofrado recto en pilares vistos, incluso colocación, fijación y desencofrado.	VEINTISIETE EUROS con SESENTA Y OCHO CÉNTIMOS	27,68
0032	026.3	M2	ENCOFRADO RECTO EN VIGAS VISTOS Encofrado recto en vigas vistos, incluso colocación, fijación, apuntalamiento o cimbras, y desencofrado.	VEINTINUEVE EUROS con OCHENTA Y CUATRO CÉNTIMOS	29,84
0033	027	M2	ENCOFRADO CURVO EN PARAMENTOS VISTOS Encofrado curvo en paramentos vistos, incluso colocación, fijación y desencofrado.	VEINTICINCO EUROS con DOCE CÉNTIMOS	25,12
0034	027.1	M2	ENCOFRADO CURVO EN PARAMENTOS OCULTOS Encofrado curvo en paramentos ocultos, incluso colocación, fijación y desencofrado.	VEINTIUN EUROS con NOVENTA Y SEIS CÉNTIMOS	21,96
0035	028	M3	HORMIGÓN DE LIMPIEZA HL-150 Hormigón de limpieza HL-150, de consistencia plástica, árido de tamaño máximo 40 mm y cemento CEM-II-D/42,5/SR, para saneos y enchachados, incluyendo fabricación y transporte totalmente colocado.	CUARENTA Y CUATRO EUROS con SETENTA Y SEIS CÉNTIMOS	44,76
0036	030	M3	HORMIGÓN HNE-20/B/40 Hormigón HNE-20/B/40, con cemento CEM III/A-D/42,5/SR (UNE 80303:96), en masa o ligeramente armado, colocado en cualquier tipo de obra, incluso fabricación, carga y transporte, totalmente colocado.	CINCUENTA EUROS con TREINTA Y OCHO CÉNTIMOS	50,38
0037	031	M3	HORMIGÓN HA-25/B/20/IIa Hormigón HA-25/B/20/IIa, con cemento CEM III/A-D/42,5/SR, incluyendo fabricación, transporte, puesta en obra y vibrado, totalmente ejecutado, incluso curado y juntas.	CINCUENTA Y TRES EUROS con TREINTA Y NUEVE CÉNTIMOS	53,39

CUADRO DE PRECIOS 1

ABASTECIMIENTO A VARIOS MUNICIPIOS DE LA RIOJA. SISTEMA CIDACOS

Nº	CÓDIGO	UD	DESCRIPCIÓN	PRECIO EN LETRA	IMPORTE
0038	032.1	M3	HORMIGÓN HA-30/P/30/IV Hormigón armado HA-30/B/30/IV, con una dosificación de hormigón de 325 kg/m3 de cemento, consistencia plástica, elaborado en central para estructuras, incluso bombeado y medios manuales, vibrado y colocado.	SETENTA Y SEIS EUROS con NOVENTA Y NUEVE CÉNTIMOS	76,99
0039	033	M3	HORMIGÓN HA-35/P/40/IIa+Qa Hormigón HA-35/P/40/IIa+Qa, con cemento CEM II/A-D/42,5/SR (UNE 80303:96), incluyendo fabricación, transporte, puesta en obra y vibrado, totalmente ejecutado, incluso curado y juntas.	SESENTA Y CINCO EUROS con SETENTA Y CUATRO CÉNTIMOS	65,74
0040	034.1	UD	ARQUETA HORMIGÓN DE 3,0x3,0 M Y HASTA 2,50 m DE PROFUNDIDAD Arqueta de hormigón armado HA-25/P/40/IIa para alojamiento de válvulas de tuberías de dimensiones interiores 3,0x3,0 m y una altura de hasta 2,50 m, con solera de 30 cm de canto, muros de 25 cm de espesor y tapa de 25 cm de canto, armado con parrilla de 20x20 cm con redondos de 12 mm, incluso excavación, relleno posterior, encofrado, ganchos de elevación de tapa, totalmente terminada.	TRES MIL CIENTO VEINTIDOS EUROS con SESENTA Y SIETE CÉNTIMOS	3.122,67
0041	034.2	UD	ARQUETA HORMIGÓN DE 3,00x2,50 M Y HASTA 2,50 m DE PROFUNDIDAD Arqueta de hormigón armado HA-25/P/40/IIa para alojamiento de válvulas de tuberías de dimensiones interiores 3,0x2,5 m y una altura de hasta 2,50 m, con solera de 30 cm de canto, muros de 25 cm de espesor y tapa de 25 cm de canto, armado con parrilla de 20x20 cm con redondos de 12 mm, incluso excavación, relleno posterior, encofrado, totalmente terminada.	DOS MIL OCHOCIENTOS CINCUENTA Y CINCO EUROS con CUARENTA Y SEIS CÉNTIMOS	2.855,46
0042	050	M2	RESTITUCIÓN DE FORMAS EN PARAMENTOS DE ESTRIBOS Restitución de formas en paramentos de estribos, incluso armadura adicional y mortero de reparación.	CIENTO CINCUENTA Y SIETE EUROS con CINCUENTA Y NUEVE CÉNTIMOS	157,59
0043	051	KG	RESINA EPOXI SELLADO HORMIGÓN Resina epoxi en sellado de unión de refuerzos de cabeza de fuste de hormigón, incluso inyección y pequeño material.	TREINTA Y UN EUROS con DIECISEIS CÉNTIMOS	31,16
0044	051pc2	KG	REVESTIMIENTO MULTICAPA RESINA EXPOXI m². Suministro y puesta en obra del Sistema Multicapa Epoxi MASTERTOP 1220 Polykit, con un espesor de 2,0 mm, consistente en formación de capa base epoxi sin disolventes coloreada MASTERTOP 1200 o similar (rendimiento 1,6 kg/m²); espolvoreo en fresco de árido de cuarzo MASTERTOP F 5 o similar con una granulometría 0,3-0,8 mm (rendimiento 3,0 kg/m²); sellado con el revestimiento epoxi sin disolventes coloreado MASTERTOP 1200 o similar (rendimiento 0,600 kg/m²), sobre superficies de hormigón o mortero, sin incluir la preparación del soporte. Colores Estándar.	VEINTE EUROS con SETENTA CÉNTIMOS	20,70

CUADRO DE PRECIOS 1

ABASTECIMIENTO A VARIOS MUNICIPIOS DE LA RIOJA. SISTEMA CIDACOS

Nº	CÓDIGO	UD	DESCRIPCIÓN	PRECIO EN LETRA	IMPORTE
0045	052	ML	JUNTAS DE ESTANQUEIDAD DE PVC 32 CM Junta de trabajo interior de policloruro de vinilo (PVC) 100% virgen, con una fuerza máxima de dilatación > 250 %, de 32 cm de ancho, MASTERFLEX 2000 TI-24 de BASF o equivalente, colocada simétricamente en el eje de la losa o muro, incluso solapes y piezas especiales para cruces o ángulos. Medida la longitud ejecutada.	SIETE EUROS con TREINTA Y UN CÉNTIMOS	7,31
0046	052A	ML	MEDIA CAÑA DE IMPERMEABILIZACIÓN JUNTAS DE ESQUINA Suministro y puesta en obra de realización de medias cañas con el mortero de reparación estructural Clase R4, según Normativa Vigente UNE EN 1504, consistente en una capa de imprimación con la resina epoxi EMACO EPOXIPRIMER BP o equivalente (rendimiento 0,08 kg/m); realización de media caña con el mortero cementoso EMACO S-88 TIXOTRÓPICO o equivalente (rendimiento 4,0 kg/m). Incluso preparación de superficie. Medida la longitud ejecutada. Terminada.	NUEVE EUROS con TRECE CÉNTIMOS	9,13
0047	052B	ML	SELLADO DE JUNTAS Y ESQUINAS CON BANDA ELÁSTICA E=1 mm Sellado de juntas con banda de elastómero termoplástico (TPE) de 1 mm de espesor y 20 cm de ancho, con un alargamiento a la rotura del 600 % según DIN 53504 S2 y una dureza Shore A de aprox. 80 según ISO 868, Apta para Agua Potable según RD 140/2003, adherida al soporte al menos en 6 cm a cada lado de la junta mediante resina epoxi sin disolventes, MASTERFLEX 3000 ADHESIVO de BASF o equivalente, incluso limpieza del soporte y p.p. de solapes. Medida la longitud real ejecutada.	VEINTICINCO EUROS con SESENTA Y SEIS CÉNTIMOS	25,66
0048	053	M2	GEOTEXTIL 200 gr/m2 Geotextil de polipropileno de 200 gr/m2, totalmente colocado incluso solapes.	DOS EUROS con CUARENTA Y SEIS CÉNTIMOS	2,46
0049	053PR	M2	AISLAMIENTO ACÚSTICO FORJADO m². Aislamiento acústico a ruido aéreo y de impacto en forjados con compuesto bicapa TriACUSTIC 35, de 3,6 kg/m². de peso y 7 mm de espesor, formado por una lámina viscoelástica de alta densidad adherida térmicamente a una lámina de polietileno.	OCHO EUROS con NOVENTA Y OCHO CÉNTIMOS	8,98
0050	053imp	M2	IMPERMEABILIZACIÓN DE SOLERA m². Impermeabilización de soleras constituida por 0,3 kg/m² de imprimación asfáltica CURIDAN y lámina de betún modificado con elastómeros SBS de 4 kg/m² de peso medio, de superficie no protegida, con armadura de fieltro de poliéster y acabada con film de polietileno por ambas caras, ESTERDAN 40 P ELAST (Tipo LBM 40 FP), totalmente adherida al soporte con soplete, y geotextil de 200 g/m² como protección; lista para recibir capa de hormigón. Dispone de DIT. "Esterdan pendiente cero". N° 550/10.	OCHO EUROS con OCHENTA Y CUATRO CÉNTIMOS	8,84
0051	054	T	PAVIMENTO DE MBC AC16 surf S Pavimento de mezcla bituminosa en caliente en capa de rodadura tipo AC 16 surf S de 5 cm de espesor, que incluye riego de imprimación con dotación de 1 Kg/m2, con betún B60/70 en dotación de 70 Kg/Tm, puesto en obra y terminado.	TREINTA Y SEIS EUROS con SETENTA CÉNTIMOS	36,70

CUADRO DE PRECIOS 1

ABASTECIMIENTO A VARIOS MUNICIPIOS DE LA RIOJA. SISTEMA CIDACOS

Nº	CÓDIGO	UD	DESCRIPCIÓN	PRECIO EN LETRA	IMPORTE
0052	055	M2	PAVIMENTO DOBLE TRATAMIENTO SUPERFICIAL Pavimento doble tratamiento superficial formado por árido 13/7 y 6/3, y ligante emulsión C60B3 ADH con dotación 4 kg/m2, incluso riego de imprimación previo con ligante emulsión C60BF4 IMP en dotación 1 kg/m2, puesto en obra y terminado.	DOS EUROS con CINCUENTA Y DOS CÉNTIMOS	2,52
0053	056	M3	ZAHORRA ARTIFICIAL Zahorra artificial compactada.	DIECISEIS EUROS con NOVENTA Y OCHO CÉNTIMOS	16,98
0054	058	ML	TUBERÍA FD 800 mm Tubería de fundición dúctil de diámetro interior 800 mm y PFA de 32 bar, revestida interiormente con mortero de cemento y exteriormente con una capa de cinc y otra bituminosa, i/p.p. de junta automática flexible, cinta señalizadora y medios auxiliares, totalmente colocada y probada.	DOSCIENTOS SESENTA EUROS con NOVENTA Y DOS CÉNTIMOS	260,92
0055	058A	ML	TUBERÍA FD 900 mm Tubería de fundición dúctil de diámetro interior 900 mm y PFA de 32 bar, revestida interiormente con mortero de cemento y exteriormente con una capa de cinc y otra bituminosa, i/p.p. de junta automática flexible, banda de señalización y medios auxiliares, totalmente colocada y probada.	TRESCIENTOS CINCO EUROS con OCHENTA Y TRES CÉNTIMOS	305,83
0056	058B	ML	TUBERÍA FD 1000 mm Tubería de fundición dúctil de diámetro interior 1000 mm y PFA de 32 bar, revestida interiormente con mortero de cemento y exteriormente con una capa de cinc y otra bituminosa, i/p.p. de junta automática flexible, banda de señalización y medios auxiliares, totalmente colocada y probada.	TRESCIENTOS SETENTA Y CUATRO EUROS con NOVENTA Y CINCO CÉNTIMOS	374,95
0057	058C	ML	TUBERÍA FD 700 mm Tubería de fundición dúctil de diámetro interior 700 mm y PFA de 34 bar, revestida interiormente con mortero de cemento y exteriormente con una capa de cinc y otra bituminosa, i/p.p. de junta automática flexible y medios auxiliares, totalmente colocada y probada.	DOSCIENTOS CUARENTA EUROS con SETENTA Y SIETE CÉNTIMOS	240,77
0058	058R	ML	TUBERÍA FD 800 mm CON JUNTA ACERROJADA Tubería de fundición dúctil de diámetro interior 800 mm y PFA de 32 bar, revestida interiormente con mortero de cemento y exteriormente con una capa de cinc y otra bituminosa, i/p.p. de junta acerrojada, cinta señalizadora y medios auxiliares, totalmente colocada y probada.	TRESCIENTOS DOCE EUROS con NOVENTA Y OCHO CÉNTIMOS	312,98
0059	058RA	ML	TUBERÍA FD 900 mm CON JUNTA ACERROJADA Tubería de fundición dúctil de diámetro interior 900 mm y PFA de 32 bar, revestida interiormente con mortero de cemento y exteriormente con una capa de cinc y otra bituminosa, i/p.p. de junta acerrojada, cinta señalizadora y medios auxiliares, totalmente colocada y probada.	TRESCIENTOS SESENTA Y CUATRO EUROS con SETENTA Y DOS CÉNTIMOS	364,72

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ABASTECIMIENTO A VARIOS MUNICIPIOS DE LA RIOJA. SISTEMA CIDACOS

Nº	CÓDIGO	UD	DESCRIPCIÓN	PRECIO EN LETRA	IMPORTE
0060	060	ML	TUBERÍA FD 500 mm Tubería de fundición dúctil de diámetro interior 500 mm y PFA de 38 bar, revestida interiormente con mortero de cemento y exteriormente con una capa de cinc y otra bituminosa, i/p.p. de junta automática flexible, banda de señalización y medios auxiliares, totalmente colocada y probada.	OCHENTA Y SEIS EUROS con CINCUENTA Y NUEVE CÉNTIMOS	86,59
0061	061	ML	TUBERÍA FD 400 mm Tubería de fundición dúctil de diámetro interior 400 mm y PFA de 42 bar, revestida interiormente con mortero de cemento y exteriormente con una capa de cinc y otra bituminosa, i/p.p. de junta automática flexible, banda de señalización y medios auxiliares, totalmente colocada y probada.	SESENTA Y OCHO EUROS con SETENTA CÉNTIMOS	68,70
0062	062	ML	TUBERÍA FD 300 mm Tubería de fundición dúctil de diámetro interior 300 mm y PFA de 49 bar, revestida interiormente con mortero de cemento y exteriormente con una capa de cinc y otra bituminosa, i/p.p. de junta automática flexible, banda de señalización y medios auxiliares, totalmente colocada y probada.	CUARENTA Y SEIS EUROS con CUARENTA Y UN CÉNTIMOS	46,41
0063	063	ML	TUBERÍA FD 250 mm Tubería de fundición dúctil de diámetro interior 250 mm y PFA de 54 bar, revestida interiormente con mortero de cemento y exteriormente con una capa de cinc y otra bituminosa, i/p.p. de junta automática flexible, banda de señalización y medios auxiliares, totalmente colocada y probada.	TREINTA Y SIETE EUROS con OCHENTA Y UN CÉNTIMOS	37,81
0064	065	ML	TUBERÍA FD 150 mm Tubería de fundición dúctil de diámetro interior 150 mm y PFA de 64 bar, revestida interiormente con mortero de cemento y exteriormente con una capa de cinc y otra bituminosa, i/p.p. de junta automática flexible, banda de señalización y medios auxiliares, totalmente colocada y probada.	VEINTIUN EUROS con CUARENTA Y DOS CÉNTIMOS	21,42
0065	066	ML	TUBERÍA FD 125 mm Tubería de fundición dúctil de diámetro interior 125 mm y PFA de 64 bar, revestida interiormente con mortero de cemento y exteriormente con una capa de cinc y otra bituminosa, i/p.p. de junta automática flexible, cinta señalizadora y medios auxiliares, totalmente colocada y probada.	VEINTE EUROS con VEINTE CÉNTIMOS	20,20
0066	067	ML	TUBERÍA FD 100 mm Tubería de fundición dúctil de diámetro interior 100 mm y PFA de 64 bar, revestida interiormente con mortero de cemento y exteriormente con una capa de cinc y otra bituminosa, i/p.p. de junta automática flexible, cinta señalizadora y medios auxiliares, totalmente colocada y probada.	VEINTIUN EUROS con SIETE CÉNTIMOS	21,07

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ABASTECIMIENTO A VARIOS MUNICIPIOS DE LA RIOJA. SISTEMA CIDACOS

Nº	CÓDIGO	UD	DESCRIPCIÓN	PRECIO EN LETRA	IMPORTE
0067	068	UD	CODO FD 1/32 800 mm Codo de fundición dúctil de 1/32 de diámetro interior 800 mm y PFA 25 bar, con revestimiento interior y exterior epoxi, incluso p.p. de juntas y medios auxiliares, totalmente colocado y probado.	MIL QUINIENTOS SESENTA Y TRES EUROS con SETENTA CÉNTIMOS	1.563,70
0068	068A	UD	CODO FD 1/32 900 mm Codo de fundición dúctil de 1/32 de diámetro interior 900 mm y PFA 25 bar, con revestimiento interior y exterior epoxi, incluso p.p. de juntas y medios auxiliares, totalmente colocado y probado.	MIL SETECIENTOS NOVENTA EUROS con SETENTA Y CINCO CÉNTIMOS	1.790,75
0069	068B	UD	CODO FD 1/32 1000 mm Codo de fundición dúctil de 1/32 de diámetro interior 1000 mm y PFA 25 bar, con revestimiento interior y exterior epoxi, incluso p.p. de juntas y medios auxiliares, totalmente colocado y probado.	DOS MIL TREINTA Y OCHO EUROS con QUINCE CÉNTIMOS	2.038,15
0070	069	UD	CODO FD 1/16 800 mm Codo de fundición dúctil de 1/16 de diámetro interior 800 mm y PFA 25 bar, con revestimiento interior y exterior epoxi, incluso p.p. de juntas y medios auxiliares, totalmente colocado y probado.	MIL OCHOCIENTOS NOVENTA EUROS con CUARENTA CÉNTIMOS	1.890,40
0071	069A	UD	CODO FD 1/16 900 mm Codo de fundición dúctil de 1/16 de diámetro interior 900 mm y PFA 25 bar, con revestimiento interior y exterior epoxi, incluso p.p. de juntas y medios auxiliares, totalmente colocado y probado.	DOS MIL CIENTO SESENTA Y SEIS EUROS con CUARENTA Y SEIS CÉNTIMOS	2.166,46
0072	069B	UD	CODO FD 1/16 1000 mm Codo de fundición dúctil de 1/16 de diámetro interior 1000 mm y PFA 25 bar, con revestimiento interior y exterior epoxi, incluso p.p. de juntas y medios auxiliares, totalmente colocado y probado.	DOS MIL CUATROCIENTOS CATORCE EUROS con DIECIOCHO CÉNTIMOS	2.414,18
0073	070	UD	CODO FD 1/8 800 mm Codo de fundición dúctil de 1/8 de diámetro interior 800 mm y PFA 25 bar, con revestimiento interior y exterior epoxi, incluso p.p. de juntas y medios auxiliares, totalmente colocado y probado.	MIL NOVECIENTOS SESENTA Y CUATRO EUROS con CUARENTA Y SEIS CÉNTIMOS	1.964,46
0074	070A	UD	CODO FD 1/8 900 mm Codo de fundición dúctil de 1/8 de diámetro interior 900 mm y PFA 25 bar, con revestimiento interior y exterior epoxi, incluso p.p. de juntas y medios auxiliares, totalmente colocado y probado.	DOS MIL DOSCIENTOS CINCUENTA Y UN EUROS con SESENTA Y CINCO CÉNTIMOS	2.251,65

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ABASTECIMIENTO A VARIOS MUNICIPIOS DE LA RIOJA. SISTEMA CIDACOS

Nº	CÓDIGO	UD	DESCRIPCIÓN	PRECIO EN LETRA	IMPORTE
0075	070B	UD	CODO FD 1/8 1000 mm Codo de fundición dúctil de 1/8 de diámetro interior 1000 mm y PFA 25 bar, con revestimiento interior y exterior epoxi, incluso p.p. de juntas y medios auxiliares, totalmente colocado y probado.	DOS MIL SEISCIENTOS SESENTA Y DOS EUROS con DIECINUEVE CÉNTIMOS	2.662,19
0076	070R	UD	CODO FD 1/4 800 mm Codo de fundición dúctil de 1/4 de diámetro interior 800 mm y PFA 25 bar, con revestimiento interior y exterior epoxi, incluso p.p. de juntas y medios auxiliares, totalmente colocado y probado.	DOS MIL CATORCE EUROS con SIETE CÉNTIMOS	2.014,07
0077	070RA	UD	CODO FD 1/4 900 mm Codo de fundición dúctil de 1/4 de diámetro interior 900 mm y PFA 25 bar, con revestimiento interior y exterior epoxi, incluso p.p. de juntas y medios auxiliares, totalmente colocado y probado.	DOS MIL TRESCIENTOS OCHO EUROS con SESENTA Y NUEVE CÉNTIMOS	2.308,69
0078	070RB	UD	CODO FD 1/4 1000 mm Codo de fundición dúctil de 1/4 de diámetro interior 1000 mm y PFA 25 bar, con revestimiento interior y exterior epoxi, incluso p.p. de juntas y medios auxiliares, totalmente colocado y probado.	DOS MIL SETECIENTOS VEINTE EUROS con SEIS CÉNTIMOS	2.720,06
0079	074	UD	CODO FD 1/8 500 mm Codo de fundición dúctil de 1/8 de diámetro interior 500 mm y PFA 30 bar, con revestimiento interior y exterior epoxi, incluso p.p. de juntas y medios auxiliares, totalmente colocado y probado.	QUINIENTOS VEINTINUEVE EUROS con ONCE CÉNTIMOS	529,11
0080	074R	UD	CODO FD 1/4 500 mm Codo de fundición dúctil de 1/8 de diámetro interior 500 mm y PFA 30 bar, con revestimiento interior y exterior epoxi, incluso p.p. de juntas y medios auxiliares, totalmente colocado y probado.	QUINIENTOS SETENTA Y OCHO EUROS con SETENTA Y DOS CÉNTIMOS	578,72
0081	075	UD	CODO FD 1/16 500 mm Codo de fundición dúctil de 1/16 de diámetro interior 500 mm y PFA 30 bar, con revestimiento interior y exterior epoxi, incluso p.p. de juntas y medios auxiliares, totalmente colocado y probado.	CUATROCIENTOS CINCUENTA Y OCHO EUROS con CATORCE CÉNTIMOS	458,14
0082	076	UD	CODO FD 1/32 500 mm Codo de fundición dúctil de 1/32 de diámetro interior 500 mm y PFA 30 bar, con revestimiento interior y exterior epoxi, incluso p.p. de juntas y medios auxiliares, totalmente colocado y probado.	TRESCIENTOS OCHENTA Y CINCO EUROS con CUARENTA Y SEIS CÉNTIMOS	385,46
0083	077	UD	CODO FD 1/8 400 mm Codo de fundición ductil de 1/8 de diámetro interior 400 mm y PFA 30 bar, con revestimiento interior y exterior epoxi, incluso p.p. de juntas y medios auxiliares, totalmente colocado y probado.	TRESCIENTOS TREINTA Y SEIS EUROS con OCHENTA Y TRES CÉNTIMOS	336,83

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ABASTECIMIENTO A VARIOS MUNICIPIOS DE LA RIOJA. SISTEMA CIDACOS

Nº	CÓDIGO	UD	DESCRIPCIÓN	PRECIO EN LETRA	IMPORTE
0084	078	UD	CODO FD 1/16 A 1/32 400 mm Codo de fundición dúctil de 1/16 a 1/32 de diámetro interior 400 mm y PFA 30 bar, con revestimiento interior y exterior epoxi, incluso p.p. de juntas y medios auxiliares, totalmente colocado y probado.	TRESCIENTOS VEINTICINCO EUROS con SESENTA Y DOS CÉNTIMOS	325,62
0085	079	UD	CODO FD 1/4 400 mm Codo de fundición dúctil de 1/4 de diámetro interior 400 mm y PFA 30 bar, con revestimiento interior y exterior epoxi, incluso p.p. de juntas y medios auxiliares, totalmente colocado y probado.	TRESCIENTOS OCHENTA Y OCHO EUROS con NOVENTA CÉNTIMOS	388,90
0086	079.1	UD	CODO FD 1/4 300 mm Codo de fundición dúctil de 1/4 de diámetro interior 300 mm y PFA 30 bar, con revestimiento interior y exterior epoxi, incluso p.p. de juntas y medios auxiliares, totalmente colocado y probado.	TRESCIENTOS TREINTA Y TRES EUROS con SETENTA Y CUATRO CÉNTIMOS	333,74
0087	080	UD	CODO FD 1/8 A 1/32 300 mm Codo de fundición dúctil de 1/8 a 1/32 de diámetro interior 300 mm y PFA 40 bar, con un revestimiento interior y exterior epoxi, incluso p.p. de juntas y medios auxiliares, totalmente colocado y probado.	DOSCIENTOS CUARENTA Y CUATRO EUROS con VEINTIOCHO CÉNTIMOS	244,28
0088	081	UD	CODO FD 1/8 A 1/32 250 mm Codo de fundición dúctil de 1/8 a 1/32 de diámetro interior 250 mm y PFA 54 bar, con un revestimiento interior y exterior epoxi, incluso p.p. de juntas y medios auxiliares, totalmente colocado y probado.	CIENTO SESENTA Y OCHO EUROS con CINCUENTA Y SIETE CÉNTIMOS	168,57
0089	082	UD	CODO FD 1/4 250 mm Codo de fundición dúctil de 1/8 de diámetro interior 250 mm y PFA 40 bar, con revestimiento interior y exterior epoxi, incluso p.p. de juntas y medios auxiliares, totalmente colocado y probado.	DOSCIENTOS TREINTA Y OCHO EUROS con SEIS CÉNTIMOS	238,06
0090	084	UD	CODO FD 1/4 200 mm Codo de fundición dúctil de 1/4 de diámetro interior 200 mm y PFA 16 bar, con revestimiento interior y exterior epoxi, incluso p.p. de juntas y medios auxiliares, totalmente colocado y probado.	DOSCIENTOS CINCUENTA Y OCHO EUROS con UN CÉNTIMOS	258,01
0091	084.1	UD	CODO FD 1/4 200 mm Codo de fundición dúctil de 1/4 de diámetro interior 200 mm y PFA 40 bar, con revestimiento interior y exterior epoxi, incluso p.p. de juntas y medios auxiliares, totalmente colocado y probado.	DOSCIENTOS OCHENTA Y NUEVE EUROS con SESENTA CÉNTIMOS	289,60

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ABASTECIMIENTO A VARIOS MUNICIPIOS DE LA RIOJA. SISTEMA CIDACOS

Nº	CÓDIGO	UD	DESCRIPCIÓN	PRECIO EN LETRA	IMPORTE
0092	085	UD	CODO FD 1/8 A 1/32 150 mm Codo de fundición dúctil de 1/8 a 1/32 de diámetro interior 150 mm y PFA 40 bar, con un revestimiento interior y exterior epoxi, incluso p.p. de juntas y medios auxiliares, totalmente colocado y probado.	OCHENTA Y SEIS EUROS con CINCUENTA Y UN CÉNTIMOS	86,51
0093	086	UD	CODO FD 1/4 A 1/32 125 mm Codo de fundición dúctil de 1/4 a 1/32 de diámetro interior 125 mm y PFA 40 bar, con un revestimiento interior y exterior epoxi, incluso p.p. de juntas y medios auxiliares, totalmente colocado y probado.	SETENTA Y SIETE EUROS con SETENTA Y OCHO CÉNTIMOS	77,78
0094	087	UD	CODO FD 1/4 A 1/32 100 mm Codo de fundición dúctil de 1/4 a 1/32 de diámetro interior 100 mm y PFA 40 bar, con un revestimiento interior y exterior epoxi, incluso p.p. de juntas y medios auxiliares, totalmente colocado y probado.	SESENTA Y SEIS EUROS con SESENTA Y SEIS CÉNTIMOS	66,66
0095	088	UD	REDUCCIÓN FD 900 A 800 mm Reducción en fundición dúctil de 900 mm a 800 mm con enchufes y PN 16-25 bar, con un revestimiento interior y exterior epoxi, i/p.p. de junta de unión y medios auxiliares, totalmente colocada y probada.	MIL QUINIENTOS CINCUENTA Y SIETE EUROS con CUARENTA Y DOS CÉNTIMOS	1.557,42
0096	089	UD	REDUCCIÓN FD 600 A 500/400 mm PN16/25 Reducción en fundición dúctil de 600 mm a 500-450-400 mm con dos bridas PN 16/25 bar, con un revestimiento interior y exterior epoxi, i/p.p. de junta de unión y medios auxiliares, totalmente colocada y probada.	MIL DOSCIENTOS CINCUENTA Y UN EUROS con NOVENTA Y SIETE CÉNTIMOS	1.251,97
0097	092	UD	REDUCCIÓN FD 800 A 700/500 mm PN16/25 Reducción en fundición dúctil de 800 mm a 700-600-500 mm con dos bridas PN 16/25 bar, con un revestimiento interior y exterior epoxi, i/p.p. de junta de unión y medios auxiliares, totalmente colocada y probada.	MIL NOVECIENTOS VEINTIDOS EUROS con SETENTA Y DOS CÉNTIMOS	1.922,72
0098	097	UD	REDUCCIÓN FD 500 A 450/350 mm PN16/25 Reducción en fundición dúctil de 500 mm a 450-400-350 mm con dos bridas PN 16/25 bar, con un revestimiento interior y exterior epoxi, i/p.p. de junta de unión y medios auxiliares, totalmente colocada y probada.	OCHOCIENTOS TREINTA Y DOS EUROS con TREINTA Y UN CÉNTIMOS	832,31
0099	098	UD	REDUCCIÓN FD 400 A 350/250 mm PN16/25 Reducción en fundición dúctil de 400 mm a 350-300-250 mm con dos bridas PN 16/25 bar, con un revestimiento interior y exterior epoxi, i/p.p. de junta de unión y medios auxiliares, totalmente colocada y probada.	TRESCIENTOS OCHENTA EUROS con OCHENTA Y OCHO CÉNTIMOS	380,88

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ABASTECIMIENTO A VARIOS MUNICIPIOS DE LA RIOJA. SISTEMA CIDACOS

Nº	CÓDIGO	UD	DESCRIPCIÓN	PRECIO EN LETRA	IMPORTE
0100	098.1	UD	REDUCCIÓN FD 400 A 350/250 mm PN40 Reducción en fundición dúctil de 400 mm a 350-300-250 mm con dos bridas PN 40 bar, con un revestimiento interior y exterior epoxi, i/p.p. de junta de unión y medios auxiliares, totalmente colocada y probada.	CUATROCIENTOS VEINTICUATRO EUROS con SESENTA Y DOS CÉNTIMOS	424,62
0101	1-46	m	COND. UNIP. ALUMIN.-ACERO LA-56 CONDUCTOR UNIPOLAR DE ALUMINIO ACERO LA-56, TOTALMENTE INSTALADO, TENSIONADO Y COLOCADO SEGUN NORMAS DE LA COMPAÑIA SUMINISTRADORA.	UN EUROS con CINCO CÉNTIMOS	1,05
0102	104.1	UD	REDUCCIÓN FD 300 A 200 mm PN40 Reducción en fundición dúctil de 300 mm a 200 mm con dos bridas PN 40bar, con un revestimiento interior y exterior epoxi, i/p.p. de tornillería y medios auxiliares, totalmente colocada y probada.	TRESCIENTOS SETENTA Y OCHO EUROS con CINCO CÉNTIMOS	378,05
0103	105	UD	REDUCCIÓN FD 300 A 250/150 mm PN16 Reducción en fundición dúctil de 300 mm a 250-200-150 mm con dos bridas PN 16 bar, con un revestimiento interior y exterior epoxi, i/p.p. de junta de unión y medios auxiliares, totalmente colocada y probada.	DOSCIENTOS CUATRO EUROS con VEINTE CÉNTIMOS	204,20
0104	106	UD	REDUCCIÓN FD 250 A 200/125 mm PN16 Reducción en fundición dúctil de 250 mm a 200-150-125 mm con dos bridas PN 25 bar, con un revestimiento interior y exterior epoxi, i/p.p. de junta de unión y medios auxiliares, totalmente colocada y probada.	CIENTO DIEZ EUROS con CUARENTA Y CUATRO CÉNTIMOS	110,44
0105	107	UD	REDUCCIÓN FD 250 A 200/125 mm PN25 Reducción en fundición dúctil de 250 mm a 200-150-125 mm con dos bridas PN 16 bar, con un revestimiento interior y exterior epoxi, i/p.p. de junta de unión y medios auxiliares, totalmente colocada y probada.	CIENTO SESENTA EUROS con OCHENTA Y NUEVE CÉNTIMOS	160,89
0106	107.1	UD	REDUCCIÓN FD 250 A 200/125 mm PN40 Reducción en fundición dúctil de 250 mm a 200-150-125 mm con dos bridas PN 40 bar, con un revestimiento interior y exterior epoxi, i/p.p. de junta de unión y medios auxiliares, totalmente colocada y probada.	CIENTO NOVENTA Y NUEVE EUROS con NOVENTA Y NUEVE CÉNTIMOS	199,99
0107	109	UD	REDUCCIÓN FD 200 A 150/100 mm PN16 Reducción en fundición dúctil de 200 mm a 150-125-100 mm con dos bridas PN 16 bar, con un revestimiento interior y exterior epoxi, i/p.p. de junta de unión y medios auxiliares, totalmente colocada y probada.	NOVENTA Y UN EUROS con TREINTA Y SIETE CÉNTIMOS	91,37
0108	109A	UD	RACORD TIPO BARCELONA SALIDAS 80-200 mm Rosca Racord tipo Barcelona con salidad entre 80 y 200 mm para enchufe de manguera, totalmente instalado y terminado.	CIENTO CINCUENTA EUROS con SESENTA Y SEIS CÉNTIMOS	150,66

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ABASTECIMIENTO A VARIOS MUNICIPIOS DE LA RIOJA. SISTEMA CIDACOS

Nº	CÓDIGO	UD	DESCRIPCIÓN	PRECIO EN LETRA	IMPORTE
0109	111	UD	REDUCCIÓN FD 150 A 125/50 mm PN16/25 Reducción en fundición dúctil de 150 mm a 125-100-80-65-60-50 mm con dos bridas PN 16/25 bar, con un revestimiento interior y exterior epoxi, i/p.p. de junta de unión y medios auxiliares, totalmente colocada y probada.	NOVENTA Y SIETE EUROS con VEINTISEIS CÉNTIMOS	97,26
0110	113	UD	REDUCCIÓN FD 100 A 80/50 mm PN25 Reducción en fundición dúctil de 100 mm a 80-65-60-50 mm con dos bridas PN 25 bar, con un revestimiento interior y exterior epoxi, i/p.p. de tornillería y medios auxiliares, totalmente colocada y probada.	SETENTA Y UN EUROS con SETENTA Y CINCO CÉNTIMOS	71,75
0111	113.1	UD	REDUCCIÓN FD 100 A 80/50 mm PN40 Reducción en fundición dúctil de 100 mm a 80-65-60-50 mm con dos bridas PN 40 bar, con un revestimiento interior y exterior epoxi, i/p.p. de tornillería y medios auxiliares, totalmente colocada y probada.	OCHENTA Y OCHO EUROS con DIECISIETE CÉNTIMOS	88,17
0112	114	UD	REDUCCIÓN FD 100 A 80/50 mm PN16/25 Reducción en fundición dúctil de 100 mm a 80-65-60-50 mm con dos bridas PN 16/25 bar, con un revestimiento interior y exterior epoxi, i/p.p. de tornillería y medios auxiliares, totalmente colocada y probada.	CINCUENTA EUROS con VEINTIOCHO CÉNTIMOS	50,28
0113	114.1	UD	BRIDA LISO FD 900 mm PN16 Brida lisa de fundición dúctil de PFA 16 bar para tubería de 900 mm, con un revestimiento interior y exterior epoxi, i/p.p. de junta de unión y medios auxiliares, totalmente colocada y probada.	MIL SEISCIENTOS SESENTA Y TRES EUROS con CINCUENTA Y CINCO CÉNTIMOS	1.663,55
0114	114.10	UD	REDUCCIÓN FD 125 A 100/50 mm PN16/25 Reducción en fundición dúctil de 125 mm a 80-65-60-50 mm con dos bridas PN 16/25 bar, con un revestimiento interior y exterior epoxi, i/p.p. de tornillería y medios auxiliares, totalmente colocada y probada.	CINCUENTA Y CUATRO EUROS con VEINTIOCHO CÉNTIMOS	54,28
0115	114.2	UD	BRIDA LISO FD 500 mm PN16/25 Brida lisa de fundición dúctil de PFA 16 bar para tubería de 500 mm, con un revestimiento interior y exterior epoxi, i/p.p. de junta de unión y medios auxiliares, totalmente colocada y probada.	CUATROCIENTOS CUARENTA Y NUEVE EUROS con NOVENTA Y OCHO CÉNTIMOS	449,98
0116	114.3	UD	BRIDA LISO FD 250 mm PN16/25 Brida lisa de fundición dúctil de PFA 16/25 bar para tubería de 250 mm, con un revestimiento interior y exterior epoxi, i/p.p. de junta de unión y medios auxiliares, totalmente colocada y probada.	DOSCIENTOS DOS EUROS con OCHENTA Y UN CÉNTIMOS	202,81
0117	114.4	UD	BRIDA LISO FD DN<150 mm PN16/25/40 Brida lisa de fundición dúctil de PFA 16/25/40 bar para tubería de diámetro menor o igual de 150 mm, con un revestimiento interior y exterior epoxi, i/p.p. de junta de unión y medios auxiliares, totalmente colocada y probada.	SETENTA Y OCHO EUROS con OCHENTA CÉNTIMOS	78,80

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Nº	CÓDIGO	UD	DESCRIPCIÓN	PRECIO EN LETRA	IMPORTE
0118	114.5	UD	BRIDA LISO FD 800 mm PN25/40 Brida lisa de fundición dúctil de PFA 25/40 bar para tubería de 800 mm, con un revestimiento interior y exterior epoxi, i/p.p. de junta de unión y medios auxiliares, totalmente colocada y probada.	MIL SEISCIENTOS DIECIOCHO EUROS con NOVENTA CÉNTIMOS	1.618,90
0119	114.6	UD	BRIDA LISO FD 400 mm PN16/25 Brida lisa de fundición dúctil de PFA 16/25 bar para tubería de 400 mm, con un revestimiento interior y exterior epoxi, i/p.p. de junta de unión y medios auxiliares, totalmente colocada y probada.	CUATROCIENTOS CUARENTA Y UN EUROS con SETENTA Y UN CÉNTIMOS	441,71
0120	114.8	UD	REDUCCIÓN FD 50 A 40/25 mm PN16/25 Reducción en fundición dúctil de 50 mm a 40-25 mm con dos bridas PN 16/25 bar, con un revestimiento interior y exterior epoxi, i/p.p. de tornillería y medios auxiliares, totalmente colocada y probada.	VEINTIOCHO EUROS con CINCUENTA Y CUATRO CÉNTIMOS	28,54
0121	115.1	UD	BRIDA ENCHUFE FD 900 mm PN16 Brida enchufe de fundición dúctil de PFA 16 bar para tubería de 900 mm, con un revestimiento interior y exterior epoxi, i/p.p. de junta de unión y medios auxiliares, totalmente colocada y probada.	DOS MIL CIENTO CUARENTA Y OCHO EUROS con OCHENTA CÉNTIMOS	2.148,80
0122	115.11	UD	BRIDA ENCHUFE FD 250 mm PN40 Brida enchufe de fundición dúctil de PFA 40 bar para tubería de 250 mm, con un revestimiento interior y exterior epoxi, i/p.p. de junta de unión y medios auxiliares, totalmente colocada y probada.	CIENTO SESENTA Y CUATRO EUROS con SETENTA Y OCHO CÉNTIMOS	164,78
0123	115.12	UD	BRIDA ENCHUFE FD 300 mm PN16 Brida enchufe de fundición dúctil de PFA 16 bar para tubería de 300 mm, con un revestimiento interior y exterior epoxi, i/p.p. de junta de unión y medios auxiliares, totalmente colocada y probada.	DOSCIENTOS SEIS EUROS con NOVENTA Y CINCO CÉNTIMOS	206,95
0124	115.13	UD	BRIDA ENCHUFE FD 400 mm PN40 Brida enchufe de fundición dúctil de PFA 40 bar para tubería de 400 mm, con un revestimiento interior y exterior epoxi, i/p.p. de junta de unión y medios auxiliares, totalmente colocada y probada.	CUATROCIENTOS SESENTA Y SEIS EUROS con OCHENTA Y OCHO CÉNTIMOS	466,88
0125	115.2	UD	BRIDA ENCHUFE FD 800 mm PN25 Brida enchufe de fundición dúctil de PFA 25 bar para tubería de 800 mm, con un revestimiento interior y exterior epoxi, i/p.p. de junta de unión y medios auxiliares, totalmente colocada y probada.	MIL SETECIENTOS CUARENTA Y OCHO EUROS con SESENTA Y NUEVE CÉNTIMOS	1.748,69

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ABASTECIMIENTO A VARIOS MUNICIPIOS DE LA RIOJA. SISTEMA CIDACOS

Nº	CÓDIGO	UD	DESCRIPCIÓN	PRECIO EN LETRA	IMPORTE
0126	115.3	UD	BRIDA ENCHUFE FD 800 mm PN16 Brida enchufe de fundición dúctil de PFA 16 bar para tubería de 800 mm, con un revestimiento interior y exterior epoxi, i/p.p. de junta de unión y medios auxiliares, totalmente colocada y probada.	MIL SETECIENTOS CUARENTA Y OCHO EUROS con SESENTA Y NUEVE CÉNTIMOS	1.748,69
0127	115.4	UD	BRIDA ENCHUFE FD 500 mm PN16/25 Brida enchufe de fundición dúctil de PFA 16 bar para tubería de 500 mm, con un revestimiento interior y exterior epoxi, i/p.p. de junta de unión y medios auxiliares, totalmente colocada y probada.	QUINIENTOS TREINTA EUROS con NOVENTA Y OCHO CÉNTIMOS	530,98
0128	115.5	UD	BRIDA ENCHUFE FD 400 mm PN16/25 Brida enchufe de fundición dúctil de PFA 16/25 bar para tubería de 400 mm, con un revestimiento interior y exterior epoxi, i/p.p. de junta de unión y medios auxiliares, totalmente colocada y probada.	CUATROCIENTOS CUARENTA Y CINCO EUROS con DOS CÉNTIMOS	445,02
0129	115.6	UD	BRIDA ENCHUFE FD 250 mm PN16/25 Brida enchufe de fundición dúctil de PFA 16/25 bar para tubería de 250 mm, con un revestimiento interior y exterior epoxi, i/p.p. de junta de unión y medios auxiliares, totalmente colocada y probada.	CIENTO SESENTA Y CUATRO EUROS con SETENTA Y OCHO CÉNTIMOS	164,78
0130	115.7	UD	BRIDA ENCHUFE FD DN<150 mm PN16/25/40 Brida enchufe de fundición dúctil de PFA 16/25/40 bar para tubería de diámetro menor o igual de 150 mm, con un revestimiento interior y exterior epoxi, i/p.p. de junta de unión y medios auxiliares, totalmente colocada y probada.	CIENTO CUATRO EUROS con DOS CÉNTIMOS	104,02
0131	115.8	UD	BRIDA ENCHUFE FD 300 mm PN40 Brida enchufe de fundición dúctil de PFA 40 bar para tubería de 300 mm, con un revestimiento interior y exterior epoxi, i/p.p. de junta de unión y medios auxiliares, totalmente colocada y probada.	DOSCIENTOS OCHENTA Y UN EUROS con TREINTA Y CUATRO CÉNTIMOS	281,34
0132	116	UD	TE FD BBB 800 mm PN25 SALIDA DN800/150 "T" de fundición dúctil de PFA 25 bar, con dos enchufes y derivación con brida para tubería de 800 mm con salida comprendida entre 800 y 150 mm, con un revestimiento interior y exterior epoxi, i/p.p. de junta de unión y medios auxiliares, totalmente colocada y probada.	TRES MIL DOSCIENTOS NOVENTA EUROS con CUARENTA Y CINCO CÉNTIMOS	3.290,45
0133	116.1	UD	BRIDA ENCHUFE FD 1000 mm PN16 Brida enchufe de fundición dúctil de PFA 16 bar para tubería de 1000 mm, con un revestimiento interior y exterior epoxi, i/p.p. de junta de unión y medios auxiliares, totalmente colocada y probada.	DOS MIL OCHOCIENTOS TREINTA EUROS con OCHENTA Y TRES CÉNTIMOS	2.830,83

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Nº	CÓDIGO	UD	DESCRIPCIÓN	PRECIO EN LETRA	IMPORTE
0134	116A	UD	TE FD EEB DN900 mm PN16 SALIDA HASTA DN200 "T" de fundición dúctil de PFA 16 bar, con dos enchufes y derivación con brida para tubería de 900 mm con salida comprendida entre 900 y 200 mm, con un revestimiento interior y exterior epoxi, i/p.p. de junta de unión y medios auxiliares, totalmente colocada y probada.	CUATRO MIL CUATROCIENTOS OCHO EUROS con NOVENTA Y CINCO CÉNTIMOS	4.408,95
0135	116B	UD	TE FD EEB DN1000 mm PN16 SALIDA HASTA DN200 "T" de fundición dúctil de PFA 16 bar, con dos enchufes y derivación con brida para tubería de 1000 mm con salida comprendida entre 1000 y 200 mm, con un revestimiento interior y exterior epoxi, i/p.p. de junta de unión y medios auxiliares, totalmente colocada y probada.	CINCO MIL SETECIENTOS TREINTA Y UN EUROS con SESENTA Y CINCO CÉNTIMOS	5.731,65
0136	119	UD	TE FD 500 mm PN25 "T" de fundición dúctil de PFA 25 bar, con dos enchufes y derivación con brida para tubería de 500 mm con salida comprendida entre 500 y 100 mm, con un revestimiento interior y exterior epoxi, i/p.p. de junta de unión y medios auxiliares, totalmente colocada y probada.	OCHOCIENTOS CUARENTA Y CINCO EUROS con NOVENTA Y SEIS CÉNTIMOS	845,96
0137	120	UD	TE FD EEB 500 mm PN16 SALIDA DN500/100 "T" de fundición dúctil de PFA 16 bar, con dos enchufes y derivación con brida para tubería de 500 mm y salida comprendida entre 500 y 100 mm, con un revestimiento interior y exterior epoxi, i/p.p. de junta de unión y medios auxiliares, totalmente colocada y probada.	SEISCIENTOS CUARENTA Y SIETE EUROS con CINCO CÉNTIMOS	647,05
0138	121	UD	TE FD EEB 400 mm PN16/25 SALIDA DN400/80 "T" de fundición dúctil de PFA 16/25 bar, con dos enchufes y derivación con brida para tubería de 400 mm con salida comprendida entre 400 y 80 mm, con un revestimiento interior y exterior epoxi, i/p.p. de junta de unión y medios auxiliares, totalmente colocada y probada.	SEISCIENTOS SESENTA Y NUEVE EUROS con OCHENTA Y SIETE CÉNTIMOS	669,87
0139	121.1	UD	TE FD BBB 400 mm PN16/25 SALIDA DN400/80 "T" de fundición dúctil de PFA 16/25 bar, con tres bridas para tubería de 400 mm con salida comprendida entre 400 y 80 mm, con un revestimiento interior y exterior epoxi, i/p.p. de junta de unión y medios auxiliares, totalmente colocada y probada.	SEISCIENTOS SESENTA Y NUEVE EUROS con OCHENTA Y SIETE CÉNTIMOS	669,87
0140	125	UD	TE FD BBB 300 mm PN16/25 SALIDA DN300/40 "T" de fundición dúctil de PFA 16/25 bar, con tres bridas para tubería de 300 mm con salida comprendida entre 300 y 40 mm, con un revestimiento interior y exterior epoxi, i/p.p. de junta de unión y medios auxiliares, totalmente colocada y probada.	DOSCIENTOS SETENTA Y UN EUROS con TREINTA Y DOS CÉNTIMOS	271,32

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ABASTECIMIENTO A VARIOS MUNICIPIOS DE LA RIOJA. SISTEMA CIDACOS

Nº	CÓDIGO	UD	DESCRIPCIÓN	PRECIO EN LETRA	IMPORTE
0141	126	UD	TE FD BBB 250 mm PN40 SALIDA DN250/60 "T" de fundición dúctil de PFA 40 bar, con tres bridas para tubería de 250 mm con salida comprendida entre 250 y 60 mm, con un revestimiento interior y exterior epoxi, i/p.p. de junta de unión y medios auxiliares, totalmente colocada y probada.	DOSCIENTOS CINCUENTA Y CINCO EUROS con SESENTA CÉNTIMOS	255,60
0142	128.1	UD	TE FD BBB 200 mm PN40 SALIDA DN200/40 "T" de fundición dúctil de PFA 40 bar, con tres bridas para tubería de 200 mm con salida comprendida entre 200 y 40 mm, con un revestimiento interior y exterior epoxi, i/p.p. de junta de unión y medios auxiliares, totalmente colocada y probada.	CIENTO SETENTA Y SIETE EUROS con OCHENTA Y NUEVE CÉNTIMOS	177,89
0143	129.1	UD	TE FD EEB 150 mm PN16/25 SALIDA DN150/40 "T" de fundición dúctil de PFA 16/25 bar, con dos enchufes y derivación con brida para tubería de 150 mm y salida comprendida entre 150 y 40 mm, con un revestimiento interior y exterior epoxi, i/p.p. de junta de unión y medios auxiliares, totalmente colocada y probada.	CIEN EUROS con SESENTA Y DOS CÉNTIMOS	100,62
0144	129.8	UD	TE FD EEB 125 mm PN16/25 SALIDA DN125/40 "T" de fundición dúctil de PFA 16/25 bar, con dos enchufes y derivación con brida para tubería de 125 mm y salida comprendida entre 125 y 40 mm, con un revestimiento interior y exterior epoxi, i/p.p. de junta de unión y medios auxiliares, totalmente colocada y probada.	NOVENTA Y UN EUROS con NOVENTA CÉNTIMOS	91,90
0145	129.9	UD	TE FD EEB 100 mm PN16/25 SALIDA DN100/40 "T" de fundición dúctil de PFA 16/25 bar, con dos enchufes y derivación con brida para tubería de 100 mm y salida comprendida entre 100 y 40 mm, con un revestimiento interior y exterior epoxi, i/p.p. de junta de unión y medios auxiliares, totalmente colocada y probada.	SETENTA Y CUATRO EUROS con OCHENTA Y SIETE CÉNTIMOS	74,87
0146	132.1	UD	TE FD BBB 100 mm PN16/25 SALIDA DN100/40 "T" de fundición dúctil de PFA 16 bar, con tres bridas para tubería de 100 mm con salida comprendida entre 100 y 40 mm, con un revestimiento interior y exterior epoxi, i/p.p. de junta de unión y medios auxiliares, totalmente colocada y probada.	SESENTA Y NUEVE EUROS con TREINTA Y SEIS CÉNTIMOS	69,36
0147	132.2	UD	TE FD BBB 80 mm PN16 SALIDA DN80/40 "T" de fundición dúctil de PFA 16 bar, con tres bridas para tubería de 80 mm con salida comprendida entre 80 y 40 mm, con un revestimiento interior y exterior epoxi, i/p.p. de junta de unión y medios auxiliares, totalmente colocada y probada.	SESENTA Y SEIS EUROS con VEINTE CÉNTIMOS	66,20
0148	133	UD	TE FD BBB 500 mm PN16/25 SALIDA DN500/100 "T" de fundición dúctil de PFA 16/25 bar, con tres bridas para tubería de 500 mm con salida comprendida entre 400 y 100 mm, con un revestimiento interior y exterior epoxi, i/p.p. de junta de unión y medios auxiliares, totalmente colocada y probada.	OCHOCIENTOS CUARENTA Y CUATRO EUROS con NUEVE CÉNTIMOS	844,09

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ABASTECIMIENTO A VARIOS MUNICIPIOS DE LA RIOJA. SISTEMA CIDACOS

Nº	CÓDIGO	UD	DESCRIPCIÓN	PRECIO EN LETRA	IMPORTE
0149	134	UD	TE FD BBB 250 mm PN16/25 SALIDA DN250/60 "T" de fundición dúctil de PFA 16/25 bar, con tres bridas para tubería de 250 mm con salida comprendida entre 250 y 60 mm, con un revestimiento interior y exterior epoxi, i/p.p. de junta de unión y medios auxiliares, totalmente colocada y probada.	DOSCIENTOS SETENTA Y UN EUROS con VEINTE CÉNTIMOS	271,20
0150	135	UD	TE FD EEB 250 mm PN16/25 SALIDA DN250/60 "T" de fundición dúctil de PFA 16/25 bar, con dos enchufes y derivación con brida para tubería de 250 mm y salida comprendida entre 250 y 60 mm, con un revestimiento interior y exterior epoxi, i/p.p. de junta de unión y medios auxiliares, totalmente colocada y probada.	TRESCIENTOS SETENTA Y DOS EUROS con CINCUENTA CÉNTIMOS	372,50
0151	135.1	UD	TE FD EEB 300 mm PN16/25/40 SALIDA DN300/60 "T" de fundición dúctil de PFA 16/25/40 bar, con dos enchufes y derivación con brida para tubería de 300 mm y salida comprendida entre 300 y 60 mm, con un revestimiento interior y exterior epoxi, i/p.p. de junta de unión y medios auxiliares, totalmente colocada y probada.	TRESCIENTOS NOVENTA Y TRES EUROS con CINCUENTA Y SEIS CÉNTIMOS	393,56
0152	137	UD	TE FD BBB 200 mm PN16/25 SALIDA DN200/40 "T" de fundición dúctil de PFA 16 bar, con tres bridas para tubería de 200 mm con salida comprendida entre 200 y 40 mm, con un revestimiento interior y exterior epoxi, i/p.p. de junta de unión y medios auxiliares, totalmente colocada y probada.	CIENTO CINCUENTA Y UN EUROS con NOVENTA Y CUATRO CÉNTIMOS	151,94
0153	138	UD	TE FD BBB 150 mm PN16/25 SALIDA DN150/40 "T" de fundición dúctil de PFA 16 bar, con tres bridas para tubería de 150 mm con salida comprendida entre 150 y 40 mm, con un revestimiento interior y exterior epoxi, i/p.p. de junta de unión y medios auxiliares, totalmente colocada y probada.	CIENTO DIECISIETE EUROS con CUARENTA Y CINCO CÉNTIMOS	117,45
0154	141	UD	CARRETE DE DESMONTAJE DN=250 mm PN25 Carrete de desmontaje autoportante de PFA 25 bar de D=250 mm, colocado.	CUATROCIENTOS OCHENTA Y CUATRO EUROS con CINCUENTA Y CINCO CÉNTIMOS	484,55
0155	142	UD	CARRETE DE DESMONTAJE DN=200 mm PN40 Carrete de desmontaje autoportante de PFA 40 bar de D=200 mm, colocado.	QUINIENTOS SETENTA Y UN EUROS con CUARENTA Y OCHO CÉNTIMOS	571,48
0156	143	UD	CARRETE DE DESMONTAJE DN=200 mm PN16 Carrete telescópico de desmontaje DN200 PN 16, bridas de acero al carbono, virolas de acero inoxidable, protección epoxi, tornillos y tuercas en acero F-114, cincado y posterior baño de cromo-niquel, incluido p.p. de brida enchufe, totalmente instalado y probado en obra.	DOSCIENTOS SETENTA Y SEIS EUROS con CUARENTA Y CINCO CÉNTIMOS	276,45

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Nº	CÓDIGO	UD	DESCRIPCIÓN	PRECIO EN LETRA	IMPORTE
0157	144	UD	CARRETE DE DESMONTAJE DN=200 mm PN25 Carrete de desmontaje autoportante de PFA 25 bar de D=200 mm, colocado.	TRESCIENTOS SETENTA Y CUATRO EUROS con CATORCE CÉNTIMOS	374,14
0158	145	UD	CARRETE DE DESMONTAJE DN=150 mm PN25 Carrete telescópico de desmontaje DN150 PN25, bridas de acero al carbono, virolas de acero inoxidable, protección epoxi, tornillos y tuercas en acero F-114, cincado y posterior baño de cromo-niquel, incluido p.p. de brida enchufe, totalmente instalado y probado en obra.	DOSCIENTOS SESENTA Y OCHO EUROS con CUARENTA Y CINCO CÉNTIMOS	268,45
0159	145.1	UD	CARRETE DE DESMONTAJE DN=150 mm PN40 Carrete telescópico de desmontaje DN150 PN40, bridas de acero al carbono, virolas de acero inoxidable, protección epoxi, tornillos y tuercas en acero F-114, cincado y posterior baño de cromo-niquel, incluido p.p. de brida enchufe, totalmente instalado y probado en obra.	TRESCIENTOS VEINTICINCO EUROS con SESENTA Y UN CÉNTIMOS	325,61
0160	148	UD	CARRETE DE DESMONTAJE DN=80 mm PN25 Carrete de desmontaje autoportante de PFA 25 bar de D=80 mm, colocado.	CIENTO CINCUENTA Y OCHO EUROS con SESENTA Y NUEVE CÉNTIMOS	158,69
0161	148A	ML	TUBERÍA DE HORMIGÓN EN MASA (D=400 mm.) CLASE 180 Tubería de hormigon en masa de 400 mm. de diámetro clase 180, de enchufe campana y junta de goma de enchufe rápido, con fresado de macho para acanaladura en alojamiento de junta, puesta en obra y colocada en zanja, incluso pruebas.	CUARENTA Y DOS EUROS con VEINTICINCO CÉNTIMOS	42,25
0162	149	UD	CARRETE DE DESMONTAJE DN=80 mm PN16 Carrete de desmontaje autoportante de PFA 16 bar de D=80 mm, colocado.	CIENTO VEINTIOCHO EUROS con SIETE CÉNTIMOS	128,07
0163	150	UD	CARRETE DE DESMONTAJE DN=50 mm PN16 Carrete de desmontaje autoportante de PFA 16 bar de D=50 mm, colocado.	CIENTO SIETE EUROS con OCHENTA Y SEIS CÉNTIMOS	107,86
0164	150.1	UD	CARRETE DE DESMONTAJE DN=50 mm PN25 Carrete de desmontaje autoportante de PFA 25 bar de D=50 mm, colocado.	CIENTO DIECIOCHO EUROS con TREINTA Y CUATRO CÉNTIMOS	118,34
0165	152	UD	ADAPTADOR BRIDA-ENCHUFE FD DN 100-200 PN16 Adaptador brida-enchufe, brida-liso o enchufe-enchufe de FD de diámetros 100 a 200 mm y PN 16 bar, incluso juntas de unión y tomillería, totalmente colocado y probado.	CUARENTA Y OCHO EUROS con SETENTA Y CUATRO CÉNTIMOS	48,74

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ABASTECIMIENTO A VARIOS MUNICIPIOS DE LA RIOJA. SISTEMA CIDACOS

Nº	CÓDIGO	UD	DESCRIPCIÓN	PRECIO EN LETRA	IMPORTE
0166	160	UD	MANGUITO FD 100 A 250 mm PN40 Manguito de fundición dúctil con bridas diámetros de 100 a 250 mm, longitud comprendida entre 0,20 y 1,00 m y PN40, incluso p.p. de tornillería y medios auxiliares, totalmente colocado y probado.	CIENTO NOVENTA Y TRES EUROS con SETENTA Y SEIS CÉNTIMOS	193,76
0167	162	UD	MANGUITO FD DN100 A DN250 mm PN16/25 Manguito de fundición dúctil con bridas diámetros de 100 a 250 mm, longitud comprendida entre 0,20 y 1,00 m y PN 16/25, incluso p.p. de tornillería y medios auxiliares, totalmente colocado y probado.	CIENTO DIEZ EUROS con CATORCE CÉNTIMOS	110,14
0168	162.1	UD	MANGUITO FD DN300 A DN400 mm PN16/25 Manguito de fundición dúctil con bridas diámetros de 300 a 400 mm, longitud comprendida entre 0,20 y 1,00 m y PN 16/25, incluso p.p. de tornillería y medios auxiliares, totalmente colocado y probado.	DOSCIENTOS EUROS con NOVENTA Y CINCO CÉNTIMOS	200,95
0169	162.2	UD	MANGUITO FD DN100 A DN250 mm PN40 Manguito de fundición dúctil con bridas diámetros de 100 a 250 mm, longitud comprendida entre 0,20 y 1,00 m y PN40, incluso p.p. de tornillería y medios auxiliares, totalmente colocado y probado.	CIENTO CINCUENTA Y NUEVE EUROS con OCHENTA Y CINCO CÉNTIMOS	159,85
0170	162.3	UD	MANGUITO FD DN450 A DN600 mm PN16/25 Manguito de fundición dúctil con bridas diámetros de 450 a 600 mm, longitud comprendida entre 0,20 y 1,00 m y PN 16/25, incluso p.p. de tornillería y medios auxiliares, totalmente colocado y probado.	TRESCIENTOS SETENTA Y CUATRO EUROS con CINCUENTA Y CINCO CÉNTIMOS	374,55
0171	164	UD	MANGUITO FD 50 A 80 mm PN16 Manguito de fundición dúctil con bridas diámetros de 50 a 80 mm, longitud comprendida entre 0,20 y 1,00 m y PN16, incluso p.p. de tornillería y medios auxiliares, totalmente colocado y probado.	CINCUENTA Y TRES EUROS con DOCE CÉNTIMOS	53,12
0172	171	ML	TUBERÍA PEAD DN=160 mm PN 16 Tubería de polietileno de alta densidad de 160 mm de diámetro exterior, y PN=16 bar, colocada en zanja incluso p.p. de junta de unión colocada y medios auxiliares, totalmente colocada.	TREINTA Y UN EUROS con SETENTA CÉNTIMOS	31,70
0173	171A	ML	TUBERÍA PEAD DN=200 mm PN 16 Tubería de polietileno de alta densidad de 200 mm de diámetro exterior, y PN=16 bar, colocada en zanja incluso p.p. de junta de unión colocada y medios auxiliares, totalmente colocada.	CUARENTA Y SIETE EUROS con TRES CÉNTIMOS	47,03
0174	172	ML	TUBERÍA PEAD DN=110 mm PN 16 Tubería de polietileno de alta densidad de 110 mm de diámetro exterior y PN=16 bar, colocada en zanja incluso banda de señalización, p.p. de junta de unión colocada, codos, tes, portabridas, así como piezas especiales y medios auxiliares, totalmente colocada.	DIECIOCHO EUROS con CINCUENTA Y SEIS CÉNTIMOS	18,56

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ABASTECIMIENTO A VARIOS MUNICIPIOS DE LA RIOJA. SISTEMA CIDACOS

Nº	CÓDIGO	UD	DESCRIPCIÓN	PRECIO EN LETRA	IMPORTE
0175	172.1	ML	TUBERÍA PEAD DN=110 mm PN 10 Tubería de polietileno de alta densidad de 110 mm de diámetro exterior y PN=10 bar, colocada en zanja incluso banda de señalización, p.p. de junta de unión colocada, codos, tes, portabridas, así como piezas especiales y medios auxiliares, totalmente colocada.	QUINCE EUROS con NOVENTA Y OCHO CÉNTIMOS	15,98
0176	173R	ML	TUBERÍA PEAD DN=75 mm PN 16 Tubería de polietileno de alta densidad de 75 mm de diámetro exterior y PN=16 bar, colocada en zanja incluso p.p. de junta de unión colocada, cinta señalizadora, piezas especiales y medios auxiliares, totalmente colocada.	ONCE EUROS con VEINTITRES CÉNTIMOS	11,23
0177	174	ML	TUBERÍA PEAD DN=63 mm PN 16 Tubería de polietileno de alta densidad de 63 mm de diámetro exterior y PN=16 bar, colocada en zanja incluso banda de señalización, p.p. de junta de unión colocada, codos, tes, portabridas, así como piezas especiales y medios auxiliares, totalmente colocada.	NUEVE EUROS con SESENTA CÉNTIMOS	9,60
0178	174A	ML	REPOSICIÓN TUBERÍA DE RIEGO Reposición de tubería en riego, colocada en zanja incluso banda de señalización, p.p. de junta de unión colocada así como piezas especiales y medios auxiliares, totalmente colocada.	NUEVE EUROS con TRECE CÉNTIMOS	9,13
0179	175	UD	"T" PEAD DN 140 A 63 mm PN16 "T" de derivación en polietileno de alta densidad de 140 mm de diámetro exterior a 63 mm y PN=16 bar, colocada en zanja incluso p.p. de junta de unión colocada y medios auxiliares, totalmente colocada y probada.	SESENTA Y NUEVE EUROS con SESENTA Y CINCO CÉNTIMOS	69,65
0180	176	UD	"T" PEAD TRES BOCAS 110 mm "T" en polietileno de alta densidad de tres bocas iguales de 110 mm de diámetro, colocada en zanja incluso p.p. de junta de unión colocada y medios auxiliares, totalmente colocada y probada.	SETENTA Y DOS EUROS con CUARENTA Y CUATRO CÉNTIMOS	72,44
0181	177.1	UD	REDUCCIÓN PEAD 63 A 50 mm DIÁMETRO Reducción en polietileno de alta densidad de 63 mm a 50 mm de diámetro, totalmente colocada y probada.	VEINTIUN EUROS con TRES CÉNTIMOS	21,03
0182	177.2	UD	REDUCCIÓN PEAD 75 A 50 mm DIÁMETRO Reducción en polietileno de alta densidad de 75 mm a 50 mm de diámetro, totalmente colocada y probada.	VEINTIDOS EUROS con SESENTA Y NUEVE CÉNTIMOS	22,69
0183	177.8	UD	COLLARÍN DE TOMA PEAD 63 A 25 mm DIÁMETRO Collarín de toma en polietileno de alta densidad de 63 mm a 25 mm de diámetro, totalmente colocada y probada.	QUINCE EUROS con VEINTICUATRO CÉNTIMOS	15,24
0184	177.9	UD	COLLARÍN DE TOMA PEAD 75 A 25 mm DIÁMETRO Collarín de toma en polietileno de alta densidad de 75 mm a 25 mm de diámetro, totalmente colocada y probada.	DIECISEIS EUROS con NOVENTA Y UN CÉNTIMOS	16,91

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Nº	CÓDIGO	UD	DESCRIPCIÓN	PRECIO EN LETRA	IMPORTE
0185	181	ML	TUBERÍA DE ACERO DN=632 mm Tubería de acero AE-42 helicosoldado, de límite elástico no inferior a 2000 Kp/cm2, de diámetro exterior 632 mm y PN 16 bar, con recubrimiento interior de 300 micras de pintura epoxi tipo alimentario y recubrimiento exterior de tres capas de polietileno extruido en caliente, incluso montaje, soldaduras y pruebas de control.	CIENTO NOVENTA EUROS con NOVENTA Y CUATRO CÉNTIMOS	190,94
0186	194	ML	TUBO PVC CORRUGADO DN 110 mm CANALIZACIONES ELÉCTRICAS Tubo corrugado de PVC de D=110 mm, para reposición de línea eléctrica subterránea, totalmente colocado.	CUATRO EUROS con VEINTISIETE CÉNTIMOS	4,27
0187	195	ML	TUBERÍA DE PVC 250 mm Tubería de PVC con junta elástica de 250 mm de diámetro exterior y PN=6 bar, incluso banda de señalización, totalmente colocada en zanja.	VEINTISEIS EUROS con SETENTA Y CUATRO CÉNTIMOS	26,74
0188	196	ML	TUBERÍA DE PVC 200 mm Tubería de PVC con junta elástica de 200 mm de diámetro exterior, y PN=6 bar, incluso banda de señalización, totalmente colocada en zanja.	DIECIOCHO EUROS con SESENTA Y SIETE CÉNTIMOS	18,67
0189	196A	ML	TUBERIA PVC DP Ø 200 mm DRENAJE CAMA CERRADA Tubería ranurada de PVC de doble pared de 200 mm de diámetro nominal, con ranuras en arco de 220º y cama sin ranurar, con una rigidez de SN 4KN/m2, unión por junta elástica, incluso parte proporcional de uniones y accesorios. Totalmente colocada	NUEVE EUROS con CUARENTA CÉNTIMOS	9,40
0190	196B	ML	TUBERÍA DE PVC DP SN-8, PARA SANEAMIENTO DE 315 MM Tubería de PVC de doble pared SN8 para saneamiento de 315 mm de diámetro exterior, con junta elástica, totalmente colocada en zanja.	VEINTISEIS EUROS con CINCUENTA Y CUATRO CÉNTIMOS	26,54
0191	196C	ML	TUBERÍA DE PVC DP SN-8, PARA SANEAMIENTO DE 400 MM Tubería de PVC de doble pared SN8 para saneamiento de 400 mm de diámetro exterior, con junta elástica, totalmente colocada en zanja.	TREINTA Y DOS EUROS con SETENTA CÉNTIMOS	32,70
0192	197	ML	TUBERÍA DE PVC 160 mm Tubería de PVC con junta elástica de 160 mm de diámetro exterior, y PN=6 bar, incluso banda de señalización, totalmente colocada en zanja.	TRECE EUROS con TREINTA Y DOS CÉNTIMOS	13,32
0193	198	ML	TUBERÍA DE PVC 110 mm Tubería de PVC con junta elástica de 110 mm de diámetro exterior, y PN=6 bar, incluso banda de señalización, totalmente colocada en zanja.	SIETE EUROS con CUARENTA Y DOS CÉNTIMOS	7,42
0194	198110	ML	TUBERÍA DE PVC 110 mm Sn4 Tubería de PVC con junta elástica de 110 mm de diámetro exterior, Sn-4, fabricados según UNE EN 1401-1, colocada en zanja recubierta con arena.	OCHO EUROS con SESENTA Y SIETE CÉNTIMOS	8,67

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Nº	CÓDIGO	UD	DESCRIPCIÓN	PRECIO EN LETRA	IMPORTE
0195	198110b	ML	TUBERÍA DE PVC 110 mm serie B m. Tubería de PVC sanitaria serie B, de 110 mm de diámetro y 3,2 mm de espesor, unión por adhesivo, color gris, colocada en bajantes y red de saneamiento horizontal colgada, con una pendiente mínima del 1 % , i/ p.p. de piezas especiales según UNE EN 1329 y CTE/DB-HS 5.	ONCE EUROS	11,00
0196	198112	ML	TUBERÍA DE PVC 125 mm Sn4 Tubería de PVC con junta elástica de 125 mm de diámetro exterior, Sn-4, fabricados según UNE EN 1401-1, colocada en zanja recubierta con arena.	NUEVE EUROS con TRECE CÉNTIMOS	9,13
0197	198116	ML	TUBERÍA DE PVC 160 mm Sn4 Tubería de PVC con junta elástica de 160 mm de diámetro exterior, Sn-4, fabricados según UNE EN 1401-1, colocada en zanja recubierta con arena.	ONCE EUROS con VEINTINUEVE CÉNTIMOS	11,29
0198	199	ML	TUBERÍA DE PVC 90 mm Tubería de PVC con junta elástica de 90 mm de diámetro exterior, y PN=6 bar, incluso banda de señalización, totalmente colocada en zanja.	SEIS EUROS con SETENTA Y OCHO CÉNTIMOS	6,78
0199	204	m	TUBO DE PVC RÍGIDO DE 25 MM DIÁMETRO Tubo rígido de PVC d=25mm para canalización de conductores, incluso soportes y anclajes a pared, instalado.	CUATRO EUROS con DIECISIETE CÉNTIMOS	4,17
0200	208	ML	TUBERÍA PRFV DN 1200 mm Tubería de poliéster reforzado con fibra de vidrio de diámetro nominal DN=1200 mm y PN 6 bar, incluso juntas y banda de señalización, totalmente colocada.	CIENTO SETENTA Y UN EUROS con NOVENTA Y TRES CÉNTIMOS	171,93
0201	209	ML	TUBERIA HORMIGÓN DN=60 cm Tubería de hormigón centrifugado de diámetro interior 60 cm, fabricada con cemento CEM I/A-D/42,5/SR (UNE 80303:96), totalmente terminada.	TREINTA Y NUEVE EUROS con SESENTA Y CUATRO CÉNTIMOS	39,64
0202	216.2	UD	VÁLVULA DE MARIPOSA DN=250 mm PN25 Válvula de mariposa de 250 mm de diámetro y PN25, de accionamiento manual por reductor, incluso mecanismo de accionamiento, maniobra y control, transporte, montaje, juntas, tornillería y pintura totalmente instalada y probada. Resto de características según ET de proyecto.	MIL CIENTO CINCUENTA Y UN EUROS con UN CÉNTIMOS	1.151,01
0203	225	UD	VÁLVULA DE COMPUERTA MANUAL DN400 PN16 Válvula de compuerta de accionamiento manual de diámetro nominal DN=400 mm de 16 bares de presión máxima admisible, con tornillería y juntas, totalmente instalada y probada, incluso volante de accionamiento.	DOS MIL DOSCIENTOS DIECISIETE EUROS con TRES CÉNTIMOS	2.217,03

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Nº	CÓDIGO	UD	DESCRIPCIÓN	PRECIO EN LETRA	IMPORTE
0204	225.1	UD	VÁLVULA DE COMPUERTA MANUAL DN400 PN25 Válvula de compuerta de accionamiento manual de diámetro nominal DN=400 mm de 25 bares de presión máxima admisible, con tornillería y juntas, totalmente instalada y probada, incluso volante de accionamiento.	DOS MIL CUATROCIENTOS VEINTITRES EUROS con CUARENTA Y NUEVE CÉNTIMOS	2.423,49
0205	228	UD	VÁLVULA DE COMPUERTA MANUAL DN250 PN25 Válvula de compuerta de accionamiento manual de diámetro nominal DN=250 mm de 25 bares de presión máxima admisible, con tornillería y juntas, totalmente instalada y probada, incluso volante de accionamiento.	MIL OCHO EUROS con CATORCE CÉNTIMOS	1.008,14
0206	229	UD	VÁLVULA DE COMPUERTA MANUAL DN250 PN16 Válvula de compuerta de accionamiento manual de diámetro nominal DN=250 mm de 16 bares de presión máxima admisible, con tornillería y juntas, totalmente instalada y probada, incluso volante de accionamiento.	OCHOCIENTOS VEINTICINCO EUROS con DIECISEIS CÉNTIMOS	825,16
0207	229.1	UD	VÁLVULA DE COMPUERTA MANUAL DN300 PN16 Válvula de compuerta de accionamiento manual de diámetro nominal DN=300 mm de 16 bares de presión máxima admisible, con tornillería y juntas, totalmente instalada y probada, incluso volante de accionamiento.	MIL UN EUROS con VEINTICINCO CÉNTIMOS	1.001,25
0208	229.2	UD	VÁLVULA DE COMPUERTA MANUAL DN300 PN25 Válvula de compuerta de accionamiento manual de diámetro nominal DN=300 mm de 25 bares de presión máxima admisible, con tornillería y juntas, totalmente instalada y probada, incluso volante de accionamiento.	MIL QUINIENTOS SETENTA Y NUEVE EUROS con NOVENTA Y TRES CÉNTIMOS	1.579,93
0209	230	UD	VÁLVULA DE COMPUERTA MANUAL DN200 PN40 Válvula de compuerta de accionamiento manual de diámetro nominal DN=200 mm de 40 bares de presión máxima admisible, con tornillería y juntas, totalmente instalada y probada, incluso volante de accionamiento.	OCHOCIENTOS NOVENTA Y SIETE EUROS con OCHENTA Y CUATRO CÉNTIMOS	897,84
0210	231	UD	VÁLVULA DE COMPUERTA MANUAL DN200 PN25 Válvula de compuerta de cierre elástico de 200 mm. de diámetro nominal y 25 At. de P.N., de accionamiento manual por volante, de cuerpo de fundición nodular GGG-50, con eje de acero inoxidable al 13 % Cr. con roscas conformadas por laminación en frío, cierre en fundición nodular, tornillería de acero inoxidable, protegida contra la corrosión mediante aplicación de doble capa de pintura epoxy, totalmente colocada y probada. Resto de características según ET.	OCHOCIENTOS SESENTA Y UN EUROS con CUARENTA Y UN CÉNTIMOS	861,41

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Nº	CÓDIGO	UD	DESCRIPCIÓN	PRECIO EN LETRA	IMPORTE
0211	232	UD	VÁLVULA DE COMPUERTA MANUAL DN200 PN16 Válvula de compuerta de cierre elástico de 200 mm. de diámetro nominal y 16 At. de P.N., de accionamiento manual por volante, de cuerpo de fundición nodular GGG-50, con eje de acero inoxidable al 13 % Cr. con roscas conformadas por laminación en frío, cierre en fundición nodular, tornillería de acero inoxidable, protegida contra la corrosión mediante aplicación de doble capa de pintura epoxy, totalmente colocada y probada. Resto de características según ET.	QUINIENTOS CATORCE EUROS con CINCUENTA Y DOS CÉNTIMOS	514,52
0212	233	UD	VÁLVULA DE COMPUERTA MANUAL DN150 PN40 Válvula de compuerta de accionamiento manual de diámetro nominal DN=150 mm de 40 bares de presión máxima admisible, con tornillería y juntas, totalmente instalada y probada, incluso volante de accionamiento.	SEISCIENTOS ONCE EUROS con TREINTA Y UN CÉNTIMOS	611,31
0213	234	UD	VÁLVULA DE COMPUERTA MANUAL DN150 PN25 Válvula de compuerta de cierre elástico de 150 mm. de diámetro nominal y 25 At. de P.N., de accionamiento manual por volante, de cuerpo de fundición nodular GGG-50, con eje de acero inoxidable al 13 % Cr. con roscas conformadas por laminación en frío, cierre en fundición nodular, tornillería de acero inoxidable, protegida contra la corrosión mediante aplicación de doble capa de pintura epoxy, totalmente colocada y probada. Resto de características según ET.	CUATROCIENTOS NOVENTA EUROS con SESENTA Y DOS CÉNTIMOS	490,62
0214	235	UD	VÁLVULA DE COMPUERTA MANUAL DN150 PN16 Válvula de compuerta de accionamiento manual de diámetro nominal DN=150 mm de 16 bares de presión máxima admisible, con tornillería y juntas, totalmente instalada y probada, incluso volante de accionamiento.	DOSCIENTOS NOVENTA Y NUEVE EUROS con TREINTA Y CINCO CÉNTIMOS	299,35
0215	235.1	UD	VÁLVULA DE COMPUERTA MOTORIZADA DN150 PN16 Válvula de compuerta de cierre elástico de 150 mm. de diámetro nominal y 16 At. de P.N., de accionamiento motorizado, de cuerpo de fundición nodular GGG-50, con eje de acero inoxidable al 13 % Cr. con roscas conformadas por laminación en frío, cierre en fundición nodular, tornillería de acero inoxidable, protegida contra la corrosión mediante aplicación de doble capa de pintura epoxy, totalmente colocada y probada. Resto de características según ET.	DOS MIL CIENTO VEINTIDOS EUROS con CINCUENTA Y CUATRO CÉNTIMOS	2.122,54
0216	237	UD	VÁLVULA DE COMPUERTA MANUAL DN100 PN25 Válvula de compuerta de cierre elástico de 100 mm. de diámetro nominal y 25 At. de P.N., de accionamiento manual por volante, de cuerpo de fundición nodular GGG-50, con eje de acero inoxidable al 13 % Cr. con roscas conformadas por laminación en frío, cierre en fundición nodular, tornillería de acero inoxidable, protegida contra la corrosión mediante aplicación de doble capa de pintura epoxy, totalmente colocada y probada. Resto de características según ET.	TRESCIENTOS SESENTA Y UN EUROS con CINCUENTA Y NUEVE CÉNTIMOS	361,59

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Nº	CÓDIGO	UD	DESCRIPCIÓN	PRECIO EN LETRA	IMPORTE
0217	238	ud	VÁLVULA DE COMPUERTA MANUAL DN100 PN16 Válvula de compuerta de cierre elástico de 100 mm. de diámetro nominal y 16 At de P.N., de accionamiento manual por volante, de cuerpo de fundición nodular GGG-50, con eje de acero inoxidable al 13 % Cr. con roscas conformadas por laminación en frío, cierre en fundición nodular, tornillería de acero inoxidable, protegida contra la corrosión mediante aplicación de doble capa de pintura epoxy, totalmente colocada y probada. Resto de características según ET.	DOSCIENTOS VEINTIUN EUROS con CUARENTA Y SIETE CÉNTIMOS	221,47
0218	239	UD	VÁLVULA DE COMPUERTA MANUAL DN80 PN40 Válvula de compuerta de accionamiento manual de diámetro nominal DN=80 mm de 40 bares de presión máxima admisible, con tornillería y juntas, totalmente instalada y probada, incluso volante de accionamiento.	DOSCIENTOS CINCUENTA Y UN EUROS con OCHENTA Y CINCO CÉNTIMOS	251,85
0219	240	UD	VÁLVULA DE COMPUERTA MANUAL DN80 PN25 Válvula de compuerta de accionamiento manual de diámetro nominal DN=80 mm de 25 bares de presión máxima admisible, con tornillería y juntas, totalmente instalada y probada, incluso volante de accionamiento.	DOSCIENTOS TREINTA Y OCHO EUROS con DIECIOCHO CÉNTIMOS	238,18
0220	240.1	UD	VÁLVULA DE COMPUERTA MOTORIZADA DN80 PN25 Válvula de compuerta de cierre elástico de 80 mm. de diámetro nominal y 25 At de P.N., de accionamiento motorizado, de cuerpo de fundición nodular GGG-50, con eje de acero inoxidable al 13 % Cr. con roscas conformadas por laminación en frío, cierre en fundición nodular, tornillería de acero inoxidable, protegida contra la corrosión mediante aplicación de doble capa de pintura epoxy, totalmente colocada y probada. Resto de características según ET.	MIL OCHOCIENTOS CINCUENTA Y UN EUROS con QUINCE CÉNTIMOS	1.851,15
0221	242	UD	VÁLVULA DE COMPUERTA MANUAL DN50 PN16 Válvula de compuerta de accionamiento manual de diámetro nominal DN=50 mm de 16 bares de presión máxima admisible, con tornillería y juntas, totalmente instalada y probada, incluso volante de accionamiento.	CIENTO CINCO EUROS con TREINTA Y CINCO CÉNTIMOS	105,35
0222	242.1	UD	VÁLVULA DE COMPUERTA MANUAL DN50 PN25 Válvula de compuerta de accionamiento manual de diámetro nominal DN=50 mm de 25 bares de presión máxima admisible, con tornillería y juntas, totalmente instalada y probada, incluso volante de accionamiento.	CIENTO SESENTA Y SIETE EUROS con SESENTA CÉNTIMOS	167,60
0223	243	UD	VENTOSA DN=150 mm PN25 Válvula ventosa de tres funciones de DN=150 mm y PN 25 bar incluido transporte, juntas, válvula de corte DN=150 mm y PN 25 bar y piezas especiales, totalmente colocada y probada.	MIL VEINTIOCHO EUROS con SESENTA Y OCHO CÉNTIMOS	1.028,68

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Nº	CÓDIGO	UD	DESCRIPCIÓN	PRECIO EN LETRA	IMPORTE
0224	243.1	UD	VENTOSA DN=200 mm PN16 Válvula ventosa de tres funciones de DN=200 mm y PN 16 bar incluido transporte, juntas, válvula de corte DN=200 mm y PN 16 bar y piezas especiales, totalmente colocada y probada.	MIL QUINIENTOS NOVENTA Y SEIS EUROS con OCHENTA Y NUEVE CÉNTIMOS	1.596,89
0225	244	UD	VENTOSA DN=100 (4") mm PN25 Válvula ventosa de tres funciones de DN=100 mm y PN 25 bar incluido transporte, juntas, válvula de corte DN=100 mm y PN 25 bar y piezas especiales, totalmente colocada y probada.	QUINIENTOS DIEZ EUROS con NOVENTA Y TRES CÉNTIMOS	510,93
0226	244.1	UD	VENTOSA DN=100 (4") mm PN16 Válvula ventosa de tres funciones de DN=100 mm y PN 16 bar incluido transporte, juntas, válvula de corte DN=100 mm y PN 16 bar y piezas especiales, totalmente colocada y probada.	NOVECIENTOS TRES EUROS con CINCUENTA CÉNTIMOS	903,50
0227	244.2	UD	VENTOSA DN=100 (4") mm PN16 RESIDUALES Válvula ventosa de tres funciones para aguas residuales de DN=100 mm y PN 16 bar incluido transporte, juntas, válvula de corte DN=100 mm y PN 16 bar y piezas especiales, totalmente colocada y probada.	NOVECIENTOS SESENTA Y DOS EUROS con SETENTA Y SEIS CÉNTIMOS	962,76
0228	245	UD	VENTOSA DN=65 mm PN16/25 Válvula ventosa de tres funciones de DN=65 mm y PN 16/25 bar incluido transporte, juntas, válvula de corte DN=65 mm y PN 15/25y piezas especiales, totalmente colocada y probada.	TRESCIENTOS CUARENTA Y TRES EUROS con SESENTA Y TRES CÉNTIMOS	343,63
0229	245.1	UD	VENTOSA DN=25 mm (1") PN16 Válvula ventosa de tres funciones de 1" (DN=25 mm) y PN 16 bar incluido transporte, juntas, válvula de corte DN=25 mm y PN 16 bar y piezas especiales, totalmente colocada y probada.	CIENTO SESENTA Y DOS EUROS con VEINTIUN CÉNTIMOS	162,21
0230	245.2	UD	VENTOSA DN=80 (3") mm PN16 Válvula ventosa de tres funciones de DN=80 mm (3") y PN 16 bar incluido transporte, juntas, válvula de corte DN=80 mm y PN 16y piezas especiales, totalmente colocada y probada.	CUATROCIENTOS TREINTA Y DOS EUROS con NOVENTA CÉNTIMOS	432,90
0231	245.3	UD	VENTOSA DN=50 (2") mm PN25 Válvula ventosa de tres funciones de DN=50 mm (2") y PN 25 bar incluido transporte, juntas, válvula de corte DN=50 mm y PN 25 y piezas especiales, totalmente colocada y probada.	CUATROCIENTOS TREINTA Y CUATRO EUROS con CUARENTA Y TRES CÉNTIMOS	434,43

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Nº	CÓDIGO	UD	DESCRIPCIÓN	PRECIO EN LETRA	IMPORTE
0232	245.4	UD	VENTOSA DN=50 (2") mm PN16 Válvula ventosa de tres funciones de DN=50 mm (2") y PN 16 bar incluido transporte, juntas, válvula de corte DN=50 mm y PN 16 y piezas especiales, totalmente colocada y probada.	TRESCIENTOS SESENTA Y SIETE EUROS con SESENTA Y CUATRO CÉNTIMOS	367,64
0233	245.5	UD	VENTOSA DN=80 (3") mm PN25 Válvula ventosa de tres funciones de DN=80 mm (3") y PN 25 bar incluido transporte, juntas, válvula de corte DN=80 mm y PN 25 y piezas especiales, totalmente colocada y probada.	QUINIENTOS CINCUENTA Y DOS EUROS con OCHO CÉNTIMOS	552,08
0234	245.6	UD	VENTOSA DN=80 (3") mm PN40 Válvula ventosa de tres funciones de DN=80 mm (3") y PN 40 bar incluido transporte, juntas, válvula de corte DN=80 mm y PN 40 y piezas especiales, totalmente colocada y probada.	SEISCIENTOS OCHENTA Y SEIS EUROS con CINCUENTA Y SIETE CÉNTIMOS	686,57
0235	245.7	UD	VENTOSA DN=50 (2") mm PN40 Válvula ventosa de tres funciones de DN=50 mm (2") y PN 40 bar incluido transporte, juntas, válvula de corte y piezas especiales, totalmente colocada y probada.	QUINIENTOS OCHENTA Y SEIS EUROS con VEINTICUATRO CÉNTIMOS	586,24
0236	245.8	UD	VENTOSA DN=25 mm (1") PN25 Válvula ventosa de tres funciones de 1" (DN=25 mm) y PN 25 bar incluido transporte, juntas, válvula de corte DN=25 mm y PN 25 bar y piezas especiales, totalmente colocada y probada.	CIENTO SETENTA Y TRES EUROS con SETENTA Y SEIS CÉNTIMOS	173,76
0237	246	UD	FILTRO COLADOR EN Y DN=200 mm PN40 Filtro colador en "Y" de diámetro nominal DN=200 mm y brida PN=40 bar de presión, incluso juntas de unión y tornillería, totalmente instalado.	MIL QUINIENTOS OCHENTA Y NUEVE EUROS con TREINTA Y SEIS CÉNTIMOS	1.589,36
0238	247	UD	FILTRO COLADOR EN Y DN=200 mm PN25 Filtro colador en "Y" de diámetro nominal DN=200 mm y brida PN=25 bar de presión, incluso juntas de unión y tornillería, totalmente instalado.	MIL DOSCIENTOS SIETE EUROS con VEINTISEIS CÉNTIMOS	1.207,26
0239	2473CL0101	ud	BOMBA DE CALOR FERROLI NEPTUNO 60R Bomba de calor condensada por aire FERROLI NEPTUNO 60R con potencia frigorífica 59,6 kW y potencia calorífica 68,25 kW diseñada para producir agua caliente hasta 65°C con temperaturas exteriores de -10°C. Version alta eficiencia, límites operativos de -20°C trabajando en modo calefacción y +48°C en modo refrigeración. Refrigerante R410A. Con ventiladores axiales control de condensación con capacidad continua de regulación incorporado en bomba de calor, compresor scroll encapsulados y elevada superficie de intercambio para un comportamiento silencioso, 2 circuitos frigoríficos independientes, con grupo hidráulico y bomba de impulsión tipo 3 y kit antivibratorios VT15. Totalmente montado e instalado incluso pp de pequeño material y conexión eléctrica.	DIECIOCHO MIL CIENTO SEIS EUROS	18.106,00

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Nº	CÓDIGO	UD	DESCRIPCIÓN	PRECIO EN LETRA	IMPORTE
0240	2473CL0201	ud	FANCOIL CASSETTE DE TECHO Cassette de techo diseñado para emisión sonora reducida. Grupo moto-ventilador con 3/4 velocidades. Estructura de sustentación reforzada con faja lateral de acero galvanizado. Filtro de aire precargado electrostáticamente de fácil extracción y limpieza. Posibilidad de introducción directa de aire exterior. Bandeja de condensados con grado de autoextinción VO. Incluido Plafón para cassette GLF10	CUATROCIENTOS CINCUENTA EUROS con VEINTISIETE CÉNTIMOS	450,27
0241	2473CL0301	Ud	RECUPERADOR DE CALOR Unidad de recuperación de calor Equipada con recuperador de placas de aluminio a contracorriente de elevada eficiencia para lograr rendimientos secos superiores al 80% , ventiladores plug EC. Construida con perfiles de aluminio y paneles sandwich de 25mm de espesor fijados mediante compresión mecánica por perfil perimetral de aluminio que confiere el cerramiento gran resistencia mecánica. La unidad de recuperación incluye: -Ejecución en horizontal -Montaje con orejetas para instalación interior en falso techo -Filtros F6+F8 -Compuertas para free cooling -Ventiladores con motor EC -Batería de agua a 2 tubos -Display remoto hasta 30m -Cuadro de control y fuerza -Control de equipo a caudal constante -Comunicación MODBUS	CUATRO MIL SEISCIENTOS VEINTIOCHO EUROS con OCHENTA Y OCHO CÉNTIMOS	4.628,88
0242	2473CL0302	Ud	VENTILADOR HELICENTRÍFUGO Ventilador helicentrífugo in-line de bajo perfil, extremadamente silencioso, fabricado en material de plástico, con elementos acústicos, cuerpo-motor desmontable sin necesidad de tocar los conductos, juntas de goma en impulsión y descarga para absorber las vibraciones, caja de bornes externa orientable 360°.	NOVENTA Y NUEVE EUROS con OCHENTA Y NUEVE CÉNTIMOS	99,89
0243	2473CL0401	m.	CONDUCTO CHAPA 0,8 mm. con aislamiento URSA AIR M2021 Canalización de aire realizada con chapa de acero galvanizada de 0,8 mm. de espesor, con aislamiento exterior URSA AIR M2021 o equivalente, para canalización de aire en zonas exteriores, embocaduras, derivaciones, elementos de fijación y piezas especiales, sellado de juntas, homologado, instalado, según normas UNE y NTE-ICI-23. Totalmente instalado y comprobado.	NOVENTA Y SEIS EUROS con NOVENTA Y SIETE CÉNTIMOS	96,97
0244	2473CL0403	Ud	Rejilla de intemperie TROX WG-AL-WG 400x330 mm Rejilla de intemperie de aluminio de la marca TROX serie WG-AG-WG 400x330mm o equivalente, para toma de aire exterior de los equipos de climatización de medidas según indicaciones de planos adjuntos, con lamas fijas horizontales antilluvia y malla metálica posterior de protección anti-pájaros y anti-insectos para toma de aire o salida de aire de condensación, instalada sobre muro exterior con revestimiento hidrófugo pintado en color RAL según indicaciones de la dirección facultativa, s/NTE-ICI-27, totalmente instalada y comprobada.	SESENTA Y DOS EUROS con CATORCE CÉNTIMOS	62,14

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Nº	CÓDIGO	UD	DESCRIPCIÓN	PRECIO EN LETRA	IMPORTE
0245	2473CL0405	Ud	Rejilla de extracción TROX AH-AF 325x225 mm Rejillas lineales de extracción de la instalación marca TROX modelo AH-AF 325x225mm o equivalente, compuesta por marco frontal, con lamas deflectoras horizontales y orientables en la cara frontal, montaje roscado (SM) y con compuerta corredera de regulación. Marco y lamas fabricadas en chapa de acero lacado y termoesmaltada en RAL 9010 (blanco) o en chapa de acero electrogalvanizado. Piezas adosadas en chapa de acero electrogalvanizado, totalmente instalado y comprobado.	CUARENTA Y SIETE EUROS con CINCUENTA Y SIETE CÉNTIMOS	47,57
0246	2473CL0406	Ud	Rejilla de extracción TROX AH-AF 225x165 mm Rejillas lineales de extracción de la instalación marca TROX modelo AH-AF 225x165mm o equivalente, compuesta por marco frontal, con lamas deflectoras horizontales y orientables en la cara frontal, montaje roscado (SM) y con compuerta corredera de regulación. Marco y lamas fabricadas en chapa de acero lacado y termoesmaltada en RAL 9010 (blanco) o en chapa de acero electrogalvanizado. Piezas adosadas en chapa de acero electrogalvanizado, totalmente instalado y comprobado.	TREINTA Y SEIS EUROS con OCHENTA Y NUEVE CÉNTIMOS	36,89
0247	2473CL0408	Ud	Rejilla de extracción TROX AH-AF 425x325 mm Rejillas lineales de extracción de la instalación marca TROX modelo AH-AF 425x325mm o equivalente, compuesta por marco frontal, con lamas deflectoras horizontales y orientables en la cara frontal, montaje roscado (SM) y con compuerta corredera de regulación. Marco y lamas fabricadas en chapa de acero lacado y termoesmaltada en RAL 9010 (blanco) o en chapa de acero electrogalvanizado. Piezas adosadas en chapa de acero electrogalvanizado, totalmente instalado y comprobado.	SESENTA Y SEIS EUROS con NOVENTA Y NUEVE CÉNTIMOS	66,99
0248	2473CL04081	Ud	Difusor rotacional TROX ADLR D= 244 mm Difusor rotacional de diámetro 244 mm marca TROX modelo ADLR de deflectores fijos con placa frontal circular, con plenum de conexión horizontal de chapa de acero galvanizado, pintado en color RAL 9010, para instalar en alturas de hasta 4 m. Incluso accesorios de montaje y elementos de fijación.	OCHENTA Y SEIS EUROS con NOVENTA Y NUEVE CÉNTIMOS	86,99
0249	2473CL0409	Ud	Boca de extracción SCHAKO TVB -100 Boca de extracción Schako TVB-100 o similar, para aseos, complementan la instalación de los extractores de la serie TD, dedicados a la instalación en conductos circulares. Totalmente instalado y probado, i/p.p. de ayudas de albañilería, medios y elementos auxiliares necesarios.	CUARENTA Y DOS EUROS con NOVENTA Y OCHO CÉNTIMOS	42,98
0250	2473CL0410	Ud	Regulador de Caudal Constante marca SCHAKO modelo VRM-200 Caja de caudal constante circular marca Schako modelo VRM-200 o similar, adecuada para regulación continua de caudal constante hasta máx. 1000 Pa de diferencia de presión, incertidumbre de medida mas menos el 5%, equipada con bridas metu y clavetas de regulación de flujo. Carcasa fabricada en acero galvanizado, apropiado para tubos y conductos rectangulares según DIN 24145, totalmente instalado y comprobado.		127,35

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Nº	CÓDIGO	UD	DESCRIPCIÓN	PRECIO EN LETRA	IMPORTE
				CIENTO VEINTISIETE EUROS con TREINTA Y CINCO CÉNTIMOS	
0251	2473CL0503	PA	Conexionado y cableado de control Suministro, montaje, acabado, puesta a punto y pruebas de las unidades y equipos de acuerdo a planos y especificaciones. Suministro e instalación de cableados formados por conductores tipo RVK 0,6/1Kv de distintas secciones y números de polos, desde panel de control a los puntos existentes según listado de funciones, incluso parte proporcional de canalizaciones mediante tubo de PVC flexible, en tramos ocultos, rígidos en tramos vistos y acero en el exterior.	QUINIENTOS CATORCE EUROS con CINCUENTA Y SEIS CÉNTIMOS	514,56
0252	2473CL0601	Ud	Tramitación Expediente y Certificados Instalador Tramitación del expediente administrativo ante la delegación de Industria de la Comunidad Autónoma y las Compañías Suministradoras, lo cual incluye la presentación y recogida de la documentación ante estos organismos, quedando a su cargo el abono de las correspondientes tasas de legalización. Así mismo, la empresa instaladora deberá de realizar y entregar ante estos organismos la siguiente documentación: - Certificado de instalación térmica visado ante colegio oficial competente de instalación, realizado por el instalador autorizado. - Boletín de la instalación. Dicha documentación ha de ser entregada en copia una vez tramitada por la Delegación de Industria a la Propiedad y a la Dirección Facultativa de Instalaciones.		450,00
				CUATROCIENTOS CINCUENTA EUROS	
0253	248	UD	FILTRO COLADOR EN Y DN=200 mm PN16 Filtro colador en "Y" de diámetro nominal DN=200 mm y brida PN=16 bar de presión, incluso juntas de unión y tornillería, totalmente instalado.	OCHOCIENTOS CINCUENTA Y NUEVE EUROS con VEINTITRES CÉNTIMOS	859,23
0254	249	UD	FILTRO COLADOR EN Y DN=150 mm PN25 Filtro colador en "Y" de diámetro nominal DN=150 mm y brida PN=25 bar de presión, incluso juntas de unión y tornillería, totalmente instalado.	SETECIENTOS NOVENTA Y OCHO EUROS con CUARENTA Y SIETE CÉNTIMOS	798,47
0255	249.1	UD	FILTRO COLADOR EN Y DN=150 mm PN40 Filtro colador en "Y" de diámetro nominal DN=150 mm y brida PN=40 bar de presión, incluso juntas de unión y tornillería, totalmente instalado.	NOVECIENTOS NOVENTA Y OCHO EUROS con CINCUENTA Y TRES CÉNTIMOS	998,53
0256	250	UD	FILTRO COLADOR EN Y DN=150 mm PN16 Filtro colador en "Y" de diámetro nominal DN=150 mm y brida PN=16 bar de presión, incluso juntas de unión y tornillería, totalmente instalado.	SETECIENTOS DOCE EUROS con NOVENTA Y UN CÉNTIMOS	712,91
0257	250.1	UD	FILTRO COLADOR EN Y DN=250 mm PN16 Filtro colador en "Y" de diámetro nominal DN=250 mm y brida PN=16 bar de presión, incluso juntas de unión y tornillería, totalmente instalado.	MIL DOSCIENTOS CUARENTA Y SEIS EUROS con ONCE CÉNTIMOS	1.246,11

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Nº	CÓDIGO	UD	DESCRIPCIÓN	PRECIO EN LETRA	IMPORTE
0258	250.12	UD	FILTRO COLADOR EN Y DN=250 mm PN40 Filtro colador en "Y" de diámetro nominal DN=250 mm y brida PN=40 bar de presión, incluso juntas de unión y tornillería, totalmente instalado.	MIL OCHOCIENTOS CINCUENTA Y DOS EUROS con NUEVE CÉNTIMOS	1.852,09
0259	250.2	UD	FILTRO COLADOR EN Y DN=300 mm PN25 Filtro colador en "Y" de diámetro nominal DN=300 mm y brida PN=25 bar de presión, incluso juntas de unión y tornillería, totalmente instalado.	MIL SETECIENTOS SESENTA Y NUEVE EUROS con CUARENTA Y DOS CÉNTIMOS	1.769,42
0260	250.3	UD	FILTRO COLADOR EN Y DN=400 mm PN25 Filtro colador en "Y" de diámetro nominal DN=400 mm y brida PN=25 bar de presión, incluso juntas de unión y tornillería, totalmente instalado.	DOS MIL SETENTA Y DOS EUROS con OCHENTA Y UN CÉNTIMOS	2.072,81
0261	251	UD	FILTRO COLADOR EN Y DN=100 mm PN16/25 Filtro colador en "Y" de diámetro nominal DN=100 mm y brida PN 16/25 bar de presión, incluso juntas de unión y tornillería, totalmente instalado.	QUINIENTOS TREINTA Y UN EUROS con CUARENTA Y SIETE CÉNTIMOS	531,47
0262	253	UD	FILTRO COLADOR EN Y DN=80 mm PN16 Filtro colador en "Y" de diámetro nominal DN=80 mm y brida PN=16 bar de presión, incluso juntas de unión y tornillería, totalmente instalado.	TRESCIENTOS OCHENTA Y UN EUROS con CINCO CÉNTIMOS	381,05
0263	254	UD	FILTRO COLADOR EN Y DN=50 mm PN16 Filtro colador en "Y" de diámetro nominal DN=50 mm y brida PN=16 bar de presión, incluso juntas de unión y tornillería, totalmente instalado.	OCHENTA EUROS con SIETE CÉNTIMOS	80,07
0264	255.1	UD	VÁLVULA REDUCTORA DE PRESIÓN DN=250 mm PN16 Válvula reductora de presión de diámetro DN=250 mm y PN 16 bar, incluso juntas de unión y tornillería, totalmente colocada y probada.	ONCE MIL SETENTA EUROS con OCHENTA CÉNTIMOS	11.070,80
0265	255.2	UD	VÁLVULA REDUCTORA DE PRESIÓN DN=250 mm PN40 Válvula reductora de presión de diámetro DN=250 mm y PN 40 bar, incluso juntas de unión y tornillería, totalmente colocada y probada.	DIECISIETE MIL NOVENTA Y OCHO EUROS con NOVENTA Y SEIS CÉNTIMOS	17.098,96
0266	255.3	UD	VÁLVULA REDUCTORA DE PRESIÓN DN=300 mm PN25 Válvula reductora de presión de diámetro DN=300 mm y PN 25 bar, incluso juntas de unión y tornillería, totalmente colocada y probada.	CATORCE MIL TRESCIENTOS SESENTA Y CUATRO EUROS con TREINTA CÉNTIMOS	14.364,30
0267	255.4	UD	VÁLVULA REDUCTORA DE PRESIÓN DN=400 mm PN25 Válvula reductora de presión de diámetro DN=400 mm y PN 25 bar, incluso juntas de unión y tornillería, totalmente colocada y probada.	VEINTISEIS MIL SEISCIENTOS OCHENTA Y CINCO EUROS con NOVENTA Y OCHO CÉNTIMOS	26.685,98

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Nº	CÓDIGO	UD	DESCRIPCIÓN	PRECIO EN LETRA	IMPORTE
0268	256	UD	VÁLVULA REDUCTORA DE PRESIÓN DN=200 mm PN40 Válvula reductora de presión de diámetro DN=200 mm y PN 40 bar, incluso juntas de unión y tornillería, totalmente colocada y probada.	ONCE MIL CIENTO CINCUENTA EUROS con NOVENTA Y NUEVE CÉNTIMOS	11.150,99
0269	257	UD	VÁLVULA REDUCTORA DE PRESIÓN DN=200 mm PN25 Válvula reductora de presión de diámetro DN=200 mm y PN 25 bar, incluso juntas de unión y tornillería, totalmente colocada y probada.	CINCO MIL NOVECIENTOS NUEVE EUROS con OCHENTA Y TRES CÉNTIMOS	5.909,83
0270	259	UD	VÁLVULA REDUCTORA DE PRESIÓN DN=150 mm PN25 Válvula reductora de presión de diámetro DN=150 mm y PN 25 bar, incluso juntas de unión y tornillería, totalmente colocada y probada.	TRES MIL TRESCIENTOS DIEZ EUROS con VEINTIOCHO CÉNTIMOS	3.310,28
0271	259.1	UD	VÁLVULA REDUCTORA DE PRESIÓN DN=150 mm PN40 Válvula reductora de presión de diámetro DN=150 mm y PN 40 bar, incluso juntas de unión y tornillería, totalmente colocada y probada.	CINCO MIL QUINIENTOS NOVENTA Y CINCO EUROS con VEINTITRES CÉNTIMOS	5.595,23
0272	260	UD	VÁLVULA REDUCTORA DE PRESIÓN DN=150 mm PN16 Válvula reductora de presión de diámetro DN=150 mm y PN 16 bar, incluso juntas de unión y tornillería, totalmente colocada y probada.	DOS MIL SETECIENTOS TREINTA Y OCHO EUROS con VEINTIDOS CÉNTIMOS	2.738,22
0273	262	UD	VÁLVULA REDUCTORA DE PRESIÓN DN=80 mm PN25 Válvula reductora de presión de diámetro DN=80 mm y PN 25 bar, incluso juntas de unión y tornillería, totalmente colocada y probada.	MIL OCHOCIENTOS NOVENTA Y UN EUROS con DIECIOCHO CÉNTIMOS	1.891,18
0274	262.1	UD	VÁLVULA REDUCTORA DE PRESIÓN DN=80 mm PN16 Válvula reductora de presión de diámetro DN=80 mm y PN 16 bar, incluso juntas de unión y tornillería, totalmente colocada y probada.	MIL CUATROCIENTOS ONCE EUROS con SESENTA Y NUEVE CÉNTIMOS	1.411,69
0275	265	UD	VÁLVULA LIMITADORA DE CAUDAL DN=80 mm Válvula limitadora de caudal de DN=80 mm PN16, incluso juntas de unión y tornillería, totalmente colocada y probada.	CUATRO MIL SETECIENTOS OCHENTA EUROS con OCHENTA Y TRES CÉNTIMOS	4.780,83
0276	266.1	UD	VÁLVULA LIMITADORA DE CAUDAL DN=150 mm PN16 Válvula limitadora de caudal de DN=150 mm PN16, incluso juntas de unión y tornillería, totalmente colocada y probada.	SIETE MIL SEISCIENTOS CINCUENTA Y DOS EUROS con SETENTA Y NUEVE CÉNTIMOS	7.652,79
0277	266.2	UD	VÁLVULA LIMITADORA DE CAUDAL DN=250 mm PN16 Válvula limitadora de caudal de DN=250 mm PN16, incluso juntas de unión y tornillería, totalmente colocada y probada.	NUEVE MIL NOVECIENTOS SETENTA Y CUATRO EUROS con TREINTA Y CUATRO CÉNTIMOS	9.974,34

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Nº	CÓDIGO	UD	DESCRIPCIÓN	PRECIO EN LETRA	IMPORTE
0278	266.3	UD	VÁLVULA LIMITADORA DE CAUDAL DN=200 mm PN16 Válvula limitadora de caudal de DN=200 mm PN16, incluso juntas de unión y tornillería, totalmente colocada y probada.	OCHO MIL DOSCIENTOS VEINTIUN EUROS con SETENTA Y TRES CÉNTIMOS	8.221,73
0279	266.4	UD	VÁLVULA LIMITADORA DE CAUDAL DN=100 mm PN16 Válvula limitadora de caudal de DN=100 mm PN16, incluso juntas de unión y tornillería, totalmente colocada y probada.	TRES MIL NOVECIENTOS TREINTA Y UN EUROS con TREINTA Y SIETE CÉNTIMOS	3.931,37
0280	266.5	UD	VÁLVULA LIMITADORA DE CAUDAL DN=300 mm PN16 Válvula limitadora de caudal de DN=300 mm PN16 tipo MULTINAR de Ross o equivalente, eléctrica, incluso juntas de unión y tornillería, conexión eléctrica, totalmente colocada y probada.	ONCE MIL SEISCIENTOS UN EUROS con CUARENTA Y OCHO CÉNTIMOS	11.601,48
0281	268.1	UD	VÁLVULA DE LLENADO DN=150 mm PN16 CIERRE LENTO Y SOLENOIDE Válvula de llenado de asiento inoxidable, con cierre lento y solenoide de diámetro nominal DN=150 mm y PN=16 bar, totalmente instalado y probado.	DOS MIL DOSCIENTOS SESENTA Y CINCO EUROS con CINCUENTA Y OCHO CÉNTIMOS	2.265,58
0282	268.2	UD	VÁLVULA DE LLENADO DN=250 mm PN16 CIERRE LENTO Y SOLENOIDE Válvula de llenado de asiento inoxidable, con cierre lento y solenoide de diámetro nominal DN=250 mm y PN=16 bar, totalmente instalado y probado.	TRES MIL OCHOCIENTOS OCHENTA EUROS con NUEVE CÉNTIMOS	3.880,09
0283	268.3	UD	VÁLVULA DE LLENADO DN=200 mm PN16 CIERRE LENTO Y SOLENOIDE Válvula de llenado de asiento inoxidable, con cierre lento y solenoide de diámetro nominal DN=200 mm y PN=16 bar, totalmente instalado y probado.	TRES MIL QUINIENTOS VEINTINUEVE EUROS con SETENTA Y DOS CÉNTIMOS	3.529,72
0284	268.4	UD	VÁLVULA DE LLENADO DN=80 mm PN16 CIERRE LENTO Y SOLENOIDE Válvula de llenado de asiento inoxidable, con cierre lento y solenoide de diámetro nominal DN=80 mm y PN=16 bar, totalmente instalado y probado.	MIL TRESCIENTOS DIEZ EUROS con SETENTA Y OCHO CÉNTIMOS	1.310,78
0285	268.5	UD	VÁLVULA DE LLENADO DN=300 mm PN16 CIERRE LENTO Y SOLENOIDE Válvula de llenado de asiento inoxidable, con cierre lento y solenoide de diámetro nominal DN=300 mm y PN=16 bar, totalmente instalado y probado.	SIETE MIL DOSCIENTOS SETENTA Y SEIS EUROS con CUARENTA Y UN CÉNTIMOS	7.276,41

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Nº	CÓDIGO	UD	DESCRIPCIÓN	PRECIO EN LETRA	IMPORTE
0286	270	UD	VÁLVULA DE LLENADO DN=50 mm PN16 APERTURA DIFERIDA Válvula de llenado de asiento inoxidable y apertura diferida de diámetro nominal DN=50 mm y PN=16 bar, totalmente instalado y probado.	OCHOCIENTOS CATORCE EUROS con CUARENTA Y CUATRO CÉNTIMOS	814,44
0287	2700100	Ud	Conjunto de estanterías Estantería metálica desmontable de baldas regulables de las siguientes características: Dimensiones: 2,50 x 2,00 x 0,60 m.	DOSCIENTOS NOVENTA Y UN EUROS con CINCUENTA Y CUATRO CÉNTIMOS	291,54
0288	2700101	Ud	Banco de madera Banco de madera de 3.00 x 0.75 m, sujeto con perfiles metálicos.	DOSCIENTOS TREINTA Y UN EUROS con TREINTA Y TRES CÉNTIMOS	231,33
0289	2700102	Ud	Panel portaherramientas. Panel portaherramientas.	NOVECIENTOS TREINTA Y DOS EUROS con NOVENTA Y CINCO CÉNTIMOS	932,95
0290	2700103	Ud	Taladro portátil Taladro portátil. Capacidad del portabrocas: hasta 12 mm. Con juego de brocas de 1 a 13 mm en acero al carbono.	TRESCIENTOS VEINTE EUROS con SETENTA Y DOS CÉNTIMOS	320,72
0291	2700105	Ud	Caja herramientas mecánica Caja de herramientas mecánicas tipo arquilla. Marca: HECO-103. Incluyendo: 1 juego de llaves planas fijas (6/7 + 20/22), 4 llaves inglesas de 18", 12", 15" y 6", 1 juego de llaves boca - estrella acodadas (6/7 + 20/22), 1 destornillador 8/200, 1 destornillador 4/100, 1 destornillador punta plana 6/175, 1 destornillador punta plana 5/150, 1 arco de sierra con 5 hojas de recambio, 1 lima plana de 12" grano basto, 1 lima plana de 8" entrefina, 1 lima de media caña de 10" grano basto, 1 lima triangular de 6" grano basto, 1 lima redonda con mango de 8 mm, 1 martillo de bola de 320 gr, 1 martillo de peña de 320 gr, 1 martillo de plástico de 34 mm, 2 granetes de 115 mm, 1 botador de punta de 4 mm, 1 compás de semicírculo hasta 500 mm, 1 tijera para cortar chapa, 1 cinta métrica de 2 m, 1 alicate universal de 8", 1 Alicata punta plana de 160 mm, 1 alicata de punta redonda de 65 mm, 1 corta alambre oblicuo de 20 cm, 1 lima redonda de 10", 1 cortafios de 250 mm, 1 juego de llaves ALLEN de 2 + 12 mm, 1 tenaza de carpintería de 250 mm, 1 nivel metálico de 300 mm, 1 escuadra metálica lisa de 250 mm, 1 llave pico largo a presión extensible de 8 x 10" y 1 juego de sacabocados de 6, 8, 10, 12 y 14 mm.	MIL TRESCIENTOS CUARENTA Y UN EUROS con ONCE CÉNTIMOS	1.341,11
0292	2700106	Ud	Caja de herramientas eléctricas Caja de herramientas eléctricas tipo arquilla. Marca HECO-103. Incluyendo : 1 destornillador buscapolos, 1 destornillador punta plana 8 x 200, 1 destornillador punta plana 4 x 100, 1 estuche destornilladores, 1 corta alambres oblicuo de 8", 1 juego de llaves fijas de 6 x 22, 1 juego de llaves ALLEN de 2 + 12 mm, 1 llave inglesa de 6", 1 navaja de electricista, 1 pelacables de electricista, 2 rollos de cinta aislante, 1 alicate universal de 8", 1 multitestor Steinel y 1 pinza amperimétrica.	MIL DOSCIENTOS VEINTICUATRO EUROS con CUARENTA Y NUEVE CÉNTIMOS	1.224,49

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Nº	CÓDIGO	UD	DESCRIPCIÓN	PRECIO EN LETRA	IMPORTE
0293	2700107	Ud	Extractor de 3 garras Extractor universal de acero forjado de 3 garras. Capacidad: 305 mm	OCHENTA Y SIETE EUROS con CUARENTA Y OCHO CÉNTIMOS	87,48
0294	2700110	Ud	Elevador Tráctel Elevador Tráctel. Capacidad de elevación: 1.500 Kg. Capacidad de tracción: 2.500 Kg. Con 20 m de cable, gancho y palanca.	CUATROCIENTOS SESENTA Y SEIS EUROS con CUARENTA Y SIETE CÉNTIMOS	466,47
0295	2700112	Ud	Bomba de achique Bomba de achique portátil de las siguientes características. Marca: ABS o similar. Ejecución: sumergible. Caudal: 50 m3/h. Altura manométrica: 10 m.c.a. Potencia motor: 1,5 Kw.	SEISCIENTOS CUARENTA Y TRES EUROS con SETENTA Y CUATRO CÉNTIMOS	643,74
0296	2700114	Ud.	Amoladora portátil Amoladora portátil. Potencia motor: 250 w.	SETECIENTOS TREINTA Y CUATRO EUROS con SETENTA Y UN CÉNTIMOS	734,71
0297	2700117	Ud	Taladro fijo Taladro fijo de las siguientes características. Capacidad: hasta brocas de 20 mm. Tensión: 220 V.	TRESCIENTOS VEINTE EUROS con SETENTA Y DOS CÉNTIMOS	320,72
0298	2700118	Ud	Piedra de esmeril doble Piedra de esmeril doble, gruesa y fina, sobre un soporte de pie. Potencia motor: 0,55 Kw.	SETECIENTOS ONCE EUROS con TREINTA Y OCHO CÉNTIMOS	711,38
0299	2700119	Ud	Cizalladora manual Cizalladora manual de palanca para cortar chapa de hasta 5 mm.	DOSCIENTOS CINCUENTA EUROS con SETENTA Y CINCO CÉNTIMOS	250,75
0300	2700121	Ud	Radial Radial	DOSCIENTOS CUATRO EUROS con OCHO CÉNTIMOS	204,08
0301	2700122	Ud	Llave dinámtrica. Llave dinámtrica.	QUINIENTOS VEINTICUATRO EUROS con OCHENTA Y UN CÉNTIMOS	524,81
0302	2700124	Ud	Tornillo de banco Tornillo de banco con abertura máxima de 150 mm.	TRESCIENTOS CUARENTA EUROS con CINCUENTA Y CUATRO CÉNTIMOS	340,54
0303	2700125	Ud.	Multímetro digital Multímetro digital, incluso pila, juego de fusibles, clavija y estuche.	CIENTO CUARENTA Y DOS EUROS con VEINTISEIS CÉNTIMOS	142,26

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Nº	CÓDIGO	UD	DESCRIPCIÓN	PRECIO EN LETRA	IMPORTE
0304	2700128	Ud	Gato hidráulico. Gato hidráulico. 10 Ton. Recorrido: 150 mm.	CIENTO NOVENTA Y OCHO EUROS con VEINTISEIS CÉNTIMOS	198,26
0305	2700134	Ud	Manguera Menguer	TRESCIENTOS SETENTA Y TRES EUROS con DIECINUEVE CÉNTIMOS	373,19
0306	2700135	Ud	Pinza amperimétrica Pinza amperimétrica	TRESCIENTOS TREINTA Y NUEVE EUROS con TREINTA Y SEIS CÉNTIMOS	339,36
0307	2700136	Ud	Telurómetro Telurómetro	NOVECIENTOS TREINTA Y DOS EUROS con NOVENTA Y CINCO CÉNTIMOS	932,95
0308	271	UD	VÁLVULA ANTIINUNDACIÓN DN 300 mm PN25 Válvula antiinundación DN-300 mm, bridas PN25, incluido montaje y carrete de desmontaje.	DIEZ MIL CUATROCIENTOS VEINTISIETE EUROS con VEINTISEIS CÉNTIMOS	10.427,26
0309	271.1	UD	VÁLVULA ANTIINUNDACIÓN DN 500 mm PN16 Válvula antiinundación DN-500 mm, bridas PN16, incluido montaje y carrete de desmontaje.	VEINTICUATRO MIL CUATROCIENTOS OCHENTA EUROS con NOVENTA Y CINCO CÉNTIMOS	24.480,95
0310	273	UD	VÁLVULA ALIVIO DE PRESIÓN 3" PN 16 Válvula de alivio de presión de 3" brida PN 16 bar, incluso válvula de corte de 3", juntas de unión, y tornillería, totalmente colocada y probada.	MIL CUATROCIENTOS TREINTA Y OCHO EUROS con VEINTINUEVE CÉNTIMOS	1.438,29
0311	273.1	UD	VÁLVULA ALIVIO DE PRESIÓN 2" PN 16 Válvula de alivio de presión de 2" brida PN 16 bar, incluso válvula de corte de 2", juntas de unión, y tornillería, totalmente colocada y probada.	MIL SESENTA Y SEIS EUROS con VEINTINUEVE CÉNTIMOS	1.066,29
0312	273.2	UD	VÁLVULA ALIVIO DE PRESIÓN 4" PN 16 Válvula de alivio de presión de 4" brida PN 16 bar, incluso válvula de corte de 4", juntas de unión, y tornillería, totalmente colocada y probada.	MIL QUINIENTOS CUARENTA Y TRES EUROS con SESENTA Y TRES CÉNTIMOS	1.543,63
0313	274.1	UD	VÁLVULA ALIVIO DE PRESIÓN 2" PN 25 Válvula de alivio de presión de 2" brida PN 25 bar, incluso incluso válvula de corte de 2", juntas de unión, collarín de toma y tornillería, totalmente colocada y probada.	MIL DOSCIENTOS SETENTA Y CINCO EUROS con CUARENTA Y SEIS CÉNTIMOS	1.275,46

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Nº	CÓDIGO	UD	DESCRIPCIÓN	PRECIO EN LETRA	IMPORTE
0314	275	UD	VÁLVULA ALIVIO DE PRESIÓN 1" PN16 Válvula de alivio de presión de 1" NPT roscada y PN 16 bar, incluso juntas de unión, collarín de toma y tornillería, totalmente colocada y probada.	NOVECIENTOS CUARENTA Y CUATRO EUROS con SETENTA Y OCHO CÉNTIMOS	944,78
0315	280	UD	CAUDALÍMETRO ELECTROMAGNÉTICO DN 200 mm PN10 Equipo medidor de caudal de DN200 mm. tipo electromagnético y PN=10 atm. con salida 4/20 mA, tensión 220 V y escala 0-240 m3/h, totalmente instalado y probado. Incluido transporte, montaje, conexiones eléctricas y pruebas de funcionamiento. Resto de características, según ET.	MIL TRESCIENTOS CINCUENTA Y SIETE EUROS con UN CÉNTIMOS	1.357,01
0316	280.1	UD	CAUDALÍMETRO ELECTROMAGNÉTICO DN 250 mm PN10 Equipo medidor de caudal de DN250 mm. tipo electromagnético y PN=10 atm. con salida 4/20 mA, tensión 220 V y escala 0-240 m3/h, totalmente instalado y probado. Incluido transporte, montaje, conexiones eléctricas y pruebas de funcionamiento. Resto de características, según ET.	MIL SETECIENTOS DIECIOCHO EUROS con CUARENTA Y OCHO CÉNTIMOS	1.718,48
0317	280.2	UD	CAUDALÍMETRO ELECTROMAGNÉTICO DN 300 mm PN10 Equipo medidor de caudal de DN300mm. tipo electromagnético y PN=10 atm. con salida 4/20 mA, tensión 220 V y escala 0-240 m3/h, totalmente instalado y probado. Incluido transporte, montaje, conexiones eléctricas y pruebas de funcionamiento. Resto de características, según ET.	DOS MIL CIENTO CUARENTA Y CUATRO EUROS con TREINTA Y UN CÉNTIMOS	2.144,31
0318	281	UD	CAUDALÍMETRO ELECTROMAGNÉTICO DN 150 mm PN10 Equipo medidor de caudal de DN150 mm. tipo electromagnético y PN=25 atm. con salida 4/20 mA, tensión 220 V y escala 0-240 m3/h, totalmente instalado y probado. Incluido transporte, montaje, conexiones eléctricas y pruebas de funcionamiento. Resto de características, según ET.	MIL DOSCIENTOS UN EUROS con CINCO CÉNTIMOS	1.201,05
0319	281.1	UD	CAUDALÍMETRO ELECTROMAGNÉTICO DN 150 mm PN25 Equipo medidor de caudal de DN250 mm. tipo electromagnético y PN=25 atm. con salida 4/20 mA, tensión 220 V y escala 0-240 m3/h, totalmente instalado y probado. Incluido transporte, montaje, conexiones eléctricas y pruebas de funcionamiento. Resto de características, según ET.	DOS MIL SEISCIENTOS DIECINUEVE EUROS con NOVENTA Y NUEVE CÉNTIMOS	2.619,99
0320	288	UD	CONTADOR CON EMISOR DE PULSOS DN=25 mm Contador con emisor de pulsos para tubería de diámetro nominal DN=25 mm, incluso juntas de unión y tornillería, totalmente colocado y probado.	DOSCIENTOS TREINTA Y SIETE EUROS con OCHENTA Y TRES CÉNTIMOS	237,83

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Nº	CÓDIGO	UD	DESCRIPCIÓN	PRECIO EN LETRA	IMPORTE
0321	289	UD	TAPA DE FUNDICIÓN DN600 Tapa de fundición normalizada DN600, incluyendo el marco, anclada, totalmente colocada.	SESENTA Y TRES EUROS con SESENTA Y DOS CÉNTIMOS	63,62
0322	289B	M2	TAPA DE CHAPA LACRIMADA GALVANIZADA e=4mm Tapa de chapa lacrimada de acero galvanizado de 4 mm de espesor, incluyendo el marco, tiradores, aros para cerradura con candado, anclada, totalmente colocada.	SETENTA Y CUATRO EUROS con CINCUENTA Y SEIS CÉNTIMOS	74,56
0323	290	UD	PATE POLIPROPILENO Pate de polipropileno de dimensiones 30x25 cm, incluyendo fabricación, transporte a obra, perforación de anclajes y relleno con aportación de material de agarre, completamente colocado.	CINCO EUROS con SESENTA Y TRES CÉNTIMOS	5,63
0324	290A	ML	ESCALERA TUBULAR INOXIDABLE CON ELEMENTOS ANTI-CAIDA Formación de escalera tubular de 50 mm de diámetro, de acero inoxidable AISI-316L, incluso protecciones circulares contra caídas según normativa, anclada a la pared y/o muros, totalmente ejecutada.	SETENTA Y SEIS EUROS con NUEVE CÉNTIMOS	76,09
0325	290AA	ML	ESCALERA TUBULAR GALVANIZADO CON ELEMENTOS ANTI-CAIDA Formación de escalera tubular de 50 mm de diámetro, de acero galvanizado, incluso protecciones circulares contra caídas según normativa, anclada a la pared y/o muros, totalmente ejecutada.	CINCUENTA Y TRES EUROS con NUEVE CÉNTIMOS	53,09
0326	290B	M2	ESCALERA Y PASARELAS DE ACERO GALVANIZADO. BARRANDILLAS GALVANIZ Escalera y pasarelas de acceso de forma según planos, ejecutada en perfiles de acero galvanizado en caliente, incluso barandilla tubular del mismo material, de 90 cm de altura en uno o dos lados, rodapié de seguridad del mismo en uno o dos lados, así como entramado metálico de 30x30x3 en descansillos y peldaños, medida según su proyección en planta. Anclada a los muros y/o solera, instalada.	OCHENTA Y UN EUROS con SETENTA Y SIETE CÉNTIMOS	81,77
0327	290BB	M2	ESCALERA Y PASARELAS DE ACERO GALVANIZADO. BARRANDILLAS AISI316L Escalera y pasarelas de acceso de forma según planos, ejecutada en perfiles de acero galvanizado en caliente, incluso barandilla tubular del mismo material, de 90 cm de altura en uno o dos lados, rodapié de seguridad del mismo en uno o dos lados, así como entramado metálico de 30x30x3 en descansillos y peldaños, medida según su proyección en planta. Anclada a los muros y/o solera, instalada.	CIENTO DOCE EUROS con SEIS CÉNTIMOS	112,06
0328	290C	ML	GÁRGOLA DE ACERO GALVANIZADO DE 100 x100 mm. e=2 mm. Gárgola de acero galvanizado de 100 x 100 mm. espesor e=2mm, de 45 cm de longitud, incluso relleno de hueco y sellado a la lámina de cubierta, colocada.	TREINTA Y OCHO EUROS con CINCUENTA Y CINCO CÉNTIMOS	38,55

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Nº	CÓDIGO	UD	DESCRIPCIÓN	PRECIO EN LETRA	IMPORTE
0329	300	UD	BOYA DE NIVEL DE MÁXIMO Y MÍNIMO Boya de nivel cableada con la válvula de llenado, incluso montaje y pruebas.	CUARENTA Y NUEVE EUROS con SETENTA Y CUATRO CÉNTIMOS	49,74
0330	335	m2	CERRAMIENTO TRASLÚCIDO Cerramiento translúcido con moldeados de vidrio de 200x200x80 mm. con mortero de cemento y redondos de acero corrugado B-500-S, según especificaciones NTE-FFV, completamente terminado, incluso replanteo, nivelación y aplomado, preparación, corte y colocación de las armaduras, p.p. de mermas, solapes, roturas, rellenos elásticos, cartón alquitranado, sellado y rejuntado, medida la superficie ejecutada.	CIENTO TREINTA Y UN EUROS con TRECE CÉNTIMOS	131,13
0331	339	ud	Caja de protección y medida para 1 contador trifásico más reloj Caja de protección y medida para 1 contador trifásico más reloj. Montado con panel de montaje y bases portafusibles con soporte de caja para poste de hormigón incluso fijación de caja, totalmente instalado y conectado.	DOSCIENTOS OCHO EUROS con CINCUENTA Y TRES CÉNTIMOS	208,53
0332	364	M3	GRAVA SILÍCEA 3/5 mm Suministro de grava silícea de granulometría 3/5 mm y coeficiente de uniformidad 1.2, libre de arcilla, polvo y materia orgánica.	DIECISIETE EUROS con SESENTA Y CUATRO CÉNTIMOS	17,64
0333	364B	M3	GRAVA CANTO RODADO 20 mm Suministro de grava de canto rodado de granulometría 20 mm y coeficiente de uniformidad 1.2, libre de arcilla, polvo y materia orgánica.	ONCE EUROS con CUARENTA Y TRES CÉNTIMOS	11,43
0334	365	ML	CERRAMIENTO METÁLICO 2 m ALTURA Cerramiento metálico con malla plastificada S.T 50/17 de 2,00 m de altura, incluida p.p. de cimentación, postes intermedios, esquinas, tornapuntas, trípodes, alambres guías y tensores, puertas de acceso y elementos especiales, totalmente colocada.	VEINTISIETE EUROS con CINCUENTA Y OCHO CÉNTIMOS	27,58
0335	366	ML	HINCA TUBO ACERO 355 mm TIERRAS Hinca de tubo de acero, de 355 mm de diámetro interior, bajo viales, en tierra o roca alterada, incluso p.p. de instalación de tubería de fundición dúctil comprendida entre 250 y 150 mm de diámetro interior y sus anclajes y apoyos; muros de reacción y contención; y todos los elementos necesarios para su montaje y desmontaje.	TRESCIENTOS EUROS con SESENTA Y CINCO CÉNTIMOS	300,65
0336	367	ML	HINCA TUBO ACERO 455 mm TIERRAS Hinca de tubo de acero, de 455 mm de diámetro interior, bajo viales, en tierra o roca alterada, incluso p.p. de instalación de tubería de fundición dúctil comprendida entre 250 y 150 mm de diámetro interior y sus anclajes y apoyos; muros de reacción y contención; y todos los elementos necesarios para su montaje y desmontaje.	TRESCIENTOS SESENTA Y OCHO EUROS con OCHENTA Y OCHO CÉNTIMOS	368,88

CUADRO DE PRECIOS 1

ABASTECIMIENTO A VARIOS MUNICIPIOS DE LA RIOJA. SISTEMA CIDACOS

Nº	CÓDIGO	UD	DESCRIPCIÓN	PRECIO EN LETRA	IMPORTE
0337	368	ML	HINCA TUBO ACERO 609 mm TIERRAS Hinca de tubo de acero, de 609 mm de diámetro interior, bajo viales, en tierra o roca alterada, incluso p.p. de instalación de tubería de fundición dúctil comprendida entre 400 mm y 250 mm de diámetro interior y sus anclajes y apoyos; muros de reacción y contención; y todos los elementos necesarios para su montaje y desmontaje.	QUINIENTOS QUINCE EUROS con VEINTICINCO CÉNTIMOS	515,25
0338	369	ML	HINCA TUBO ACERO 813 mm TIERRAS Hinca de tubo de acero, de 813 mm de diámetro interior, bajo viales, en tierra o roca alterada, incluso p.p. de instalación de tubería de fundición dúctil de 500 mm de diámetro interior y sus anclajes y apoyos; muros de reacción y contención; y todos los elementos necesarios para su montaje y desmontaje.	SEISCIENTOS TREINTA Y SEIS EUROS con SETENTA Y CUATRO CÉNTIMOS	636,74
0339	370	ML	HINCA TUBO ACERO 1100 mm TIERRAS Hinca de tubo de acero, de 1100 mm de diámetro interior, bajo viales, en tierra o roca alterada, incluso p.p. de instalación de tubería de fundición dúctil entre 600 y 900 mm de diámetro interior y sus anclajes y apoyos; muros de reacción y contención; y todos los elementos necesarios para su montaje y desmontaje.	SETECIENTOS OCHENTA Y SEIS EUROS con SESENTA Y NUEVE CÉNTIMOS	786,69
0340	373	UD	POZO DE REGISTRO DE AROS DE HORMIGÓN DN1200 Pozo de registro de abastecimiento para válvulas de control de cualquier altura de diámetro interior D=1200 mm, incluso base de hormigón HNE-20, aros de hormigón, cono prefabricado de hormigón, pates y tapa de fundición, totalmente terminado.	TRESCIENTOS CINCUENTA Y SIETE EUROS con OCHENTA Y CUATRO CÉNTIMOS	357,84
0341	373A	UD	POZO DE REGISTRO DE AROS DE HORMIGÓN DN1000 Pozo de registro de abastecimiento o saneamiento de cualquier altura de diámetro interior D=1000 mm, incluso base de hormigón HNE-20, aros de hormigón, cono prefabricado de hormigón, pates y tapa de fundición, totalmente terminado.	TRESCIENTOS VEINTE EUROS con SETENTA Y TRES CÉNTIMOS	320,73
0342	377	UD	SEÑAL DE TRÁFICO NORMALIZADA Señal de tráfico normalizada con soporte, incluso adquisición, transporte y colocación en su lugar de emplazamiento.	NOVENTA Y TRES EUROS con VEINTE CÉNTIMOS	93,20
0343	378.1	M2	SUPERFICIE REALMENTE PINTADA Pintura reflexiva blanca, en señalización de isletas, cebreados, etc, incluso premarcaje, totalmente terminada.	ONCE EUROS con SESENTA Y CINCO CÉNTIMOS	11,65
0344	380	M2	REPOSICIÓN DE PAVIMENTO DE HORMIGÓN Reposición de pavimento de hormigón HM-20/B/40/IIa+Qa de 15 cm de espesor, totalmente terminado.	DIECISIETE EUROS con OCHENTA Y CUATRO CÉNTIMOS	17,84

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0345	381	M2	REPOSICIÓN DE FIRME DE AGLOMERADO Reposición de firme de aglomerado en caliente en zonas afectadas por las obras.	CUATRO EUROS con CATORCE CÉNTIMOS	4,14
0346	382	ML	REPOSICIÓN DE MURO DE HORMIGÓN EXISTENTE Reposición de muro de hormigón existente hasta 2,00 m de altura.	CUARENTA Y DOS EUROS con SETENTA CÉNTIMOS	42,70
0347	383	ML	REPOSICIÓN DE CERRAMIENTO EXISTENTE Reposición de cerramiento existente hasta 2,00 m de altura.	NUEVE EUROS con TREINTA Y SIETE CÉNTIMOS	9,37
0348	384	M2	REPOSICIÓN DE ACERA DE HORMIGÓN Reposición de acera de hormigón existente en vía pública, incluso bordillo, totalmente terminada.	CUARENTA Y DOS EUROS con CUARENTA Y DOS CÉNTIMOS	42,42
0349	385	M2	REPOSICIÓN DE JARDÍN EXISTENTE Reposición de jardín existente.	CUARENTA Y CUATRO EUROS con SESENTA Y DOS CÉNTIMOS	44,62
0350	386	M2	PAVIMENTO ADOQUÍN PREFABRICADO HORMIGÓN Pavimento de adoquín prefabricado de hormigón bicapa en color gris, de forma rectangular de 20x10x8 cm, colocado sobre cama de arena de río, rasanteada, de 3/4 cm de espesor, dejando entre ellos una junta de separación de 2/3 mm para su posterior relleno con arena caliza de machaqueo, i/recebado de juntas, barrido y compactado, a colocar sobre base firme existente, no incluido en el precio, compactada al 100% del ensayo Proctor.	VEINTIUN EUROS con CUARENTA Y NUEVE CÉNTIMOS	21,49
0351	387	ML	REPOSICIÓN OBRA DE DRENAJE HASTA DN 1,00 m Reposición de obra de drenaje hasta 1,00 de diámetro, p.p. de boquilla de entrada y salida, excavación, hormigón de recubrimiento y relleno compactado, totalmente terminada.	CIENTO SETENTA Y CUATRO EUROS con CINCUENTA Y CUATRO CÉNTIMOS	174,54
0352	388	ML	REPOSICIÓN DE ACEQUIA HASTA 1 m ANCHURA Reposición de acequia prefabricada de hormigón hasta 1,00 m de anchura.	OCHENTA Y SIETE EUROS con SESENTA Y CINCO CÉNTIMOS	87,65
0353	389	ML	REPOSICIÓN DE ACEQUIA Reposición de acequia con tubo de hormigón hasta 1 m de diámetro.	TRECE EUROS con CINCUENTA Y CINCO CÉNTIMOS	13,55
0354	390	ML	REPOSICIÓN DE ACEQUIA HASTA 3 m ANCHURA Reposición de acequia de hormigón de 1,00 a 3,00 m de anchura.	DOSCIENTOS UN EUROS con VEINTISEIS CÉNTIMOS	201,26
0355	391	ML	REPOSICIÓN DE POZO DE REGISTRO Reposición de pozo de registro para saneamiento o abastecimiento, incluso base de hormigón HM-20, p.p. de cono prefabricado de hormigón y tapa, totalmente terminado.	CUARENTA Y SIETE EUROS con CUARENTA Y SIETE CÉNTIMOS	47,47

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Nº	CÓDIGO	UD	DESCRIPCIÓN	PRECIO EN LETRA	IMPORTE
0356	392	UD	REPOSICIÓN DE ARQUETA Reposición de arqueta prefabricada de hormigón de 0,60 x 0,60 m para canalización eléctrica, incluso marco y tapa de registro, totalmente colocada.	CUARENTA EUROS con CUARENTA Y CUATRO CÉNTIMOS	40,44
0357	393	ML	CANALIZACIÓN TELEFÓNICA FIBRA ÓPTICA Canalización telefónica en zanja bajo calzada, para reposición de cable de fibra óptica de 12 a 16 fibras, incluso p.p. de arquetas y caja de empalmes, totalmente terminado.	CUARENTA Y CINCO EUROS con CINCUENTA Y OCHO CÉNTIMOS	45,58
0358	394	ML	CANALIZACIÓN TELEFÓNICA BAJO CALZADA 2 TUBOS Canalización telefónica en zanja bajo calzada, de 0,45x0,88 m para 2 conductos, en base 2, de PVC de 110 mm de diámetro, embebidos en prisma de hormigón HM-20 de central de 8 cm de recubrimiento superior e inferior y 10 cm lateralmente, incluso excavación de tierras a máquina en terrenos flojos, tubos, soportes distanciadores cada 70 cm, cuerda guía para cables, hormigón y relleno en la capa superior con tierras procedentes de la excavación, en tongadas < 25 cm, compactada al 95% del P.N., totalmente terminado.	TRECE EUROS con CUARENTA Y DOS CÉNTIMOS	13,42
0359	395	ML	CANALIZACIÓN TELEFÓNICA BAJO CALZADA 4 TUBOS Canalización telefónica en zanja bajo calzada, de 0,45x1,01 m para 4 conductos, en base 2, de PVC de 110 mm de diámetro, embebidos en prisma de hormigón HM-20 de central de 8 cm de recubrimiento superior e inferior y 10 cm lateralmente, incluso excavación de tierras a máquina en terrenos flojos, tubos, soportes distanciadores cada 70 cm, cuerda guía para cables, hormigón y relleno en la capa superior con tierras procedentes de la excavación, en tongadas < 25 cm, compactada al 95% del P.N., totalmente terminado.	DIECIOCHO EUROS con SESENTA Y SEIS CÉNTIMOS	18,66
0360	396	ML	CANALIZACIÓN TELEFÓNICA BAJO CALZADA 6 TUBOS Canalización telefónica en zanja bajo calzada, de 0,45x1,01 m para 6 conductos, en base 2, de PVC de 110 mm de diámetro, embebidos en prisma de hormigón HM-20 de central de 8 cm de recubrimiento superior e inferior y 10 cm lateralmente, incluso excavación de tierras a máquina en terrenos flojos, tubos, soportes distanciadores cada 70 cm, cuerda guía para cables, hormigón y relleno en la capa superior con tierras procedentes de la excavación, en tongadas < 25 cm, compactada al 95% del P.N., totalmente terminado.	VEINTICINCO EUROS con OCHENTA Y OCHO CÉNTIMOS	25,88
0361	397	ML	CANALIZACIÓN TELEFÓNICA BAJO CALZADA 8 TUBOS Canalización telefónica en zanja bajo calzada, de 0,65x1,01 m para 8 conductos, en base 4, de PVC de 110 mm de diámetro, embebidos en prisma de hormigón HM-20 de central de 8 cm de recubrimiento superior e inferior y 10 cm lateralmente, incluso excavación de tierras a máquina en terrenos flojos, tubos, soportes distanciadores cada 70 cm, cuerda guía para cables, hormigón y relleno en la capa superior con tierras procedentes de la excavación, en tongadas < 25 cm, compactada al 95% del P.N., totalmente terminado.	TREINTA Y UN EUROS con CUARENTA Y OCHO CÉNTIMOS	31,48

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Nº	CÓDIGO	UD	DESCRIPCIÓN	PRECIO EN LETRA	IMPORTE
0362	398	ML	CANALIZACIÓN TELEFÓNICA BAJO CALZADA 12 TUBOS Canalización telefónica en zanja bajo calzada, de 0,65x1,01 m para 12 conductos, en base 5, de PVC de 110 mm de diámetro, embebidos en prisma de hormigón HM-20 de central de 8 cm de recubrimiento superior e inferior y 10 cm lateralmente, incluso excavación de tierras a máquina en terrenos flojos, tubos, soportes distanciadores cada 70 cm, cuerda guía para cables, hormigón y relleno en la capa superior con tierras procedentes de la excavación, en tongadas < 25 cm, compactada al 95% del P.N., totalmente terminado.	CUARENTA Y SEIS EUROS con SESENTA Y CINCO CÉNTIMOS	46,65
0363	399	ML	CUNETA SIN REVESTIR EN DESMONTE Ejecución de cuneta sin revestir en desmonte de carretera, incluyendo perfilado, totalmente terminada.	UN EUROS con SIETE CÉNTIMOS	1,07
0364	400	M2	SEMBRADO DE TALUDES EN ZONAS DE VARIACIÓN DE NIVEL Sembrado de taludes en zonas de variación de nivel y reposición de cubierta vegetal.	UN EUROS con TREINTA Y SIETE CÉNTIMOS	1,37
0365	400-00	UD	P.A. DE DERECHOS DE ENGANCHE PARTIDA ALZADA A JUSTIFICAR EN CONCEPTO DE DERECHOS DE ENGANCHE, ACOMETIDA Y VERIFICACION A SATIFACER A LA COMPAÑIA SUMINISTRADORA.	CUATROCIENTOS CINCUENTA Y DOS EUROS con TREINTA Y OCHO CÉNTIMOS	452,38
0366	401	UD	ARBOL Plantación de árbol según especificaciones técnicas, en hoyos de 0,60x0,60x0,60 m, incluso riego y mantenimiento durante un año y parte proporcional de marras.	VEINTICUATRO EUROS con SESENTA Y DOS CÉNTIMOS	24,62
0367	402	M2	PLANTACIÓN DE ESPECIES ARBUSTIVAS DE 40-60 CM Plantación de especies arbustivas de 40-60 cm, incluso riego y mantenimiento durante un año y parte proporcional de marras.	UN EUROS con OCHENTA Y SIETE CÉNTIMOS	1,87
0368	403	M3	RELLENO DE TIERRA VEGETAL EN PLANTACIONES Relleno de tierra vegetal en reposición de cultivos, plantaciones y cubrimiento de vertederos, procedente de la excavación o préstamos, incluso carga, transporte y extendido.	UN EUROS con TREINTA Y UN CÉNTIMOS	1,31

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Nº	CÓDIGO	UD	DESCRIPCIÓN	PRECIO EN LETRA	IMPORTE
0369	410	ud	Centro de control de telemando y telecontrol del Sistema Cidacos Centro de control del Sistema Cidacos de abastecimiento, totalmente instalado y puesto a punto compuesto por: -2 PC de centro de control con procesador de primera marca con procesador Intel Core i9-9880H o equivalente, 16 GB RAM, unida de back-up DVD-RW, Ethernet 10/100, garantía 2 años y ratón ergonómicos e inalámbricos, monitor de 22". CD-RW, tarjeta de red, módem de línea 56k, impresora A3 color y B/N, sistema operativo Windows profesional de última generación con licencia, paquete de Microsoft Office con licencia, totalmente instalado y probado. -Licencias de Software. - 2 servidores redundantes. Configuración RAIS-5. - 2 Switch de comunicación redundantes. - 1 ordenador supervisor de telecontrol de las remotas. - System Builder hasta 20 RTU's. -Módulo DPN-3 MASTER/SLAVE SUPPORT con mejora de la aplicación TOOLBOX proporcionando soporte para el DPN3. -RIX-2 CENTRAL SOFTWARE. -Armario de conexiones con Router y concentrador de red.	DIEZ MIL SEISCIENTOS SESENTA EUROS con DIEZ CÉNTIMOS	10.660,10
0370	411	m	Canalización con 2 tubos de PVC de 90 mm y banda señalización Realización de canalización con 2 tubos de PVC y diámetro de 90 mm sobre canalización abierta para colector de agua, incluido suministro de material y mandrilado de conductos y banda de señalización.	DOS EUROS con OCHENTA Y DOS CÉNTIMOS	2,82
0371	412	ud	Arquetas de empalme tipo H de dimensiones exteriores 104x94x97cm Arquetas de empalme tipo H de dimensiones exteriores 104x94x97 cm, incluso tapa, totalmente colocada.	TRESCIENTOS SESENTA Y SEIS EUROS con CINCUENTA CÉNTIMOS	366,50
0372	413	m	Suministro e instalación de cable de 16 fo monomodo con armadura Suministro e instalación de cable de 16 fo monomodo con armadura de acero por conducto de 90 mm.	UN EUROS con SESENTA Y SEIS CÉNTIMOS	1,66
0373	414	ud	Realización de torpedo de empalme de paso (8/16 fo) con entrada Realización de torpedo de empalme de paso (8/16 fo) con entrada de 2 cables, incluido material y preparación de extremos.	DOSCIENTOS TRECE EUROS con QUINCE CÉNTIMOS	213,15
0374	415	ud	Realización de torpedo de empalme de segregación (8/16 fo) con e Realización de torpedo de empalme de segregación (8/16 fo) con entrada de 3 cables, incluido material y preparación de extremos.	TRESCIENTOS VEINTICINCO EUROS con TRES CÉNTIMOS	325,03
0375	418	ud	Puesta en marcha, documentación y curso de formación Puesta en marcha y pruebas globales del conjunto, documentación de referencia y curso de formación.	TRECE MIL QUINIENTOS VEINTE EUROS con VEINTISEIS CÉNTIMOS	13.520,26

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Nº	CÓDIGO	UD	DESCRIPCIÓN	PRECIO EN LETRA	IMPORTE
0376	420	ud	Batería de 3AH para controlador de estación remota Suministro de batería de 3AH para controlador de estación remota.	CATORCE EUROS con VEINTISIETE CÉNTIMOS	14,27
0377	421	ud	Módulo de 32 entradas digitales Suministro y montaje de módulo de 32 entradas digitales.	CIENTO CINCUENTA EUROS con TREINTA Y UN CÉNTIMOS	150,31
0378	422	ud	Módulo de 16 salidas digitales Suministro de módulo de 16 salidas digitales.	CIENTO CINCUENTA EUROS con TREINTA Y UN CÉNTIMOS	150,31
0379	423	ud	Módulo 8 Entradas analógicas 4-20mA; 2 DO ML; Suministro de módulo 8 Entradas analógicas 4-20mA; 2 DO ML.	DOSCIENTOS VEINTIDOS EUROS con CUARENTA Y CINCO CÉNTIMOS	222,45
0380	424	ud	Módulo 8 Salidas analógicas 4-20mA Suministro de módulo 8 Salidas analógicas 4-20 mA.	DOSCIENTOS QUINCE EUROS con SETENTA CÉNTIMOS	215,70
0381	427	ud	Sensor para válvula de corte Sensor para válvula de corte motorizada, cableado, instalado y probado.	NOVECIENTOS NUEVE EUROS con TREINTA Y TRES CÉNTIMOS	909,33
0382	428	ud	Sensor para válvula de regulación Sensor para válvula de regulación motorizada, cableado, instalado y probado.	SEISCIENTOS CINCUENTA Y DOS EUROS con CINCUENTA CÉNTIMOS	652,50
0383	431	ud	Módulo de comunicación HART Módulo de comunicación HART.	TRESCIENTOS CUARENTA EUROS con CUARENTA Y CINCO CÉNTIMOS	340,45
0384	435.1	UD	CUADROS PARA PLC 2000 x 800 x 400 mm Equipamiento y componentes para estación de automatización y control de ozonización, formada por autómata programable con configuración según planos y Anejo de Telecontrol en ED, SD, EA y SA (no incluidas), con bastidor de expansión y fuente de alimentación 220 VCA, comunicaciones por tarjeta ETHERNET, instalada en armario metálico de dimensiones 2000 x 800 x 400 mm, protecciones contra sobretensiones y separadores galvánicos, totalmente instalado, incluso programación de los algoritmos de automatización y puesta en servicio.	CINCO MIL TRESCIENTOS CUARENTA Y SEIS EUROS con VEINTIDOS CÉNTIMOS	5.346,22

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Nº	CÓDIGO	UD	DESCRIPCIÓN	PRECIO EN LETRA	IMPORTE
0385	435.2	UD	CUADROS PARA PLC 1200 x 800 x 400 mm Equipamiento y componentes para estación de automatización y control de ozonización, formada por autómata programable con configuración según planos y Anejo de Telecontrol en ED, SD, EA y SA (no incluidas), con bastidor de expansión y fuente de alimentación 220 VCA, comunicaciones por tarjeta ETHERNET, instalada en armario metálico de dimensiones 1200 x 800 x 400 mm, protecciones contra sobretensiones y separadores galvánicos, totalmente instalado, incluso programación de los algoritmos de automatización y puesta en servicio.	CUATRO MIL DOSCIENTOS SETENTA Y UN EUROS con NOVENTA Y OCHO CÉNTIMOS	4.271,98
0386	436	ud	Programación de PLC y panel sinóptico Programación de PLC y panel sinóptico, incluso programa de control de adquisición de datos (SCADA), incluyendo licencia de uso, programación de la aplicación y puesta en marcha.	VEINTICINCO MIL SESENTA Y NUEVE EUROS	25.069,00
0387	439B	M2	FORJADO PLACA ALVEOLAR 15+5 cm Forjado unidireccional de losas alveolares prefabricadas de 15 cm de espesor y capa de compresión de 5 cm de hormigón HA-25 de 25 N/mm2, incluso armadura de negativos según planos, mallazo de reparto, formación de huecos, y elementos auxiliares.	CUARENTA EUROS con TRECE CÉNTIMOS	40,13
0388	439C	M2	FORJADO PLACA ALVEOLAR 20+5 cm Forjado unidireccional de losas alveolares prefabricadas de 20 cm de espesor y capa de compresión de 5 cm de hormigón HA-25 de 25 N/mm2, incluso armadura de negativos según planos, mallazo de reparto, formación de huecos, y elementos auxiliares.	CUARENTA Y CUATRO EUROS con SETENTA Y SIETE CÉNTIMOS	44,77
0389	439D	M2	FORJADO PLACA ALVEOLAR 25+5 cm Forjado unidireccional de losas alveolares prefabricadas de 25 cm de espesor y capa de compresión de 5 cm de hormigón HA-25 de 25 N/mm2, incluso armadura de negativos según planos, mallazo de reparto y elementos auxiliares.	CINCUENTA EUROS con VEINTE CÉNTIMOS	50,20
0390	439E	M2	FORJADO PLACA ALVEOLAR 15+10 cm Forjado unidireccional de losas alveolares prefabricadas de 15 cm de espesor y capa de compresión de 10 cm de hormigón HA-30/F/20/IV, incluso armadura de negativos según planos, mallazo de reparto, formación de huecos, y elementos auxiliares.	CUARENTA Y CINCO EUROS con UN CÉNTIMOS	45,01
0391	439F	ML	VIGAS PREFABRICADAS DE 40X75 CM Vigas prefabricadas de hormigón de 40 cm de ancho y 75 cm de canto, montadas.	OCHENTA Y DOS EUROS con TRECE CÉNTIMOS	82,13
0392	439G	ML	VIGAS PREFABRICADAS DE 25X60 CM Vigas prefabricadas de hormigón de 25 cm de ancho y 60 cm de canto, montadas.	SESENTA Y DOS EUROS con SESENTA Y OCHO CÉNTIMOS	62,68

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0393	439H	ML	VIGAS PREFABRICADAS DE 25X50 CM Vigas prefabricadas de hormigón de 25 cm de ancho y 60 cm de canto, montadas.	CINCUENTA Y SIETE EUROS con CINCUENTA Y SEIS CÉNTIMOS	57,56
0394	439I	ML	PILAR PREFABRICADAS DE 40X50 CM Pilar prefabricado de hormigón de 40 cm de ancho y 50 cm de canto, con p.p. de ménsulas de apoyo según planos, montados.	NOVENTA Y CINCO EUROS con CUARENTA Y TRES CÉNTIMOS	95,43
0395	439J	ML	PILAR PREFABRICADAS DE 30X40 CM Pilar prefabricado de hormigón de 30 cm de ancho y 40 cm de canto, con p.p. de ménsulas de apoyo según planos, montados.	NOVENTA Y DOS EUROS con TREINTA Y SIETE CÉNTIMOS	92,37
0396	439K	ML	CORREAS TUBULARES PREFABRICADAS DE 25 CM Correas tubulares de 25 cm, montadas.	TREINTA Y NUEVE EUROS con CUARENTA Y TRES CÉNTIMOS	39,43
0397	439L	ML	VIGA PORTACANALÓN PREFABRICADA Viga portacanalón prefabricada, montadas.	TREINTA Y NUEVE EUROS con CUARENTA Y TRES CÉNTIMOS	39,43
0398	440acus	M2	FALSO TECHO METÁLICO ABSORCIÓN ACÚSTICA m². Techo formado por una doble estructura de perfiles de chapa de acero galvanizada, instalada a dos niveles. La estructura primaria se compone a base de Perfiles continuos PH-45 en forma de "V" invertida, modulados cada 1100 mm y debidamente suspendidos de forjado de placa por medio de varilla roscada Ø 6 mm y tuerca y contratuerca cada 1100 mm dotada de aisladores acústicos para evitar la transmisión a techo. La segunda estructura formada por perfiles T-47 se acopla perpendicularmente a la parte inferior de la estructura primaria cada 500 mm mediante encaje directo en las horquillas dobles troqueladas del perfil PH-45. A esta estructura de perfiles, se atornilla a la segunda estructura de perfiles T-47 y perpendicularmente a ella una falso techo de chapa perforada minionda de 0,6 mm de espesor y 18 mm de canto, galvanizada en caliente, R3T6, parte proporcional de anclajes, cuelgues, tornillería, etc, según requisitos del CTE-DB HR.	CUARENTA Y UN EUROS con TREINTA Y DOS CÉNTIMOS	41,32
0399	440ais	M2	AISLAMIENTO SOBRE FALSO TECHO m². Lana mineral ISOVER IBR constituido por una manta ligera de lana de vidrio, revestida por una de sus caras con papel kraft que actúa como barrera de vapor de 80 mm de espesor cumpliendo la norma UNE EN 13162 Productos Aislantes térmicos para aplicaciones en la edificación con una conductividad térmica de 0,040 W / (m·K), clase de reacción al fuego F y código de designación MW-EN-13162-T2-WS-Z3-AF r5, para cubiertas y techos en posición horizontal o inclinada, sin carga.	TRES EUROS con SETENTA Y OCHO CÉNTIMOS	3,78

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Nº	CÓDIGO	UD	DESCRIPCIÓN	PRECIO EN LETRA	IMPORTE
0400	440aiss	M2	AISLAMIENTO BAJO SOLERA m². Aislamiento térmico mediante placas rígidas de poliestireno extruido de resistencia a compresión no menor de 500 kPa, de 40 mm de espesor, debajo o arriba de solera en contacto con encachado y terreno natural.	SEIS EUROS con SETENTA Y CINCO CÉNTIMOS	6,75
0401	440pacus	M2	PARAMENTOS ABSORCIÓN ACÚSTICA m². Revestimiento de paramentos con penel semirrígido de lana de roca volcánica de 50 kg/m3 de densidad, de 11 cm. de espesor, con hendidura para acople de la bandeja de solape. Instalación de bandejas perforadas de chapa de acero R3T6 totalmente terminado.	VEINTIOCHO EUROS con SETENTA Y OCHO CÉNTIMOS	28,78
0402	440pya	M2	FALSO TECHO FONOABSORBENTE REGISTRABLE m². Techo formado por una doble estructura de perfiles PLADUR® de chapa de acero galvanizada, instalada a dos niveles. La estructura primaria se compone a base de Perfiles continuos PH-45 en forma de "V" invertida, modulados cada 1100 mm y debidamente suspendidos de cuadradillos por medio de varilla roscada Ø 6 mm y tuerca y contratuerca cada 1100 mm La segunda estructura formada por perfiles T-47 se acopla perpendicularmente a la parte inferior de la estructura primaria cada 500 mm mediante encaje directo en las horquillas dobles troqueladas del perfil PH-45 y apoyados perimetralmente en el Angular L A-30 TC, el cual está fijado mecánicamente en toda su longitud A esta estructura de perfiles, se atornilla a la segunda estructura de perfiles T-47 y perpendicularmente a ella una placa perforada para acondicionamiento acústico, tipo Pladur Fon+ C8/18, de 13 mm de espesor con tratamiento imprimación blanca para protección de rayos ultravioleta, pintado en blanco; parte proporcional de anclajes, cuelgues, tornillería, juntas estancas /acústicas de su perímetro, totalmente terminado . Montaje según Normativa Intersectorial de ATEDY y requisitos del CTE-DB HR.	TREINTA EUROS con CINCUENTA Y CUATRO CÉNTIMOS	30,54
0403	440pyl	M2	FALSO TECHO DE PLACA DE YESO LAMINADO m². Techo formado por una doble estructura de perfiles PLADUR® de chapa de acero galvanizada, instalada a dos niveles. La estructura primaria se compone a base de Perfiles continuos PH-45 en forma de "V" invertida, modulados cada 1100 mm y debidamente suspendidos de cuadradillos por medio de varilla roscada Ø 6 mm y tuerca y contratuerca cada 1100 mm La segunda estructura formada por perfiles T-47 se acopla perpendicularmente a la parte inferior de la estructura primaria cada 500 mm mediante encaje directo en las horquillas dobles troqueladas del perfil PH-45 y apoyados perimetralmente en el Angular L A-30 TC, el cual está fijado mecánicamente en toda su longitud A esta estructura de perfiles, se atornilla a la segunda estructura de perfiles T-47 y perpendicularmente a ella una placa de yeso laminado estandar tipo N de 13 mm de espesor, parte proporcional de anclajes, cuelgues, tornillería, juntas estancas /acústicas de su perímetro, pasta de juntas, etc. totalmente terminado con calidad de terminación Nivel 2 (Q2) para terminaciones estándar de pintura ó calidad de terminación Nivel 3 (Q3) para terminaciones de calidad alta de acabados lisos y de poco espesor. Montaje según Normativa Intersectorial de ATEDY: "Sistemas de techos continuos con estructura metálica. ATEDY 3" y requisitos del CTE-DB HR.	VEINTITRES EUROS con TREINTA Y SEIS CÉNTIMOS	23,36

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0404	440pyt	ML	TABICA YESO LAMINADO m. Faja o tabica de placa de yeso laminado de 20 a 30 cm de anchura, para falsos techos tanto fijos como desmontables, i/p.p. de periferia de acero galvanizado de fijación incluso juntas, repaso de las mismas, colocación de andamios y limpieza, y cualquier tipo de medio auxiliar, completamente terminado.	VEINTIDOS EUROS con QUINCE CÉNTIMOS	22,15
0405	442	M2	ENLUCIDO DE YESO BLANCO, TERMINADO Enlucido de yeso blanco, terminado.	DOS EUROS con CUARENTA Y CUATRO CÉNTIMOS	2,44
0406	4432	M2	ALICATADO AZULEJO Alicatado con azulejo blanco mate con cenefa en color diferenciado según local, formato no inferior a 40x20 cm, recibido con adhesivo, incluso preparación de paramentos, cortes, cantoneras cromadas, rejuntados y limpieza, ejecutado según NTE y especificaciones, medido en superficie real, deduciendo huecos superiores a 0,5 m2.	VEINTE EUROS con NOVENTA Y SIETE CÉNTIMOS	20,97
0407	4432A	M2	ALICATADO AZULEJO ANTIÁCIDO Alicatado con azulejo blanco mate antiácido, formato no inferior a 40x20 cm, recibido con adhesivo, incluso preparación de paramentos, cortes, cantoneras cromadas, rejuntados y limpieza, ejecutado según NTE y especificaciones, medido en superficie real, deduciendo huecos superiores a 0,5 m2.	VEINTIDOS EUROS con SETENTA Y NUEVE CÉNTIMOS	22,79
0408	444	M2	CARPINTERÍA DE MADERA MACIZA Carpintería de madera maciza, de pino Oregón en puertas, incluso herrajes, montada.	OCHENTA Y OCHO EUROS con CUARENTA CÉNTIMOS	88,40
0409	444V	M2	MARCO VENTANAL DE MADERA MACIZA m². Ventanal fijo para la colocación de vidrio, con cerco de pino Oregón de 9x7 cm para barnizar, con tapajuntas de pino Oregón 7x1,5 cm, por ambas caras y junquillo fijación vidrio. Según CTE/DB-HS 3.	SESENTA Y CINCO EUROS con DIECINUEVE CÉNTIMOS	65,19
0410	446M2	UD	PUERTA CORTAFUEGOS EI2/60/C5 2h 1800 mm ud. Puerta resistente al fuego a partir de los datos obtenidos de los ensayos de resistencia al fuego con clasificación EI2/60/C5 según UNE EN-13501-2 (Integridad E: no transmisión de una cara a otra por llama o gases caliente; Aislamiento I: no transmisión de una cara a otra por transferencia de calor, con sufijo 2: para medición de distancias y temperaturas a tener en cuenta (100 mm/180°/100 mm); Tiempo t= 60 minutos o valor mínimo que debe cumplir tanto la integridad E como el aislamiento I; Capacidad de cierre automático C5; para uso s/ CTE (tabla 1.2 y 2.1 del DB-SI-1.1 y 1.2) siguiente: a) en paredes que delimitan sectores de incendios, con resistencia t de la puerta mitad del requerido a la pared en la que se encuentre, o bien la cuarta parte en caso de utilizar vestíbulos de independencia; b) puertas de locales de riesgo especial (bajo, medio o alto) en comunicación con el resto del edificio; con marcado CE y certificado y declaración CE de conformidad; de dos hojas abatibles de 1800x2150 mm con doble chapa de acero, i/p.p. de aislamiento de fibra mineral, cerco tipo "Z" electrosoldado de 3 mm de espesor, mecanismo de cierre automático y herrajes de colgar y de seguridad, juntas, etc... según CTE/DB-SI	TRESCIENTOS SESENTA Y TRES EUROS con CINCUENTA Y OCHO CÉNTIMOS	363,58

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0411	449	M2	PINTURA PLÁSTICA LISA MATE COLOR Pintura plástica lisa mate color, en interiores, en paramentos horizontales y verticales, dos manos, incluso lijado, mano de imprimación con plástico diluido, plastecido, lijado y acabado.	TRES EUROS con DIECIOCHO CÉNTIMOS	3,18
0412	452B	M2	ACERA DE BALDOSA HIDRÁULICA EXTERIOR (30x30x4 cm.) Acera de baldosa hidráulica tipo pétreo antideslizante uso exterior de dimensiones 30x30x4 cm., color y dibujo a definir en obra, colocada sobre 3 cm de mortero de agarre M-40 y 12 cm de espesor de hormigón HNE-20, enluchado y limpieza, totalmente terminado.	QUINCE EUROS con NOVENTA CÉNTIMOS	15,90
0413	452BA	ud	BARRA APOYO ABATIBLE Ud. Barra de apoyo MEDICLINIC Ref. BG0800C acero inox AISI 304, o modelo equivalente, instalada con p.p. de elementos de anclaje de acero inox.	CIENTO DOS EUROS con OCHENTA Y SEIS CÉNTIMOS	102,86
0414	452BAT	ud	BATER. 6 PANELES PLANOS FKC-1 W JUNKERS 13,50 M2 Ud. Batería de 6 captadores solares planos FKC-1 W de alto rendimiento, con tratamiento selectivo en cromo negro, para montaje en horizontal. Permite conexión en paralelo hasta 10 captadores. Circuito hidráulico de parrilla de tubos. Aislamiento de lana mineral de 55 mm de espesor. Estructura en forma de caja, realizada en fibra de vidrio. Superficie de apertura: 2,25 m2. Uniones mediante manguitos flexibles con abrazaderas de ajuste rápido. Instalado sobre cubierta plana mediante una estructura de soporte de aluminio con elementos de conexión incluyendo racores, válvulas de corte, purgador, etc. Incluso transporte, montaje, conexión, pruebas de funcionamiento y puesta en marcha. Conexión hidráulica entre captadores y sujeción física a estructura.	TRES MIL CIENTO TRES EUROS con TREINTA Y CINCO CÉNTIMOS	3.103,35
0415	452BF	ud	BARRA APOYO FIJA Ud. Barra de apoyo MEDICLINIC Ref. BR0600CS acero inox AISI 304, o modelo equivalente, instalada con p.p. de elementos de anclaje de acero inox.	CUARENTA Y SEIS EUROS con SETENTA CÉNTIMOS	46,70
0416	452C	ML	CERRAMIENTO MALLA GALVANIZADA Y PLASTIFICADA EN VERDE DE 2,00 m Cerramiento de malla metálica galvanizada plastificada en verde de 2,0 m. de altura, incluso p.p. de puerta de entrada peatonal con cerradura, p.p. de postes de acero galvanizado también plastificados en verde, colocados cada 3,0 m sobre cimentación de hormigón (no incluida), incluso p.p. jabalcones, esquinas, tensores, anclajes y resto de accesorios. Colocada y totalmente terminada.	TRECE EUROS con VEINTICINCO CÉNTIMOS	13,25
0417	452D	M2	PAVIMENTO DE GRAVILLA 10/20 mm + GEOTEXTIL ANTIHIERBA 200gr/m2 Pavimento de gravilla 10/20 extendida de 15 cm. de espesor, dispuesto sobre un geotextil antihierba permeable y con protección UV de 200 gr/m2. Incluso maestreado y refino de la superficie. totalmente terminado.	CINCO EUROS con TREINTA Y DOS CÉNTIMOS	5,32

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0418	452DJ	ud	DOSIFICADOR DE JABÓN ud. Dosificador de jabón MEDICLINICS DJ0111C o equivalente, acero inoxidable, instalado.	CUARENTA Y UN EUROS con NOVENTA Y CINCO CÉNTIMOS	41,95
0419	452E	UD	PUERTA DE ACCESO A ETAP DE 5,0 M Puerta de acceso a planta de 5 m de longitud por 2,0 m de altura de apertura manual, construida en periferia tubular de acero laminado S-275 JR movimiento longitudinal sobre ruedas de carril, zócalo fijo de chapa de 0,75 m de altura, y puerta peatonal de apertura manual, i/obra civil necesaria. Medida la unidad terminada y funcionando.	SEISCIENTOS SETENTA Y CUATRO EUROS con ONCE CÉNTIMOS	674,11
0420	452IA	ud	INODORO TANQUE BAJO ACCESIBLE Ud. Inodoro de Roca modelo Access de tanque bajo en blanco de 480 mm. de altura (sin asiento), con asiento y tapa con bisagras de acero inox., mecanismos, llave de escuadra 1/2" cromada, latiguillo flexible de 20 cm., empalme hasta bajante o tubería de avacuación de PVC de 110 mm., totalmente instalado.	CIENTO NOVENTA Y CUATRO EUROS con VEINTE CÉNTIMOS	194,20
0421	452IN	ud	INODORO TANQUE BAJO Ud. Inodoro de Roca modelo Victoria de tanque bajo en blanco, con asiento pintado en blanco y mecanismos, llave de escuadra 1/2" cromada, latiguillo flexible de 20 cm., empalme simple PVC de 110 mm., totalmente instalado.	CIENTO CUARENTA Y SEIS EUROS con SESENTA Y CUATRO CÉNTIMOS	146,64
0422	452LP	ud	LAVABO SOBRE PEDESTAL ud. Lavabo de Roca o similar, modelo Victoria de 52x41 cm con pedestal en blanco, con grifería temporizada de 1/2" marca Presto 605 o similar, válvula de desagüe de 32 mm, llave de escuadra de 1/2" cromada y sifón individual PVC 40 mm y latiguillo flexible 20 cm, totalmente instalada.	CIENTO TREINTA Y NUEVE EUROS con OCHENTA Y OCHO CÉNTIMOS	139,88
0423	452LV	ud	LAVABO MURAL ACCESIBLE Ud. Lavabo mural de Roca modelo Hall de 450x380 mm. en blanco, con mezclador de lavabo monomando adaptado, válvula de desagüe de 32 mm., llaves de escuadra de 1/2" cromadas y sifón individual y tuberías de enlace a paramento y sanitario cromado 40 mm. y latiguillo flexible 20 cm., totalmente instalado.	CIENTO SETENTA Y TRES EUROS con NOVENTA Y SIETE CÉNTIMOS	173,97
0424	452Lm	ud	LAVABO MURAL Ud. Lavabo mural de Roca modelo Hall de 450x380 mm. en blanco, con mezclador de lavabo monomando, válvula de desagüe de 32 mm., llaves de escuadra de 1/2" cromadas y sifón individual y tuberías de enlace a paramento y sanitario cromado 40 mm. y latiguillo flexible 20 cm., totalmente instalado.	CIENTO CINCUENTA Y NUEVE EUROS con CINCUENTA Y CUATRO CÉNTIMOS	159,54

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0425	452PC	M2	PAVIMENTO CERÁMICO m². Solado de baldosa de gres (precio del material 18 euros/m²), en formato comercial, para interiores (resistencia al deslizamiento Rd s/ UNE-ENV 12633 según planos, recibido con cemento cola Weber.col classic blanco, i/piezas especiales, ejecución de cortes, rejuntado con mortero decorativo Weber col junta fina (< 3mm) y limpieza, s/ CTE BD SU y NTE-RSB-7.	TREINTA Y CINCO EUROS con CINCUENTA Y OCHO CÉNTIMOS	35,58
0426	452PL	M2	PAVIMENTO LAMINADO m². Pavimento laminado AC5/33 con certificación como clase ASF2 (antiestático), con tablero base DPL de alta densidad de medidas 1285x191x11,0 mm dotado de junta de cierre click en los cuatro cantos de la tabla. Compuesto por tres elementos: A, capa de desgaste compuesta de una capa protectora fabricada a partir de resinas melamínicas y papel decorado con acabado de superficie similar a la madera (arce natural, haya, roble...). B, tablero base HDF dotado de sistema anti humedad y unión Click. C, contracapa de papel Krahf para mayor estabilidad del conjunto y sistema de reducción del sonido de la pisada, i/rodapié de 10 cm de MDF laminado en igual color que el pavimento, totalmente terminado..	VEINTICINCO EUROS con VEINTIUN CÉNTIMOS	25,21
0427	452PR	ud	DISPENSADOR PAPEL ROLLO ud. Dispensador de papel higiénico industrial circular, modelo MEDICLINICS PR0783CS o modelo equivalente, instalado.	CUARENTA EUROS con NOVENTA Y SEIS CÉNTIMOS	40,96
0428	452PT	ud	DISPENSADOR PAPEL TOALLA ud. Dispensador de papel toalla modelo MEDICLINICS DT2106CS o modelo equivalente, instalado.	CUARENTA Y NUEVE EUROS con CINCUENTA Y TRES CÉNTIMOS	49,53
0429	452Pg	M2	PAVIMENTO GRANITO m². Solado de granito nacional con acabado pulido, de 2 cm de espesor para interiores (resistencia al deslizamiento Rd s/ UNE-ENV 12633 para: a) zonas secas, CLASE 1 para pendientes menores al 6% y CLASE 2 para pendientes superiores al 6% y escaleras), recibido con mortero de cemento y arena de miga 1/6 o cemento cola, rejuntado y limpieza, s/ CTE BD SU y NTE-RSP.	CUARENTA Y SIETE EUROS con OCHENTA Y CUATRO CÉNTIMOS	47,84
0430	452Pgp	ML	PELDAÑO GRANITO m. Peldaño de granito nacional con huella y tabica, de 3 y 2 cm de espesor respectivamente, para interiores o exteriores (resistencia al deslizamiento Rd>45 s/ UNE-ENV 12633 CLASE 3), i/p.p. de zanquín del mismo material de 42x17 cm, recibido todo ello con mortero de cemento y arena de miga 1/6, rejuntado y limpieza, s/ CTE BD SU.	CINCUENTA Y SIETE EUROS con SESENTA Y NUEVE CÉNTIMOS	57,69
0431	452Pgr	ML	RODAPIÉ GRANITO m. Rodapie de granito nacional de 10x2 cm, con mortero de cemento y arena de río M5 según UNE-EN 998-2 o adhesivo si es a placa de yeso, i/rejuntado y limpieza, S/NTE-RSP-16.	ONCE EUROS con QUINCE CÉNTIMOS	11,15

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0432	452Pr	M2	RODAPIÉ CERÁMICO m. Rodapie de gres de 7 cm recibido con mortero de cemento y arena de río M5 según UNE-EN 998-2 o adhesivo si es a placa de yeso, i/rejuntado y limpieza, S/ CTE BD SU y NTE-RSP-16.	CINCO EUROS con NOVENTA Y CUATRO CÉNTIMOS	5,94
0433	452TER	ud	TERMO ELÉCTRICO 80 L JUNKERS ud. Termo eléctrico vertical/horizontal para el servicio de a.c.s acumulada, JUNKERS modelo HS 80-3B, con una capacidad útil de 80 litros. Potencia 2,0 kW. Ajuste de temperatura en intervalos de 10°C y tensión de alimentación a 230 V. Tiempo de calentamiento 140 minutos. Testigo luminoso de funcionamiento y display con indicación de temperatura. Depósito de acero vitrificado. Aislamiento de espuma de poliuretano sin CFC y ánodo de sacrificio de magnesio. Presión máxima admisible de 8 bar. Dimensiones 948 mm de alto y 452 mm de diámetro.	DOSCIENTOS CINCUENTA Y DOS EUROS con SESENTA Y UN CÉNTIMOS	252,61
0434	452UR	ud	URINARIO MURAL Ud. Urinario de Roca modelo Site, o equivalente, con grifo temporizado Presto 27 1/2" y enlace a urinario y sifón incorporado, totalmente instalado.	DOSCIENTOS VEINTIUN EUROS con CINCUENTA Y CINCO CÉNTIMOS	221,55
0435	452VT	ud	VERTEDERO ud. Vertedero modelo Garda completo con mezclador exterior de caño giratorio modelo Victoria Plus de Roca o similar,, i/rejilla, desagüe, enchufe de unión y fijación instalada.	CIENTO SETENTA Y TRES EUROS con TREINTA Y NUEVE CÉNTIMOS	173,39
0436	452ce	ud	C. ELÉCT./CON. SYSTEMTRONIC ACS 2 Ud. Cuadro eléctrico y de control formado por caja estanca e interruptores de protección. Incluso cableado y bombas de conexión. Control diferencial, marca SYSTEMTRONIC, modelo PTC 2001/rd, con dos sondas de inmersión para actuación de bomba del primario (P<250W) mediante termostato diferencial, termostato mínima en paneles y termostato de máxima en acumulación, mediante actuación directa. Incluso accesorios y pequeño material, completamente montado, probado y funcionando.	TRESCIENTOS SESENTA Y DOS EUROS	362,00
0437	452cen	ud	CENTRALITA CONTROL JUNKERS TDS 050 Ud. Centralita solar JUNKERS modelo TDS 050 de regulación para una aplicación. Regulador por temperatura diferencial. Dos entradas tipo NTC (Temperatura panel y temperatura parte inferior del depósito). Display LCD con esquema de instalación en movimiento. Indicación de temperaturas, códigos de error, modo de funcionamiento y estado de la bomba. Una salida de tensión de 230V de corriente alterna para el circulador. Posibilidad de ajuste de diferencia de temperatura de conexión. Posibilidad de aplicación para recirculación entre depósitos. Posibilidad de ajuste de temperatura máxima en acumulador. Dimensiones: 134 x 137 x 38 mm.	CIENTO SESENTA Y TRES EUROS con CINCUENTA Y CUATRO CÉNTIMOS	163,54

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0438	452cis	ud	CIRCUITOS INSTALACIÓN SOLAR Ud. Ejecución de circuitos primario y secundario con tubería cobre rígido, incluso puesta a punto de soldadura dura o blanda según corresponda, codos, tes, manguitos y demás accesorios y pequeño material, aislada con coquilla de Armaflex, de espesor nominal de 30 mm, recubierta de pintura protectora exterior del aislante, vaso de expansión para sistemas cerrados, de 12 litros de capacidad, 4 bar y 120°C de presión y temperatura máximas de trabajo, 1.5 bar de presión inicial, homologado según directiva 97/23/CE de aparatos a presión, conexión roscada R 3/4", incluso válvula de seguridad de 3 kg/cm.2, llaves, de cierre, circulador Grundfos para instalación con presión y temperatura máxima de 10 bar y 110°C respectivamente, constituido por motor de rotor encapsulado, selector de 3 velocidades, manómetros, separador de aire, sonda de temperatura, purgador y demás accesorios y pequeño material, completamente montado, probado y funcionando.	SETECIENTOS SESENTA Y CINCO EUROS con TREINTA Y OCHO CÉNTIMOS	765,38
0439	452dep	ud	ACUMULACIÓN A.C.S. Ud. Depósito para acumulación ACV, Mod. SMART SL de 160 litros de capacidad, fabricado en acero inoxidable, aislado térmicamente, válvula de seguridad de 1", válvula de retención de 1", 2 llaves de esfera de 1", vaciado, vaseo de expansión de 8 l., accesorios y pequeño material, completamente montado, probado y funcionando	MIL TREINTA Y OCHO EUROS con CINCUENTA Y DOS CÉNTIMOS	1.038,52
0440	452fp	M2	FELPUDO METÁLICO M2. Suministro y colocación de felpudo de estructura de aluminio, acabado moqueta negro, marca GS-Group ref. Pedimat CS 2050 modelo ebonita, colocado con .p.p. de perfil de acero inox mate de 2 mm. en forma de L, para remate del granito, incluso p.p. de tornillería de fijación.	CIENTO SESENTA EUROS con DIECINUEVE CÉNTIMOS	160,19
0441	452gd	ud	GRIFERÍA DUCHAS Ud. Mezclador temporizado para ducha con pulsador de regulación de temperatura integrado, tipo Presto Alfa 80, y tubería de de enlace y rociador antivandálico, cromados para instalación vista, tipo N ofer 07072, o equivalente, i/p.p. de piezas especiales de enlace y fijación, totalmente instalado.	CIENTO SETENTA Y NUEVE EUROS con NOVENTA Y DOS CÉNTIMOS	179,92
0442	452leg	ud	LEGALIZACIÓN INSTALACIÓN A.C.S. Ud. Legalización instalación de energía solar térmica de potencia inferior a 21 kW, comprende tasas administrativas y tramitación por parte de un Organismo de Control Autorizado.	CIENTO SESENTA Y UN EUROS con DOCE CÉNTIMOS	161,12
0443	45316C	ML	AISLAM. COQUILLA D=16 MM iINT, E= 9 MM m. Aislamiento térmico con coquilla flexible autoadhesiva, elastómero extruido de célula cerrada, clase M1, de 9 mm de grueso, diámetro interior 16 mm, para utilizar con tubería de fontanería, con un coeficiente de conductividad térmica de 0,0,33 a 0,0037 W/m°C, en instalaciones de fontanería (Temperatura de trabajo entre -40°C y +110°C).	UN EUROS con TREINTA CÉNTIMOS	1,30

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Nº	CÓDIGO	UD	DESCRIPCIÓN	PRECIO EN LETRA	IMPORTE
0444	45320C	ML	<p> AISLAM. COQUILLA D=20 MM iINT, E= 9 MM</p> <p>m. Aislamiento térmico con coquilla flexible autoadhesiva, elastómero extruido de célula cerrada, clase M1, de 9 mm de grueso, diámetro interior 20 mm, para utilizar con tubería de fontanería, con un coeficiente de conductividad térmica de 0,033 a 0,0037 W/m°C, en instalaciones de fontanería (Temperatura de trabajo entre -40°C y +110°C).</p>	UN EUROS con TREINTA Y NUEVE CÉNTIMOS	1,39
0445	45325	ML	<p> TUBERÍA POLIETILENO RETICULADO 25x2,3</p> <p>m. Tubería de polietileno reticulado por el método Engel (Peróxido), según norma UNE-EN ISO 15875, de 25x2,3 mm de diámetro, colocada en instalaciones interiores para agua fría y caliente, sin protección superficial, con p.p. de accesorios Quick&Easy de PPSU, instalada y funcionando según CTE/ DB-HS 4 suministro de agua.</p>	CINCO EUROS con CINCUENTA Y OCHO CÉNTIMOS	5,58
0446	45325C	ML	<p> AISLAM. COQUILLA D=25 MM iINT, E= 9 MM</p> <p>m. Aislamiento térmico con coquilla flexible autoadhesiva, elastómero extruido de célula cerrada, clase M1, de 9 mm de grueso, diámetro interior 25 mm, para utilizar con tubería de fontanería, con un coeficiente de conductividad térmica de 0,033 a 0,0037 W/m°C, en instalaciones de fontanería (Temperatura de trabajo entre -40°C y +110°C).</p>	UN EUROS con CINCUENTA Y SIETE CÉNTIMOS	1,57
0447	45332	ML	<p> TUBERÍA POLIETILENO RETICULADO 32x2,9</p> <p>m. Tubería de polietileno reticulado por el método Engel (Peróxido), según norma UNE-EN ISO 15875, de 32x2,9 mm de diámetro, colocada en instalaciones interiores de para agua fría y caliente, sin protección superficial, con p.p. de accesorios Quick&Easy de PPSU, instalada y funcionando según CTE/ DB-HS 4 suministro de agua.</p>	CINCO EUROS con CINCUENTA Y OCHO CÉNTIMOS	5,58
0448	45332C	ML	<p> AISLAM. COQUILLA D=32 MM iINT, E= 9 MM</p> <p>m. Aislamiento térmico con coquilla flexible autoadhesiva, elastómero extruido de célula cerrada, clase M1, de 9 mm de grueso, diámetro interior 32 mm, para utilizar con tubería de fontanería, con un coeficiente de conductividad térmica de 0,033 a 0,0037 W/m°C, en instalaciones de fontanería (Temperatura de trabajo entre -40°C y +110°C).</p>	DOS EUROS con VEINTIDOS CÉNTIMOS	2,22
0449	453A	UD	<p> INSTALACIÓN DE FONTANERÍA Y EVACUACIÓN ASEOS PL.1</p> <p>ud. Instalación de aseos y cuarto de limpieza de planta primera, de fontanería completa en TABIQUERÍA SECA, realizada con tuberías de polietileno reticulado (método Engel) utilizando el sistema Quick&Easy de derivaciones por tes para las redes de agua fría y caliente y con tuberías de PVC serie C para la red de desagüe con los diámetros necesarios para cada punto de consumo, totalmente terminada según CTE/ DB-HS 4 suministro de agua, sin incluir los aparatos sanitarios ni griferías, y con p.p. de redes interiores de ascendentes y bajantes.</p>	QUINIENTOS CINCO EUROS con OCHENTA Y SIETE CÉNTIMOS	505,87
0450	453AC	UD	<p> ACOMETIDA ABASTECIMIENTO A EDIFICIO DE CONTROL</p> <p>Ud. Acometida a la red general, formada por tubería de polietileno de 1 1/2" y 10 Atm. para uso alimentario, brida de conexión, machón rosca, manguitos, llaves de paso tipo globo, válvula anti-retorno de 1 1/2", tapa de registro exterior, grifo de pruebas de latón de 1/2", incluso contador, según CTE/ DB-HS 4 suministro de agua.</p>	DOSCIENTOS SETENTA Y UN EUROS con SESENTA Y CINCO CÉNTIMOS	271,65

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Nº	CÓDIGO	UD	DESCRIPCIÓN	PRECIO EN LETRA	IMPORTE
0451	453ACE	UD	<p> INSTALACIÓN DE FONTANERÍA Y EVACUACIÓN ALMACÉN</p> <p>ud. Instalación del almacén y cuarto de equipos, de fontanería completa, realizada con tuberías de polietileno reticulado (método Engel) utilizando el sistema Quick&Easy de derivaciones por tes para las redes de agua fría y caliente y con tuberías de PVC serie C para la red de desagüe con los diámetros necesarios para cada punto de consumo, totalmente terminada según CTE/ DB-HS 4 suministro de agua, sin incluir los aparatos sanitarios ni griferías, y con p.p. de redes interiores de ascendentes y bajantes.</p>	CIENTO SESENTA Y SIETE EUROS con OCHENTA Y NUEVE CÉNTIMOS	167,89
0452	453AZ	UD	<p> ACOMETIDA ABASTECIMIENTO ZONA AZUD</p> <p>Ud. Acometida desde canal formada por tubería de polietileno de 1 1/2" y 10 Atm. para uso alimentario, brida de conexión, machón rosca, manguitos, llaves de paso tipo globo, válvula anti-retorno de 1 1/2", tapa de registro exterior, grifo de pruebas de latón de 1/2", incluso contador, según CTE/ DB-HS 4 suministro de agua.</p>	CIENTO CUARENTA Y UN EUROS con VEINTIUN CÉNTIMOS	141,21
0453	453AZD	UD	<p> INSTALACIÓN DE FONTANERÍA EDIFICIO AZUD</p> <p>ud. Instalación de fontanería completa para para el edificio del azud, realizada con tuberías de polietileno reticulado (método Engel) utilizando el sistema Quick&Easy de derivaciones por tes para las redes de agua fría, totalmente terminada según CTE/ DB-HS, para suministro de lavajos, grupo de presión, preparador de reactivos, toma de agua, incluso rejillas de sumideros interiores de PVC, con tuberías de saneamiento de salida de PVC SN8 DN160-DN200 hasta al punto de vertido, y con p.p. de redes interiores de ascendentes y bajantes.</p>	TRESCIENTOS EUROS con SESENTA Y CUATRO CÉNTIMOS	300,64
0454	453L	UD	<p> INSTALACIÓN DE FONTANERÍA Y EVACUACIÓN LABORATORIO</p> <p>ud. Instalación del laboratorio y dependencias enexas, de fontanería completa en TABIQUERÍA SECA, realizada con tuberías de polietileno reticulado (método Engel) utilizando el sistema Quick&Easy de derivaciones por tes para las redes de agua fría y caliente y con tuberías de PVC serie C para la red de desagüe con los diámetros necesarios para cada punto de consumo, totalmente terminada según CTE/ DB-HS 4 suministro de agua, sin incluir los aparatos sanitarios ni griferías, y con p.p. de redes interiores de ascendentes y bajantes.</p>	DOSCIENTOS VEINTISEIS EUROS con NOVENTA Y UN CÉNTIMOS	226,91
0455	453R	UD	<p> INSTALACIÓN DE FONTANERÍA Y EVACUACIÓN REACTIVOS</p> <p>ud. Instalación del laboratorio y dependencias enexas, de fontanería completa en TABIQUERÍA SECA, realizada con tuberías de polietileno reticulado (método Engel) utilizando el sistema Quick&Easy de derivaciones por tes para las redes de agua fría y caliente y con tuberías de PVC serie C para la red de desagüe con los diámetros necesarios para cada punto de consumo, totalmente terminada según CTE/ DB-HS 4 suministro de agua, sin incluir los aparatos sanitarios ni griferías, y con p.p. de redes interiores de ascendentes y bajantes.</p>	TRESCIENTOS CINCUENTA Y OCHO EUROS con CUARENTA Y SEIS CÉNTIMOS	358,46

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Nº	CÓDIGO	UD	DESCRIPCIÓN	PRECIO EN LETRA	IMPORTE
0456	453T	UD	INSTALACIÓN DE FONTANERÍA TALLER ud. Instalación de fontanería completa para el taller, realizada con tuberías de polietileno reticulado (método Engel) utilizando el sistema Quick&Easy de derivaciones por tes para las redes de agua fría, totalmente terminada según CTE/ DB-HS 4 suministro de agua, sin incluir los aparatos sanitarios ni griferías, y con p.p. de redes interiores de ascendentes y bajantes.	SETENTA Y NUEVE EUROS con SESENTA CÉNTIMOS	79,60
0457	453br	UD	RECIRCULACIÓN ACS Ud. Instalación de recirculación de a.c.s. con circulador de bronce SB 4Y, tubería de polietileno de d=20 con p.p. de accesorios y aislamiento armaflex, 2 llaves de esfera de 3/4" H-H con bola de acero inox., 1 válvula de retención de 3/4", totalmente intalado.	DOSCIENTOS DIECISEIS EUROS con VEINTIUN CÉNTIMOS	216,21
0458	453v	UD	INSTALACIÓN DE FONTANERÍA Y EVACUACIÓN VESTUARIOS ud. Instalación de vetuarios, de fontanería completa en TABIQUERÍA SECA, realizada con tuberías de polietileno reticulado (método Engel) utilizando el sistema Quick&Easy de derivaciones por tes para las redes de agua fría y caliente y con tuberías de PVC serie C para la red de desagüe con los diámetros necesarios para cada punto de consumo, totalmente terminada según CTE/ DB-HS 4 suministro de agua, sin incluir los aparatos sanitarios ni griferías, y con p.p. de redes interiores de ascendentes y bajantes.	CUATROCIENTOS SETENTA Y DOS EUROS con VEINTINUEVE CÉNTIMOS	472,29
0459	458B	ML	BORDILLO PREFABRICADO DE HORMIGÓN 25x15x12 cm. Bordillo prefabricado de hormigón doble capa, tipo T-2 de dimensiones 25X15X12 cm en chaflán, colocado sobre solera de hormigón HNE-20, de 15 cm de espesor, incluso excavación necesaria, rejuntado y limpieza.	NUEVE EUROS con OCHENTA Y NUEVE CÉNTIMOS	9,89
0460	459.1	UD	BOCA DE RIEGO Boca de riego de cierre elástico de 40 mm de diámetro nominal y 10 atm de PN con arqueta cuero y tapa de fundición gris (GG-25), tapa de fundición nodular (GGG-50) y cierre E.P.D.M. y revestimiento con doble capa de pintura epoxi conexionada a red, totalmente colocada.	SETENTA Y UN EUROS con CINCUENTA Y DOS CÉNTIMOS	71,52
0461	460	UD	ARQUETA DE RECOGIDA DE 40x40x40 Arqueta de recogida de 40x40x40, colocada.	CIENTO OCHENTA Y SIETE EUROS con CINCO CÉNTIMOS	187,05
0462	460sR	UD	ARQUETA RED DE SNTO. DE 50x50x80 TAPA RELLENABLE Arqueta de red de saneamiento de 50x50 y 80 cm de altura media, de hormigón HM-20 dotada de cerco y tapa HERMÉTICA de aluminio rellenable, paso 50x50 cm	CIENTO NOVENTA EUROS con TREINTA Y UN CÉNTIMOS	190,31

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Nº	CÓDIGO	UD	DESCRIPCIÓN	PRECIO EN LETRA	IMPORTE
0463	460B	UD	SUMIDERO DE FUNDICIÓN 445X375 MM Sumidero sifónico en calzada, de hormigón prefabricado HNE-20/P/20/11b, con rejilla de fundición reforzada de 445x375 cm., sobre solera de hormigón, conexionado a colector mediante tubería de PVC 160 mm de diámetro SN-8 J.E. totalmente colocado.	CIENTO CINCUENTA Y TRES EUROS con VEINTITRES CÉNTIMOS	153,23
0464	460BC	UD	CANALETA TIPO ACO-DRAIN Canaleta tipo Aco-drain de hormigón polimérico o equivalente con rejilla de acero galvanizado de 10 cm de ancho, completamente colocada.	SESENTA Y NUEVE EUROS con CINCO CÉNTIMOS	69,05
0465	460R	UD	ARQUETA ESTANCA DRENAJE DE 80x60x50 TAPA HORMIGÓN Arqueta estanca para red de drenaje de 80x60x50, de hormigón HNE-20 con tapa de hormigón para drenajes.	CIENTO TRES EUROS con CINCUENTA Y SIETE CÉNTIMOS	103,57
0466	460s	UD	ARQUETA RED DE SNTO. DE 40x40x40 TAPA FUNDICIÓN Arqueta de red de saneamiento de 40x40x40, de hormigón HM-20 dotada de cerco y tapa de fundición hidráulica de 40x40 cm C-250	CIENTO VEINTISEIS EUROS con CINCUENTA Y DOS CÉNTIMOS	126,52
0467	460s2	UD	ARQUETA RED DE SNTO. DE 50x50x80 TAPA FUNDICIÓN Arqueta de red de saneamiento de 50x50 y 80 cm de altura media, de hormigón HM-20 dotada de cerco y tapa de fundición hidráulica de 50x50 cm C-250	CIENTO SESENTA EUROS con VEINTICINCO CÉNTIMOS	160,25
0468	460sum	UD	SUMIDERO SIFÓNICO DE FUNDICIÓN 14,5x14,5 ud. Sumidero sifónico de fundición de 14,5x14,5 cm, salida d=50 mm, enlazado a arqueta mediante tubería de PVC de diámetro exterior 50 mm x 3 mm de espesor Serie B, totalmente instalado, según CTE/DB-HS 5.	CUARENTA Y UN EUROS con CINCUENTA CÉNTIMOS	41,50
0469	460sumi	UD	SUMIDERO SIFÓNICO ACERO INOX ud. Sumidero sifónico de acero inoxidable cm para instalación en suelos de vestuarios, totalmente instalado i/ p.p. de material de agarre, enlazado a arqueta mediante tubería de PVC de diámetro exterior 50 mm x 3 mm de espesor Serie B, totalmente instalado, según CTE/DB-HS 5..	NOVENTA Y UN EUROS con DIECISIETE CÉNTIMOS	91,17
0470	461	M2	TABICÓN DE LADRILLO HUECO DOBLE Tabicón de ladrillo hueco doble tomado con mortero de cemento y arena de río 1:6, construido según normas y especificaciones, medido en superficie, ejecutado deduciendo huecos superiores a 1 m2.	VEINTISEIS EUROS con NOVENTA Y NUEVE CÉNTIMOS	26,99
0471	462	M2	FÁBRICA BLOQUES 40x20x20 cm TIPO SPLIT COLOR Fábrica de bloques de hormigón tipo Split, de medidas 40x20x20 cm color i/relleno de hormigón y colocación de armaduras s/normativa y recibido con mortero de cemento y arena de río 1/6 i/p.p. de piezas especiales para dinteles y materialización de jambas, roturas, nivelados, aplomados, llagueados y limpieza, todo ello según normativa.	TREINTA Y UN EUROS con OCHENTA CÉNTIMOS	31,80

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Nº	CÓDIGO	UD	DESCRIPCIÓN	PRECIO EN LETRA	IMPORTE
0472	463	M2	FÁBRICA BLOQUES 40x20x20 cm GRIS Fábrica de bloques de hormigón color gris de medidas 40x20x20 cm, para terminación posterior en peanas de ventilaciones, i/relleno de hormigón HM-20 y armadura en zona según normativa y recibido con mortero de cemento y arena de río 1/6, i/p.p. de piezas especiales, roturas, aplomados, nivelados y limpieza todo ello según NTE-FFB-6.	TREINTA EUROS con SETENTA Y UN CÉNTIMOS	30,71
0473	463CI	M2	CUBIERTA PLANA NO TRANSITABLE m². Cubierta invertida completa, no transitable, constituida por: capa de hormigón aligerado de 10 cm de espesor medio, para formación de pendientes, con tendido de mortero de cemento M5 de 2 cm de espesor para regularizar la superficie; lámina geotextil de 200 g/m²; lámina asfáltica de oxiasfalto, GLASDAN 40 P OXI, en posición flotante respecto al soporte, salvo en perímetros y puntos singulares; lámina asfáltica de oxiasfalto, ESTERDAN 40 P ELAST, totalmente adherida a la anterior con soplete; cazoleta con conexión a bajante d110 mm con paragravillas; aislamiento térmico con planchas de poliestireno extruido de 50 mm de espesor, DANOPREN 50; lámina geotextil; capa de gravilla de canto rodado de 5 cm de espesor. Solución según membrana PN-6 de la norma UNE 104-402/96. Cumple los requisitos del C.T.E.	TREINTA Y SEIS EUROS con CUARENTA Y DOS CÉNTIMOS	36,42
0474	463F	M2	PANEL PREFABRICADO DE HORMIGÓN 12 cm SIN SELLAR M2. Panel de cerramiento con acabado gris natural, de 12 cm. de espesor para colocación horizontal, con modulación según proyecto, tratamiento anticarbonatación, ambas caras lisas, i/elementos de fijación de acero galvanizado en caliente, colocado, con p.p. de apoyos en la parte inferior para dejar hueco.	VEINTIUN EUROS con QUINCE CÉNTIMOS	21,15
0475	463G	ML	VIGA PREFABRICADA DE HORMIGÓN ARMADO B 50 CM X H 60CM Viga prefabricada de hormigón armado de 50 cm de ancho x 60 de canto total preparada para apoyo de forjado de placa alveolar de 25+5 cm de canto. Incluido suministro, montaje y p.p. de anclajes según planos.	CIENTO CATORCE EUROS con TREINTA Y CUATRO CÉNTIMOS	114,34
0476	463H	ML	PILAR PREFABRICADA DE HORMIGÓN ARMADO DE 60 X 60CM Pilar prefabricado de hormigón armado de 60x60 cm, preparado para apoyo de vigas prefabricadas. Incluido suministro, montaje y p.p. de placas de anclaje, vainas y pernos de anclajes según planos.	CIENTO TREINTA Y SEIS EUROS con NOVENTA CÉNTIMOS	136,90
0477	463MTF	M2	MAMPARA TABLERO FENÓLICO m2 Mampara ligera de tablero fenólico compacto de 12 mm., sin vidrio, con puerta, con accesorios de aluminio extruido, incluso parte proporcional de bisagras y comisas de aluminio lacado, cerraduras exteriores e interiores de acero inoxidable lacado on indicador de señalización libre/ocupado y manilla tipo Glutz 5059/160 mm. o similar, ralsinizada, color a elegir, pequeño material y medios auxiliares de montaje, incluso formación de encimeras lavabos con elementos de fijación de acero inox. Totalmente terminado.	CIENTO CUATRO EUROS con DOS CÉNTIMOS	104,02

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Nº	CÓDIGO	UD	DESCRIPCIÓN	PRECIO EN LETRA	IMPORTE
0478	463RC	M2	REVESTIMIENTO EXTERIOR DE CHAPA ONDULADA M2. Revestimiento de chapa ondulada de aluminio tipo tipo alubel ond-all 33 acabado lacado estandar a elegir, con p.p. elementos de fijación y remates inferior, a huecos, esquinas, coronación, etc, totalmente terminada.	DIECIOCHO EUROS con VEINTISEIS CÉNTIMOS	18,26
0479	463RCH	M2	REVESTIMIENTO PETO CUBIERTA M2. Revestimiento de peto interior de cubierta entre coronación y solape con impermeabilizante de cubierta, realizado con chapa lacada 0,5 mm con p.p. elementos de fijación, totalmente terminada.	OCHO EUROS con VEINTICINCO CÉNTIMOS	8,25
0480	463TB	M2	TABIQUE AUTOPORTANTE 2x15N+70+2x15N m². Tabique formado por una estructura de perfiles de chapa de acero galvanizada de 70 mm de ancho, a base de Montantes (elementos verticales) separados 400 mm entre ellos y canales (elementos horizontales), En cada cara se atomillan dos placas de yeso laminado, estandar tipo N de 15 mm de espesor, dando un ancho total terminado de 130 mm. Parte proporcional de tomillería, juntas estancas /acústicas de su perímetro, cintas y pasta de juntas, piezas de arriostamiento, anclajes mecánicos, etc. totalmente terminado con calidad de terminación Nivel 1 (Q1) para terminaciones de calidad de terminación Nivel 2 (Q2) para terminaciones estándar de pintura. Alma con Lana Mineral tipo Arena PR de 65 mm de espesor. Montaje según Norma UNE 102.041 IN y requisitos del CTE-DB HR. Montaje según Norma UNE 102.041 IN y requisitos del CTE-DB HR.	TREINTA Y CINCO EUROS con VEINTIOCHO CÉNTIMOS	35,28
0481	463TB2h	M2	TABIQUE AUTOPORTANTE 1X15H+70+1x15H m². Tabique formado por una estructura de perfiles de chapa de acero galvanizada de 70 mm de ancho, a base de Montantes (elementos verticales) separados 400 mm entre ellos y canales (elementos horizontales), En cada cara se atomillan una placa de yeso laminado hidrofugada tipo H1, de 15 mm, dando un ancho total terminado de 115 mm. Parte proporcional de tomillería, juntas estancas /acústicas de su perímetro, cintas y pasta de juntas, piezas de arriostamiento, anclajes mecánicos, etc. totalmente terminado con calidad de terminación Nivel 1 (Q1) para terminaciones de alicatado. Alma con Lana Mineral tipo Arena PR de 65 mm de espesor. Montaje según Norma UNE 102.041 IN y requisitos del CTE-DB HR. Montaje según Norma UNE 102.041 IN y requisitos del CTE-DB HR.	VEINTINUEVE EUROS con VEINTITRES CÉNTIMOS	29,23
0482	463TBh	M2	TABIQUE AUTOPORTANTE 2x15N+70+1x15H m². Tabique formado por una estructura de perfiles de chapa de acero galvanizada de 70 mm de ancho, a base de Montantes (elementos verticales) separados 400 mm entre ellos y canales (elementos horizontales), En una cara se atomillan dos placas de yeso laminado, estandar tipo N de 15 mm de espesor y en la otra una placa de yeso laminado hidrofugada tipo H1, de 15 mm, dando un ancho total terminado de 115 mm. Parte proporcional de tomillería, juntas estancas /acústicas de su perímetro, cintas y pasta de juntas, piezas de arriostamiento, anclajes mecánicos, etc. totalmente terminado con calidad de terminación Nivel 1 (Q1) para terminación de alicatado en lado placa hidrofugada, y calidad de terminación Nivel 2 (Q2) para terminaciones estándar de pintura en lado Alma con Lana Mineral tipo Arena PR de 65 mm de espesor. Montaje según Norma UNE 102.041 IN y requisitos del CTE-DB HR. Montaje según Norma UNE 102.041 IN y requisitos del CTE-DB HR.	TREINTA Y UN EUROS con OCHENTA Y OCHO CÉNTIMOS	31,88

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Nº	CÓDIGO	UD	DESCRIPCIÓN	PRECIO EN LETRA	IMPORTE
0483	463TR	M2	TRASDOSADO AUTOPORTANTE 70+2x15H m². Trasdosado autoportante formado por una estructura de perfiles de chapa de acero galvanizada de 70 mm de ancho, a base de Montantes (elementos verticales) colocados dobles en H, separados 400 mm entre ellos y canales (elementos horizontales). A éstos se atornillan dos placas de yeso laminado, estandar tipo N de 15 mm de espesor, dando un ancho total terminado de 100 mm. Parte proporcional de tomillería, juntas estancas /acústicas de su perímetro, cintas y pasta de juntas, piezas de arriostamiento, anclajes mecánicos, etc. totalmente terminado con calidad de terminación Nivel 2 (Q2) para terminaciones estándar de pintura. Alma con Lana Mineral tipo Arena PR de 65 mm de espesor. Montaje según Norma UNE 102.041 IN y requisitos del CTE-DB HR. Montaje según Norma UNE 102.041 IN y requisitos del CTE-DB HR.	VEINTISEIS EUROS con SETENTA Y DOS CÉNTIMOS	26,72
0484	463TRh	M2	TRASDOSADO AUTOPORTANTE 70+1x15H m². Trasdosado autoportante formado por una estructura de perfiles de chapa de acero galvanizada de 70 mm de ancho, a base de Montantes (elementos verticales) colocados dobles en H, separados 400 mm entre ellos y canales (elementos horizontales). A éstos se atornilla una placa de yeso laminado, hidrofugada de 15 mm de espesor, dando un ancho total terminado de 85 mm. Parte proporcional de tomillería, juntas estancas /acústicas de su perímetro, cintas y pasta de juntas, piezas de arriostamiento, anclajes mecánicos, etc. totalmente terminado con calidad de terminación Nivel 1 (Q1) para terminaciones de alicatado. Alma con Lana Mineral tipo Arena PR de 65 mm de espesor. Montaje según Norma UNE 102.041 IN y requisitos del CTE-DB HR. Montaje según Norma UNE 102.041 IN y requisitos del CTE-DB HR.	VEINTITRES EUROS con NOVENTA Y NUEVE CÉNTIMOS	23,99
0485	463p	M2	PANEL PREFABRICADO DE HORMIGÓN 16 cm M2. Panel de cerramiento con acabado gris natural, de 16 cm. de espesor para colocación horizontal, con modulación según proyecto, tratamiento anticarbonatación, ambas caras lisas, y elementos de fijación de acero galvanizado en caliente y sellado de juntas interior y exterior con SILCOSELL o equivalente, colocado, (medido deduciendo huecos mayores de 10 m2.)	TREINTA Y DOS EUROS con SESENTA Y UN CÉNTIMOS	32,61
0486	464B1	ML	BARANDILLA VIDRIO RECTA m. Sistema de barandilla modular GlassFit SV-1401 Top "COMENZA", sin pasamanos, con perfil de montaje de aluminio anodizado, con sistema de nivelación interior Level In, capaz de soportar una fuerza horizontal uniformemente repartida de 0,8 kN/m aplicada en el borde superior del vidrio según CTE DB SE-AE, de altura máxima 110 cm, para vidrio laminar de seguridad, compuesto por dos lunas de 10 mm de espesor unidas mediante dos láminas incoloras de butiral de polivinilo, de 0,38 mm de espesor cada una; fijado sobre hormigón mediante anclaje químico con varilla roscada de acero zincado, montada	DOSCIENTOS VEINTISEIS EUROS con NOVENTA Y TRES CÉNTIMOS	226,93

CUADRO DE PRECIOS 1

ABASTECIMIENTO A VARIOS MUNICIPIOS DE LA RIOJA. SISTEMA CIDACOS

Nº	CÓDIGO	UD	DESCRIPCIÓN	PRECIO EN LETRA	IMPORTE
0487	464BP	ML	PASAMANOS ACERO INOX m. Pasamanos de tubo 40x1,5 y anclajes a paramento en L redondo liso macizo de 12 mm, todo ello de acero inox AISI 316, incluso codos y remate en curva a paramento en arranques, capaz de soportar una fuerza horizontal uniformemente repartida de 0,8 kN/m, montado	OCHENTA Y CUATRO EUROS con CUARENTA Y NUEVE CÉNTIMOS	84,49
0488	464Be	ML	BARANDILLA VIDRIO ESCALERA CON PASAMANOS m. Sistema de barandilla modular GlassFit CC-775 con pasamanos RP-1400"COMENZA", con material de montaje de acero inox AISI 316, capaz de soportar una fuerza horizontal uniformemente repartida de 0,8 kN/m aplicada en el borde superior del vidrio según CTE DB SE-AE, de altura máxima 110 cm, para vidrio laminar de seguridad, compuesto por dos lunas de 10 mm de espesor unidas mediante dos láminas incoloras de butiral de polivinilo, de 0,38 mm de espesor cada una, rematado con pasamanos de acero inox; fijado sobre hormigón mediante anclaje químico con varilla roscada de acero zincado, montada en borde de escalera.	TRESCIENTOS NUEVE EUROS con NOVENTA Y DOS CÉNTIMOS	309,92
0489	464PC	M2	SISTEMA MODULAR DE POLICARBONATO CELULAR EN VENTANAS m². Sistema modular de policarbonato celular con encastre machiembreado y protección UV para paramentos verticales, con zonas abatibles según planos. Espesor de 40 mm. Estructura de 9 paredes con perfilera y tapetas de aluminio anodizado. Herrejes de sujeción, monado.	DOSCIENTOS SESENTA Y CUATRO EUROS con SETENTA Y NUEVE CÉNTIMOS	264,79
0490	464V1	M2	VIDRIO 6/16/6 BAJO EMISIVO Y CÁMARA CON ARGÓN m². Doble acristalamiento CLIMALIT PLUS, formado por un vidrio bajo emisivo Planitherm XN incoloro de 6 mm y una luna float Planiclear incolora de 6 mm (impreso en vestuarios y aseos), cámara de aire CON Argón de 16 mm con perfil separador de aluminio y doble sellado perimetral, fijado sobre carpintería con acuíado mediante calzos de apoyo perimetrales y laterales y sellado en frío con silicona neutra, incluso cortes de vidrio y colocación de junquillos, según UNE 85222:1985.	CINCUENTA Y OCHO EUROS con OCHENTA Y CINCO CÉNTIMOS	58,85

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ABASTECIMIENTO A VARIOS MUNICIPIOS DE LA RIOJA. SISTEMA CIDACOS

Nº	CÓDIGO	UD	DESCRIPCIÓN	PRECIO EN LETRA	IMPORTE
0491	464V2	M2	VIDRIO AISLANTE Y DE SEGURIDAD 4+4/16/4+4 m². Doble acristalamiento CLIMALIT PLUS y espesor total 32 mm, formado por doble vidrio laminado acústico y de seguridad Stadip Silence 8 mm de espesor (4+4) y cámara de aire deshidratado de 16 mm con perfil separador de aluminio y doble sellado perimetral, fijado sobre carpintería con acuíado mediante calzos de apoyo perimetrales y laterales y sellado en frío con silicona neutra, incluso colocación de junquillos, según UNE 85222:1985. Nivel de seguridad de uso según UNE EN 12600: NPD/1B1.	CIENTO SIETE EUROS con CUARENTA Y TRES CÉNTIMOS	107,43
0492	464V3	M2	VIDRIO SEGURIDAD STADIP 44.1 INCOLORO (2B2) m². Acristalamiento de vidrio laminar de seguridad Stadip compuesto por dos vidrios de 4 mm de espesor unidos mediante lámina de butiral de polivinilo incolora de 0,38 mm, clasificado 2B2 según UNE-EN 12600, fijado sobre carpintería con acuíado mediante calzos de apoyo perimetrales y laterales y sellado en frío con silicona neutra, incluso colocación de junquillos, según UNE 85222:1985.	TREINTA Y SIETE EUROS con CINCO CÉNTIMOS	37,05
0493	464ca	M2	CARPINTERÍA ABATIBLE ALUMINIO EN VENTANAS m². Carpintería de hojas abatibles de aluminio modelo con rotura de puente térmico, Alfil A54RPT de SAPAGROUP con un ancho de marco de 54 mm y con un ancho de hoja de 61 mm, medida del frente de 96,3 mm, con sistema de cámara europea, con espesor de perfil de 1,5 mm, con sistema de cierre por junta central de estanqueidad en EPDM, coplanar exteriormente y con resalte de hoja sobre el marco al interior, para un acristalamiento con altura de galce de 22 mm y anchura hasta 44 mm en marcos y 51 mm en hojas, lacado (entre 60-100 micras) en color estándar (RAL estándar: blanco, gris...), herrajes de colgar, p.p. de cerradura Tesa o similar y costes indirectos. Homologada con Clase 4 en el ensayo de permeabilidad al aire según norma UNE-EN 1026:2000. La transmitancia máxima del marco es de 2,90 W/m² K, y cumple en las zonas A, B, C, D y E, según el CTE/DB-HE 1.	DOSCIENTOS TREINTA Y CINCO EUROS con SETENTA Y CUATRO CÉNTIMOS	235,74
0494	464caP	M2	CARPINTERÍA ABATIBLE ALUMINIO EN PUERTAS m². Carpintería de hojas abatibles de aluminio modelo con rotura de puente térmico, Alfil A65RPT de SAPAGROUP con un ancho de marco de 65 mm y con un ancho de hoja de 721 mm, medida del frente de 96,3 mm, con sistema de cámara europea, con espesor de perfil de 1,5 mm, con sistema de cierre por junta central de estanqueidad en EPDM, coplanar exteriormente y con resalte de hoja sobre el marco al interior, para un acristalamiento con altura de galce de 22 mm y anchura hasta 65 mm en marcos y 72 mm en hojas, lacado (entre 60-100 micras) en color estándar (RAL estándar: blanco, gris...), herrajes de colgar, p.p. de cerradura Tesa, manilla y barra inox y costes indirectos. Homologada con Clase 4 en el ensayo de permeabilidad al aire según norma UNE-EN 1026:2000. La transmitancia máxima del marco es de 2,90 W/m² K, y cumple en las zonas A, B, C, D y E, según el CTE/DB-HE 1.	DOSCIENTOS SESENTA Y NUEVE EUROS con CINCUENTA Y CUATRO CÉNTIMOS	269,54

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ABASTECIMIENTO A VARIOS MUNICIPIOS DE LA RIOJA. SISTEMA CIDACOS

Nº	CÓDIGO	UD	DESCRIPCIÓN	PRECIO EN LETRA	IMPORTE
0495	464cf	M2	CARPINTERÍA FIJA ALUMINIO m². Carpintería fija con junquillos para la fijación del vidrio, de aluminio modelo con rotura de puente térmico, Alfil A54RPT de SAPAGROUP con un ancho de marco de 54 mm y con un ancho de hoja de 61 mm, medida del frente de 96,3 mm, con sistema de cámara europea, con espesor de perfil de 1,5 mm, con sistema de cierre por junta central de estanqueidad en EPDM, coplanar exteriormente y con resalte de hoja sobre el marco al interior, para un acristalamiento con altura de galce de 22 mm y anchura hasta 44 mm en marcos y 51 mm en hojas, lacado (entre 60-100 micras) en color estándar (RAL estándar: blanco, gris...), herrajes de colgar, p.p. de cerradura Tesa o similar y costes indirectos. Homologada con Clase 4 en el ensayo de permeabilidad al aire según norma UNE-EN 1026:2000. La transmitancia máxima del marco es de 2,90 W/m² K, y cumple en las zonas A, B, C, D y E, según el CTE/DB-HE 1.	CIENTO CUARENTA Y CUATRO EUROS con SETENTA Y UN CÉNTIMOS	144,71
0496	465	M2	PUERTA DOBLE CHAPA ACERO Puerta de paso hojas abatibles de doble chapa lisa de acero de 1 mm de espesor, con aislamiento interno de fibra de vidrio, engatillada, realizada en dos bandejas, con rigidizadores de tubo rectangular, i/manillas de acero inoxidable y cerradura, patillas para recibir en fábricas, herrajes de colgar y de seguridad, imprimación antióxido y pintura al esmalte, totalmente colocada incluyendo el recibido de fábricas.	SESENTA Y CUATRO EUROS con TREINTA Y OCHO CÉNTIMOS	64,38
0497	465.1	M2	PUERTA DOBLE CHAPA ACERO CON LAMAS Puerta de paso hojas abatibles de doble chapa lisa de acero de 1 mm de espesor, con aislamiento interno de fibra de vidrio, engatillada, realizada en dos bandejas, con rigidizadores de tubo rectangular, i/manillas de acero inoxidable y cerradura, con dos o cuatro rejillas de ventilación con malla anti insectos interior, patillas para recibir en fábricas, herrajes de colgar y de seguridad, imprimación antióxido y pintura al esmalte, totalmente colocada incluyendo el recibido de fábricas.	SETENTA Y CINCO EUROS con UN CÉNTIMOS	75,01
0498	465.2	M2	PUERTA INDUSTRIAL SECCIONABLE AUTOMÁTICA Puerta seccional métrica industrial de Horman SPU-F42 o equivalente, acabado estuco color a elegir, fabricada con panel sandwich de 42 mm de espesor, con protección contra los dedos, protección de superficie con imprimación, cerco angular perfilado de acero galvanizado. Automatismo de apertura y cierre de eje WA 300S4 con desbloqueo de emergencia. Panel acristalado doble de seguridad. Pesillo interior. Apertura y cierre automático. Cuadro de maniobra. Totalmente colocada incluyendo el recibido de fábricas y conexiones eléctricas.	CIENTO SETENTA Y SIETE EUROS con QUINCE CÉNTIMOS	177,15
0499	467	ML	NEOPRENO ZUNCHADO 150x20 mm Neopreno zunchado de 150x20 mm para apoyo de cubierta, totalmente colocado incluso mortero.	DIEZ EUROS con OCHO CÉNTIMOS	10,08

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ABASTECIMIENTO A VARIOS MUNICIPIOS DE LA RIOJA. SISTEMA CIDACOS

Nº	CÓDIGO	UD	DESCRIPCIÓN	PRECIO EN LETRA	IMPORTE
0500	468	M2	ENFOSCADO MAESTRADO Y FRATASADO Enfoscado maestreado y fratasado de 20 mm de espesor en toda su superficie con mortero de cemento y arena de río 1/4 en paramentos verticales, con maestras cada metro, i/preparación y humedecido de soporte, limpieza, p.p. de medios auxiliares con empleo, en su caso, de andamiaje homologado, así como distribución de material en tajos, s/NTE-RPE-7.	DOCE EUROS con VEINTINUEVE CÉNTIMOS	12,29
0501	469	M2	PINTURA PLÁSTICA BLANCA Pintura plástica picada blanca en paramentos verticales y horizontales, lavable dos manos, i/lijado y emplastecido.	CINCO EUROS con NOVENTA Y OCHO CÉNTIMOS	5,98
0502	469b	M2	BARNIZADO CARPINTERÍA DE MADERA m². Barnizado de carpintería de madera interior con Procober filtro 10 o similar, lijado y relijado dos manos y una mano de imprimación.	DIEZ EUROS con CATORCE CÉNTIMOS	10,14
0503	470	M2	IMPERMEABILIZACIÓN EXTERIOR DE MUROS Impermeabilización de paramentos con mortero cementoso impermeable, sulfuresistente, MASTERSEAL 531 de BASF o equivalente en dos manos cruzadas, con un consumo mínimo de 3 kg/m2 y un espesor de 2 mm. Incluso limpieza previa del paramento; según NBE-QB-90 y UNE-104. Posterior suministro y colocación de geocompuesto drenante compuesto por lámina de PEAD con geotextil incorporado en una de sus caras, DELTA NP DRAIN, de BASF o equivalente. Medida la superficie ejecutada.	DOCE EUROS con SETENTA Y DOS CÉNTIMOS	12,72
0504	471jd	ML	JUNTA DE DILATACIÓN Formación de junta de dilatación con poliestireno expandido de 15 mm de espesor entre solera y muro y posterior sellado de 15 mm de anchura media con masilla de poliuretano COPSAFLEX 11C, en cartuchos, incluso cordón sellador de poliuretano previamente introducido en la junta. Según CTE/DB-HS 1.	SEIS EUROS con SEIS CÉNTIMOS	6,06
0505	472	ML	SELLADO INTERIOR DE JUNTAS DE CONSTRUCCIÓN POLIURETANO Sellado de juntas en paramentos horizontales y verticales con un ancho de junta de 20 mm, con una Dureza Shore A aprox. 40 y Alargamiento a Rotura ISO 8339 > 250 % , con masilla de poliuretano monocomponente MASTERFLEX 474 de BASF o equivalente, Apta para Agua Potable según RD 140/2003. Incluso limpieza, imprimación en base poliuretano de los labios de la junta con MASTERFLEX PRIMER P (ELAS-TOPRIMER 110) de BASF o equivalente, y cordón de fondo de junta MASTERFLEX FJ de BASF o equivalente de 30 mm. de diámetro. Medida la longitud ejecutada.	CUATRO EUROS con VEINTISEIS CÉNTIMOS	4,26
0506	473	UD	RESPIRADERO DE CHAPA Suministro y colocación de capucha respiradero de chapa en huecos de ventilación de depósitos, realizado con estructura de tubo 70x70x3, convenientemente arriostrado, lamas de acero anti-luvia de espesor 3 mm y cubierta de chapa del mismo espesor realizada a cuatro aguas, de dimensiones y forma detallada en planos, i/garras de anclaje a fábrica de bloques, recibido de las mismas, miniado y pintado al esmalte, totalmente colocadas.	CUATROCIENTOS DIECIOCHO EUROS con CUARENTA Y DOS CÉNTIMOS	418,42

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ABASTECIMIENTO A VARIOS MUNICIPIOS DE LA RIOJA. SISTEMA CIDACOS

Nº	CÓDIGO	UD	DESCRIPCIÓN	PRECIO EN LETRA	IMPORTE
0507	474.1	ML	CANALON CHAPA PRELACADA 50cm Canalón de chapa prelacada en color, de 50 cm. de desarrollo fijado mediante ganchos ocultos con tornillo autoroscante 40 cm., incluso p.p. de embocadura de bajante, codos y piezas especiales.	ONCE EUROS con OCHENTA Y CINCO CÉNTIMOS	11,85
0508	474.2	ML	BAJANTE DE CHAPA PRELACADA DN110 Bajante de chapa prelacada en color, DN110, fijado mediante ganchos con tornillo autoroscante 20 cm., incluso p.p. de embocadura de bajante, codos y piezas especiales.	DOCE EUROS con VEINTINUEVE CÉNTIMOS	12,29
0509	519	ML	REMATE DE CHAPA PRELACADA CUBIERTA Remate de chapa prelacada en color, para cubrir parte superior de bloque o panel, hasta el panel sandwich de la cubierta por el interior del peto, fijado mediante tacos y/o ganchos anclado a muro y o cubierta, dispuesto según planos.	VEINTIDOS EUROS con CUARENTA Y SIETE CÉNTIMOS	22,47
0510	520	M2	CUBIERTA PANEL SANDWICH (E=50 mm.) Cubierta con panel tipo sandwich espesor 50 cm., con doble chapa prelacada de 0,4 mm de espesor, y aislamiento térmico de poliuretano, fijada con gancho de acero galvanizado, incluso p.p de piezas de remate, totalmente colocada.	VEINTISIETE EUROS con TRES CÉNTIMOS	27,03
0511	521	M2	CELOSIA FIJA VENTILACIÓN Celosía metálica fija para ventilación, formada por cerco con empanelado de lamas de acero de 60 mm, con abertura mínima de 1 cm entre lamas, malla de 2 mm para evitar entrada de insectos, garras de sujeción a soporte de 10 cm, elaborada en taller y montada en obra, totalmente colocada.	SETENTA Y TRES EUROS con OCHENTA CÉNTIMOS	73,80
0512	524.1	m	LINEA 3x1.5mm2 Cu 0.6/1KV RZ1-K (AS) Línea eléctrica con conductor multipolares 3x1.5mm2 RZ1-K (AS) en canalización existente, incluso conexionado en inicio y final de línea.	TRES EUROS con TREINTA Y CUATRO CÉNTIMOS	3,34
0513	563.1	ud	PANTALLA ESTANCA LED Luminaria estanca WT120C LED80S/840 de Philips o equivalente para montaje en superficie de dimensiones 1515x80, carcasa de policarbonato, óptica de polimetacrilato de metilo, flujo luminoso 8.000 lm, potencia 68 W, Tª color 4000 K, rango de Tª de 10°C a 35°C, protección IP-65 Clase I. Incluso p.p. de canalización y cableado, completamente instalado.	VEINTIOCHO EUROS con TREINTA CÉNTIMOS	28,30
0514	568	ML	TUBO ACERO 609 mm Tubo de acero, de 609 mm de diámetro interior, bajo viales, incluso piezas especiales, medios auxiliares, totalmente terminada y colocada.	DOSCIENTOS VEINTIUN EUROS con CUARENTA Y TRES CÉNTIMOS	221,43
0515	571	ud	INTERRUPTOR EMPOTRAR SIMO 32 BLANCO. Interruptor empotrar blanco, totalmente instalado.	NUEVE EUROS con VEINTICINCO CÉNTIMOS	9,25

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Nº	CÓDIGO	UD	DESCRIPCIÓN	PRECIO EN LETRA	IMPORTE
0516	596	m	Línea aerea en BT sobre apoyos de hormigón Tendido de línea aérea, formada por conductores aislados RZ, RZ 0,6/1KV 3x50 mm² AL + 1x54,6 mm² alm, sobre apoyos de hormigón . Alzado, tensado y retencionado de conductores. Incluso transporte y devolución de bobina y material sobrante a almacén	CIENTO CINCUENTA Y SIETE EUROS con CINCUENTA Y CINCO CÉNTIMOS	157,55
0517	609	ud	Poste de hormigón armado de 630 daN de esfuerzo útil y 9 m Poste de hormigón armado de 630 daN de esfuerzo útil en punta y 9 metros de altura . Herrajes para el fijado de conductor. Incluso excavación, izado y anclaje de poste, colocación de herrajes, acopio y transporte de elementos, etc.	QUINIENTOS TREINTA Y CUATRO EUROS con CUARENTA Y SIETE CÉNTIMOS	534,47
0518	610	ud	Poste de hormigón armado de 400 daN de esfuerzo útil y 9 m Poste de hormigón armado de 400 daN de esfuerzo útil en punta y 9 metros de altura . Herrajes para el fijado de conductor. Incluso excavación, izado y anclaje de poste, colocación de herrajes, acopio y transporte de elementos, etc.	CUATROCIENTOS OCHENTA Y UN EUROS con OCHENTA CÉNTIMOS	481,80
0519	612	ud	Caja general de protección, equipada con portafusibles Caja general de protección, equipada con portafusibles Incluso fijación de caja, conexionado, etc., totalmente instalada.	CIENTO OCHENTA Y UN EUROS con CUARENTA Y CINCO CÉNTIMOS	181,45
0520	617	PA	CONEXIÓN RED NUEVA CASETA CON DEPÓSITOS EXISTENTES PEAD Partida Alzada de Abono Íntegro para conexión de la red de abastecimiento desde la nueva caseta de válvulas con depósitos existentes, incluyendo, excavaciones, tuberías de PEAD de cualquier diámetro, rellenos, ayudas de albañilería, demoliciones, relleno de huecos con morteros sin retracción, anclaje de tuberías, así como todos los medios auxiliares necesarios para la conexión entre la salida de la nueva caseta de válvula y su salida al depósito.	DOSCIENTOS CUARENTA EUROS con CUARENTA Y NUEVE CÉNTIMOS	240,49
0521	617.1	PA	CONEXIÓN RED NUEVA CASETA CON DEPÓSITOS EXISTENTES FD DN<300 Partida Alzada de Abono Íntegro para conexión de la red de abastecimiento desde la nueva caseta de válvulas con depósitos existentes, incluyendo, excavaciones, tuberías de fundición de diámetro hasta 300 mm, rellenos, ayudas de albañilería, demoliciones, relleno de huecos con morteros sin retracción, anclaje de tuberías, así como todos los medios auxiliares necesarios para la conexión entre la salida de la nueva caseta de válvula y su salida al depósito.	MIL SETECIENTOS VEINTIOCHO EUROS con CINCUENTA Y UN CÉNTIMOS	1.728,51

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ABASTECIMIENTO A VARIOS MUNICIPIOS DE LA RIOJA. SISTEMA CIDACOS

Nº	CÓDIGO	UD	DESCRIPCIÓN	PRECIO EN LETRA	IMPORTE
0522	617.2	PA	CONEXIÓN RED NUEVA CASETA CON DEPÓSITOS EXISTENTES FD 300<DN<500 Partida Alzada de Abono Íntegro para conexión de la red de abastecimiento desde la nueva caseta de válvulas con depósitos existentes, incluyendo, excavaciones, tuberías de fundición de diámetro desde 350 a 500 mm, rellenos, ayudas de albañilería, demoliciones, relleno de huecos con morteros sin retracción, anclaje de tuberías, así como todos los medios auxiliares necesarios para la conexión entre la salida de la nueva caseta de válvula y su salida al depósito.	DOS MIL CUATROCIENTOS CUATRO EUROS con OCHENTA Y NUEVE CÉNTIMOS	2.404,89
0523	617.3	PA	CONEXIÓN ALIVIOS CON RED VACIADOS DEPÓSITO. Partida Alzada de Abono Íntegro para conexión de la salida de los alivios de la nueva caseta de válvulas con la red de vaciados del depósito, incluyendo, excavaciones, tuberías de PEAD DN de salida de alivio, rellenos, ayudas de albañilería, demoliciones, relleno de huecos con morteros sin retracción, anclaje de tuberías, así como todos los medios auxiliares necesarios para la conexión entre ambas tuberías.	DOSCIENTOS CUARENTA EUROS con CUARENTA Y NUEVE CÉNTIMOS	240,49
0524	617.4	PA	CONEXIÓN ALIVIOS CON POZO EXTERIOR Y DESAGÜE Partida Alzada de Abono Íntegro para conexión de la salida de los alivios de la nueva caseta de válvulas con pozo exterior y salida a cuneta y/o cauce, incluyendo, excavaciones, tuberías de PEAD DN de salida de alivio, rellenos, ayudas de albañilería, demoliciones, relleno de huecos con morteros sin retracción, anclaje de tuberías, así como todos los medios auxiliares necesarios para la conexión entre ambas tuberías.	QUINIENTOS TREINTA Y SEIS EUROS con SETENTA CÉNTIMOS	536,70
0525	618	PA	CONEXIÓN RED ELÉCTRICA BT CON DEPÓSITOS EXISTENTES Partida Alzada de Abono Íntegro para conexión de la red eléctrica en BT con depósitos existentes.	TRESCIENTOS VEINTITRES EUROS con QUINCE CÉNTIMOS	323,15
0526	619	PA	REPOSICIÓN DE PARQUE EXISTENTE Partida Alzada de Abono Íntegro para la reposición de parque existente.	ONCE MIL TRESCIENTOS OCHENTA Y TRES EUROS con NOVENTA Y NUEVE CÉNTIMOS	11.383,99
0527	620	UD	APOYOS DE TUBERÍA Y VÁLVULAS SOBRE SOLERA Apoyos de tuberías y válvulas en soleras, mediante dado de hormigón HA-25/P/20/IIa, ligeramente armado y anclado a la solera, así como cintas o eslingas de acero con material de protección de tubería para sujeción de las mismas, incluyendo el hormigón, encofrados, acero, eslingas, material de PE de protección, montado.	SESENTA Y TRES EUROS con SIETE CÉNTIMOS	63,07

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ABASTECIMIENTO A VARIOS MUNICIPIOS DE LA RIOJA. SISTEMA CIDACOS

Nº	CÓDIGO	UD	DESCRIPCIÓN	PRECIO EN LETRA	IMPORTE
0528	AL040	UD	<p>PROYECTOR BVP130 LED260-4S/740 S</p> <p>Instalación de proyector BVP130 LED 260-4S/740 S CLASE II de Philips o equivalente.</p> <p>CON GARANTÍA POR 10 AÑOS EMITIDA POR EL FABRICANTE.</p> <p>Incluyendo nueva caja de derivación para intemperie, caja Clavet con fusible, línea de 3x2,5mm² Cu 0,6/1kV hasta la luminaria, elemento adaptador de la entrada del proyector a cualquier tipo de columna, báculo o palomilla, totalmente conexionado, unido a soporte y probado.</p> <p>Con protección contra sobretensiones, sobreintensidades y sobretemperatura.</p> <p>Incluso desmontaje y retirada al almacén municipal del proyector existente.</p>	TRESCIENTOS SETENTA EUROS con CINCUENTA Y SEIS CÉNTIMOS	370,56
0529	AL071	UD	<p>COLUMNA h=8m</p> <p>Suministro y colocación de columna metálica de chapa de acero galvanizada en caliente con altura 8 metros con puerta registrable incluso excavación y cimentación.</p>	QUINIENTOS TREINTA Y SIETE EUROS con SETENTA CÉNTIMOS	537,70
0530	AL100	UD	<p>PALOMILLA BANDERA</p> <p>Palomilla bandera de tubo de acero galvanizado en caliente 50x40x4 mm. con dos anclajes a pared separados 50 cm. y vuelo comprendido entre 30 y 90 cm., galvanizado en caliente, tornillería de enlace de acero galvanizado, incluso obras auxiliares de apertura de huecos para anclajes y recibido en paramentos.</p>	OCHENTA Y UN EUROS con SESENTA Y TRES CÉNTIMOS	81,63
0531	AL110	UD	<p>BRAZO SOPORTE RECTO/CURVO</p> <p>Brazo de tubo de acero estirado de 50 mm. de diámetro y 2,5 mm. de espesor, recto sin vuelo o con vuelo entre 0 y 1,5 m. y altura comprendida entre 2,00 y 5,00 m., galvanizado en caliente, tornillería de enlace de acero galvanizado, incluso obras auxiliares de adaptación a palomilla bandera existente o nueva.</p>	TREINTA Y OCHO EUROS con CINCUENTA Y CINCO CÉNTIMOS	38,55
0532	AL130	UD	<p>ARQUETA PASO DERIVACIÓN 40x40x60</p> <p>Arqueta prefabricada 40x40x60 cm libres, para paso, derivación o toma de tierra, con marco y tapa cuadrada 40x40 cm en fundición, medida la unidad ejecutada en obra.</p>	SETENTA Y UN EUROS con SESENTA Y DOS CÉNTIMOS	71,62
0533	AL140	m	<p>LINEA SUBTERRÁNEA 4x6 mm² + 1x16 mm²</p> <p>Línea de alimentación para alumbrado formada por conductor multipolar de cobre de 4x6 mm² con aislamiento RV 0,6/1 kV y conductor de puesta a tierra 1x16 mm² 750 V, colocado en tendido subterráneo bajo tubo en canalización existente, instalada, transporte, montaje y conexionado, medida la longitud en funcionamiento.</p>	CUATRO EUROS con CINCUENTA Y SIETE CÉNTIMOS	4,57

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ABASTECIMIENTO A VARIOS MUNICIPIOS DE LA RIOJA. SISTEMA CIDACOS

Nº	CÓDIGO	UD	DESCRIPCIÓN	PRECIO EN LETRA	IMPORTE
0534	BT030A	UD	<p>PUNTO DE LUZ SENCILLO</p> <p>Punto de luz sencillo con parte proporcional de circuito general, bajo tubo corrugado d=16mm, cajas de registro con tapa atornillada, y conductores de cobre para una tensión de 750 V de sección 1.5 mm², y p/p de mecanismo compuesto por interruptor, caja para empotrar y placa con bastidor, medida la unidad en funcionamiento. Canalización y conductores según ITC-BT-28 para locales de pública concurrencia.</p>	VEINTISIETE EUROS con CUARENTA CÉNTIMOS	27,40
0535	BT040A	UD	<p>PUNTO DE LUZ CONMUTADO</p> <p>Punto de luz conmutado con parte proporcional de circuito general, bajo tubo corrugado d=16mm, cajas de registro con tapa atornillada, y conductores de cobre para una tensión de 750 V de sección 1.5 mm², y p/p de mecanismo compuesto por interruptor, caja para empotrar y placa con bastidor, medida la unidad en funcionamiento. Canalización y conductores según ITC-BT-28 para locales de pública concurrencia.</p>	VEINTIOCHO EUROS con NOVENTA Y SEIS CÉNTIMOS	28,96
0536	BT050	ML	<p>BANDEJA AISLANTE 60x150 MM</p> <p>Bandeja perforada de PVC, color gris RAL 7035, de 60x150 mm, resistencia al impacto 5 julios, propiedades eléctricas: aislante, no propagador de la llama, estable frente a los rayos UV y con resistencia a la intemperie y a los agentes químicos, con 1 compartimento, con soporte horizontal, de PVC, color gris RAL 7035.</p>	CUARENTA Y DOS EUROS con VEINTISEIS CÉNTIMOS	42,26
0537	BT0505	ML	<p>CANALIZACION REJIBAND 100 mm CON PAT</p> <p>Canalización aérea constituida por bandeja tipo Rejiband de 100 mm. Incluso soportes (cada 80 cm como máximo) y puesta a tierra con conductor desnudo de cobre de 35 mm².</p>	DOCE EUROS con OCHENTA Y SEIS CÉNTIMOS	12,86
0538	BT050A	UD	<p>PANTALLA ESTANCA</p> <p>Pantalla estanca WT120C L1200 1xLED40S/840 de Philips o equivalente, instalada y conexionada.</p>	CUARENTA Y UN EUROS con SESENTA Y CUATRO CÉNTIMOS	41,64
0539	BT060	ML	<p>TUBO PVC RIGIDO d=20mm</p> <p>Tubo rígido de PVC d=16mm para canalización de conductores, incluso soportes y anclajes a pared, instalado.</p>	DOS EUROS con CUARENTA Y SIETE CÉNTIMOS	2,47
0540	BT060A	UD	<p>PANTALLA LED EMPOTRADA 60x60</p> <p>Pantalla empotrada RC 132V 1xLED20S/840 W60L60 de Philips o equivalente, instalada y conexionada.</p>	SESENTA Y UN EUROS con NOVENTA Y NUEVE CÉNTIMOS	61,99
0541	BT070A	UD	<p>DOWNLIGHT LED</p> <p>Downlight DN 130B D217 1xLED20S/840 de Philips o equivalente, instalado y conexionado.</p>	CUARENTA Y TRES EUROS con CUARENTA Y OCHO CÉNTIMOS	43,48
0542	BT090A	UD	<p>LUMINARIA EMERGENCIA 100 LM</p> <p>Emergencia Basic Led serie L de Luznor, modelo LL-100-T o equivalente de 100 lúmenes, instalada y conexionada.</p>	TREINTA Y DOS EUROS con DOCE CÉNTIMOS	32,12

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ABASTECIMIENTO A VARIOS MUNICIPIOS DE LA RIOJA. SISTEMA CIDACOS

Nº	CÓDIGO	UD	DESCRIPCIÓN	PRECIO EN LETRA	IMPORTE
0543	BT100A	UD	LUMINARIA EMERGENCIA 300 LM Emergencia Basic Led serie L de Luznor, modelo LL-300-T o equivalente de 300 lúmenes, instalada y conexiónada.	VEINTISIETE EUROS con CINCUENTA Y SEIS CÉNTIMOS	27,56
0544	BT110A	ML	CABLE TRANSMISION DATOS Cable eléctrico para transmisión de datos en red marca AMP, tipo U/UTP, categoría 5e, clase D, de 4 pares trenzados con conductores de cobre rígido, con cubierta de policloruro de vinilo (PVC), bajo tubo flexible aislante, incluso parte proporcional de cajas de registro y regletas de conexión.	CERO EUROS con OCHENTA Y DOS CÉNTIMOS	0,82
0545	BT120A	ML	CABLE CIRCUITO ALUMBRADO 3x1.5 mm² Circuito de alumbrado realizado con conductor unipolar de cobre rígido, con aislamiento 700 V. y una sección de 3x1.5 mm², bajo tubo flexible aislante corrugado de PVC, de diámetro 16 mm. y grado de protección 7, en sistema monofásico (fase y neutro), incluso parte proporcional de cajas de registro y regletas de conexión. Canalización y conducciones según ITC-BT-28 para locales de pública concurrencia.	DOS EUROS con SESENTA CÉNTIMOS	2,60
0546	BT130	ML	LINEA 3x2.5mm2 Cu 0.6/1kV RZ1-K (AS) Línea eléctrica de 3x2.5mm2 Cu 0.6/kV RZ1-K (AS) en canalización existente, con parte proporcional de cajas de derivación.	TRES EUROS con CINCO CÉNTIMOS	3,05
0547	BT130A	ML	CABLE CIRCUITO FUERZA 3x2.5 mm² M.I. Circuito de fuerza realizado con conductor unipolar de cobre rígido, con aislamiento 700 V. y una sección de 3x2.5 mm², bajo tubo flexible aislante corrugado de PVC, de diámetro 20 mm. y grado de protección 7, (fase +neutro+tierra), incluso parte proporcional de cajas de registro y regletas de conexión.	DOS EUROS con OCHENTA Y CINCO CÉNTIMOS	2,85
0548	BT131	* ML	LINEA 3x4mm2 Cu 0.6/1kV RZ1-K (AS) Línea eléctrica de 3x4mm2 Cu 0.6/kV RZ1-K (AS) en canalización existente, con parte proporcional de cajas de derivación.	TRES EUROS con SETENTA Y CUATRO CÉNTIMOS	3,74
0549	BT135	* ML	LINEA 4x4mm2 Cu 0.6/1kV RZ1-K (AS) Línea eléctrica de 4x4 mm2 Cu 0.6/kV RZ1KZ1-K (AS) en canalización existente, con parte proporcional de cajas de derivación.	CUATRO EUROS con OCHENTA Y CUATRO CÉNTIMOS	4,84
0550	BT140A	ML	CABLE CIRCUITO FUERZA 5x2.5 mm² M.I. Circuito de fuerza realizado con conductor unipolar de cobre rígido, con aislamiento 700 V. y una sección de 5x2.5 mm², bajo tubo flexible aislante corrugado de PVC, de diámetro 20 mm. y grado de protección 7, (3 fases +neutro+tierra), incluso parte proporcional de cajas de registro y regletas de conexión.	TRES EUROS con TREINTA Y UN CÉNTIMOS	3,31
0551	BT150	UD	INTERRUPTOR ALUMBRADO Interruptor de alumbrado con mecanismo completo y p/p de conductor, tubo y cajas de derivación.	VEINTE EUROS con CUARENTA Y OCHO CÉNTIMOS	20,48

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Nº	CÓDIGO	UD	DESCRIPCIÓN	PRECIO EN LETRA	IMPORTE
0552	BT150A	UD	BASE ENCHUFE MONOFÁSICA Ud. Base enchufe monofásica modelo a elegir, con toma de tierra lateral realizada bajo tubo según ITC-BT-21, tipo Aiscan CR (forroplast) o similar, empotrado en canalizaciones ordinarias en obra de fábrica (paredes, techos o falsos techos), D=20 mm no propagador de la llama UNE-EN 50085-1 y UNE EN 50086-1 y conductores de cobre unipolares aislados para una tensión nominal de 750 V y sección 2.5 mm2, (activo, neutro y protección), incluido caja registro, caja mecanismos especial con tornillo, base enchufe (II+T.T.), totalmente montado e instalado.	DIECISIETE EUROS con NOVENTA Y OCHO CÉNTIMOS	17,98
0553	BT160	UD	TOMA DE CORRIENTE Toma de corriente con mecanismo completo y p/p de conductor, tubo y cajas de derivación.	VEINTIDOS EUROS con CUARENTA Y CUATRO CÉNTIMOS	22,44
0554	BT160A	UD	BASE ENCHUFE TRIFÁSICA Ud. Base enchufe 2P+T 16A 380V modelo a elegir, con toma de tierra lateral realizada bajo tubo según ITC-BT-21, tipo Aiscan CR (forroplast) o similar, empotrado en canalizaciones ordinarias en obra de fábrica (paredes, techos o falsos techos), D=20 mm no propagador de la llama UNE-EN 50085-1 y UNE EN 50086-1 y conductores de cobre unipolares aislados para una tensión nominal de 750 V y sección 2.5 mm2, (activo, neutro y protección), incluido caja registro, caja mecanismos especial con tornillo, base enchufe de 16 A (II+T.T.), totalmente montado e instalado.	VEINTICINCO EUROS con NOVENTA Y NUEVE CÉNTIMOS	25,99
0555	BT170A	UD	CAJA EMP. TOMAS 2 RED + MOD. RJ45 + MOD. RJ11 Ud. Suministro, colocación y conexiónado de caja de empotrar en pared, mampara o pladur de 2 módulos dobles con marcado CE según normativa UNE 20 451:1997 fabricado en material autoextinguible y libre de halógenos, modelo CA2E + MB2E (incluye cubeta, marco y separador energía-datos) de color a elegir por la dirección facultativa y formada por 2 tomas de corriente tipo schuko 2P+TT 16A con led y obturador de seguridad y placa de 4 conectores RJ11 - RJ45.	TREINTA Y UN EUROS con NOVENTA Y DOS CÉNTIMOS	31,92
0556	BT180A	UD	DETECTOR PRESENCIA Ud. Detector de presencia de montaje sobre techo, con ajustes de temporización, distancia de detección y nivel de luminosidad, para accionamiento de puntos de luz, realizado bajo tubo según ITC-BT-21, tipo Aiscan CR (forroplast) o similar, empotrado en canalizaciones ordinarias en obra de fábrica (paredes, techos o falsos techos), D=20 mm no propagador de la llama UNE-EN 50085-1 y UNE EN 50086-1 y conductor de cobre unipolar aislado, para una tensión nominal de 750 V y sección 1,5 mm2, incluyendo caja de registro, detector de presencia, accesorios para montaje, instalado y conexiónado.	VEINTIDOS EUROS con NOVENTA Y DOS CÉNTIMOS	22,92
0557	BT181	UD	LUMINARIA EXTERIOR NAVE Campana industrial BGP 307 T25 1xLED99-4S/740 DM11 de Philips o equivalente, instalada y conexiónada.	SETENTA Y UN EUROS con TREINTA Y UN CÉNTIMOS	71,31
0558	BT190	UD	PANTALLA ESTANCA Pantalla estanca WT120C L1500 1xLED60S/840 de Philips o equivalente, instalada y conexiónada.	CINCUENTA Y DOS EUROS con SIETE CÉNTIMOS	52,07

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Nº	CÓDIGO	UD	DESCRIPCIÓN	PRECIO EN LETRA	IMPORTE
0559	BT190A	UD	EQUIPOTENCIAL BAÑOS UD. Tierra equipotencial para baños, realizado con conductor de 4 mm2. sin protección mecánica y 2,5 mm2. con protección mecánica, conexionando las canalizaciones metálicas existentes y las masas de los aparatos sanitarios metálicos y todos los demás elementos conductores accesibles de acuerdo al Reglamento Electrotécnico para Baja Tensión actualmente en vigor.	CUARENTA Y TRES EUROS con SEIS CÉNTIMOS	43,06
0560	BT210	UD	EMERGENCIA 100 LM Emergencia Basic Led serie L de Luznor o equivalente, modelo LLE-100 de 100 lúmenes, instalada y conexionada.	TREINTA Y DOS EUROS con DOCE CÉNTIMOS	32,12
0561	BT220	UD	EMERGENCIA 300 LM Emergencia Basic Led serie L de Luznor o equivalente, modelo LL-300-T de 300 lúmenes, instalada y conexionada.	TREINTA Y NUEVE EUROS con DIEZ CÉNTIMOS	39,10
0562	BT230	UD	PUESTA A TIERRA DE LA INSTALACION Puesta a tierra de la nave con 65 metros de conductor de cobre desnudo de 35mm2 y 4 picas de acero cobrizado de 2 metros.	DOSCIENTOS NOVENTA Y OCHO EUROS con NOVENTA Y TRES CÉNTIMOS	298,93
0563	BT2301	UD	PUESTA A TIERRA DE LA INSTALACION Puesta a tierra de la nave con 65 metros de conductor de cobre desnudo de 35mm2 y 4 picas de acero cobrizado de 2 metros.	DOSCIENTOS SESENTA Y NUEVE EUROS con CUARENTA Y CINCO CÉNTIMOS	269,45
0564	BT2302	UD	PUESTA A TIERRA DE EDIFICIO Puesta a tierra de la nave con 28 metros de conductor de cobre desnudo de 50mm2 y 4 picas de acero cobrizado de 2 metros.	DOSCIENTOS SESENTA Y TRES EUROS con CINCUENTA Y SEIS CÉNTIMOS	263,56
0565	BT2303	UD	PUESTA A TIERRA DE ZONA DE DESBASTE Puesta a tierra de la nave con 50 metros de conductor de cobre desnudo de 50mm2 y 4 picas de acero cobrizado de 2 metros.	TRESCIENTOS VEINTIOCHO EUROS con CUARENTA Y UN CÉNTIMOS	328,41
0566	BT23031	UD	PUESTA A TIERRA DE EDIFICIO REACTIVOS Puesta a tierra de edificio de reactivos con 130 metros de conductor de cobre desnudo de 50mm2 y 4 picas de acero cobrizado de 2 metros.	QUINIENTOS SESENTA Y CUATRO EUROS con VEINTICUATRO CÉNTIMOS	564,24
0567	BT23032	UD	PUESTA A TIERRA DE ZONA ENTRADA DE AGUA BRUTA Puesta a tierra de zona entrada de agua bruta con 80 metros de conductor de cobre desnudo de 50mm2 y 4 picas de acero cobrizado de 2 metros.	CUATROCIENTOS DIECISEIS EUROS con OCHENTA Y CINCO CÉNTIMOS	416,85
0568	BT23033	UD	PUESTA A TIERRA DE ZONA DECANTADORES Puesta a tierra de zona decantadores con 160 metros de conductor de cobre desnudo de 50mm2 y 4 picas de acero cobrizado de 2 metros.	SEISCIENTOS CINCUENTA Y DOS EUROS con SESENTA Y SIETE CÉNTIMOS	652,67

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Nº	CÓDIGO	UD	DESCRIPCIÓN	PRECIO EN LETRA	IMPORTE
0569	BT23034	UD	PUESTA A TIERRA DE EDIFICIO DE CONTROL Y ZONA DE FILTRACIÓN Puesta a tierra de edificio de control y zona de filtración con 190 metros de conductor de cobre desnudo de 50mm2 y 4 picas de acero cobrizado de 2 metros.	SETECIENTOS CUARENTA Y UN EUROS con ONCE CÉNTIMOS	741,11
0570	BT23035	UD	PUESTA A TIERRA DE CASETA DE DEPÓSITO DE AGUA TRATADA Puesta a tierra de caseta de depósito de agua tratada con 400 metros de conductor de cobre desnudo de 50mm2 y 8 picas de acero cobrizado de 2 metros.	MIL CUATROCIENTOS VEINTICINCO EUROS con SETENTA Y SIETE CÉNTIMOS	1.425,77
0571	BT260	Ud	OCA Inspección inicial y certificado de Organismo de Control autorizado.	TRESCIENTOS EUROS con SESENTA Y UN CÉNTIMOS	300,61
0572	C04.04.01.03	UD	EXTINTOR DE CO2 EFICACIA 89B Ud. Extintor de CO2 (Nieve Carbónica) de 5 kg. de capacidad, eficacia 89B, equipado de manguera con difusor y homologado e instalado.	SESENTA Y NUEVE EUROS con SETENTA CÉNTIMOS	69,70
0573	C04.04.07.01	UD	CENTRAL ANAL. 2 LAZOS 198 DETEC. Ud. Central de detección de incendios Analógica con 2 lazos compacta (no ampliable) de 198 detectores + 198 módulos analógicos, con 5 salidas de relé, pantalla LCD de 128x64 píxeles retroiluminada, 2 salidas serie RS-232, fuente de alimentación y d baterías de 12V / 7 Ah, totalmente instalada, conexionada, programada y probada, según CTE/DB-SI 4. Incluye 9 módulos de entrada-salida programable para maniobra y estado de equipos no analógicos, y 5 módulos de entrada analógicos para identificar señales de equipos no analógicos. Incluye dos fuentes de alimentación de 24 V 5 A, instaladas.	MIL OCHOCIENTOS NOVENTA Y SEIS EUROS con OCHENTA Y SEIS CÉNTIMOS	1.896,86
0574	C04.04.07.04	UD	PULSADOR DE ALARMA REARMABLE Ud. Pulsador de alarma tipo rearmable, con tapa de plástico basculante totalmente instalado, i/p.p. de tubos y cableado, conexionado y probado, según CTE/DB-SI 4.	CUARENTA Y OCHO EUROS con SETENTA Y SIETE CÉNTIMOS	48,77
0575	C04.04.07.05	UD	SIRENA ELECTRÓNICA BITONAL 24 V. Ud. Sirena de alarma de incendios bitonal, para montaje interior con señal óptica y acústica a 24v, totalmente instalada, i/p.p. tubo y cableado, conexionado y probado, según CTE/DB-SI 4.	TREINTA Y TRES EUROS con VEINTIUN CÉNTIMOS	33,21
0576	C04.04.07.06	UD	SIRENA ELECTRÓNICA BITONAL PARA EXTERIOR Ud. Sirena de alarma de incendios bitonal, para montaje exterior, con señal óptica y acústica a 24v, totalmente instalada, i/p.p. tubo y cableado, conexionado y probado, según CTE/DB-SI 4.	SESENTA Y SIETE EUROS con OCHENTA Y CUATRO CÉNTIMOS	67,84

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Nº	CÓDIGO	UD	DESCRIPCIÓN	PRECIO EN LETRA	IMPORTE
0577	C04.04.07.07	UD	INST. ELÉCTRICA TUBO PVC Instalación eléctrica bajo tubo de PVC rígido o flexible según casos, libre de halógenos, con p.p. de manguera apantallada no propagador de llamas de 2X1,5 mm2 de sección, cajas de derivación, bridas de fijación, bombas de conexión, etc. incluso mano de obra para instalación, programación y pruebas.	DOS MIL CIENTO OCHENTA Y DOS EUROS con VEINTISEIS CÉNTIMOS	2.182,26
0578	C04.04.07.071	UD	INSTALACIÓN ELÉCTRICA TUBO PVC Instalación eléctrica bajo tubo de PVC rígido o flexible según casos, libre de halógenos, con p.p. de manguera apantallada no propagador de llamas de 2X1,5 mm2 de sección, cajas de derivación, bridas de fijación, bombas de conexión, etc. incluso mano de obra para instalación, programación y pruebas.	NOVECIENTOS CUARENTA Y TRES EUROS con CUARENTA CÉNTIMOS	943,40
0579	C04.04.07.072	UD	INST. ELÉCTRICA TUBO PVC Instalación eléctrica bajo tubo de PVC rígido o flexible según casos, libre de halógenos, con p.p. de manguera apantallada no propagador de llamas de 2X1,5 mm2 de sección, cajas de derivación, bridas de fijación, bombas de conexión, etc. incluso mano de obra para instalación, programación y pruebas.	DOSCIENTOS CUARENTA Y UN EUROS con CINCUENTA Y NUEVE CÉNTIMOS	241,59
0580	CCMFANG	UD	CUADRO INSTALACIÓN FOTOVOLTAICA Cuadro de protección y control de instalación fotovoltaica de Schneider o equivalente formado por: - Envolvente metálico para locales húmedos, modelo Prisma P montado sobre zócalo con accesorios, puertas, placas de montaje, intalado, montado y conexionado. - Compartimentación mínima 2b. - Descargador de sobretensiones tipos I y II. - Poder de corte según las características de la instalación. - Interruptor genaral de 250 A IV. - Interruptor genaral de 40 A IV. - Protección diferencial de 40 A y 300 mA - Inversor fotovoltaico 20 kW - Contador de energía fotovoltaica con sistema antivertido. Completamente conexionado y en funcionamiento.	SIETE MIL TRESCIENTOS VEINTITRES EUROS con SETENTA Y SIETE CÉNTIMOS	7.323,77
0581	CCMFANG12	UD	CAJA DE COENXIONES C.C. Caja de conexiones en C.C. con apartamentada y envolvente de Schneider, según esquema unifilar. Completamente conexionado y en funcionamiento.	CIENTO OCHENTA Y NUEVE EUROS con CINCUENTA Y CUATRO CÉNTIMOS	189,54
0582	CCMLA	UD	C.C.M. 1. EDIFICIO DESHIDRATACIÓN Y REACTIVOS Cuadro general con apartamentada y envolvente de Schneider, compartimentación mínima 3B, formado por envolvente metálico con puertas montado sobre zócalo y conteniendo interruptor general automático NSX 400A regulable, limitador de sobretensiones, analizador de redes, variadores de frecuencia, protecciones magnetotérmicas y diferenciales según esquema unifilar, incluso cableado interior, perfiles omega y regletas de conexión.	SESENTA Y TRES MIL QUINIENTOS EUROS con SETENTA Y UN CÉNTIMOS	63.500,71

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Nº	CÓDIGO	UD	DESCRIPCIÓN	PRECIO EN LETRA	IMPORTE
0583	CCMLA2	UD	C.C.M. 2. EDIFICIO DE CONTROL Cuadro general con apartamentada y envolvente de Schneider, compartimentación mínima 3B, formado por envolvente metálico con puertas montado sobre zócalo y conteniendo interruptor general automático NSX 250A regulable, limitador de sobretensiones, analizador de redes, variadores de frecuencia, protecciones magnetotérmicas y diferenciales según esquema unifilar, incluso cableado interior, perfiles omega y regletas de conexión.	VEINTIOCHO MIL OCHOCIENTOS NOVENTA Y SEIS EUROS con CUARENTA Y UN CÉNTIMOS	28.896,41
0584	CCMLA3	UD	C.C.M. 3. DEPÓSITO DE AGUA TRATADA Cuadro general con apartamentada y envolvente de Schneider, compartimentación mínima 3B, formado por envolvente metálico con puertas montado sobre zócalo y conteniendo interruptor general automático NSX 100A regulable, limitador de sobretensiones, analizador de redes, variadores de frecuencia, protecciones magnetotérmicas y diferenciales según esquema unifilar, incluso cableado interior, perfiles omega y regletas de conexión.	ONCE MIL OCHOCIENTOS NOVENTA Y CINCO EUROS con NOVENTA Y SEIS CÉNTIMOS	11.895,96
0585	CGBT	UD	Cuadro C.G.B.T. EDAR Cuadro general de Baja Tensión de la ETAP con apartamentada y envolvente de Schneider, compartimentación mínima 3B, formado por envolvente metálico con puertas montado sobre zócalo y conteniendo interruptor general automático NS 1000A regulable, limitador de sobretensiones, analizador de redes y protecciones magnetotérmicas y diferenciales según esquema unifilar, incluso cableado interior, perfiles omega y regletas de conexión.	CUARENTA Y SEIS MIL TRESCIENTOS SETENTA EUROS con VEINTE CÉNTIMOS	46.370,20
0586	D08AA010	m²	FORM. PTES. HORMIGÓN ALIGERADO 10 cm m². Formación de pendientes para cubiertas planas con hormigón aligerado HNE-15 N/mm², tamaño máx. del árido 20 mm, de 10 cm de espesor medio, i/replanteo, ejecución de maestras, regleado y capa de mortero de cemento M5 según UNE-EN 998-2 de 2 cm de espesor, i/p.p. de costes indirectos.	DOCE EUROS con TRES CÉNTIMOS	12,03
0587	E00011	M3	RELLENO ZANJAS CON PRODUCTOS DE EXCAVACIÓN Relleno de zanjas con productos clasificados procedentes de la excavación, incluso extendido, humectación y compactación en capas de 20 cm. de espesor, con un grado de compactación del 95% del proctor modificado, según se indica en la sección tipo en planos.	DOS EUROS con DIECIOCHO CÉNTIMOS	2,18
0588	E00065.1	ML	MESA MURAL DE ALTURA 900 Y 750 MM DE PROFUNDIDAD Mesa mural de altura 900 mm y 750 mm de profundidad, para armarios con zócalo, con tablero Trespa Toplab Plus (o de calidad superior) de 20 mm de espesor.	CINCUENTA Y CUATRO EUROS con CUARENTA Y UN CÉNTIMOS	54,41
0589	E00065.10	UD	EXTRACTOR DE POLIPROPILENO Extractor de polipropileno con conexión al conducto de extracción existente.	CIENTO TREINTA Y OCHO EUROS con SESENTA Y CINCO CÉNTIMOS	138,65

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Nº	CÓDIGO	UD	DESCRIPCIÓN	PRECIO EN LETRA	IMPORTE
0590	E00065.11	ML	TUBOS DE EXTRACCIÓN DE AUTOMUESTREADORES Y ARMARIOS DE RESIDUOS Tubos de extracción de automuestreadores y armarios de residuos independientes instalada por la parte trasera de la mesa y por debajo del tablero. Conexión en pared.	DOSCIENTOS SETENTA Y UN EUROS con CUARENTA Y SEIS CÉNTIMOS	271,46
0591	E00065.2	UD	ARMARIO INFERIOR CON ZÓCALO DE 600X550X870 MM Armario inferior con zócalo de 600x550x870 mm con cajón superior y 2 puertas abatibles con balda intermedia.	DOSCIENTOS SETENTA EUROS con CUARENTA Y CUATRO CÉNTIMOS	270,44
0592	E00065.3	UD	ARMARIO COLGADO DEL SISTEMA DE SERVICIOS DE 600X350X760 MM Armario colgado del sistema de servicios de 600x350x760 mm con 1 puerta abatible parcialmente acristalada.	TRESCIENTOS DIEZ EUROS con NOVENTA Y OCHO CÉNTIMOS	310,98
0593	E00065.4	UD	TABURETE DE LABORATORIO Taburete de laboratorio.	CIENTO TREINTA Y OCHO EUROS con SESENTA Y CINCO CÉNTIMOS	138,65
0594	E00065.5	ML	MESA MURAL DE ALTURA 900 Y 1200 MM DE PROFUNDIDAD. GRES Metros lineales de mesa mural de altura 900 mm y 750 mm de profundidad, para armarios con zócalo, con tablero de gres sin reborde de 20 mm de espesor.	CIENTO SESENTA Y NUEVE EUROS con SEIS CÉNTIMOS	169,06
0595	E00065.6	UD	FREGADERO MURAL DE GRES CON 1 SENO Y ESCURRIDOR Fregadero mural de gres con 1 seno y escurridor (fregadero a la derecha) de 1200 mm de longitud y 750 mm de profundidad, con grifo mono-mando mezclador, lavajos de emergencia. Con armario inferior de 1200mm y capacidad para 2 cubos de 15L para recogida de residuos. Con antispalpicaduras sólo lateral derecho y trasero.	TRESCIENTOS OCHENTA Y UN EUROS con NOVENTA Y SEIS CÉNTIMOS	381,96
0596	E00065.7	UD	CERRAMIENTO DE SOBREMESA (CAPOTAJE) DE 1800X900X1450 MM Cerramiento de sobremesa (capotaje) de 1800x900x1450 mm, con estructura metálica. Puertas correderas delanteras con cristal de seguridad ESG. Con extractor de polipropileno y conectado al conducto de extracción existente. Preinstalación en techo del cerramiento para extracción de dos equipos de microondas.	DOSCIENTOS OCHENTA Y TRES EUROS con OCHENTA Y SEIS CÉNTIMOS	283,86
0597	E00065.8	UD	VITRINA DE GASES DE 1800X900X2700 MM Vitrina de gases de 1800x900x2700 mm para trabajos con ácidos a altas temperatura según EN-14175/7. Con tablero y revestimiento interior de gres técnico. Con servicios en el frontal inferior.	TRESCIENTOS NOVENTA EUROS con TREINTA CÉNTIMOS	390,30

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Nº	CÓDIGO	UD	DESCRIPCIÓN	PRECIO EN LETRA	IMPORTE
0598	E00065.9	UD	ARMARIO INFERIOR PARA ÁCIDOS Y BASES DE 900X550X640 MM. Armario inferior para ácidos y bases de 900x550x640 mm. Con extractor de polipropileno y conectado al conducto de extracción existente.	TRESCIENTOS TREINTA Y UN EUROS con VEINTISIETE CÉNTIMOS	331,27
0599	E00090	ud	ARMARIO BALDAS 800x470 MM Ud. Conjunto de 2 armarios medios de 80x47 mm y 1250 de alto. Dotados de puertas batientes de vitrina y dos baldas en el interior. Fabricados en tablero melaminico con un espesor de 19 mm. Estantes regulables en altura.	QUINIENTOS QUINCE EUROS con TREINTA CÉNTIMOS	515,30
0600	E00340	UD	BOTIQUÍN PRIMEROS AUXILIOS 460x380x130mm Botiquín de primeros auxilios de pared fabricado en chapa de de acero esmaltado, con llave. Dotación incluida: 1 botella de 250 ml de alcohol, 1 botella de 250 ml de agua oxigenada, 1 paquete de algodón de 25 gr, 2 sobres de gasa estéril de 20x20 cm, 1 tijera de de 13 cm , 1 pinza de plástico de 13 cm, 1 caja de tiritas de 10 unidades en diversas medidas, 1 rollo de espaldrapo de 5m x 1,5cm, 2 guantes de latex, 2 vendas de malla de 5m x 10cm, 1 venda de malla de 5m x 10cm, 1 manual de primeros auxilios, de 460x380x10 cm.	CUARENTA Y CINCO EUROS con CINCUENTA Y CINCO CÉNTIMOS	45,55
0601	E00341	UD	pH metro/mV metro/termómetro portátil pH metro/mV metro/termómetro portátil de las siguientes características: Instrumento electrónico, digital y portátil. Los caracteres de diseño son: Total impermeabilidad IP-67 hasta 1 m de profundidad. Fabricado en material ABS resistente y ligero. Gran estabilidad en superficies. Como caracteres técnicos destacan: Rango de medición: 0-14 pH/± 399 mV/± 1999 mV/0-100°C. Capacidad de memorización y recuperación de valores de mV y pH. El equipo se presenta con un estuche de transporte que le permite una fácil medición, así como la calibración "in situ". Incluye las siguientes soluciones de calibración: Solución de pH 4,01 (460 cc). Solución de pH 4,01 (25 x 20 ml). Solución de pH 7,01 (460 cc). Solución de pH 10,01 (460 cc). Solución de pH 9,18 (460 cc). Solución de almacenamiento (460 cc). Solución de relleno (4 x 50 ml. Solución electrolito 3,5 M KCl + AgCl). Solución de limpieza para usos generales (460 cc). Solución certificada de pH 4,01 (460 cc). Solución certificada de pH 7,01 (460 cc). Solución certificada de pH 10,01 (460 cc). Solución de pH 7,01 (25 x 20 ml).	MIL CIENTO SIETE EUROS con OCHENTA Y SIETE CÉNTIMOS	1.107,87

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0602	E003410	Ud	Floculador de 6 brazos Floculador de 6 brazos con iluminación posterior, de las siguientes características: Equipos diseñado para efectuar pruebas de floculación y ensayos afines. Velocidad de giro de los ejes constante durante todo el ensayo. Iluminación inferior con luz blanca fluorescente. Chasis metálico recubierto de una capa de pintura plástica al horno. Varillas agitadoras de acero inoxidable. Equipo con interruptor, fusible y piloto generales, interruptor y piloto de iluminación, mando regulador de la velocidad, mando de ajuste y velocidad mínima VARI-O-MIM, temporizador regulable de 60 minutos y tacómetro digital. CARACTERÍSTICAS TÉCNICAS: Alimentación: 220 V.a.c., 50 Hz. Consumo: 30 W. Regulación velocidad: Electrónica digital. Velocidad de agitación: Desde muy lento a 250 r.p.m. Separación entre ejes: 140 mm. Diámetro pala agitadora: 60 mm. Altura útil: 220 mm. Altura de pala de agitación: 10 mm. Dimensiones: 380 cm alto x 900 cm ancho x 190 cm fondo. Peso: 12 Kg.	TRES MIL QUINIENTOS CINCUENTA Y SEIS EUROS con OCHENTA Y SIETE CÉNTIMOS	3.556,87
0603	E003411	Ud	Material fungible. Material fungible. El lote de MATERIAL FUNGIBLE elaborado para un laboratorio de las dimensiones mencionadas está compuesto por: 3 vasos precipitados PYRES de 1.000 ml. 2 vasos precipitados PYRES de 500 ml. 3 vasos precipitados PYRES de 250 ml. 3 vasos precipitados PYRES de 75 ml. 1 probeta de vidrio de 1.000 ml. 2 probetas de vidrio de 500 ml. 2 probetas de vidrio de 250 ml. 3 probetas de vidrio de 100 ml. 6 matraces Erlenmeyer de 250 ml. 4 buretas de 25 ml. 2 soportes para buretas. 2 pinzas para buretas. 4 pipetas graduadas de 0-1,0 ml. 4 pipetas graduadas de 0-2,0 ml. 4 pipetas graduadas de 0-5,0 ml. 4 pipetas graduadas de 0-10,0 ml. 1 soporte para pipetas. 1 termómetro 0-120°C. 1 cuchara-espátula. 1 reloj avisador. 3 vidrios de reloj. 1 micropipeta. 2 conos Inhoff. 1 soporte para conos Inhoff. 1 pinzas para filtros.	MIL DOSCIENTOS OCHENTA Y DOS EUROS con OCHENTA Y UN CÉNTIMOS	1.282,81
0604	E003412	Ud	Frigorífico: 240 l frigorífico. 65 l congelador Frigorífico: 240 l frigorífico. 65 l congelador.	SEISCIENTOS SETENTA Y CINCO EUROS con OCHENTA Y CINCO CÉNTIMOS	675,85
0605	E003413	Ud	Centrífuga ventilada Centrífuga ventilada de las siguientes características: PANEL DE MANDOS compuesto por: Interruptor. Reloj desconector con posibilidad de temporizador hasta 60 min. o para trabajos en continuo. Variador de velocidad. Pulsador indicador de apertura de tapa. Lámpara de señalización de red. Taquímetro eléctrico indicador de velocidad. CARACTERÍSTICAS TÉCNICAS: Volumen máximo: 300 ml. Capacidad máxima del tubo: 50 ml. Medidas exteriores: 29 x 39 x 44 (alto x ancho x fondo). Consumo: 190 W. Peso: 19 Kg. Incluye: Cabezal angular para 300 ml de capacidad máxima, mediante 6 tubos de 50 ml cada uno.	DOS MIL DOSCIENTOS QUINCE EUROS con SETENTA Y SEIS CÉNTIMOS	2.215,76

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Nº	CÓDIGO	UD	DESCRIPCIÓN	PRECIO EN LETRA	IMPORTE
0606	E003414	Ud	Conductímetro digital Conductímetro portátil de las siguientes características: Aparato portátil, electrónico para la medición de conductividad en líquidos. Las características principales del mismo son: Rango de medición : 0,0 ÷ 199,9 µS/cm ; 0 ÷ 1999 µS/cm ; 0,00 ÷ 19,99 mS/cm ; 0,0 ÷ 199,9 mS/cm. Calibración: en un punto. Compensación de la temperatura : Automática de +10 a +40°C. Alimentación: Pila de 9 V. Adaptador para suministro de 12 VDC. Se suministra con sonda de conductividad HI 76302 con 1 m de cable y maletín de transporte. Incluyendo las siguientes soluciones de calibración: Solución de conductividad de 1.413 µS (460 cc). Solución de conductividad de 12.880 µS (460 cc). Solución de conductividad de 111.800 µS (460 cc). Solución de conductividad de 80.000 µS (460 cc). Solución de conductividad de 80.000 µS (230 cc). Solución de conductividad de 84 µS (460 cc).	OCHOCIENTOS SETENTA Y CUATRO EUROS con SESENTA Y CINCO CÉNTIMOS	874,65
0607	E003415	Ud	Microscopio óptico Microscopio óptico.	MIL OCHOCIENTOS CINCUENTA Y CUATRO EUROS con SESENTA CÉNTIMOS	1.854,60
0608	E003416	Ud	Equipo de filtración por vacío Equipo de filtración por vacío.	CIENTO OCHENTA Y OCHO EUROS con OCHENTA Y CUATRO CÉNTIMOS	188,84
0609	E003417	Ud	Destilador de agua Destilador de agua.	SETECIENTOS OCHENTA Y CUATRO EUROS con DIECIOCHO CÉNTIMOS	784,18
0610	E00342	Ud	Oxímetro portátil de las siguientes Medidor de oxígeno disuelto portátil de las siguientes características: Instrumento electrónico y portátil para la medición de la concentración de oxígeno disuelto en agua. Visualización: LCD (Display de cristal líquido) con botón para sobreiluminación. - Medición simultánea de oxígeno (mgr/l. ó % de saturación) y temperatura. - Rango de medición: 0.20 mgr/l. 0-200 % aire saturado. -5 a +45°C. - Resolución: 0,01 mgr/l. 0,1 % . 0,1°C. - Compensación automática de temperatura. - Compensación por presión y salinidad por introducción de los datos. - Cámara de calibración interna para la calibración en campo, transporte y almacenamiento. - Sonda de acero inoxidable. - Cable de 3 metros. de longitud. - Alimentación: 6 pilas tamaño AA para aprox. 100 horas.	DOS MIL CUARENTA EUROS con OCHENTA Y CINCO CÉNTIMOS	2.040,85

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Nº	CÓDIGO	UD	DESCRIPCIÓN	PRECIO EN LETRA	IMPORTE
0611	E00343	Ud	<p>Estufa de desecación y esterilización</p> <p>Estufa para desecación y esterilización de las siguientes características: Convección natural de aire. Para temperaturas regulables de: 40°C a 250°C. Construidas conforme a normas DIN 12.880. Prueba térmica conforme a normas DIN 50.001. Sistema eléctrico, protección IP-20, según normas DIN 40.050. Homogeneidad de la temperatura: ±1,5% . Estabilidad de la temperatura: ±0,5% . Fabricado según normas comunitarias sobre seguridad. Marcado con el distintivo CE. CARACTERÍSTICAS: Caja interior y cotrapuerta en acero inox. AISI-304 (DIN 1.4301). Mueble exterior metálico pintado al horno con resina epoxi. Junta elástica de silicona en la puerta. Bandejas perforadas en acero inox. AISI-304, ajustables en altura, con dispositivo que permite retirarlas sin que vuelquen. Puerta exterior metálica pintada al horno. Dispositivo de aireación/salida gases, regulable. Calefacción por resistencias eléctricas de gran superficie, distribuidas alrededor de la caja. PANEL DE MANDOS: Interruptor general. Termostato hidráulico regulador de la temperatura con escala graduada en °C. Termómetro analógico de esfera, lector de la temperatura. Piloto de señalización de calefacción. Capacidad: 42 litros. Medidas interiores en cm: (400 x 350 x 300) (alto x ancho x fondo). Medidas exteriores en cm: (710 x 500 x 460) (alto x ancho x fondo). Potencia: 900 W. Peso: 38 kg. Se suministra con dos bandejas perforadas en acero inoxidable.</p>	MIL SEISCIENTOS NOVENTA EUROS con NOVENTA Y NUEVE CÉNTIMOS	1.690,99
0612	E00344	Ud	<p>Horno de mufla</p> <p>Horno de mufla de las siguientes características: Equipo con cámara refractario de baja densidad. Temperatura máxima: 1.200°C. Regulación de temperatura: automática con indicador analógico, o si se solicita bajo demanda, indicador digital. Dimensione útiles: 160 x 200 x 230) (alto x ancho x fondo) (mm). Dimesiones exteriores: (490 x 430 x 450) (alto x ancho x fondo) (mm). Potencia: 3.800 W. Tensión: 220. Peso: 41 Kg.</p>	MIL OCHOCIENTOS NOVENTA Y CINCO EUROS con SEIS CÉNTIMOS	1.895,06
0613	E00345	ud	<p>BUTACA TAP.TELA APOYABR.MAD.C/PALA ABAT.</p> <p>Butaca tapizada con interior metálico instalada con pie central, y constituida con apoyabrazos de madera maciza de haya, tablero contrachapado de haya en el respaldo, bloque de asiento en espuma de poliuretano fundido en frío autoextinguible M-4, abatible automático tapizado con tela ignífuga M-1 al igual que el barnizado.</p>	DOSCIENTOS VEINTISIETE EUROS con CUARENTA Y SIETE CÉNTIMOS	227,47
0614	E00346	Ud	<p>Balanza diezmilésimal</p> <p>Balanza diezmilésimal de las siguientes características: Capacidad de rango de Tara (g): 220. Tamaño del plato en (mm): 80 DN. Reproducibilidad (±): 0,0001 g. Linealidad (±): 0,0003 g. Pesa de calibración (g): 200. Equipamiento incluido: Interface Rs-232. Ganchos para pesada inferior. Alimentador. Conector para batería recargable.</p>	CINCO MIL CIENTO NUEVE EUROS con NUEVE CÉNTIMOS	5.109,09

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0615	E00347	Ud	<p>Turbidímetro portátil microprocesado</p> <p>Turbidímetro portátil microprocesado de las siguientes características: Medidor portátil, para determinar la turbidez en aguas potables y residuales. Con un rango de 0 a 1000 NTU y dos escalas de medición, de 0.00 a 50.00 NTU y de 50 a 1000 NTU, ha sido diseñado de acuerdo con el Standard Internacional ISO 7027. El equipo selecciona automáticamente el rango apropiado, de acuerdo con la turbidez de la muestra. Su funcionamiento está basado en un rayo de luz infrarrojo que atraviesa la cubeta. El sensor, colocado a 90° con respecto a la dirección de la luz, detecta la cantidad de luz dispersada por las partículas en suspensión de la muestra, la cual es transformada en valores NTU por el microprocesador. Su carcasa pesa menos de 400 gramos, aviso de pila baja, auto-apagado. La duración de la fuente de luz del Diodo de Emisión es indefinida, garantizando así el funcionamiento del equipo. Se suministra con dos cubetas de cristal, una tapa de cubeta para transporte, pila de 9 V. e instrucciones. Rango: 0.00 a 50.000 NTU; 50 a 1.000 NTU. Resolución: 0.01 y 1 NTU. Precisión: ±5% de la lectura (0 a 50 NTU); ±10% de la lectura (50 a 1.000 NTU). Fuente de luz: LED de infrarrojos. Duración de la fuente: Vida del instrumento. Detector de luz: Fotocélula de silicona. Pilas: 4 x 1.5 V. Duración de las pilas: 60 horas ó 3.000 lecturas. Auto apagado: Transcurridos 4 minutos. Condiciones de trabajo: 0 a 50°C/0 a 95% HR. Dimensiones: 220 x 83 x 46 mm. Peso: 350 g.</p>	MIL CIENTO CINCUENTA Y CUATRO EUROS con CINCUENTA Y TRES CÉNTIMOS	1.154,53
0616	E00349	Ud	<p>Placa calefactora</p> <p>Placa calefactora de 20 x 40 cm.</p>	MIL TRES EUROS con SETENTA Y NUEVE CÉNTIMOS	1.003,79
0617	E00350	ud	<p>BUTACA TELA 720x760x770 NS</p> <p>Butaca de una placa tapizado en tela, nivel superior de acabado, de 720x760x770 mm.</p>	SEISCIENTOS OCHENTA Y NUEVE EUROS con NOVENTA Y UN CÉNTIMOS	689,91
0618	E01007	M3	<p>EXCAV. ZANJA O POZO EN TIERRA MEDIOS MECÁNICOS</p> <p>Excavación en zanja o pozo por medios mecánicos en cualquier clase de terreno, para colocación de tuberías de abastecimiento y/o saneamiento, incluso carga y transporte de productos sobrantes a vertedero autorizado o lugar de empleo.</p>	DOS EUROS con OCHENTA Y SEIS CÉNTIMOS	2,86
0619	E01023	M3	<p>HORMIGON DE LIMPIEZA HL-150/B/20</p> <p>Hormigón de fck. 15 N/mm2. HL-150/B/20 con cemento CEM I, arena de río y árido rodado Tmáx.20 mm., para vibrar y consistencia blanda.</p>	CINCUENTA Y CINCO EUROS con OCHENTA Y NUEVE CÉNTIMOS	55,89
0620	E0104CH91	ML	<p>BARANDILLA METÁLICA ACERO INOXIDABLE AISI-316L</p> <p>Barandilla metálica en acero inoxidable AISI-316L, de 90 cm. de altura, formada por perfilera de tubo hueco de 30 mm y 3 mm de espesor, incluso rodapié de seguridad, elementos de anclaje, colocada.</p>	SESENTA Y NUEVE EUROS con NOVENTA Y UN CÉNTIMOS	69,91
0621	E01535	ud	<p>MESA RINCÓN</p> <p>Ud. Mesas de rincón. Medidas 60x60 cm. Estructura en acero. Tapa de DM rechapado en madera.</p>	CIENTO DIECISIETE EUROS con VEINTIDOS CÉNTIMOS	117,22

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Nº	CÓDIGO	UD	DESCRIPCIÓN	PRECIO EN LETRA	IMPORTE
0622	E01620	ud	PAPELERA Ud. Papelera metálica de forma cúbica pintada, con la parte superior y la inferior recubierta de goma.	DIECISEIS EUROS con SESENTA Y CINCO CÉNTIMOS	16,65
0623	E01625	ud	PARAGÜERO METÁLICO D-210 Paragüero metálico forrado en vinilo liso de color negro de 210 mm. de diámetro	DIECISEIS EUROS con OCHENTA Y OCHO CÉNTIMOS	16,88
0624	E01703	ud	PERCHERO Ud. Perchero metálico de pie, pintado, con 8 colgadores.	CUARENTA Y TRES EUROS con TREINTA Y TRES CÉNTIMOS	43,33
0625	E01940	ud	PUESTO TRABAJO RECTANGULAR 1800X800 MM Ud. Puesto de trabajo formado por una mesa rectangular de 1800x800, con ala de 100x600. Con cajonera rodante formada por un cajón y archivo de 550h mm. Los sobres fabricados con tablero de partículas tri-capa de espesor 19 mm., rematados con cantos rectos de PVC, fresados y redondeados. Estructura doble fabricada con tubo metálico. Los conjuntos permiten la electrificación horizontal y vertical. La cajonera tendrá los mismos acabados que el sobre de la mesa.	TRESCIENTOS SETENTA Y CUATRO EUROS con SETENTA Y SIETE CÉNTIMOS	374,77
0626	E01941	ud	MESA REUNIÓN CIRCULAR 900 MM Ud. Mesa de reunión circular de 900 mm de diámetro, fabricada con tablero de partículas tricapa de espesor 19 mm., rematados con cantos rectos de PVC, fresados y redondeados. Estructura doble fabricada con tubo metálico.	QUINIENTOS QUINCE EUROS con TREINTA CÉNTIMOS	515,30
0627	E02125	ud	SILLA CONFIDENTE Ud. Silla apilable con o sin brazos, estructura de tubo de acero pulido de 20x2 mm pintado en epoxi-poliéster o cromado, brazos de poliámid-6 reforzada con fibra de vidrio, asiento y respaldo de polipropileno sin tapizar.	CIENTO SESENTA Y CUATRO EUROS con SESENTA Y CUATRO CÉNTIMOS	164,64
0628	E02130	ud	SILLÓN Ud. Sillón, asiento y respaldo tapizados, con apoyabrazos regulables 3-D. Altura regulable, respaldo regulable en altura. Ajuste sincronizado, regulación dureza del respaldo. Ajuste de la profundidad del asiento.	CUATROCIENTOS VEINTITRES EUROS con SETENTA CÉNTIMOS	423,70
0629	E02135	ud	SOFÁ 2 PLAZAS TELA C/BRAZOS Sofá de dos plazas de diseño anatómico con brazos, armazón de poliuretano flexible inyectado, laterales de aluminio pulido y patas de tubo de acero pintado epoxy tapizado en tela, de 805x1200x700 mm.	CUATROCIENTOS OCHENTA Y SIETE EUROS con CUARENTA Y NUEVE CÉNTIMOS	487,49
0630	E0A060	UD	TRAMEX. ENTRAMADO METÁLICO 30X30X3 Entramado metálico 30x30x3 tipo tramex o equivalente, incluso estructura auxiliar y suministro con parte proporcional de cerco también galvanizado, montaje, recibido y pintado.	VEINTIOCHO EUROS con CINCUENTA CÉNTIMOS	28,50

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Nº	CÓDIGO	UD	DESCRIPCIÓN	PRECIO EN LETRA	IMPORTE
0631	E3256	UD	CONJUNTO TUBERÍAS PARA AGUA INDUST. Y POTABLE. PVC Y/O PE Conjunto de tuberías y válvulas para distribución de agua industrial y potable. Material: PVC y/o PE. Diámetro nominal: según planos mm. Presión nominal: 10 Atm. Incluso p.p. de válvulas, soportes y accesorios.	CIENTO VEINTIDOS EUROS con OCHENTA Y SIETE CÉNTIMOS	122,87
0632	E3257	Ud	CONJUNTO TUBERÍAS DISTRIBUCIÓN REACTIVOS PVC Y/O PP Conjunto de tuberías y válvulas para distribución de reactivos. Material: PVC y/o PP. Diámetro nominal: según planos mm. Presión nominal: 10 Atm. Incluso p.p. de válvulas, soportes y accesorios.	CIENTO DIECIOCHO EUROS con SESENTA Y UN CÉNTIMOS	118,61
0633	EAGC01	UD	AGITADOR DE MEZCLA RÁPIDA. COAGULACIÓN P=1,5 KW. L=1.700 MM Agitador de mezcla rápida. Marca: MILTON ROY O o equivalente. Modelo: HR6A-080/200/E1,5/A. Potencia motor: 1,5 kW. Velocidad salida: 108 rpm. Diámetro de hélice: 800 mm. Longitud del eje: 1.700 mm. Material eje y hélice: acero AISI-316L. Incluido placa de anclaje, transporte, montaje, conexiones eléctricas y de control, y pruebas de funcionamiento. Resto de características, según ET.	MIL SEISCIENTOS OCHENTA Y CINCO EUROS con ONCE CÉNTIMOS	1.685,11
0634	EAGF01	UD	AGITADOR DEPÓSITO LAVADO DE FILTROS P=5,6 KW Agitador sumergible de hélice. Marca: SULZER o equivalente. Modelo: RW4031-A40/8-EC-D05*10BC.. Número de álabes: 3. Diámetro de la hélice (mm): 400. Potencia de agitación: 2,6 kW. Protección térmica con sensores térmicos en el bobinado. Protección de estanqueidad por sistema DI. Incluye sistema de elevación y giro. Accionamiento: eléctrico. Potencia nominal en eje (kW): 4,0. Potencia nominal en eje (kW): 5,6. Tensión (V): 400. El agitador dispone de protección térmica por TCS con sensores térmicos en el bobinado, protección de estanqueidad por Sistema DI, con sonda en la cámara de aceite y sistema de refrigeración por sumergencia, módulo para supervisión de electrodos de temperatura y humedad. Incluso transporte, montaje, conexiones eléctricas y de control, pruebas de funcionamiento. Resto de características según E.T.	CINCO MIL SETECIENTOS OCHENTA Y CINCO EUROS con CUARENTA Y NUEVE CÉNTIMOS	5.785,49
0635	EAGF02	UD	AGITADOR DEPÓSITO FANGOS ESPESADOS P=3,5 KW Agitador sumergible de hélice. Marca: SULZER o equivalente. Modelo: XRW3032-PA29/6-EC-D01*10BC. Número de álabes: 3. Diámetro de la hélice (mm): 300. Potencia de agitación: 2,1 kW. Protección térmica con sensores térmicos en el bobinado. Protección de estanqueidad por sistema DI. Incluye sistema de elevación y giro. Accionamiento: eléctrico. Potencia nominal en eje (kW): 2,9. Potencia nominal de red (kW): 3,5. Tensión (V): 400. El agitador dispone de protección térmica por TCS con sensores térmicos en el bobinado, protección de estanqueidad por Sistema DI, con sonda en la cámara de aceite y sistema de refrigeración por sumergencia, módulo para supervisión de electrodos de temperatura y humedad. Incluso transporte, montaje, conexiones eléctricas y de control, pruebas de funcionamiento. Resto de características según E.T.	CUATRO MIL QUINIENTOS CINCUENTA Y CINCO EUROS con OCHENTA Y CINCO CÉNTIMOS	4.555,85

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Nº	CÓDIGO	UD	DESCRIPCIÓN	PRECIO EN LETRA	IMPORTE
0636	EAGFL01	UD	AGITADOR DE MEZCLA LENTA. FLOCULACIÓN. P=0,55 KW. L=2.000 MM Agitador de mezcla lenta. Marca: MILTON ROY O o equivalente. Modelo: HR5A-200/350/E0,55/. Potencia motor: 0,55 kW. Velocidad salida: 16 rpm. Diámetro de hélice: 2.000 mm. Longitud del eje: 2.000 mm. Material eje y hélice: acero AISI-316L. Incluido placa de anclaje, transporte, montaje, conexiones eléctricas y de control, y pruebas de funcionamiento. Resto de características, según ET.	DOS MIL OCHOCIENTOS CUARENTA Y SEIS EUROS con CUARENTA Y CINCO CÉNTIMOS	2.846,45
0637	EANOZ01	UD	ANALIZADOR DE OZONO Analizador de ozono en el agua ATI Q45/64H. Incluso instalación y pruebas. Resto de características según E.T de proyecto.	DOS MIL SEISCIENTOS CUARENTA Y SEIS EUROS con OCHENTA CÉNTIMOS	2.646,80
0638	EBDOS01	UD	BOMBAS DOSIFICADORAS DE CAL DE 8 M3/H Y 20 MCA Bombas dosificadoras de lechada de cal de 8.000 l/h y 20 mca. AISI-316L. Potencia de 1,1 kW. Incluso transporte, montaje, conexiones eléctricas y de control, pruebas de funcionamiento. Resto de características según E.T.	CINCO MIL NOVECIENTOS DIECISIETE EUROS con CUARENTA Y SEIS CÉNTIMOS	5.917,46
0639	EBHFP01	UD	BOMBA TORNILLO PURGA DE FANGOS PRIMARIOS 65,0 m3/h y 12 mca Bomba helicoidal, para bombeo de fangos decantados. Marca: MONO o equivalente. Modelo: Z38KC11RMA. Velocidad de trabajo (rpm): 80-307. Caudal a la velocidad de trabajo (m3/h): 17-65. Presión en las condiciones de trabajo (bar): 1,2. - Paso de sólidos duros/deformables (mm): 16 / 53. Detector funcionamiento en vacío. Dimensiones aspiración (mm): DN125. Dimensiones impulsión (mm): DN125. Accionamiento: eléctrico mediante motorreductor. Potencia instalada (kW): 9,2. Velocidad motor (rpm): 1.450. Tensión (V): 400. Frecuencia (Hz): 50. Bancada metálica. Incluso transporte, montaje, conexiones eléctricas y de control, pruebas de funcionamiento. Resto de características según E.T.	CUATRO MIL CUATROCIENTOS DIEZ EUROS con OCHENTA Y SEIS CÉNTIMOS	4.410,86
0640	EBHFP02	UD	BOMBA TORNILLO DOSIFICACIÓN DE POLI 400 L/H Y 25 mca Bomba helicoidal, para dosificación de poli. Marca: MONO o equivalente. Modelo: C22AC11RMA. Velocidad de trabajo (rpm): 50-215. Caudal a la velocidad de trabajo (l/h): 80-400. Presión en las condiciones de trabajo (bar): 2,5. - Paso de sólidos duros/deformables (mm): 3,5 / 10. Detector funcionamiento en vacío. Dimensiones aspiración: 1 1/4" rosca BP. Dimensiones impulsión: 1 1/4" rosca BP. Accionamiento: eléctrico mediante motorreductor. Potencia instalada (kW): 0,55. Velocidad motor (rpm): 1.450. Tensión (V): 400. Frecuencia (Hz): 50. Bancada metálica. Incluso transporte, montaje, conexiones eléctricas y de control, pruebas de funcionamiento. Resto de características según E.T.	NOVECIENTOS SETENTA Y NUEVE EUROS con VEINTIUN CÉNTIMOS	979,21

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ABASTECIMIENTO A VARIOS MUNICIPIOS DE LA RIOJA. SISTEMA CIDACOS

Nº	CÓDIGO	UD	DESCRIPCIÓN	PRECIO EN LETRA	IMPORTE
0641	EBHFP03	UD	BOMBA TORNILLO DOSIFICACIÓN DE ALMIDON MODIF. 425 L/H y 25 mca Bomba helicoidal, para dosificación de almidón modificado. Marca: MONO o equivalente. Modelo: C22AC80MA. Velocidad de trabajo (rpm): 55-283. Caudal a la velocidad de trabajo (l/h): 80-425. Presión en las condiciones de trabajo (bar): 2,5. - Paso de sólidos duros/deformables (mm): 3,5 / 10. Detector funcionamiento en vacío. Dimensiones aspiración: 1 1/4" rosca BP. Dimensiones impulsión: 1 1/4" rosca BP. Accionamiento: eléctrico mediante motorreductor. Potencia instalada (kW): 0,37. Velocidad motor (rpm): 1.450. Tensión (V): 400. Frecuencia (Hz): 50. Bancada metálica. Incluso transporte, montaje, conexiones eléctricas y de control, pruebas de funcionamiento. Resto de características según E.T.	NOVECIENTOS CINCUENTA Y SEIS EUROS con CUARENTA Y TRES CÉNTIMOS	956,43
0642	EBHFP04	UD	BOMBA TORNILLO FANGOS A DESHIDRATACIÓN 16,0 m3/h y 15 mca Bomba helicoidal, para bombeo de fangos decantados. Marca: MONO o equivalente. Modelo: Z35KC11RMA. Velocidad de trabajo (rpm): 80-310. Caudal a la velocidad de trabajo (m3/h): 4,0-16,0. Presión en las condiciones de trabajo (bar): 1,5. - Paso de sólidos duros/deformables (mm): 10 / 35. Detector funcionamiento en vacío. Dimensiones aspiración (mm): DN80. Dimensiones impulsión (mm): DN80. Accionamiento: eléctrico mediante motorreductor. Potencia instalada (kW): 4,0. Velocidad motor (rpm): 1.450. Tensión (V): 400. Frecuencia (Hz): 50. Bancada metálica. Incluso transporte, montaje, conexiones eléctricas y de control, pruebas de funcionamiento. Resto de características según E.T.	DOS MIL CIENTO SEIS EUROS con TREINTA Y NUEVE CÉNTIMOS	2.106,39
0643	EBHFP05	UD	BOMBA TORNILLO FANGOS DESHIDRATADOS 2,5 m3/h y 9 BAR Bomba helicoidal con alimentación forzada, para bombeo de fangos deshidratados. Marca: MONO o equivalente. Modelo: CW62AL2R1/G412. Velocidad de trabajo (rpm): 35-78. Caudal a la velocidad de trabajo (m3/h): 1,0-2,5. Presión en las condiciones de trabajo (bar): 9,0. - Paso de sólidos duros/deformables (mm): 12 / 40. Detector funcionamiento en vacío. Dimensiones aspiración (mm): 1.000X360. Dimensiones impulsión (mm): DN100. Accionamiento: eléctrico mediante motorreductor. Potencia instalada (kW): 7,5. Velocidad motor (rpm): 1.450. Tensión (V): 400. Frecuencia (Hz): 50. Bancada metálica. Incluso sistema de protección ETI y protección contra sobrepresiones, transporte, montaje, conexiones eléctricas y de control, pruebas de funcionamiento. Resto de características según E.T.	CINCO MIL DOSCIENTOS CUARENTA Y DOS EUROS con SETENTA Y SEIS CÉNTIMOS	5.242,76
0644	EBLF01	M2	BOMBA EJE VERTICAL Q=470 M3/H. H=10 MCA. P=22 KW Bomba centrífuga de eje vertical, marca CAPRARI o equivalente, modelo P16C/10/35/1H, capaz de elevar un caudal unitario de 470 m3/h a 10 m.c.a. Impulsor DN-250 mm. Potencia de la bomba 22 kW. Incluido el colador, la línea de transmisión, grupo de mando. Transporte de los materiales a obra, montaje, pruebas, limpieza y puesta en marcha. Resto de características según ET.	ONCE MIL TRESCIENTOS CINCUENTA Y CINCO EUROS con TREINTA Y NUEVE CÉNTIMOS	11.355,39

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Nº	CÓDIGO	UD	DESCRIPCIÓN	PRECIO EN LETRA	IMPORTE
0645	EBMV01	UD	BOMBA MONOBLOCK VERTICAL Q=18,32 l/s H=130 mca Bomba multietapa monoblock vertical tipo HVU50/4A+V30370221-V de Caprari o equivalente para bombeo de un caudal de 66 m3/h (16,82 l/s) y una altura de 130 m.c.a. Aspiración DN65 e impulsión DN50. Cuerpo de función, rodete en acero inoxidable. Motor eléctrico asíncrono, trifásico, cerrado, estandarizado según normas UNEL-IEC de 37 kW-4P-50Hz-400V-IP-55, estructura de soporte en perfiles de acero electrosoldado. Transmisor de presión inteligente. Resto de características según E.T. de Proyecto. Instalada y probada en obra.	CINCO MIL SEISCIENTOS CINCUENTA Y CUATRO EUROS con NOVENTA Y DOS CÉNTIMOS	5.654,92
0646	EBMV02	UD	BOMBA CENTRIFUGA MULTIETAPA VERTICAL Q=6,69 l/s H=90 mca Bomba centrífuga multietapa vertical tipo CR 20-10 A-F-A-E-HQQE de Grundfos o equivalente para bombeo de un caudal de 6,69 l/s y una altura de 90 m.c.a. Aspiración DN50 e impulsión DN50. Cuerpo de función, rodete en acero inoxidable. Motor eléctrico asíncrono, trifásico, cerrado, de 11 kW-4P-50Hz-380-415V-IP-55, estructura de soporte en perfiles de acero electrosoldado. Cuadro controlador y supervisor de bombas según E.T. Resto de características según E.T. de Proyecto. Instalada y probada en obra.	SEIS MIL TRESCIENTOS UN EUROS con SESENTA Y UN CÉNTIMOS	6.301,61
0647	EBMV03	UD	BOMBA CENTRIFUGA MULTIETAPA VERTICAL Q=21,59 l/s H=180 mca Bomba centrífuga multietapa vertical tipo CR 95-8-2 A-F-A-E-HQQE de Grundfos o equivalente para bombeo de un caudal de 21,59 l/s y una altura de 180 m.c.a. Aspiración DN50 e impulsión DN50. Cuerpo de función, rodete en acero inoxidable. Motor eléctrico asíncrono, trifásico, cerrado, de 55kW-4P-50Hz-380-415V-IP-55, estructura de soporte en perfiles de acero electrosoldado. Cuadro controlador y supervisor de bombas según E.T. Resto de características según E.T. de Proyecto. Instalada y probada en obra.	VEINTIUN MIL NOVECIENTOS SETENTA EUROS con CUARENTA Y TRES CÉNTIMOS	21.970,43
0648	EBMV04	UD	BOMBA CENTRIFUGA MULTIETAPA VERTICAL Q=8,63 l/s H=15 mca Bomba centrífuga multietapa vertical tipo CRE 32-2-1 A-F-A-E-HQQE de Grundfos o equivalente para bombeo de un caudal de 8,63 l/s y una altura de 15 m.c.a. Aspiración DN50 e impulsión DN50. Cuerpo de función, rodete en acero inoxidable. Motor eléctrico asíncrono, trifásico, cerrado, de 5,5kW-4P-50Hz-380-415V-IP-55, estructura de soporte en perfiles de acero electrosoldado. Cuadro controlador y supervisor de bombas según E.T. Resto de características según E.T. de Proyecto. Instalada y probada en obra.	SIETE MIL QUINIENTOS DIECIOCHO EUROS	7.518,00
0649	EBSLF01	UD	BOMBA SUMERGIBLE Q= 130 m³/h a 6 m.c.a. P=3 KW Bomba sumergible para bombeo de aguas, de SULZER o equivalente modelo XFP100E-CB1.2-PE90/4-D05*10. Caudal: 130 m³/h. Altura manométrica: 6 m.c.a. Potencia nominal en eje: 3,0 kW. Ø Imp: 100 mm. Incluido módulo para supervisión de electrodos de temperatura y humedad, pedestal, anclajes, guía y cadena para izado. Incluso transporte, montaje, conexiones eléctricas y de control, pruebas de funcionamiento. Resto de características según E.T.	DOS MIL OCHOCIENTOS SESENTA EUROS con VEINTICINCO CÉNTIMOS	2.860,25

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0650	EBSLF02	UD	BOMBA SUMERGIBLE Q= 16,0 m³/h a 14 m.c.a. P=1,7 KW Bomba sumergible para bombeo de aguas, de SULZER o equivalente modelo AS-0631D. Caudal: 16,0 m³/h. Altura manométrica: 14 m.c.a. Potencia nominal en eje: 1,7 kW. Ø Imp: 65 mm. Incluido módulo para supervisión de electrodos de temperatura y humedad, pedestal, anclajes, guía y cadena para izado. Incluso transporte, montaje, conexiones eléctricas y de control, pruebas de funcionamiento. Resto de características según E.T.	QUINIENTOS SETENTA Y SIETE EUROS con SETENTA Y SEIS CÉNTIMOS	577,76
0651	EBSM01	UD	SKID PARA 4 BOMBAS DOSIFICADORAS Qu=235 L/HY 3 BAR Sistema de dosificación para sulfato de alúmina, de MILTON ROY, o equivalente, formado por 4 bombas de 235 l/h – 3 bar cada una. Equipo MRE de la serie DOSAPACK PD®. Modelo: PD-D7A1.D2/E3.B2.E1.BC.1.E1.E3.A1.C4.A1.P1.A1. 4 Bombas dosificadoras GM240 (3+1). Instalación con colectores de aspiración e impulsión, estructura metálica de acero, con soporte para todos los elementos, válvulas, amortiguadores, manómetros, etc. según características definidas en las E.T. de proyecto. Instalado y probado.	NUEVE MIL NOVECIENTOS SETENTA Y NUEVE EUROS con TRECE CÉNTIMOS	9.979,13
0652	EBSM02	UD	SKID PARA 2 BOMBAS DOSIFICADORAS Qu=11 L/HY 3 BAR Sistema de dosificación para ácido clorhídrico, de MILTON ROY, o equivalente, formado por 2 bombas de 11 l/h – 3 bar cada una. Equipo MRE de la serie DOSAPACK PD®. Modelo: PD-D3A1.B2/B1.B2.B1.BA.1.B1.B1.A1.C4.A1.P1.A1. 2 Bombas dosificadoras GA25 (1+1). Instalación con colectores de aspiración e impulsión, estructura plástica de PEHD, con soporte para todos los elementos, válvulas, amortiguadores, manómetros, etc. según características definidas en las E.T. de proyecto. Instalado y probado.	CINCO MIL NOVECIENTOS CATORCE EUROS con CINCUENTA CÉNTIMOS	5.914,50
0653	EBSM03	UD	SKID PARA 4 BOMBAS DOSIFICADORAS Qu=25 L/HY 3 BAR Sistema de dosificación para hipoclorito sódico, de MILTON ROY, o equivalente, formado por 4 bombas de 25 l/h – 3 bar cada una. Equipo MRE de la serie DOSAPACK PD®. Modelo: PD-D7A1.D2/B1.B2.B1.BA.1.B1.B1.A1.C4.A1.P1.A1. 4 Bombas dosificadoras GA25 (3+1). Instalación con colectores de aspiración e impulsión, estructura metálica de acero, con soporte para todos los elementos, válvulas, amortiguadores, manómetros, etc. según características definidas en las E.T. de proyecto. Instalado y probado.	OCHO MIL DOSCIENTOS CINCUENTA Y CUATRO EUROS con CUARENTA Y NUEVE CÉNTIMOS	8.254,49
0654	EBSM04	UD	SKID PARA 2 BOMBAS DOSIFICADORAS Qu=40 L/HY 3 BAR Sistema de dosificación para hipoclorito sódico, de MILTON ROY, o equivalente, formado por 2 bombas de 40 l/h – 3 bar cada una. Equipo MRE de la serie DOSAPACK PD®. Modelo: PD-A3A1.B2/B1.B2.A1.BA.1.B1.B1.A1.C2.A1.A1.A1. 2 Bombas dosificadoras GA45 (1+1). Instalación con colectores de aspiración e impulsión, estructura plástica de PEHD, con soporte para todos los elementos, válvulas, amortiguadores, manómetros, etc. según características definidas en las E.T. de proyecto. Instalado y probado.	TRES MIL OCHOCIENTOS OCHENTA Y SIETE EUROS con DIEZ CÉNTIMOS	3.887,10

CUADRO DE PRECIOS 1

ABASTECIMIENTO A VARIOS MUNICIPIOS DE LA RIOJA. SISTEMA CIDACOS

Nº	CÓDIGO	UD	DESCRIPCIÓN	PRECIO EN LETRA	IMPORTE
0655	EBSM05	UD	SKID PARA 2 BOMBAS DOSIFICADORAS Qu=210 L/HY 3 BAR Sistema de dosificación para permanganato potásico, de MILTON ROY, o equivalente, formado por 2 bombas de 210 l/h – 3 bar cada una. Equipo MRE de la serie DOSAPACK PD®. Modelo: PD-D3A1.B2/E3.B2.E1.BC.1.E1.E1.A1.C2.A1.P1.A1. 2 Bombas dosificadoras GM240 (1+1). Instalación con colectores de aspiración e impulsión, estructura metálica de acero, con soporte para todos los elementos, válvulas, amortiguadores, manómetros, etc, según características definidas en las E.T. de proyecto. Instalado y probado.	CINCO MIL SEISCIENTOS TRES EUROS con VEINTIOCHO CÉNTIMOS	5.603,28
0656	EBSSA01	UD	BOMBA TRASIEGO SULFATO ALUMINA. 25M3/H. 15 MCA Grupo motobomba centrífuga horizontal para trasiego de sulfato de alumina. Marca: STÜBBE o equivalente. Modelo: SHM 50-40L 9VDF/FPM. Caudal: 25 m³/h. Altura manométrica: 15 m.c.a. Potencia motor: 4,0 kW. Velocidad del motor: 2.950 r.p.m. Resto de características según ET. Incluido placa de anclaje, transporte, montaje, conexiones eléctricas y de control, y pruebas de funcionamiento.	DOS MIL CINCUENTA Y NUEVE EUROS con SETENTA Y CUATRO CÉNTIMOS	2.059,74
0657	EBSSA02	UD	BOMBA TRASIEGO ÁCIDO CLORHÍDRICO. 25M3/H. 15 MCA Grupo motobomba centrífuga horizontal para trasiego de ácido clorhídrico. Marca: STÜBBE o equivalente. Modelo: SHM 40-40L PP/EPDM. Caudal: 25 m³/h. Altura manométrica: 15 m.c.a. Potencia motor: 1,1 kW. Velocidad del motor: 2.880 r.p.m. Resto de características según ET. Incluido placa de anclaje, transporte, montaje, conexiones eléctricas y de control, y pruebas de funcionamiento.	SETECIENTOS TREINTA Y DOS EUROS con SEIS CÉNTIMOS	732,06
0658	EBSSA03	UD	BOMBA TRASIEGO HIPOCLORITO SÓDICO. 25M3/H. 15 MCA Grupo motobomba centrífuga horizontal para trasiego de hipoclorito sódico. Marca: STÜBBE o equivalente. Modelo: SHM 50-40L PP/EPDM. Caudal: 25 m³/h. Altura manométrica: 15 m.c.a. Potencia motor: 3,0 kW. Velocidad del motor: 2.920 r.p.m. Resto de características según ET. Incluido placa de anclaje, transporte, montaje, conexiones eléctricas y de control, y pruebas de funcionamiento.	MIL CIENTO OCHENTA Y DOS EUROS con SETENTA Y NUEVE CÉNTIMOS	1.182,79
0659	ECAH1500	UD	EQUIPO ANTIARIETE HIDRONEUMÁTICO 1.500 l PN25 Equipo antiariete hidroneumático con membrana, marca Ibaiondo o equivalente modelo 1500 AHN PN25. Consistente en un calderín cilíndrico de 1.500 l, con presión máxima de servicio de 25 bares. Construido en chapa soldada de acero S-275JR s/EN-10025. Membrana interior de EPDM calidad alimentaria. Incluso llaves de aislamiento, indicador de nivel del agua, válvula de inflado, manómetro, boca de hombre y brida de conexión de agua DN 150. Acabado exterior granallado Sa 2 1/2, con imprimación de 10 micras de epoxi de dos componentes y acabado con 60 micras de esmalte de poliuretano; acabado interior granallado Sa 2 1/2. Incluido bancada con patas de apoyo. Según Directiva 2014/68/UE. Resto de características según E.T. de Proyecto. Totalmente instalado y en funcionamiento, incluso piezas especiales de acoplamiento a la tubería de entrada.	SEIS MIL CUATROCIENTOS TREINTA Y UN EUROS con VEINTICUATRO CÉNTIMOS	6.431,24

CUADRO DE PRECIOS 1

ABASTECIMIENTO A VARIOS MUNICIPIOS DE LA RIOJA. SISTEMA CIDACOS

Nº	CÓDIGO	UD	DESCRIPCIÓN	PRECIO EN LETRA	IMPORTE
0660	ECAH18000	UD	EQUIPO ANTIARIETE HIDRONEUMÁTICO 18.000 l PN40 Equipo antiariete hidroneumático con membrana, marca Ibaiondo o equivalente modelo 18000 AHN PN40. Consistente en un calderín cilíndrico de 18.000 l, con presión máxima de servicio de 40 bares. Construido en chapa soldada de acero P265GH. Membrana interior de poliuretano calidad alimentaria. Incluso llaves de aislamiento, indicador de nivel del agua, válvula de inflado, manómetro, boca de hombre y brida de conexión de agua DN 250. Acabado exterior granallado Sa 2 1/2, con imprimación de 40 micras de epoxi de dos componentes y acabado con 30 micras de esmalte de poliuretano; acabado interior granallado Sa 2 1/2, con imprimación de 40 micras de epoxi de dos componentes. Incluido bancada con patas de apoyo. Según Directiva 2014/68/UE. Resto de características según E.T. de Proyecto. Totalmente instalado y en funcionamiento, incluso piezas especiales de acoplamiento a la tubería de entrada.	CINCUENTA Y UN MIL SEISCIENTOS VEINTIDOS EUROS con CUARENTA Y TRES CÉNTIMOS	51.622,43
0661	ECCMA01	UD	COMPUERTA CANAL MANUAL DE 800x1000 MM. INOX316L Compuerta canal manual de 0,80 m de ancho y 1,0 m de altura de tablero, con husillo y volante de altura variable. Altura máxima agua según planos. Número de cierres 3. Espesor de chapa de 5 mm (mínimo). Número de husillos 1. Accionamiento manual con volante, con rodamiento para absorber el esfuerzo axial. Materiales: Guías, marco, tablero y husillo de acero inoxidable AISI-316L. Incluso transporte, montaje y pruebas de funcionamiento. Resto de características según E.T.	DOS MIL CUATROCIENTOS SESENTA Y SEIS EUROS con CUARENTA Y OCHO CÉNTIMOS	2.466,48
0662	ECCMT01	UD	COMPUERTA CANAL MOTORIZADA DE 500x1000 MM. DE HUECO INOX316L Compuerta canal motorizada para hueco de 0,50 m de ancho y 1,0m de altura, con husillo de altura variable. Altura máxima agua según planos. Número de cierres 3. Espesor de chapa de 5 mm (mínimo). Número de husillos 1. Accionamiento motorizado, con rodamiento para absorber el esfuerzo axial. Materiales: Guías, marco, tablero y husillo de acero inoxidable AISI-316L. Incluso transporte, montaje, conexiones eléctricas y pruebas de funcionamiento. Resto de características según E.T.	CUATRO MIL SESENTA EUROS con CUARENTA Y SIETE CÉNTIMOS	4.060,47
0663	ECCMT02	UD	COMPUERTA CANAL MOTORIZADA DE 1000x1400 MM. DE HUECO INOX316L Compuerta canal motorizada para hueco de 1,0m de ancho y 1,4 m de altura, con husillo de altura variable. Altura máxima agua según planos. Número de cierres 3. Espesor de chapa de 5 mm (mínimo). Número de husillos 1. Accionamiento motorizado, con rodamiento para absorber el esfuerzo axial. Materiales: Guías, marco, tablero y husillo de acero inoxidable AISI-316L. Incluso transporte, montaje, conexiones eléctricas y pruebas de funcionamiento. Resto de características según E.T.	CINCO MIL TRESCIENTOS SESENTA Y DOS EUROS con NOVENTA Y OCHO CÉNTIMOS	5.362,98
0664	ECD0065	UD	CARRETE DE DESMONTAJE DN=65 mm PN16 Carrete telescópico de desmontaje DN65 PN 16, bridas de acero al carbono, virolas de acero inoxidable, protección epoxi, tornillos y tuercas en acero F-114, cincado y posterior baño de cromo-niquel, incluido p.p. de brida enchufe, totalmente instalado y probado en obra.	DOSCIENTOS CUARENTA Y SIETE EUROS con TREINTA Y TRES CÉNTIMOS	247,33

CUADRO DE PRECIOS 1

ABASTECIMIENTO A VARIOS MUNICIPIOS DE LA RIOJA. SISTEMA CIDACOS

Nº	CÓDIGO	UD	DESCRIPCIÓN	PRECIO EN LETRA	IMPORTE
0665	ECD01000	UD	CARRETE DE DESMONTAJE DN=1000 mm PN16 Carrete telescópico de desmontaje DN1000 PN 16, bridas de acero al carbono, virolas de acero inoxidable, protección epoxi, tornillos y tuercas en acero F-114, cincado y posterior baño de cromo-niquel, incluido p.p. de brida enchufe, totalmente instalado y probado en obra.	DOS MIL CUATROCIENTOS NOVENTA Y TRES EUROS con VEINTISEIS CÉNTIMOS	2.493,26
0666	ECD010016	UD	CARRETE DE DESMONTAJE DN=100 mm PN16 Carrete telescópico de desmontaje DN100 PN16, bridas de acero al carbono, virolas de acero inoxidable, protección epoxi, tornillos y tuercas en acero F-114, cincado y posterior baño de cromo-niquel, incluido p.p. de brida enchufe, totalmente instalado y probado en obra.	CIENTO SESENTA Y SIETE EUROS con NOVENTA Y TRES CÉNTIMOS	167,93
0667	ECD010025	UD	CARRETE DE DESMONTAJE DN=100 mm PN25 Carrete telescópico de desmontaje DN100 PN25, bridas de acero al carbono, virolas de acero inoxidable, protección epoxi, tornillos y tuercas en acero F-114, cincado y posterior baño de cromo-niquel, incluido p.p. de brida enchufe, totalmente instalado y probado en obra.	DOSCIENTOS NOVENTA Y CINCO EUROS con CUARENTA Y SEIS CÉNTIMOS	295,46
0668	ECD012525	UD	CARRETE DE DESMONTAJE DN=125 mm PN25 Carrete telescópico de desmontaje DN125 PN25, bridas de acero al carbono, virolas de acero inoxidable, protección epoxi, tornillos y tuercas en acero F-114, cincado y posterior baño de cromo-niquel, incluido p.p. de brida enchufe, totalmente instalado y probado en obra.	TRESCIENTOS NUEVE EUROS con OCHENTA Y NUEVE CÉNTIMOS	309,89
0669	ECD0300	UD	CARRETE DE DESMONTAJE DN=300 mm PN16 Carrete telescópico de desmontaje DN300 PN16, bridas de acero al carbono, virolas de acero inoxidable, protección epoxi, tornillos y tuercas en acero F-114, cincado y posterior baño de cromo-niquel, incluido p.p. de brida enchufe, totalmente instalado y probado en obra.	CUATROCIENTOS CUARENTA EUROS con CUARENTA Y TRES CÉNTIMOS	440,43
0670	ECD0300.1	UD	CARRETE DE DESMONTAJE DN=300 mm PN25 Carrete telescópico de desmontaje DN300 PN25, bridas de acero al carbono, virolas de acero inoxidable, protección epoxi, tornillos y tuercas en acero F-114, cincado y posterior baño de cromo-niquel, incluido p.p. de brida enchufe, totalmente instalado y probado en obra.	QUINIENTOS TREINTA Y SEIS EUROS con SIETE CÉNTIMOS	536,07
0671	ECD0400	UD	CARRETE DE DESMONTAJE DN=400 mm PN16 Carrete telescópico de desmontaje DN400 PN16, bridas de acero al carbono, virolas de acero inoxidable, protección epoxi, tornillos y tuercas en acero F-114, cincado y posterior baño de cromo-niquel, incluido p.p. de brida enchufe, totalmente instalado y probado en obra.	SETECIENTOS TRES EUROS con SIETE CÉNTIMOS	703,07
0672	ECD0400.1	UD	CARRETE DE DESMONTAJE DN=400 mm PN25 Carrete telescópico de desmontaje DN400 PN25, bridas de acero al carbono, virolas de acero inoxidable, protección epoxi, tornillos y tuercas en acero F-114, cincado y posterior baño de cromo-niquel, incluido p.p. de brida enchufe, totalmente instalado y probado en obra.	OCHOCIENTOS CINCUENTA Y CUATRO EUROS con OCHENTA Y OCHO CÉNTIMOS	854,88

CUADRO DE PRECIOS 1

ABASTECIMIENTO A VARIOS MUNICIPIOS DE LA RIOJA. SISTEMA CIDACOS

Nº	CÓDIGO	UD	DESCRIPCIÓN	PRECIO EN LETRA	IMPORTE
0673	ECD0450	UD	CARRETE DE DESMONTAJE DN=450 mm PN16 Carrete telescópico de desmontaje DN450 PN16, bridas de acero al carbono, virolas de acero inoxidable, protección epoxi, tornillos y tuercas en acero F-114, cincado y posterior baño de cromo-niquel, incluido p.p. de brida enchufe, totalmente instalado y probado en obra.	NOVECIENTOS TREINTA EUROS con SETENTA Y OCHO CÉNTIMOS	930,78
0674	ECD0500	UD	CARRETE DE DESMONTAJE DN=500 mm PN16 Carrete telescópico de desmontaje DN500 PN 16, bridas de acero al carbono, virolas de acero inoxidable, protección epoxi, tornillos y tuercas en acero F-114, cincado y posterior baño de cromo-niquel, incluido p.p. de brida enchufe, totalmente instalado y probado en obra.	MIL NOVENTA Y CINCO EUROS con DIECIOCHO CÉNTIMOS	1.095,18
0675	ECD0500.1	UD	CARRETE DE DESMONTAJE DN=500 mm PN25 Carrete telescópico de desmontaje DN500 PN 25, bridas de acero al carbono, virolas de acero inoxidable, protección epoxi, tornillos y tuercas en acero F-114, cincado y posterior baño de cromo-niquel, incluido p.p. de brida enchufe, totalmente instalado y probado en obra.	MIL DOSCIENTOS CUARENTA Y SEIS EUROS con NOVENTA Y OCHO CÉNTIMOS	1.246,98
0676	ECD0800P	UD	CARRETE DE DESMONTAJE DN=800 mm PN25 Carrete telescópico de desmontaje DN800 PN25, bridas de acero al carbono, virolas de acero inoxidable, protección epoxi, tornillos y tuercas en acero F-114, cincado y posterior baño de cromo-niquel, incluido p.p. de brida enchufe, totalmente instalado y probado en obra.	DOS MIL SEISCIENTOS OCHENTA Y SEIS EUROS con CATORCE CÉNTIMOS	2.686,14
0677	ECD0900	UD	CARRETE DE DESMONTAJE DN=900 mm PN16 Carrete telescópico de desmontaje DN900 PN 16, bridas de acero al carbono, virolas de acero inoxidable, protección epoxi, tornillos y tuercas en acero F-114, cincado y posterior baño de cromo-niquel, incluido p.p. de brida enchufe, totalmente instalado y probado en obra.	DOS MIL CIENTO OCHENTA Y NUEVE EUROS con SESENTA Y TRES CÉNTIMOS	2.189,63
0678	ECD15016	UD	CARRETE DE DESMONTAJE DN=150 mm PN16 Carrete telescópico de desmontaje DN150 PN16, bridas de acero al carbono, virolas de acero inoxidable, protección epoxi, tornillos y tuercas en acero F-114, cincado y posterior baño de cromo-niquel, incluido p.p. de brida enchufe, totalmente instalado y probado en obra.	DOSCIENTOS EUROS con CUARENTA Y SIETE CÉNTIMOS	200,47
0679	ECD25016	UD	CARRETE DE DESMONTAJE DN=250 mm PN16 Carrete telescópico de desmontaje DN250 PN16, bridas de acero al carbono, virolas de acero inoxidable, protección epoxi, tornillos y tuercas en acero F-114, cincado y posterior baño de cromo-niquel, incluido p.p. de brida enchufe, totalmente instalado y probado en obra.	TRESCIENTOS NOVENTA Y OCHO EUROS con SESENTA Y NUEVE CÉNTIMOS	398,69

CUADRO DE PRECIOS 1

ABASTECIMIENTO A VARIOS MUNICIPIOS DE LA RIOJA. SISTEMA CIDACOS

Nº	CÓDIGO	UD	DESCRIPCIÓN	PRECIO EN LETRA	IMPORTE
0680	ECD25040	UD	CARRETE DE DESMONTAJE DN=250 mm PN40 Carrete telescópico de desmontaje DN250 PN40, bridas de acero al carbono, virolas de acero inoxidable, protección epoxi, tornillos y tuercas en acero F-114, cincado y posterior baño de cromo-niquel, incluido p.p. de brida enchufe, totalmente instalado y probado en obra.	QUINIENTOS TRECE EUROS con TREINTA Y DOS CÉNTIMOS	513,32
0681	ECELEC01	UD	CUADRO ELÉCTRICO DOSIFICACIÓN DE CAL Cuadro eléctrico para el funcionamiento de la dosificación de cal, formado por un armario eléctrico metálico con elementos de potencia y maniobra para los equipos ofertados, con PLC y variador de frecuencia para dosificador. Alimentación cuadro de 230/400 VCA, 50 Hz, 3F+tierra. Incluso transporte, montaje, conexiones eléctricas y de control, pruebas de funcionamiento. Resto de características según E.T.	VEINTISEIS MIL CUATROCIENTOS VEINTICUATRO EUROS con VEINTITRES CÉNTIMOS	26.424,23
0682	ECELM032	UD	CAUDALÍMETRO ELECTROMAGNÉTICO POLI ELECT. DN 32 mm Equipo medidor de caudal de DN32 mm. tipo electromagnético para reactivos, con salida 4/20 mA, tensión 220 V, totalmente instalado y probado. Incluido transporte, montaje, conexiones eléctricas y pruebas de funcionamiento. Resto de características, según ET.	SETECIENTOS OCHENTA Y TRES EUROS con UN CÉNTIMOS	783,01
0683	ECELM080	UD	CAUDALÍMETRO ELECTROMAGNÉTICO DN 80 mm PN10 Equipo medidor de caudal de DN80 mm. tipo electromagnético y PN=10 atm. con salida 4/20 mA, tensión 220 V y escala 0-240 m3/h, totalmente instalado y probado. Incluido transporte, montaje, conexiones eléctricas y pruebas de funcionamiento. Resto de características, según ET.	OCHOCIENTOS CUARENTA Y CINCO EUROS con DOCE CÉNTIMOS	845,12
0684	ECELM100	UD	CAUDALÍMETRO ELECTROMAGNÉTICO DN 100 mm Equipo medidor de caudal de DN100 mm. tipo electromagnético y PN=10 atm. con salida 4/20 mA, tensión 220 V y escala 0-240 m3/h, totalmente instalado y probado. Incluido transporte, montaje, conexiones eléctricas y pruebas de funcionamiento. Resto de características, según ET.	NOVECIENTOS CINCUENTA Y UN EUROS con SESENTA Y SIETE CÉNTIMOS	951,67
0685	ECELM125	UD	CAUDALÍMETRO ELECTROMAGNÉTICO DN 125 mm PN10 Equipo medidor de caudal de DN125 mm. tipo electromagnético y PN=10 atm. con salida 4/20 mA, tensión 220 V y escala 0-240 m3/h, totalmente instalado y probado. Incluido transporte, montaje, conexiones eléctricas y pruebas de funcionamiento. Resto de características, según ET.	MIL CUARENTA Y SEIS EUROS con VEINTIDOS CÉNTIMOS	1.046,22
0686	ECELM400	UD	CAUDALÍMETRO ELECTROMAGNÉTICO DN 400 mm Equipo medidor de caudal de DN400 mm. tipo electromagnético y PN=10 atm. con salida 4/20 mA, tensión 220 V y escala 0-240 m3/h, totalmente instalado y probado. Incluido transporte, montaje, conexiones eléctricas y pruebas de funcionamiento. Resto de características, según ET.	DOS MIL CUATROCIENTOS CATORCE EUROS con TRECE CÉNTIMOS	2.414,13

CUADRO DE PRECIOS 1

ABASTECIMIENTO A VARIOS MUNICIPIOS DE LA RIOJA. SISTEMA CIDACOS

Nº	CÓDIGO	UD	DESCRIPCIÓN	PRECIO EN LETRA	IMPORTE
0687	ECELM900	UD	CAUDALÍMETRO ELECTROMAGNÉTICO DN 900 mm Equipo medidor de caudal de DN900 mm. tipo electromagnético y PN=10 atm. con salida 4/20 mA, tensión 220 V y escala 0-240 m3/h, totalmente instalado y probado. Incluido transporte, montaje, conexiones eléctricas y pruebas de funcionamiento. Resto de características, según ET.	SIETE MIL DOSCIENTOS ONCE EUROS con NUEVE CÉNTIMOS	7.211,09
0688	ECMMT01	UD	COMPUERTA MURAL MOTORIZADA DE 500x500 MM. DE HUECO INOX316L Compuerta mural motorizada para hueco de 0,50 m de ancho y 0,50m de altura, con husillo de altura variable. Altura máxima agua según planos. Número de cierres 4. Espesor de chapa de 5 mm (mínimo). Número de husillos 1. Accionamiento motorizado, con rodamiento para absorber el esfuerzo axial. Materiales: Guías, marco, tablero y husillo de acero inoxidable AISI-316L. Incluso transporte, montaje, conexiones eléctricas y pruebas de funcionamiento. Resto de características según E.T.	TRES MIL NOVECIENTOS SETENTA Y NUEVE EUROS con VEINTISEIS CÉNTIMOS	3.979,26
0689	ECMMT02	UD	COMPUERTA MURAL MOTORIZADA DE 900x900 MM. DE HUECO INOX316L Compuerta mural motorizada para hueco de 0,90 m de ancho y 0,90m de altura, con husillo de altura variable. Altura máxima agua según planos. Número de cierres 4. Espesor de chapa de 5 mm (mínimo). Número de husillos 1. Accionamiento motorizado, con rodamiento para absorber el esfuerzo axial. Materiales: Guías, marco, tablero y husillo de acero inoxidable AISI-316L. Incluso transporte, montaje, conexiones eléctricas y pruebas de funcionamiento. Resto de características según E.T.	CUATRO MIL NOVECIENTOS VEINTICINCO EUROS con SETENTA Y NUEVE CÉNTIMOS	4.925,79
0690	ECOMA01	UD	COMPRESOR DE AIRE. 1.300 L/MIN 7,5 BAR. P=7,5 Kw Compresor de aire de tornillo lubricado de velocidad fija, modelo L07e de ATLAS COPCO o equivalente, de 1.300 l/min y 7,5 bar, con una potencia de 7,5 Kw. Tanque de 270 l. Incluso parte proporcional de válvulas y manguitos de unión a líneas, manómetro, separador de agua-acerite. Incluido, transporte, conexiones eléctricas y de control, así como el montaje y pruebas de funcionamiento. Resto de características según ET.	CINCO MIL SESENTA Y SIETE EUROS con CINCUENTA CÉNTIMOS	5.067,50
0691	ECOMA02	UD	SECADOR DE AIRE. 1.400 L/MIN 7 BAR. Secador frigorífico para aire, modelo F014S de ATLAS COPCO o equivalente, de 1.400 l/min. Incluso parte proporcional de válvulas y manguitos de unión a líneas, prefiltro de 1.800 l/min, postfiltro de 1.800 l/min. Incluido, transporte, conexiones eléctricas y de control, así como el montaje y pruebas de funcionamiento. Resto de características según ET.	NOVECIENTOS VEINTITRES EUROS con SESENTA Y DOS CÉNTIMOS	923,62
0692	ECONT01	UD	CONTENEDOR METAL 5 m³ Contenedor metálico de 5 m³ de capacidad para transporte sobre camión normalizado, de chapa de acero protegida contra la corrosión.	QUINIENTOS TRES EUROS con OCHENTA Y DOS CÉNTIMOS	503,82

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Nº	CÓDIGO	UD	DESCRIPCIÓN	PRECIO EN LETRA	IMPORTE
0693	ECPREC01	UD	CUBA DE PREPARACIÓN DE PP DE 2,5 M3 Cuba de preparación de cal de 2,65 m3 de capacidad, realizada en PP, de 1500 mm de diámetro y 1.500 mm de altura total, electroagitador de 1,5 kW. Incluso transporte, montaje, conexiones eléctricas y de control, pruebas de funcionamiento. Resto de características según E.T.	SIETE MIL CIENTO SEIS EUROS con TRECE CÉNTIMOS	7.106,13
0694	ECPSM150	UD	PASAMUROS INOX AISI-316-L DN-150 mm Carrete pasamuros de acero inoxidable, con brida loca en un extremo y placa de estanqueidad, DN 150, longitud: 500 mm. Materiales:Carrete y placa de estanqueidad: AISI 316 L, brida: aluminio, totalmente instalado y probado en obra. Resto de características según ET.	CIENTO SESENTA Y CUATRO EUROS con CATORCE CÉNTIMOS	164,14
0695	ECPSM250	UD	PASAMUROS INOX AISI-316-L DN-250 mm Carrete pasamuros de acero inoxidable, con brida loca en un extremo y placa de estanqueidad, DN 250, longitud: 500 mm. Materiales:Carrete y placa de estanqueidad: AISI 316 L, brida: aluminio, totalmente instalado y probado en obra. Resto de características según ET.	CIENTO NOVENTA EUROS con SETENTA Y UN CÉNTIMOS	190,71
0696	ECPSM300	UD	PASAMUROS INOX AISI-316-L DN-300 mm Carrete pasamuros de acero inoxidable, con brida loca en un extremo y placa de estanqueidad, DN 300, longitud: 500 mm. Materiales:Carrete y placa de estanqueidad: AISI 316 L, brida: aluminio, totalmente instalado y probado en obra. Resto de características según ET.	DOSCIENTOS TREINTA Y DOS EUROS con CUARENTA Y SIETE CÉNTIMOS	232,47
0697	ECPSM400	UD	PASAMUROS INOX AISI-316-L DN-400 mm Carrete pasamuros de acero inoxidable, con brida loca en un extremo y placa de estanqueidad, DN 400, longitud: 500 mm. Materiales:Carrete y placa de estanqueidad: AISI 316 L, brida: aluminio, totalmente instalado y probado en obra. Resto de características según ET.	DOSCIENTOS OCHENTA Y CINCO EUROS con CINCUENTA Y NUEVE CÉNTIMOS	285,59
0698	ECPSM500	UD	PASAMUROS INOX AISI-316-L DN-500 mm Carrete pasamuros de acero inoxidable, con brida loca en un extremo y placa de estanqueidad, DN 500, longitud: 500 mm. Materiales:Carrete y placa de estanqueidad: AISI 316 L, brida: aluminio, totalmente instalado y probado en obra. Resto de características según ET.	CUATROCIENTOS TREINTA Y SIETE EUROS con CUARENTA Y UN CÉNTIMOS	437,41
0699	ECPSM700	UD	PASAMUROS INOX AISI-316-L DN-700 mm Carrete pasamuros de acero inoxidable, con brida loca en un extremo y placa de estanqueidad, DN 700, longitud: 500 mm. Materiales:Carrete y placa de estanqueidad: AISI 316 L, brida: aluminio, totalmente instalado y probado en obra. Resto de características según ET.	QUINIENTOS NOVENTA Y SEIS EUROS con OCHENTA Y UN CÉNTIMOS	596,81
0700	ECPSM900	UD	PASAMUROS INOX AISI-316-L DN-900 mm Carrete pasamuros de acero inoxidable, con brida loca en un extremo y placa de estanqueidad, DN 900, longitud: 500 mm. Materiales:Carrete y placa de estanqueidad: AISI 316 L, brida: aluminio, totalmente instalado y probado en obra. Resto de características según ET.	OCHOCIENTOS CINCUENTA Y CUATRO EUROS con OCHENTA Y OCHO CÉNTIMOS	854,88

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Nº	CÓDIGO	UD	DESCRIPCIÓN	PRECIO EN LETRA	IMPORTE
0701	ECTTH01	M	CANALETAS RECOGIDA AGUA TIPO THOMSON 30 CM AISI-316 Canal vertedero tipo Thomson para recogida de agua decantada de 30 cm. de ancho, fabricado en chapa de acero inoxidable AISI 316-L, e= 2 mm, incluso chapa de acometida a entrada a filtros y estructura soporte. Totalmente montada y probada. Resto de características según ET.	CIENTO SETENTA Y CUATRO EUROS con CUARENTA Y SIETE CÉNTIMOS	174,47
0702	ECUFAN01	UD	CAMPANA CUBIERTA ESPESADOR PRFV DE 7.500 MM DE DIÁMETRO Cubierta de PRFV para espesor de fangos de 7,5 m de diámetro de cuba, formada por dos zonas. Pasarela de 1,2 m de anchura. Incluido transporte y montaje. Resto de características, según ET.	SEIS MIL VEINTITRES EUROS con CUARENTA Y DOS CÉNTIMOS	6.023,42
0703	ECVNE01	UD	CUADRO DE MANDO 6 ELECTROVALVULAS Armario para alojamiento de electroválvulas y elementos de mando neumático, 1 válvula de bola para aislamiento de 1/2". Grupo de tratamiento de aire, comprendiendo filtro, regulador y lubricador. 6 válvulas de bola 1/4" para aislamiento de electroválvulas. 6 electroválvulas 5V/3P 1/4". 3 silenciosos de escape. Conexionado interior de tuberías. Elementos eléctricos de mando. Montado y probado.	DOS MIL OCHENTA Y CUATRO EUROS con NOVENTA Y SIETE CÉNTIMOS	2.084,97
0704	ECVNE02	UD	CUADRO DE MANDO 4 ELECTROVALVULAS Armario para alojamiento de electroválvulas y elementos de mando neumático, 1 válvula de bola para aislamiento de 1/2". Grupo de tratamiento de aire, comprendiendo filtro, regulador y lubricador. 2 válvulas de bola 1/4" para aislamiento de electroválvulas. 2 electroválvulas 5V/3P 1/4". 2 silenciosos de escape. Conexionado interior de tuberías. Elementos eléctricos de mando. Montado y probado.	MIL TRESCIENTOS OCHENTA Y OCHO EUROS con NOVENTA Y UN CÉNTIMOS	1.388,91
0705	ECVNEA01	UD	ACOMETIDA AIRE Acometida de aire desde compresor a todos los cuadro de accionamiento de EV. Instalada.	CUATROCIENTOS QUINCE EUROS con SESENTA Y OCHO CÉNTIMOS	415,68
0706	ECVNRE01	UD	RED DE AIRE Red de aire a presión desde cuadro de EV a actuadores neumáticos de válvulas, ejecutada en poliuretano. Instalada.	TRESCIENTOS SESENTA Y DOS EUROS con SESENTA Y NUEVE CÉNTIMOS	362,69

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ABASTECIMIENTO A VARIOS MUNICIPIOS DE LA RIOJA. SISTEMA CIDACOS

Nº	CÓDIGO	UD	DESCRIPCIÓN	PRECIO EN LETRA	IMPORTE
0707	EDCENT01	UD	DECANTADOR CENTRÍFUGO 16,0 m3/h Extractor centrifugo para deshidratación de fangos. Marca: ALFA LAVAL o equivalente. Modelo: ALDEC 45 AT. Capacidad nominal hidráulica: 16,0 m³/h. Potencia motor accionamiento principal: 22 kW. Caja reductora con variador de frecuencia para ambos motores. Potencia motor trasero: 5,5 kW. Incluye cuadro eléctrico con controlador programable, 2 variadores de frecuencia, incluyendo BUS de DC, cuadro eléctrico para integrar VF y aparellaje eléctrico. Material: acero inoxidable AISI-316. Incluso transporte, montaje, conexiones eléctricas y de control, puesta en marcha y pruebas de funcionamiento. Resto de características según E.T.	CINCUENTA Y DOS MIL CUATROCIENTOS OCHENTA Y SEIS EUROS con VEINTITRES CÉNTIMOS	52.486,23
0708	EDCENT02	UD	TOLVAS EN ACERO INOXIDABLE AISI 316L SALIDA FANGOS Y LÍQUIDOS Tolvas de acero inoxidable AISI 316L de 2 mm de espesor, con p.p. de piezas especiales, totalmente colocadas, una para la salida de fangos deshidratados a tornillo, y otra para salida de agua de deshidratación hasta arqueta de vaciados. Montada.	DOSCIENTOS CUARENTA Y DOS EUROS con NOVENTA Y CUATRO CÉNTIMOS	242,94
0709	EDIFOZ01	UD	DIFUSORES OZONO CERÁMICOS 120 MM SOBRE PARRILLAS AISI-316L Difusores de ozono tipo 120 KT o equivalente, de 120 mm de diámetro, con disco cerámico y parte proporcional de parrilla de acero inoxidable 316 L, caudal de 0,20 a 2,0 Nm³/h, totalmente montados, incluso ayuda de albañilería. Incluido transporte, montaje, conexiones de control, y pruebas de funcionamiento. Resto de características, según ET	DOS MIL CUATROCIENTOS SESENTA Y SEIS EUROS con DOCE CÉNTIMOS	2.466,12
0710	EDLAVO01	UD	DUCHA LAVAOJOS Estructura construida en caño de acero galvanizado revestido con pintura epoxi color amarillo. Campana de ducha de diámetro 220 mm construida en acero inoxidable tipo diluvio, con baffle aliviador que produce una campana de agua de diámetro 500 mm. Lavaojos construido con bacha de acero inoxidable de diámetro 250 mm con tapa plástica rebatible automáticamente y rociadores de bronce cromados que producen espuma con efecto de lavaojos y lavacara posee paso calibrado regulador de presión y caudal y capuchones automáticos antipolvo. Accionamiento de la ducha por palanca manual de acero inoxidable con indicador e instructivo de alto impacto y válvula esférica de bronce. Accionamiento del lavaojos por pedal de plástico y palanca manual de acero inoxidable con instructivo e indicador y válvula esférica de bronce. Acometida de agua potable, sumidero de vaciado y conexión a la red de escurridos. Totalmente instalada.	SETECIENTOS CUATRO EUROS con NOVENTA Y CUATRO CÉNTIMOS	704,94
0711	EDOZO01	UD	DESTRUCTOR DE OZONO PRE_OZONIZACIÓN 30 Nm3/h Equipo destructor de ozono en pre_ozonización serie COD de WEDEC-O o equivalente, con un flujo de gas máximo de 30 Nm³/h, montada sobre bancada. Demistor de ozono y embalaje. Conexiones. Incluido transporte, montaje, conexiones eléctricas y de control, y pruebas de funcionamiento. Resto de características, según ET.	QUINCE MIL OCHENTA Y SIETE EUROS con TREINTA Y CUATRO CÉNTIMOS	15.087,34

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Nº	CÓDIGO	UD	DESCRIPCIÓN	PRECIO EN LETRA	IMPORTE
0712	EDPA.1aa	Ud	Puerta 800x1800 mm. tablero fenólico con p.p. de herrajes Suministro y colocación de puerta abatible de una hoja para acristalar, de aluminio anodizado de 15 micras en su color natural, con unas dimensiones de 72.5x210 cm., compuesta por: cerco, hoja con zócalo inferior ciego de 40 cm., luna transparente incolora de 4 mm. de espesor, herrajes de colgar y de seguridad, precerco de aluminio, sellado de juntas y limpieza. Según norma NTE-FCL.	CIENTO CUARENTA Y OCHO EUROS con VEINTE CÉNTIMOS	148,20
0713	EDPRFV15	UD	DEPÓSITO DE PRFV DP V=15.000 L Depósito vertical de PRFV de doble pared para almacenamiento de reactivos de 15.000 l de capacidad. Diámetro interior de 2.325 mm, altura 4.295 mm. Forma cilíndrica-vertical con fondo plano, válvula de drenaje, sensor e interruptor de nivel de máximo y mínimo, boca de hombre, detector de fugas, incluso preparación de superficie para colocación del mismo. Instalado y probado. Resto de características según E.T.	SIETE MIL OCHENTA Y SIETE EUROS con VEINTICINCO CÉNTIMOS	7.087,25
0714	EDPRFV2.5	UD	DEPÓSITO DE PRFV DP V=2.500 L Depósito vertical de PRFV de doble pared para almacenamiento de reactivos de 2.500 l de capacidad. Diámetro interior de 1.380 mm, altura 2.280 mm. Forma cilíndrica-vertical con fondo plano, válvula de drenaje, sensor e interruptor de nivel de máximo y mínimo, boca de hombre, detector de fugas, incluso preparación de superficie para colocación del mismo. Instalado y probado. Resto de características según E.T.	TRES MIL DOSCIENTOS CINCO EUROS con CUARENTA Y OCHO CÉNTIMOS	3.205,48
0715	EDPRFV25	UD	DEPÓSITO DE PRFV DP V=25.000 L Depósito vertical de PRFV de doble pared para almacenamiento de reactivos de 25.000 l de capacidad. Diámetro interior de 2.500 mm, altura 5.885 mm. Forma cilíndrica-vertical con fondo plano, válvula de drenaje, sensor e interruptor de nivel de máximo y mínimo, boca de hombre, detector de fugas, incluso preparación de superficie para colocación del mismo. Instalado y probado. Resto de características según E.T.	OCHO MIL NOVECIENTOS OCHENTA Y SIETE EUROS con OCHENTA Y SIETE CÉNTIMOS	8.987,87
0716	EE0201	ud	Celda de línea entrada/salida Ud.- Celda de línea, marca Ormazábal o similar, modelo CGM24-CML, de corte y aislamiento en SF6, Vn=24kV., In=400A., con interruptor-seccionador, seccionador de puesta a tierra y aisladores testigo de presencia de tensión. Totalmente instalada.	MIL TRESCIENTOS NOVENTA Y DOS EUROS con TREINTA CÉNTIMOS	1.392,30
0717	EE0202	ud	Celda de protección transformador Ud.-Celda de protección de transformador, marca Ormazábal, modelo CGM24-CML, de corte y aislamiento en SF6, Vn=24kV, In=400A., con interruptor seccionador, cartuchos fusibles, bobina de disparo, contactos auxiliares, relé de protección de sobreintensidad de fase y homopolar tipo RPTA, doble seccionador de puesta a tierra y aisladores testigo de presencia de tensión.	MIL NOVECIENTOS TREINTA Y TRES EUROS con TRECE CÉNTIMOS	1.933,13

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Nº	CÓDIGO	UD	DESCRIPCIÓN	PRECIO EN LETRA	IMPORTE
0718	EE0203	ud	Interconexión M.T. Borna/Cono Ud.- Interconexión M.T. Borna/Cono (longitud máxima aproximada por fase de 9 metros).	SETECIENTOS CUARENTA Y SIETE EUROS con TREINTA Y TRES CÉNTIMOS	747,33
0719	EE070120	ud	Celda de Medida CGM-CMM Ud.- Celda de Medida con envolvente metálica, formada por un módulo de Vn=24KV., y co medidas 800 mm. de ancho por 1025 mm. de fondo por 1800 mm de alto. Se incluyen en la celda, para la medición de la energía eléctrica consumida dos transformadores de tensión y dos transformadores de intensidad, incluyendo su montaje y conexión.	TRES MIL VEINTICUATRO EUROS con OCHO CÉNTIMOS	3.024,08
0720	EE070123	ud	Interruptor automático Ud.- Interruptor automático de Baja Tensión incluido en envolvente metálica.	MIL NOVECIENTOS SETENTA Y CINCO EUROS con OCHENTA Y CINCO CÉNTIMOS	1.975,85
0721	EE070125	ud	Equipo de Medida Ud.- Conjunto de medida de energía en A.T., que incluye el tubo de acero galvanizado y sus fijaciones, el conductor para los circuitos de intensidad y tensión, y el módulo de medida de tarifa triple, con un maxímetro y un contador de reactiva, así como un reloj para la discriminación de las tarifas. Totalmente instalado y funcionando.	NOVECIENTOS OCHENTA Y OCHO EUROS con SETENTA Y CUATRO CÉNTIMOS	988,74
0722	EE080114	ud	Transformador 630 KVA - 13,2/24 KV Ud.- Transformador trifásico en baño de aceite de 630 kVA y relación 13,2/24kV/380-220V., con indicación del nivel de aceite, incluido el puente de conexión, bornas enchufables y la rejilla de protección así como el transporte y la colocación del mismo. Normativa Unesa 5201-D	OCHO MIL CUATROCIENTOS NOVENTA Y UN EUROS con SESENTA Y DOS CÉNTIMOS	8.491,62
0723	EE120201	ud	Edificio Transformación PFU-4/20 Ud.- Envolvente prefabricada de hormigón tipo PFU-4/20 de Ormazábal o similar, que incluye el edificio y todos sus elementos interiores, incluyendo el transporte, montaje y accesorios. Totalmente instalado.	CUATRO MIL TRESCIENTOS CINCUENTA Y UN EUROS con TREINTA CÉNTIMOS	4.351,30
0724	EE120209	ud	Puentes de B.T. 380 V-Trafo Ud.- Juego de puentes de cables de Baja Tensión, de sección y material 1 x 240 Al. (Etileno-Propileno) sin armadura, y todos los accesorios para la conexión, formados por un grupo de cables en la cantidad de 2 x fase + 1 x neutro de 3 metros de longitud.	DOSCIENTOS VEINTITRES EUROS con CUARENTA Y SEIS CÉNTIMOS	223,46

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Nº	CÓDIGO	UD	DESCRIPCIÓN	PRECIO EN LETRA	IMPORTE
0725	EE120211	ud	Tierras exteriores Ud.- Instalación de tierras exteriores formada po tierra de protección de tansformación, instalación de puesta a tierra de protección, debidamente montada y conexionada, empleando conductor de cobre desnudo, unido a picas de acero cobreado de 14mm. de diámetro, con las siguientes características, geometría anillo rectangular. Profundidad 0,5 metros. Número de picas seis. Longitud de picas 8 metros. Diámetro rectángulo 4.0 x 3.0 metros. Tierra de servicio o neutro del transformador: Instalación exterior realizada con cobre aislado con el mismo tipo de materiales que las de las tierras de protección.	MIL DOSCIENTOS TREINTA Y DOS EUROS con SESENTA Y UN CÉNTIMOS	1.232,61
0726	EE120212	ud	Tierras interiores Ud.- Instalación de tierras interiores formadas por instalación interior de tierra de protección en el edificio de transformación, con el conductor de cobre desnudo grapado en la pared, y conectado a las celdas y demás apartamta de este edificio, así como a una caja general de tierra de protección según las normas de la Compañía Suministradora. Instalación interior de tierra de servicio en el edificio de transformación, con el conductor de cobre aislado, grapado en la pared, y conectado al neutro de Baja Tensión, así como a una caja general de tierra de servicio, según las normas de la Compañía Suministradora.	OCHOCIENTOS VEINTISEIS EUROS con OCHENTA Y CUATRO CÉNTIMOS	826,84
0727	EE120213	ud	Defensa del Transformador Ud.- Defensa del transformador formada por una rejilla metálica, con una cerradura enclavada con la celda de protección correspondiente.	DOSCIENTOS VEINTIUN EUROS con OCHENTA Y DOS CÉNTIMOS	221,82
0728	EE120214	ud	Iluminación C.T. Ud.- Equipo de iluminación del Centro de Transformación formado por un equipo de alumbrado que permita la suficiente visibilidad para ejecutar las maniobras y revisiones necesarias en las celdas de A.T.	CIENTO DOCE EUROS con TREINTA Y DOS CÉNTIMOS	112,32
0729	EE120215	ud	Equipo de maniobra Ud.- Realización de las maniobras con aislamiento suficiente para proteger al personal durante la ejecución de las maniobras y operaciones de mantenimiento, compuesto por Banquillo aislante, par de guantes de amianto y extintor de eficacia 89B.	CIENTO CUARENTA Y SIETE EUROS con OCHENTA Y DOS CÉNTIMOS	147,82
0730	EPPOL01	UD	EQUIPO PREPARACIÓN POLIELECTROLITO 550 L/H Equipo de preparación de polielectrolito. Marca: POLITECH o equivalente. Modelo: POLIBASIC AP 5 PPH. Tipo: unidad compacta. Capacidad de preparación (l/h): 550. Dosificador de poli en polvo: tornillo+motovariador reductor de 0,18 kW. Tolva de alimentación de capacidad 60 litros. Depósito con dos compartimentos y tapas, de 650 l. de capacidad útil. Dos electroagitadores de eje vertical y amarre por brida. Potencia electroagitador (kW): 0,37+0,37. Sonda de nivel ultrasónico. Armario de control. Materiales: Cuba en PPH, electroagitadores y tobera: AISI 316. Dosificador volumétrico: PPH. Cuadro eléctrico. Incluso transporte, montaje, conexiones eléctricas y de control, pruebas de funcionamiento. Resto de características según E.T.	CUATRO MIL SEISCIENTOS ONCE EUROS con VEINTICUATRO CÉNTIMOS	4.611,24

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Nº	CÓDIGO	UD	DESCRIPCIÓN	PRECIO EN LETRA	IMPORTE
0731	EEPPOL02	UD	EQUIPO PREPARACIÓN POLIELECTROLITO 1200 L/H Equipo de preparación de polielectrolito. Marca: POLITECH o equivalente. Modelo: POLIBASIC AP 12 PPH. Tipo: unidad compacta. Capacidad de preparación (l/h): 1200. Dosificador de poli en polvo: tornillo+motorreductor de 0,18 kW. Tolva de alimentación de capacidad 60 litros. Depósito con tres compartimentos y tapas, de 1.350 l. de capacidad útil. Dos electroagitadores de eje vertical y amarre por brida. Potencia electroagitador (kW): 0,55+0,37. Sonda de nivel ultrasónico. Armario de control. Materiales: Cuba en PPH, electroagitadores y tobera: AISI 316. Dosificador volumétrico: PPH. Cuadro eléctrico. Incluso transporte, montaje, conexiones eléctricas y de control, pruebas de funcionamiento. Resto de características según E.T.	CINCO MIL TRESCIENTOS SETENTA EUROS con VEINTISIETE CÉNTIMOS	5.370,27
0732	EEPPOL03	UD	EQUIPO PREPARACIÓN PERMANGANATO 600 L/H Equipo de preparación de permanganato. Marca: POLITECH o equivalente. Modelo: POLIBASIC AP 8 PPH PERMANGANATO. Tipo: unidad compacta. Capacidad de preparación (l/h): 600. Dosificador de permanganato: tornillo+motorreductor de 0,18 kW. Tolva de alimentación de capacidad 60 litros. Depósito con tres compartimentos y tapas, de 1.000 l. de capacidad útil. Dos electroagitadores de eje vertical y amarre por brida. Potencia electroagitador (kW): 0,37. Sonda de nivel ultrasónico. Armario de control. Materiales: Cuba en PPH, electroagitadores y tobera: AISI 316. Dosificador volumétrico: PPH. Cuadro eléctrico. Incluso transporte, montaje, conexiones eléctricas y de control, pruebas de funcionamiento. Resto de características según E.T.	CINCO MIL QUINIENTOS NOVENTA Y SIETE EUROS con NOVENTA Y OCHO CÉNTIMOS	5.597,98
0733	EFAA01	M2	ARENA SILICEA PARA FILTRO Arena silicea según la especificación de la norma AWWA B100-80 (Revisión de la B100-72), con coeficiente de uniformidad: < 1,6, granulometría: 0,90-1,80 mm, densidad aparente: 1,58 t/m ³ , sílice contenida: > 98% , exenta de mica y materia orgánica, solubilidad al ácido: inferior al 5% . Obtención de la arena: cantera, lavada y clasificada. Incluso transporte a obra, y colocación y extendido en los filtros por medios mecánicos y manuales.	SESENTA Y SEIS EUROS con NOVENTA Y TRES CÉNTIMOS	66,93
0734	EFFFA01	M2	FALSOS FONDOS FILTRACIÓN Falsos fondos de filtración tipo LP Block de Aplicor o equivalente, incluyendo placas soporte tipo S o equivalente, de 450 micras, construidos en polietileno de alta densidad, sellado perimetral, anclajes, dentro del recinto del filtro, montado y probado. Cubiertas en extremos de filas en PE. Juntas tóricas para la interconexión de los bloques. Sellante Sikaflex para la unión "in situ" de los bloques y de las cubiertas en extremos. Cubiertas de papel autoadhesivo para usar como protección durante el proceso de montaje. Herramienta de montaje/ensamblaje de bloques en filas. Placas de orificio para la alimentación de las filas de bloques desde el canal central (en AISI 304). Incluye asesoramiento en el dimensionamiento y diseño, y asistencia técnica de montaje y puesta en marcha, así como ingeniería de detalle de la instalación del sistema. Transporte de los materiales a obra, montaje, pruebas, limpieza y puesta en marcha. Resto de características según E.T.	CUATROCIENTOS SESENTA Y CINCO EUROS con NOVENTA Y UN CÉNTIMOS	465,91

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Nº	CÓDIGO	UD	DESCRIPCIÓN	PRECIO EN LETRA	IMPORTE
0735	EGEOZ01	UD	GENERADOR DE OZONO DE 3,0 KG O2/H Equipo de ozonización con sistema de generación de ozono a partir de oxígeno, unidad de generación de ozono SMOevoplus 560 LOX de WEDECO -XYLEM o equivalente, para un caudal de entrada de 3.400 m ³ /h, y una producción de 3,0 kg O ₂ /h de capacidad máxima, válvula reductora de presión, en acero inoxidable AISI-316TI en cámara de ozonización. Sensor fugas O ₃ Atmosférico (Seguridad). Cuadro local de control y mando. Pequeño material, manómetros, grifos, etc. Incluido transporte, motaje, conexiones eléctricas y de control, y pruebas de funcionamiento. Resto de características, según ET.	OCHENTA Y DOS MIL DOSCIENTOS CINCUENTA Y SIETE EUROS con CUARENTA Y SEIS CÉNTIMOS	82.257,46
0736	EGEOZ02	UD	ANALIZADOR OZONO, CONTROL Y COMUNICACIONES Unidad para análisis, formada por 2 analizadores Ozono GAS-DC control HC-400 (1 por generador), 3 controles automático de caudal de O ₃ a PRE (1 por cámara), 6 controles manuales de caudal de O ₃ a PRE (2 por cámara), comunicación Profibus// Ethernet para todos, así como el sistema de telecontrol. Incluido transporte, motaje, conexiones eléctricas y de control, y pruebas de funcionamiento. Resto de características, según ET.	CINCUENTA Y SIETE MIL NOVECIENTOS CUARENTA Y UN EUROS con SETENTA Y SEIS CÉNTIMOS	57.941,76
0737	EGEOZ03	UD	REFRIGERADOR CERRADO AGUA-AGUA Equipo de refrigeración cerrado de agua-agua. Presión de entrada 1-3,5 bar. pérdida de carga de 0,15 bar. pH: 6-8. Cloruros menos de 100 mg/l, turbidez 0 NTU. Incluido transporte, motaje, conexiones eléctricas y de control, y pruebas de funcionamiento. Resto de características, según ET.	CATORCE MIL NOVECIENTOS VEINTIUN EUROS con TREINTA Y SIETE CÉNTIMOS	14.921,37
0738	EGEOZ04	UD	SISTEMA MAIN PLC Sistema MAIN PLC. Control para la coordinación de todos los elementos adyacentes a los generadores de O ₃ . Incluido transporte, montaje, conexiones eléctricas y de control, y pruebas de funcionamiento. Resto de características, según ET.	VEINTICINCO MIL SETECIENTOS SESENTA EUROS con SETENTA Y CUATRO CÉNTIMOS	25.760,74
0739	EGEOZ05	UD	PROGRACIÓN, INGENIERIA DE DETALLE Y PUESTA EN MARCHA Ingeniería de detalle, programación de equipos de ozono, así como la puesta en marcha.	CATORCE MIL NOVECIENTOS NOVENTA Y OCHO EUROS con SESENTA Y NUEVE CÉNTIMOS	14.998,69
0740	EGEOZ06	UD	EQUIPAMIENTO DE ALARMA Equipamiento de alarma, formado por FH, siema, flash y display. Incluido transporte, motaje, conexiones eléctricas y de control, y pruebas de funcionamiento. Resto de características, según ET.	MIL TRESCIENTOS VEINTIOCHO EUROS con OCHENTA Y NUEVE CÉNTIMOS	1.328,89

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ABASTECIMIENTO A VARIOS MUNICIPIOS DE LA RIOJA. SISTEMA CIDACOS

Nº	CÓDIGO	UD	DESCRIPCIÓN	PRECIO EN LETRA	IMPORTE
0741	EGEOZ07	UD	COMPRESOR DE GAS. 1,35 L/S. 10 BAR, P=0,55 Kw Compresor de aire para dopado de ozonización con secador de aire, modelo LFX 0,7 de ATLAS COPCO o equivalente, de 1,02 l/s. Potencia de 0,55 Kw. Tanque de 90 l. Incluso purga automática de compresor, parte proporcional de válvulas y manguitos de unión a líneas. Incluido transporte, montaje, conexiones eléctricas y de control, y pruebas de funcionamiento. Resto de características, según ET.	CUATRO MIL NOVENTA Y CUATRO EUROS con DOCE CÉNTIMOS	4.094,12
0742	EGEOZ08	UD	SENSOR TEMPERATURA AIRE Sensor de temperatura en sala. Incluido transporte, montaje, conexiones eléctricas y de control, y pruebas de funcionamiento. Resto de características, según ET.	DOSCIENTOS VEINTITRES EUROS con CINCUENTA Y TRES CÉNTIMOS	223,53
0743	EGRPR01	UD	GRUPO DE PRESIÓN DOS BOMBAS 50,0 m3/h 4 bar. Grupo de Presión de CAPRARI o equivalente de dos (1+1) bombas 50,0 m³/h 3 bar. Fluido a bombear: Agua industrial. Caudal unitario: 50 m³/h. Presión: 4 bar. Formado por 2 Uds. Electrobomba centrífuga vertical multicelular 10 C.V. Cuerpo y rodetes AISI-316L, eje motor AISI-420. Depósito acumulador 500 l, válvula de esfera, manguitos flexibles de conexión. Bancada de chapa de acero plegado. Colector de impulsión para las dos bombas. Válvulas de corte, carretes, válvulas de retención. Cuadro eléctrico, transductor de presión, boya de nivel. Manómetro y presostatos. Incluido, transporte, conexiones eléctricas y de control, así como el montaje y pruebas de funcionamiento. Resto de características según ET.	CINCO MIL DOCE EUROS con NUEVE CÉNTIMOS	5.012,09
0744	EGRPR02	UD	RED DE AGUA Red de agua a presión para llenado de depósitos de reactivos, y otros, desde salida de grupo de presión hasta cubas y puntos de consumo, ejecutada en tubería de PE soldado. Instalada.	QUINIENTOS TREINTA Y NUEVE EUROS con SETENTA Y OCHO CÉNTIMOS	539,78
0745	EGTM01	UD	GRIFO TOMAMUESTRAS PN16/25 Grifo tomamuestras de 3/4" colocado en tubería de acero inoxidable por picaje, incluida la válvula PN 16/25, montada y probada.	VEINTICUATRO EUROS con OCHENTA Y DOS CÉNTIMOS	24,82
0746	EL210	ML	CANALIZACION ELÉCTRICA 1T PE DP 110 Canalización subterránea para red de baja tensión y constituida por zanja de dimensiones 0.40x1.00 (anchura x profundidad), lecho de hormigón, 1 tubo de PE DP d=110mm, cinta señalizadora y relleno con material procedente de la excavación.	SIETE EUROS con CINCUENTA Y UN CÉNTIMOS	7,51
0747	EL220	ML	CANALIZACION ELÉCTRICA 2T PE DP 110 Canalización subterránea para red de baja tensión y constituida por zanja de dimensiones 0.40x1.00 (anchura x profundidad), lecho de hormigón, 2 tubos de PE DP d=110mm, cinta señalizadora y relleno con material procedente de la excavación.	NUEVE EUROS con TRECE CÉNTIMOS	9,13

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Nº	CÓDIGO	UD	DESCRIPCIÓN	PRECIO EN LETRA	IMPORTE
0748	EL2301	ML	CANALIZACION ELÉCTRICA 4T PE DP 110 Canalización subterránea para red de baja tensión y constituida por zanja de dimensiones 0.40x1.00 (anchura x profundidad), lecho de hormigón, 4 tubos de PE DP d=110mm, cinta señalizadora y relleno con material procedente de la excavación.	ONCE EUROS con NOVENTA Y NUEVE CÉNTIMOS	11,99
0749	EL310	UD	SUBCUADRO TOMAS DE CORRIENTE Subcuadro para tomas de corriente de Schneider o equivalente con una salida trifásica protegida (32A y 16A) y dos salidas monofásicas también protegidas.	TRESCIENTOS NOVENTA Y SIETE EUROS con DIECINUEVE CÉNTIMOS	397,19
0750	EL362	ML	LINEA 5x2.5mm2 Cu 0.6/1kV RZ1-K (AS) Línea eléctrica con conductor multipolar 5x2.5mm2 RZ1-K (AS) en canalización existente, incluso conexionado en inicio y final de línea.	DOS EUROS con TREINTA Y NUEVE CÉNTIMOS	2,39
0751	EL3621	ML	LINEA 3x2.5mm2 Cu 0.6/1kV RZ1-K (AS) Línea eléctrica con conductores unipolares 3x2.5mm2 RZ1-K (AS) en canalización existente, incluso conexionado en inicio y final de línea.	UN EUROS con SETENTA Y CUATRO CÉNTIMOS	1,74
0752	EL3623	ML	LINEA 4x2.5mm2 Cu 0.6/1kV RZ1-K (AS) Línea eléctrica con conductor multipolar 4x2.5mm2 RZ1-K (AS) en canalización existente, incluso conexionado en inicio y final de línea.	DOS EUROS con CINCO CÉNTIMOS	2,05
0753	EL36231	ML	LINEA 4x2.5mm2 Cu 0.6/1kV RZ1KZ1-K (AS) Línea eléctrica con conductor multipolar 4x2.5mm2 RZ1KZ1-K (AS) en canalización existente, incluso conexionado en inicio y final de línea.	DOS EUROS con TREINTA Y SEIS CÉNTIMOS	2,36
0754	EL36232	ML	LINEA 5x2.5mm2 Cu 0.6/1kV RZ1KZ1-K (AS) Línea eléctrica con conductores unipolares 4x2.5mm2 RZ1KZ1-K (AS) en canalización existente, incluso conexionado en inicio y final de línea.	DOS EUROS con TREINTA Y SEIS CÉNTIMOS	2,36
0755	EL362321	ML	LINEA 5x2.5mm2 Cu 0.6/1kV RZ1-K (AS+) Línea eléctrica con conductores unipolares 4x2.5mm2 RZ1KZ1-K (AS) en canalización existente, incluso conexionado en inicio y final de línea.	CUATRO EUROS con TREINTA CÉNTIMOS	4,30
0756	EL380	ML	LINEA 3x1.5mm2 Cu 0.6/1kV RZ1-K (AS) Línea eléctrica con conductor multipolares 3x1.5mm2 RZ1-K (AS) en canalización existente, incluso conexionado en inicio y final de línea.	UN EUROS con OCHENTA Y UN CÉNTIMOS	1,81
0757	EL3801	ML	LINEA 5x1.5mm2 Cu 0.6/1kV RZ1-K (AS) Línea eléctrica con conductores unipolares 5x1.5mm2 RZ1-K (AS) en canalización existente, incluso conexionado en inicio y final de línea.	DOS EUROS con CINCUENTA Y UN CÉNTIMOS	2,51

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Nº	CÓDIGO	UD	DESCRIPCIÓN	PRECIO EN LETRA	IMPORTE
0758	ELA049	ML	CANALIZACIÓN ELÉCTRICA 2T PE DP 110 Canalización eléctrica formada por dos tubos PE DP 110 mm corrugado de doble pared con guía. Incluyendo corte de pavimento, excavación de zanja de 0,40 m de anchura y 1,0 m de profundidad, lecho de hormigón y recubierta 10 cm como mínimo del mismo material sobre la generatriz superior del tubo, relleno con material de la propia de excavación hasta la cota de terreno, cinta señalizadora, compactado y acabado superficial de hormigón con una altura mínima de 20 cm.	CATORCE EUROS con SESENTA Y NUEVE CÉNTIMOS	14,69
0759	ELA0491	ML	CANALIZACIÓN ELÉCTRICA 2T PE DP 160 Canalización subterránea para red de baja tensión y constituida por zanja de dimensiones 0.40x1.00 (anchura x profundidad), lecho de hormigón, 2 tubos de PE DP d=160mm, cinta señalizadora y relleno con material procedente de la excavación.	DOCE EUROS con CINCUENTA Y NUEVE CÉNTIMOS	12,59
0760	ELA0492	ML	CANALIZACIÓN ELÉCTRICA 3T PE DP 160 Canalización subterránea para red de baja tensión y constituida por zanja de dimensiones 0.40x1.00 (anchura x profundidad), lecho de hormigón, 3 tubos de PE DP d=160mm, cinta señalizadora y relleno con material procedente de la excavación.	QUINCE EUROS con CINCUENTA Y SEIS CÉNTIMOS	15,56
0761	ELA0493	ML	CANALIZACIÓN ELÉCTRICA 4T PE DP 160 Canalización subterránea para red de baja tensión y constituida por zanja de dimensiones 0.40x1.00 (anchura x profundidad), lecho de hormigón, 4 tubos de PE DP d=160mm, cinta señalizadora y relleno con material procedente de la excavación.	DIECIOCHO EUROS con CINCUENTA Y TRES CÉNTIMOS	18,53
0762	ELA0494	ML	CANALIZACIÓN ELÉCTRICA 6T PE DP 160 Canalización subterránea para red de baja tensión y constituida por zanja de dimensiones 0.40x1.00 (anchura x profundidad), lecho de hormigón, 6 tubos de PE DP d=160mm, cinta señalizadora y relleno con material procedente de la excavación.	VEINTICUATRO EUROS con CUARENTA Y SIETE CÉNTIMOS	24,47
0763	ELAR698631	ML	LÍNEA 2(4x240/120) mm2 Al 0.6/1 kV RV-AI (AS) Línea eléctrica con conductores unipolares 2(4x240/120)mm2 RV-AI (AS) en canalización existente, incluso conexionado en inicio y final de línea.	CUARENTA Y SIETE EUROS con NOVENTA Y CINCO CÉNTIMOS	47,95
0764	ELAR698632	ML	LÍNEA 4x240/120 mm2 Al 0.6/1 kV RV-AI (AS) Línea eléctrica con conductores unipolares de 4x240/120 mm2 RV-AI (AS) en canalización existente, incluso conexionado en inicio y final de línea.	VEINTICUATRO EUROS con TREINTA Y SEIS CÉNTIMOS	24,36
0765	ELAR698633	ML	LÍNEA 4x70/35 mm2 Al 0.6/1 kV RV-AI (AS) Línea eléctrica con conductores unipolares de 4x70/35 mm2 RV-AI (AS) en canalización existente, incluso conexionado en inicio y final de línea.	VEINTICUATRO EUROS con QUINCE CÉNTIMOS	24,15

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Nº	CÓDIGO	UD	DESCRIPCIÓN	PRECIO EN LETRA	IMPORTE
0766	ELAR698635	ML	LÍNEA 4x150/95 mm2 Al 0.6/1 kV RV-AI (AS) Línea eléctrica con conductores unipolares de 4x120/95 mm2 RV-AI (AS) en canalización existente, incluso conexionado en inicio y final de línea.	DIECIOCHO EUROS con CINCUENTA CÉNTIMOS	18,50
0767	ELAR69865	ML	LÍNEA 3x35/16 mm2 Cu 0.6/1 kV RZ1-K(AS) Línea eléctrica con conductores unipolares de 4x35/16mm2 RZ1KZ1-K(AS) en canalización existente, incluso conexionado en inicio y final de línea.	VEINTE EUROS con SESENTA Y TRES CÉNTIMOS	20,63
0768	ELAR698651	ML	LÍNEA 4x35/16 mm2 Cu 0.6/1 kV RZ1-K(AS) Línea eléctrica con conductores unipolares de 4x35/16mm2 RZ1KZ1-K(AS) en canalización existente, incluso conexionado en inicio y final de línea.	VEINTISEIS EUROS con VEINTICUATRO CÉNTIMOS	26,24
0769	ELAR69866	ML	LÍNEA 4x50/25 mm2 Cu 0.6/1 kV RZ1-K(AS) Línea eléctrica con conductores unipolares de 4x50/25mm2 RZ1-K(AS) en canalización existente, incluso conexionado en inicio y final de línea.	DIECIOCHO EUROS con SETENTA Y TRES CÉNTIMOS	18,73
0770	ELAR69868	* ML	LÍNEA 3x50/25 mm2 Cu 0.6/1 kV RZ1KZ1-K(AS) Línea multipolar de 3x50/25mm2 RZ1KZ1-K(AS) en canalización existente, incluso conexionado en inicio y final de línea.	VEINTICUATRO EUROS con VEINTITRES CÉNTIMOS	24,23
0771	ELAR852	mI	CONDUCTOR 1x25 PARA PAT Conductor de cobre desnudo de 1x25mm2 para puesta a tierra con p/p de conexión entre conductores.	UN EUROS con OCHENTA Y UN CÉNTIMOS	1,81
0772	ELE0118	UD	ARQUETA ELÉCTRICA FÁBRICA 100x100 CM Arqueta de paso de líneas construida en fábrica de ladrillo de 12 cm. de espesor y enfoscado en paredes, dimensiones interiores 100 x 100 y 100 cm. de profundidad, incluso marco y tapa de fundición.	CIENTO OCHENTA Y TRES EUROS con OCHENTA Y SIETE CÉNTIMOS	183,87
0773	ELE013312	ML	LINEA 5x4mm2 Cu 0.6/1kV RZ1-K (AS) Línea de alimentación con conductores unipolares 5x4 mm2 Cu 0.6/1kV RZ1-K (AS) en canalización existente, incluso conexionado en inicio y final de línea.	TRES EUROS con TREINTA CÉNTIMOS	3,30
0774	ELE0133211	ML	LINEA 5x10mm2 Cu 0.6/1kV RZ1-K (AS) Línea de alimentación con conductores unipolares 5x10 mm2 Cu 0.6/1kV RZ1-K (AS) en canalización existente, incluso conexionado en inicio y final de línea.	CINCO EUROS con DOS CÉNTIMOS	5,02
0775	ELE0133212	ML	LINEA 5x10mm2 Cu 0.6/1kV RZ1KZ1-K (AS) Línea de alimentación con conductores unipolares 5x10 mm2 Cu 0.6/1kV RZ1KZ1-K (AS) en canalización existente, incluso conexionado en inicio y final de línea.	CINCO EUROS con SESENTA Y UN CÉNTIMOS	5,61

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Nº	CÓDIGO	UD	DESCRIPCIÓN	PRECIO EN LETRA	IMPORTE
0776	ELE0133215	ML	LINEA 5x16mm2 Cu 0.6/1kV RZ1-K (AS) Línea de alimentación con conductores unipolares 5x16 mm2 Cu 0.6/1kV RZ1-K (AS) en canalización existente, incluso conexión en inicio y final de línea.	CINCO EUROS con CINCUENTA Y SIETE CÉNTIMOS	5,57
0777	ELE01332151	ML	LINEA 4x16mm2 Cu 0.6/1kV RZ1KZ1-K (AS) Línea de alimentación con conductores unipolares 5x16 mm2 Cu 0.6/1kV RZ1KZ1-K (AS) en canalización existente, incluso conexión en inicio y final de línea.	CINCO EUROS con VEINTICINCO CÉNTIMOS	5,25
0778	ELE013322	ML	LINEA 5x6mm2 Cu 0.6/1kV RZ1KZ1-K (AS) Línea eléctrica con conductores unipolares 5x6 mm2 Cu 0.6/1kV RZ1KZ1-K (AS) en canalización existente, incluso conexión en inicio y final de línea.	CUATRO EUROS con SETENTA CÉNTIMOS	4,70
0779	ELE01333	ML	LINEA 4x6mm2 Cu 0.6/1kV RZ1-K (AS) Línea de alimentación con conductores unipolares 4x6 mm2 Cu 0.6/1kV RZ1-K (AS) en canalización existente, incluso conexión en inicio y final de línea.	TRES EUROS con CUARENTA CÉNTIMOS	3,40
0780	ELE013525	ML	LINEA 3x4mm2 Cu 0.6/1kV RZ1-K (AS) Línea de alimentación con conductores unipolares 3x4 mm2 Cu 0.6/1kV RZ1-K (AS) en canalización existente, incluso conexión en inicio y final de línea.	DOS EUROS con VEINTIOCHO CÉNTIMOS	2,28
0781	ELE01356	ML	LINEA 3x4mm2 Cu 0.6/1kV RZ1-K (AS) Línea de alimentación con conductores unipolares 3x4 mm2 Cu 0.6/1kV RZ1-K (AS) en canalización existente, incluso conexión en inicio y final de línea.	UN EUROS con CINCO CÉNTIMOS	1,05
0782	ELE021	ML	LÍNEA GENERAL DE ALIMENTACIÓN DE 4x6mm2 Cu 0,6/1 kV (AS) Línea general de alimentación con cuatro conductores unipolares de 1x6mm2 Cu 0.6/1kV RZ1-K(AS) instalada en canalización subterránea bajo tubo d=160mm.	VEINTIDOS EUROS con NOVENTA Y TRES CÉNTIMOS	22,93
0783	ELE0214	ML	LÍNEA DE ALIMENTACIÓN DE 4(3x240/120mm2)AI 0,6/1 kV RZ1-AL(AS) Línea general de alimentación con 12 conductores unipolares de 1x240mm2 AI 0.6/1kV RZ1-AL y 4 conductores unipolares de 1x120mm2 AL 0.6/1kV RZ1-AL (AS) instalada en canalización subterránea bajo calzada bajo tubo compuesta por 6 tubos de PEAD de 160mm. Incluido reposición de pavimento existente.	DOSCIENTOS OCHENTA EUROS con CUARENTA Y CINCO CÉNTIMOS	280,45
0784	ELE02141	ML	LÍNEA 3(3x240/120mm2)AI 0,6/1 kV RZ1-AL(AS) Línea general de alimentación con 9 conductores unipolares de 1x240mm2 AI 0.6/1kV RZ1-AL y 3 conductores unipolares de 1x120mm2 AL 0.6/1kV RZ1-AL (AS) instalada en canalización subterránea bajo calzada bajo tubo compuesta por 6 tubos de PEAD de 160mm. Incluido reposición de pavimento existente.	DOSCIENTOS VEINTICUATRO EUROS con UN CÉNTIMO	224,01

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ABASTECIMIENTO A VARIOS MUNICIPIOS DE LA RIOJA. SISTEMA CIDACOS

Nº	CÓDIGO	UD	DESCRIPCIÓN	PRECIO EN LETRA	IMPORTE
0785	ELE02142	ML	LINEA 2(4x120/70mm2)AI 0,6/1 kV RZ1-AL(AS) Línea general de alimentación con 8 conductores unipolares de 1x120mm2 AI 0.6/1kV RZ1-AL y 2 conductores unipolares de 1x70mm2 AL 0.6/1kV RZ1-AL (AS) instalada en canalización subterránea bajo calzada bajo tubo compuesta por 6 tubos de PEAD de 160mm. Incluido reposición de pavimento existente.	CIENTO TREINTA Y NUEVE EUROS con DIEZ CÉNTIMOS	139,10
0786	ELE022	* ML	LÍNEA GENERAL DE ALIMENTACIÓN DE 4x150mm2 Cu 0,6/1 kV (AS) Línea general de alimentación con cuatro conductores unipolares de 1x150mm2 Cu 0.6/1kV RZ1-K(AS) instalada en canalización subterránea bajo tubo d=180mm.	OCHENTA Y SEIS EUROS con CUARENTA Y TRES CÉNTIMOS	86,43
0787	ELE030	UD	CUADRO GENERAL BAJA TENSIÓN Cuadro general con apartamentación y envolvente de Schneider, formado por envolvente metálico con puertas montado sobre zócalo y conteniendo interruptor general automático NS 40A regulable, limitador de sobretensiones, analizador de redes, variadores de frecuencia 11 kW, protecciones magnetotérmicas y diferenciales según esquema unifilar, incluso cableado interior, perfiles omega y regletas de conexión. Armario: - Preparado para instalar un interruptor general automático de hasta 250A. - Ampliable por uno de los costados. - Con reserva de espacio de al menos el 50% de la apartamentación instalada.	NUEVE MIL CIENTO NOVENTA Y DOS EUROS con SETENTA Y DOS CÉNTIMOS	9.192,72
0788	ELE0301	UD	CUADRO GENERAL BAJA TENSIÓN Cuadro general con apartamentación y envolvente de Schneider, formado por envolvente metálico con puertas montado sobre zócalo y conteniendo interruptor general automático NS 40A regulable, limitador de sobretensiones, analizador de redes, variadores de frecuencia 11 kW, protecciones magnetotérmicas y diferenciales según esquema unifilar, incluso cableado interior, perfiles omega y regletas de conexión. Armario: - Preparado para instalar un interruptor general automático de hasta 250A. - Ampliable por uno de los costados. - Con reserva de espacio de al menos el 50% de la apartamentación instalada.	SETE MIL QUINIENTOS CINCO EUROS con SETENTA Y CUATRO CÉNTIMOS	7.505,74
0789	ELE031	* UD	CUADRO GENERAL BAJA TENSIÓN Cuadro general con apartamentación y envolvente de Schneider, formado por envolvente metálico con puertas montado sobre zócalo y conteniendo interruptor general automático NS 250 A regulable, limitador de sobretensiones, analizador de redes, 3 variadores de frecuencia 55 kW, 2 variadores de frecuencia de 5.5 kW, protecciones magnetotérmicas y diferenciales según esquema unifilar, incluso cableado interior, perfiles omega y regletas de conexión. Armario: Preparado para instalar un interruptor general automático de hasta 250A. Ampliable por uno de los costados. Con reserva de espacio de al menos el 50% de la apartamentación instalada. Montado y probado.	TREINTA Y DOS MIL QUINIENTOS CUARENTA Y SIETE EUROS con SESENTA Y CUATRO CÉNTIMOS	32.547,64

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ABASTECIMIENTO A VARIOS MUNICIPIOS DE LA RIOJA. SISTEMA CIDACOS

Nº	CÓDIGO	UD	DESCRIPCIÓN	PRECIO EN LETRA	IMPORTE
0790	ELE0512	ML	CANALIZACION BANDEJA PERFORADA CON TAPA (100x60 mm) Bandeja de U23X (PVC-M1 RoHS) serie 66 de Unex o equivalente de color gris, perforada, de 100x60 mm, con separador fuerza-control, con tapa y parte proporcional de accesorios, elementos de acabado y soportes.	DIECINUEVE EUROS con VEINTICINCO CÉNTIMOS	19,25
0791	ELEC11	UD	CONTACTOR III 16 A	SETENTA Y OCHO EUROS con TREINTA Y SEIS CÉNTIMOS	78,36
0792	ELEGE250	UD	Grupo electrógeno 250 kVA U.d. Grupo electrógeno fijo sobre bancada de funcionamiento automático, trifásico de 230/400 V de tensión, de 250 kVA de potencia, compuesto por alternador sin escobillas de 50 Hz de frecuencia; motor diesel de 1500 r.p.m. refrigerado por agua, con silenciador y depósito de combustible; cuadro eléctrico de control; y cuadro de conmutación con contactores de accionamiento manual calibrados a 500 A.	DIECINUEVE MIL CIENTO CUARENTA Y OCHO EUROS con TREINTA Y DOS CÉNTIMOS	19.148,32
0793	ELM001	UD	APOYO TIPO CELOSÍA C12-2000, INCLUYENDO HORMIGONADO E IZADO Apoyo de celosía 12C-2000, incluyendo hormigonado e izado, y realización de tierras	MIL OCHOCIENTOS UN EUROS con SESENTA Y SIETE CÉNTIMOS	1.801,67
0794	ELM0011	UD	APOYO TIPO CELOSÍA C16-2000, INCLUYENDO HORMIGONADO E IZADO Apoyo de celosía 16C-2000, incluyendo hormigonado e izado, y realización de tierras	MIL CUATROCIENTOS DOS EUROS con VEINTICUATRO CÉNTIMOS	1.402,24
0795	ELM003	UD	APOYO TIPO CELOSÍA C10-2000, INCLUYENDO HORMIGONADO E IZADO Apoyo de celosía 16C-1000, incluyendo hormigonado e izado, y realización de tierras	NOVECIENTOS OCHENTA Y UN EUROS con CATORCE CÉNTIMOS	981,14
0796	ELM004	UD	APOYO TIPO CELOSÍA C14-500, INCLUYENDO HORMIGONADO E IZADO Apoyo de celosía 14C-500, incluyendo hormigonado e izado, y realización de tierras	OCHOCIENTOS CINCUENTA Y TRES EUROS con NOVENTA Y DOS CÉNTIMOS	853,92
0797	ELM005	UD	APOYO TIPO CELOSÍA C12-500, INCLUYENDO HORMIGONADO E IZADO Apoyo de celosía 12C-500, incluyendo hormigonado e izado, y realización de tierras	SETECIENTOS OCHENTA Y DOS EUROS con NOVENTA Y NUEVE CÉNTIMOS	782,99

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Nº	CÓDIGO	UD	DESCRIPCIÓN	PRECIO EN LETRA	IMPORTE
0798	ELM0051	UD	APOYO TIPO CELOSÍA C10-500, INCLUYENDO HORMIGONADO E IZADO Apoyo de celosía 12C-500, incluyendo hormigonado e izado, y realización de tierras	SETECIENTOS CINCO EUROS con CINCUENTA Y OCHO CÉNTIMOS	705,58
0799	ELM006	UD	APOYO TIPO CELOSÍA C10-1000, INCLUYENDO HORMIGONADO E IZADO Apoyo de celosía 10C-1000, incluyendo hormigonado e izado, y realización de tierras	SETECIENTOS CINCO EUROS con CINCUENTA Y OCHO CÉNTIMOS	705,58
0800	ELM007	UD	APOYO TIPO CELOSÍA C12-1000, INCLUYENDO HORMIGONADO E IZADO Apoyo de celosía 12C-1000, incluyendo hormigonado e izado, y realización de tierras	SETECIENTOS OCHENTA Y DOS EUROS con NOVENTA Y NUEVE CÉNTIMOS	782,99
0801	ELM0071	UD	APOYO TIPO CELOSÍA C16-1000, INCLUYENDO HORMIGONADO E IZADO Apoyo de celosía 16C-1000, incluyendo hormigonado e izado, y realización de tierras	SETECIENTOS OCHENTA Y DOS EUROS con NOVENTA Y NUEVE CÉNTIMOS	782,99
0802	ELM008	UD	APOYO TIPO CELOSÍA C12-3000, INCLUYENDO HORMIGONADO E IZADO Apoyo de celosía 12C-3000, incluyendo hormigonado e izado, y realización de tierras	MIL DOSCIENTOS SETENTA Y OCHO EUROS con TREINTA Y OCHO CÉNTIMOS	1.278,38
0803	ELM009	UD	APOYO TIPO CELOSÍA C12-4500, INCLUYENDO HORMIGONADO E IZADO Apoyo de celosía 12C-4500, incluyendo hormigonado e izado, y realización de tierras	MIL SETECIENTOS ONCE EUROS con OCHENTA Y SIETE CÉNTIMOS	1.711,87
0804	ELM0091	UD	APOYO TIPO CELOSÍA C14-4500, INCLUYENDO HORMIGONADO E IZADO Apoyo de celosía 14C-4500, incluyendo hormigonado e izado, y realización de tierras	DOS MIL SESENTA EUROS con VEINTIDOS CÉNTIMOS	2.060,22
0805	ELM010	UD	CRUCETA RECTA PARA APOYO TIPO CELOSÍA TIPO H-35 Suministro e instalación de cruceta recta para apoyo tipo celosía tipo H-35	DOSCIENTOS NOVENTA Y TRES EUROS con SETENTA Y SEIS CÉNTIMOS	293,76
0806	ELM014	UD	CRUCETA DE DERIVACIÓN Suministro e instalación de cruceta de derivación	DOSCIENTOS NOVENTA Y NUEVE EUROS con OCHENTA Y CINCO CÉNTIMOS	299,85

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Nº	CÓDIGO	UD	DESCRIPCIÓN	PRECIO EN LETRA	IMPORTE
0807	ELM016	UD	CRUCETA TIPO BOVEDA PARA APOYO DE HORMIGÓN TIPO BC Suministro e instalación de cruceta tipo bóveda para apoyo de celosía metálica tipo BC.	CUATROCIENTOS CUARENTA Y DOS EUROS con NUEVE CÉNTIMOS	442,09
0808	ELM030	UD	CADENA DE AMARRE AISLADORES DE COMPOSITE NIVEL II UD. CADENA DE AMARRE AISLADORES DE COMPOSITE NIVEL II	CIENTO ONCE EUROS con SESENTA Y SEIS CÉNTIMOS	111,66
0809	ELM031	UD	CADENA DE SUSPENSIÓN AISLADORES DE COMPOSITE NIVEL II UD. CADENA DE SUSPENSIÓN AISLADORES DE COMPOSITE NIVEL II	OCHENTA Y SIETE EUROS con NOVENTA Y OCHO CÉNTIMOS	87,98
0810	ELM032-1	UD	SOPORTE Y SECCIONALIZADORES DE EXPULSIÓN TIPO UD. SOPORTE Y SECCIONALIZADORES DE EXPULSIÓN TIPO	OCHOCIENTOS TREINTA Y UN EUROS con CINCUENTA Y NUEVE CÉNTIMOS	831,59
0811	ELM033	UD	PASO AEREO-SUBTERRANEO SOBRE TORRE METÁLICA Paso aéreo-subterráneo sobre torre metálica incluyendo los siguientes conceptos: -Seccionadores tipo SELA: 3 uds. -Pararrayos autoválvulas: 3 uds. -Tubo de protección: 1 ud. -Terminaciones de exterior para cable tipo HEPRZ1 1x240 12/20 kV: 3 uds.	TRES MIL CIENTO NOVENTA Y OCHO EUROS con DIECISEIS CÉNTIMOS	3.198,16
0812	ELM034	UD	SOPORTE Y SECCIONADORES TIPO X/S Suministro e instalación de soporte y seccionadores de expulsión tipo X/S	SEISCIENTOS CUARENTA Y DOS EUROS con UN CÉNTIMO	642,01
0813	ELM040	UD	CHAPA ANTIESCALO Instalación de chapa antiescalo	CIENTO NOVENTA Y SIETE EUROS con TREINTA Y CUATRO CÉNTIMOS	197,34
0814	ELM041	UD	RED DE TIERRAS TIPO ANILLO DIFUSOR Instalación de red de tierras tipo anillo difusor	CIENTO NOVENTA Y SIETE EUROS con TREINTA Y UN CÉNTIMO	197,31
0815	ELM0526	UD	P.A. TRABAJOS DE REFUERZO Y ADECUACIÓN DE LÍNEA EXISTENTE	ONCE MIL OCHOCIENTOS CUARENTA Y DOS EUROS con SETENTA Y SEIS CÉNTIMOS	11.842,76
0816	ELM05261	UD	P.A. TRABAJOS DE REFUERZO Y ADECUACIÓN DE LÍNEA EXISTENTE	ONCE MIL OCHOCIENTOS CUARENTA Y CUATRO EUROS con TRECE CÉNTIMOS	11.844,13

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Nº	CÓDIGO	UD	DESCRIPCIÓN	PRECIO EN LETRA	IMPORTE
0817	ELM060	UD	EQUIPO MEDIDA NORMALIZADO POR UNIÓN FENOSA Suministro y montaje de equipo de medida normalizado por IBERDROLA. Incluido bancada de hormigón	SEISCIENTOS CINCUENTA Y NUEVE EUROS con OCHENTA Y NUEVE CÉNTIMOS	659,89
0818	ELM062	UD	CAJA DE PROTECCIÓN TIPO CGP-7-250A Suministro e instalación de caja de protección tipo CGP-7-250A, incluso fusibles y terminales	DOSCIENTOS VEINTISIETE EUROS con CINCUENTA Y CUATRO CÉNTIMOS	227,54
0819	ELM066	UD	CENTRO DE TRANSFORMACIÓN DE 25 KVA DE INTEMPERIE SOBRE APOYO Suministro e instalación de Centro de Transformación incluyendo los siguientes conceptos: -Transformador de 25 kVA 20 KV/400 V: 1 ud. -Bajada de trazo a equipo de medida -Puentes de M.T. -Autoválvulas -Puentes de B.T. -Red de tierra de herrajes -Placas de peligro y maniobra	CUATRO MIL QUINIENTOS CUARENTA Y CINCO EUROS con SEIS CÉNTIMOS	4.545,06
0820	ELM068	UD	CENTRO DE TRANSFORMACIÓN DE 160 KVA DE INTEMPERIE SOBRE APOYO Suministro e instalación de Centro de Transformación incluyendo los siguientes conceptos: -Transformador de 160 kVA 20 KV/400 V: 1 ud. -Bajada de trazo a equipo de medida -Puentes de M.T. -Autoválvulas -Puentes de B.T. -Red de tierra de herrajes -Placas de peligro y maniobra	VEINTIDOS MIL DIECIOCHO EUROS con TREINTA Y NUEVE CÉNTIMOS	22.018,39
0821	ELM101	UD	MONTAJE CRUCETA Y AMARRE DE CABLES 3 FASES TRABAJOS EN TENSIÓN Montaje de cruceta y amarre de cables 3 fases mediante trabajos en tensión método a contacto	MIL DOSCIENTOS EUROS con NOVENTA Y SIETE CÉNTIMOS	1.200,97
0822	ELM102	UD	NUMERACIÓN Y COLOCACIÓN DE PLACAS DE PELIGRO EN LÍNEA Instalación de la numeración de apoyos y colocación de placas de peligro en línea	OCHO EUROS con CUARENTA Y CUATRO CÉNTIMOS	8,44
0823	ELM104	UD	PROYECTO Y DIRECCIÓN DE OBRA VISADO POR COLEGIO OFICIAL MT Proyecto y dirección de obra visado por Colegio Oficial de Ingenieros Industriales, legalización en consejería de industria, inspección por parte de OCA y realización de croquis de Media Tensión	DOS MIL CIENTO SESENTA Y SIETE EUROS con CUARENTA CÉNTIMOS	2.167,40

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Nº	CÓDIGO	UD	DESCRIPCIÓN	PRECIO EN LETRA	IMPORTE
0824	ELM106	UD	JORNADA DE BRIGADA DE TRABAJOS EN TENSION Jornada de brigada de trabajos en tensión método a contacto para incluyendo los siguientes conceptos: * Apertura de puentes: 6 ud. * Instalación de puevos puentes de M.T: 6 ud. * Conexión de Autoválvulas: 6 ud. * Conexión de Terminaciones de Exterior: 6 ud. * Conexión de derivación aérea simple circuito:2 ud.	TRES MIL SETENTA EUROS con TREINTA Y OCHO CÉNTIMOS	3.070,38
0825	ELM200	ML	ZANJA PARA LÍNEA DE MEDIA TENSIÓN (0,6x0,9 m) Zanja para línea subterránea de media tensión (0,6x0,9 m)	TREINTA Y TRES EUROS con CINCUENTA CÉNTIMOS	33,50
0826	ELM201	ML	CANALIZACION 2 TUBOS PLATICO ROJO DE 160 MM Canalización 2 tubos plástico rojo de 160 mm, incluida cinta señalización de cables	VEINTIOCHO EUROS con VEINTIOCHO CÉNTIMOS	28,28
0827	ELM212	ML	CABLE DE ALUMINIO DE 4(1x240) 12/20 kV HEPRZ-1 Suministro y tendido de cable de aluminio de 4(1x240) 12/20 kV HEPRZ-1	CUARENTA Y TRES EUROS con SETENTA Y UN CÉNTIMOS	43,71
0828	ELM214	UD	SUMINISTRO Y MONTAJE DE TERMINACIONES DE INTERIOR Suministro y Montaje de Terminaciones de interior enchufables-acodadas	DOSCIENTOS SETENTA Y SEIS EUROS con SETENTA Y NUEVE CÉNTIMOS	276,79
0829	ELM215	ML	CABLE DE ALUMINIO DE 3(1x95) 12/20 kV HEPRZ-1 CABLE DE ALUMINIO DE 3(1x95) 12/20 kV HEPRZ-1	VEINTIOCHO EUROS con SEIS CÉNTIMOS	28,06
0830	EMANGL01	UD	MANÓMETRO DE ESFERA TIPO MUELLE TUBULAR DN100 Manómetro de esfera DN100 tipo muelle tubular con accesorios, sifón, válvula de aislamiento y purga. Incluso instalación y pruebas. Resto de características según E.T de proyecto.	OCHENTA Y OCHO EUROS con VEINTISEIS CÉNTIMOS	88,26
0831	EMAV0100.1	UD	MANGUITO ANTIVIBRATORIO DN100 PN25 Manguito antivibratorio, de fuelle multilamina de acero inoxidable AISI321, PN25 de D=100 mm. Bridas fijas planos de acero al carbono. Tirantes limitadores de acero zincado. Resto de características según ET. Colocado.	OCHOCIENTOS TREINTA Y DOS EUROS con VEINTIOCHO CÉNTIMOS	832,28
0832	EMAV050	UD	MANGUITO ANTIVIBRATORIO DN50 PN16 Manguito antivibratorio, con cuerpo de simple onda, PN10/16 de D=50 mm. EPDM y bridas locas zincadas. Resto de características según ET. Colocado.	CUARENTA Y CINCO EUROS con CUARENTA Y TRES CÉNTIMOS	45,43

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Nº	CÓDIGO	UD	DESCRIPCIÓN	PRECIO EN LETRA	IMPORTE
0833	EMAV050.1	UD	MANGUITO ANTIVIBRATORIO DN50 PN25 Manguito antivibratorio, de fuelle multilamina de acero inoxidable AISI321, PN25 de D=50 mm. Bridas fijas planos de acero al carbono. Tirantes limitadores de acero zincado. Resto de características según ET. Colocado.	SEISCIENTOS VEINTINUEVE EUROS con TREINTA Y SEIS CÉNTIMOS	629,36
0834	EMAV065	UD	MANGUITO ANTIVIBRATORIO DN65 PN16 Manguito antivibratorio, con cuerpo de simple onda, PN10/16 de D=65 mm. EPDM y bridas locas zincadas. Resto de características según ET. Colocado.	CINCUENTA Y DOS EUROS con NOVENTA Y SEIS CÉNTIMOS	52,96
0835	EMAV100	UD	MANGUITO ANTIVIBRATORIO DN100 PN16 Manguito antivibratorio, con cuerpo de simple onda, PN10/16 de D=100 mm. EPDM y bridas locas zincadas. Resto de características según ET. Colocado.	SETENTA Y CUATRO EUROS con SETENTA Y CINCO CÉNTIMOS	74,75
0836	EMCLL01	UD	MEDIDOR CONTROLADOR CLORO Medidor controlador de cloro libre controlado por microprocesador, incluido soporte para toma de muestras, p.p. de piezas de conexión, sujeción y/o anclaje. Incluso instalación y pruebas. Resto de características según E.T de proyecto.	MIL TREINTA Y TRES EUROS con NOVENTA Y CINCO CÉNTIMOS	1.033,95
0837	EMCONT01	UD	CONTROLADOR UNIVERSAL 1 CANAL Controlador universal SC200 de HACH o equivalent o equivalente, de 1 o 2 sondas. 2 salidas 4-20 mA, 4 relés de alarma. Alimentación 100-240 Vca. Resto de características según E.T de proyecto. Medios auxiliares y de sujeción y/o anclaje. Incluso instalación y pruebas. Resto de características según E.T de proyecto.	SEISCIENTOS OCHENTA Y OCHO EUROS con VEINTICUATRO CÉNTIMOS	688,24
0838	EMDLAM01	UD	MECANISMO DECANTADOR LAMELAR CENTRAL DIÁMETRO 11 M. AISI 316L Mecanismo decantador de tracción central, a instalar en tanque de hormigón, de diámetro interior del tanque de hormigón de 12x12 m, banca da del motorreductor en acero al carbono S275 JR EN 10025., semi-mangón de acoplamiento en acero al carbono F-114. Eje central AISI-316, brazos inferiores soportarrasquetas y rasquetas de fangos en acero inoxidable AISI-316. Láminas barredoras en EPDM. Accionamiento directo mediante motorreductor eléctrico de 0,12 Kw. Incluye limitador de par electrónico. Incluido transporte, montaje, conexiones eléctricas y pruebas de funcionamiento y de control. Resto de características, según ET.	DIECISEIS MIL SETECIENTOS NOVENTA EUROS con CUARENTA Y SEIS CÉNTIMOS	16.790,46
0839	EMFAR01	UD	MEDIDOR PERDIDA DE CARGA EN FILTROS DE ARENA Medidor pérdida de carga en filtros de arena, Electronica de medida de nivel , sensor de nivel ultrasónico, tuerca con brida y programador manual. Incluso instalación y pruebas. Resto de características según E.T de proyecto.	MIL CUATROCIENTOS SESENTA Y DOS EUROS con TREINTA Y CUATRO CÉNTIMOS	1.462,34

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Nº	CÓDIGO	UD	DESCRIPCIÓN	PRECIO EN LETRA	IMPORTE
0840	EMLAM01	M2	LAMELAS DE PP. 60º Y 1.000 MM Lamelas para decantación montadas en bloques, de TECNO CONVERTING o equivalente, modelo H-60. Altura de los bloques: 1.000 mm. Separación entre lamelas: 62 mm. Inclinación: 60º. Peso: 70 Kg/m3. Material: Polipropileno alimentario (PPTV). Incluso vigas y perfiles en PRFV pultrusionado, mesulas de soportación y tornillería en AISI-316, sistema antíflocación. Anclajes y tornillería en AISI-316. Totalmente montada y probada. Resto de características según ET.	TRESCIENTOS CUARENTA Y CINCO EUROS con TREINTA Y CUATRO CÉNTIMOS	345,34
0841	EMBY01	UD	MEDIDOR POR BOYAS DE NIVEL MÁXIMO-MINIMO-SEGURIDAD Conjunto de boyas para el control de máximo, mínimo y seguridad, incluso mecanismos de regulación y control, conexión y cableado desde cuadro a depósito. Medios auxiliares y de sujeción y/o anclaje. Incluso instalación y pruebas. Resto de características según E.T de proyecto.	CIENTO TREINTA Y DOS EUROS con CUARENTA Y OCHO CÉNTIMOS	132,48
0842	EMPH01	UD	MEDIDOR DE PH Y TEMPERATURA Equipo de medida de pH para montaje en línea con electrónica mural, con display y teclado, según E.T, instalado con soporte de acero AISI 316, totalmente cableado. Medios auxiliares y de sujeción y/o anclaje. Incluso instalación y pruebas. Resto de características según E.T de proyecto.	QUINIENTOS TREINTA Y OCHO EUROS con SETENTA Y SIETE CÉNTIMOS	538,77
0843	EMRAD01	UD	MEDIDOR NIVEL DE RADAR Medidor de nivel por radar. Marca: ENDRESS-HAUSER o equivalente. Modelo: Micropilot M FMR231. Antena y longitud inactiva: PPS antistático 360 mm (14"). Señal de salida (mA): 4..20. Precisión (%): +/- 0,2. Resolución (mm): 1. Sin efecto de la temperatura ambiente sobre el valor medido. Material convertidor: fundición de aluminio con recubrimiento epoxy. Incluso instalación y pruebas. Resto de características según E.T de proyecto.	OCHOCIENTOS SETENTA Y DOS EUROS con SIETE CÉNTIMOS	872,07
0844	EMTURB01	UD	MEDIDOR DE TURBIDEZ Equipo para medida de turbidez compuesto por: Sistema de turbidez en PVC, rango 0-4000 ppm, por luz dispersada a 90º, temperatura -5º a 60º, presión máxima 6 bares, cable en longitud necesaria, conexión NPT 3/4". Portaelectrodos de PVC, longitud aproximada 1500 mm, fijación V4/A. Transmisor para montaje en pared, protección IP-65, en aluminio y poliéster, indicación digital en NTU, ppm, escala de salida programable, alimentación 220 V, salida 0/4-20 mA, temperatura 0-50º, señal de salida para temperatura, error máximo 0,5% FS, con dos relés de salida, instalado y conestado. Medios auxiliares y de sujeción y/o anclaje. Incluso instalación y pruebas. Resto de características según E.T de proyecto.	MIL SEISCIENTOS SESENTA Y CINCO EUROS con SESENTA CÉNTIMOS	1.665,60
0845	EMUSO01	UD	MEDIDOR DE NIVEL POR ULTRASONIDOS Medidor de nivel por ultrasonidos. Pértiga en PP con brida. Incluso instalación y pruebas. Resto de características según E.T de proyecto.	OCHOCIENTOS OCHENTA Y CINCO EUROS con OCHENTA Y SIETE CÉNTIMOS	885,87

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Nº	CÓDIGO	UD	DESCRIPCIÓN	PRECIO EN LETRA	IMPORTE
0846	EMUSO02	UD	MEDIDOR DE NIVEL POR ULTRASONIDOS TANQUES REACTIVOS Medidor de nivel por ultrasonidos para tanque e reactivos. Medios auxiliares y de sujeción y/o anclaje. Incluso instalación y pruebas. Resto de características según E.T de proyecto.	NOVECIENTOS SETENTA Y SIETE EUROS con OCHENTA Y CINCO CÉNTIMOS	977,85
0847	EPICJ01	UD	PICAJE TUBERÍA CON VÁLVULA ESFERA 1/2" Picaje en tubería para toma de muestra y/o entrada de agua, incluso picaje, válvula de aislamiento de 1/2", instalación y pruebas.	VEINTISIETE EUROS con OCHENTA CÉNTIMOS	27,80
0848	EPOLE1000	UD	POLIPASTO ELÉCTRICO DE 1.000 KG Polipasto. Servicio: Izado de equipos. Características:- Marca: VINCA, VICINAY o equivalente. Capacidad (kg): 1.000. Tipo de carro: monocarril. Cota mínima del gancho a la viga (mm): 880. Potencia motor elevación (KW): 1,85. Incluye limitador de carga, motor-freno en el carro de traslación. Incluso transporte, montaje, conexiones eléctricas y de control, pruebas de funcionamiento. Resto de características según E.T.	DOS MIL DOSCIENTOS CUARENTA Y CUATRO EUROS	2.244,00
0849	EPOLE2500	UD	POLIPASTO ELÉCTRICO DE 2.500 KG Polipasto. Servicio: Izado de equipos. Marca: VINCA, VICINAY o equivalente. Capacidad (kg): 2.500. Tipo de carro: monocarril. Cota mínima del gancho a la viga (mm): 880. Potencia motor elevación (KW): 1,85. Incluye limitador de carga y motor-freno en el carro de traslación. Incluso transporte, montaje, conexiones eléctricas y de control, pruebas de funcionamiento. Resto de características según E.T.	DOS MIL NOVECIENTOS CUARENTA Y SEIS EUROS con SESENTA Y SIETE CÉNTIMOS	2.946,67
0850	EPOLM500	UD	POLIPASTO MANUAL DE 500 KG Polipasto. Servicio: Izado de equipos. Características: Marca: VINCA, VICINAY o equivalente. Capacidad (kg): 500. Tipo de carro: monocarril. Cota mínima del gancho a la viga (mm): 880. Incluso transporte, montaje, pruebas de funcionamiento. Resto de características según E.T.	TRESCIENTOS OCHENTA Y OCHO EUROS con OCHENTA Y NUEVE CÉNTIMOS	388,89
0851	EPRFAN01	UD	PUENTE RASQUETAS ESPESADOR DE FANGOS Ø 7,5 m Y CAMPANA Mecanismo de puente de rasquetas del espesador de fangos, de 7.500 mm de diámetro, de acero inoxidable AISI-316L. Velocidad del racador 0,15-0,20 rpm., bancada del motorreductor en acero al carbono galvanizado, mangón de acoplamiento en acero al carbono cincado. Eje central AISI-316, campana deflectora AISI-316L, brazos inferiores soporta rasquetas y rasquetas de fangos en acero inoxidable AISI-316L. Rascadores de goma en EPDM. Accionamiento directo mediante motorreductor eléctrico de 0,18 Kw. Incluye campana deflectora AIAI-316L. limitador de par electrónico. Incluido transporte, montaje, conexiones eléctricas y pruebas de funcionamiento y de control. Resto de características, según ET.	DIEZMIL OCHOCIENTOS SESENTA Y NUEVE EUROS con OCHENTA Y NUEVE CÉNTIMOS	10.869,89

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Nº	CÓDIGO	UD	DESCRIPCIÓN	PRECIO EN LETRA	IMPORTE
0852	EQ70000	Ud	CONEXIÓN PARA LIMPIEZA DE CONDUCCIONES Conexión para limpieza de conducciones y baldeos, compuesta por válvulas de bola manual DN-25 y conexión rápida mediante racor.	CIENTO CUARENTA Y CINCO EUROS con SEIS CÉNTIMOS	145,06
0853	EQSAI1000	UD	UNIDAD SUM. AUTON. ENERGIA 1000 VA 1 HORA Unidad de suministro autónomo de energía, con potencia de salida de 1000 VA y autonomía de 1 hora. Tensión nominal de entrada: 230 V - 50 Hz. Tensión nominal de salida: 230 V - 50 Hz. Sistema on-line. Montado y probado.	MIL CUATROCIENTOS VEINTICUATRO EUROS con OCHO CÉNTIMOS	1.424,08
0854	EQSAI5000	UD	UNIDAD SUM. AUTON. ENERGIA 5000 VA 1 HORA Unidad de suministro autónomo de energía, con potencia de salida de 5000 VA y autonomía de 1 hora. Tensión nominal de entrada: 230 V - 50 Hz. Tensión nominal de salida: 230 V - 50 Hz. Sistema on-line. Montado y probado.	DOS MIL TREINTA Y DOS EUROS con TREINTA Y CUATRO CÉNTIMOS	2.032,34
0855	EQTLP060	UD	PANTALLA OLED 4K DE 77 PULGADAS Televisor OLED 4K de 77". Instalada en pared, conexiones y probada.	MIL SETECIENTOS VEINTITRES EUROS con OCHENTA Y TRES CÉNTIMOS	1.723,83
0856	EREG01	UD	REJA DE GRUESOS DE 472,22 L/S. PASO 40 MM. AISI-304L Reja de gruesos en la captación del azud. Capacidad: 472,22 l/s. Luz de paso de 40 mm. Material: acero inoxidable AISI-304L. Ángulo de inclinación 70°. Potencia 0,25 kW. Cuadro eléctrico y de control, así como 2 medidores de diferencia de nivel tipo radar. Incluso transporte, montaje, conexiones eléctricas y pruebas de funcionamiento. Resto de características según E.T.	TREINTA Y SEIS MIL CUATROCIENTOS CINCUENTA Y NUEVE EUROS con SESENTA Y UN CÉNTIMOS	36.459,61
0857	EREJ01	UD	REJA GRUESOS LIMPIEZA MANUAL IZABLE LUZ 40 mm Reja de desbaste de gruesos manual izable de 40 mm de paso, de acero inoxidable AISI-304L. Incluido rastrillo de limpieza, cestillo y guías y gancho para extracción. Incluso transporte, montaje y pruebas de funcionamiento.	DOS MIL VEINTITRES EUROS con SETENTA Y UN CÉNTIMOS	2.023,71
0858	EREOZ01	UD	REGULADOR DE O2 Regulador de O2, con válvulas, manómetros, reguladores. Incluso instalación y pruebas. Resto de características según E.T de proyecto.	MIL CIENTO TREINTA Y OCHO EUROS con NOVENTA Y SIETE CÉNTIMOS	1.138,97

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Nº	CÓDIGO	UD	DESCRIPCIÓN	PRECIO EN LETRA	IMPORTE
0859	EROMC01	UD	ROMPEBÓVEDAS DOSIFICADOR DE 2 M. Rompebóvedas-dosificador de cal, para asegurar una extracción continua, para un caudal de 125 a 250 kg/h. Cuerpo del rompebóvedas DN400, motoreductor de 0,55 kW, 1500 rpm. Dosificador de 2 m de longitud, motorreductor de 0,25 kW 1.500 rpm. Soporte orientable. Material S-275 JR con protección. Válvula de aislamiento. Incluso transporte, montaje, conexiones eléctricas y de control, pruebas de funcionamiento. Resto de características según E.T.	NUEVE MIL SESENTA Y CUATRO EUROS con OCHENTA Y SEIS CÉNTIMOS	9.064,86
0860	EROT01	UD	ROTÁMETRO PARA MEDIDA DE AGUA DE APORTE. Rotámetro para medida de agua de aporte. Rango de medida: 200 -2000 l/h. Instalación en línea. Material: acero inoxidable AISI-316	CIENTO SETENTA Y UN EUROS con VEINTIDOS CÉNTIMOS	171,22
0861	ESER01	UD	SOPLANTE EMBOLOS Q= 2.100 Nm3/h. Pres.: 0,4 bar. Soplante de eje libre con embolos rotativos de Mapner o equivalente, modelo SEM.15 TRG.GCA, para un caudal de 2.100 Nm³/h. Presión diferencial: 0,4 bar. Ø impulsión: 150 mm. Potencia motor: 45 kW. Bancada - Filtro de aspiración - Válvula de presión - Válvula de retención - Transmisión por correas - Manguito elástico - Soportes antivibratorios, válvula coriolis de arranque sin carga DN80, cabina insonorizada con paneles, ventilación forzada, manómetro y detector de colmatación. Incluso, transporte, conexiones eléctricas y de control, así como el montaje y pruebas de funcionamiento. Resto de características según E.T.	OCHO MIL DOSCIENTOS VEINTIOCHO EUROS con DIECIOCHO CÉNTIMOS	8.228,18
0862	ESILC01	UD	SILO DE CAL DE 42 M3 CON FILTRO DE MANGAS. Silo metálico de cal, de 42 m3 de capacidad, de 2.400 mm de diámetro y 13.55 mm de altura total, dispuesto con filtros de mangas, detector de nivel, sistema de pesaje. Incluso transporte, montaje, conexiones eléctricas y de control, pruebas de funcionamiento. Resto de características según E.T.	TREINTA MIL DOSCIENTOS CINCUENTA Y SIETE EUROS con DIECISIETE CÉNTIMOS	30.257,17
0863	ESLF01	UD	SILO ALMACENAMIENTO DE FANGOS PRFV 35M3 Tolva para almacenamiento de fango deshidratado de PRFV. Capacidad: 35 m³, incluido vibrador y compuerta tajadera para extracción colocada en la boca de descarga de 400x400 mm y accionamiento eléctrico. Diámetro: 3,0 m. Altura paso de camiones: 3,70 m. Altura total: 11,0 m. Incluso transporte, montaje, conexiones eléctricas y de control, y pruebas de funcionamiento. Resto de características según E.T.	DIECISIETE MIL DOSCIENTOS OCHENTA Y OCHO EUROS con VEINTE CÉNTIMOS	17.288,20
0864	ESTMF3	UD	ESTRUCTURA DE FIJACIÓN MÓDULOS FOTOVOLTAICOS Ud. Soporte inclinado abierto para módulos solares en instalación sobre cubierta plana fabricado en perfiles de aluminio y tornillería de acero inoxidable, válido para módulos fotovoltaicos de 2000x1000 mm con resistencia a la carga del viento 245 kg/m2, resistencia a la carga de nieve 551 kg/m2. Incluso fijaciones y tornillería de anclaje a cubierta. Totalmente instalado y conectado.	DOS MIL DOSCIENTOS QUINCE EUROS con CUATRO CÉNTIMOS	2.215,04

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Nº	CÓDIGO	UD	DESCRIPCIÓN	PRECIO EN LETRA	IMPORTE
0865	ETAMI01	UD	TAMIZ DE CHAPA PERFORADA DE 472,22 L/S. PASO 3 MM. AISI-304L Tamiz de chapa perforada para la captación del azud. Capacidad: 472,22 l/s. Chapa perforada de 3 mm.de paso. Material: acero inoxidable AISI-304L. Potencia 0,25 kW. Cuadro eléctrico y de control, así como 2 medidores de diferencia de nivel tipo radar. Lavado automático de prensado. Incluso transporte, montaje, conexiones eléctricas y pruebas de funcionamiento. Resto de características según E.T.		88.861,20
				OCHENTA Y OCHO MIL OCHOCIENTOS SESENTA Y UN EUROS con VEINTE CÉNTIMOS	
0866	ETCM1000A	UD	ESTACIÓN LOCAL TELECONTROL AZUD Estación local de telecontrol tipo S4W DUAL 8-0-0 - 1000I - 0MXES - GSM-ETH de Sofrel Lacroix o equivalente, formado por cajetín compacto ampliable con módulos de comunicación y de entradas/salidas. Módem 3G y un puerto Ethernet 100 Mbits/s, así como 2 puertos USB, entradas digitales DI / AI y salidas DO, pilotos de servicio LED, batería de alimentación de 12 Vcc-12Ah de plomo gelificado. Módulo de comunicación RS485, fuente de alimentación 230 CAC/24Vdc 40W. Pantalla táctil de 7 ". Antena GSM/GPRS-2/3 banda c dB. Totalmente instalada y probada. Resto de características según ET de proyecto.		1.722,22
				MIL SETECIENTOS VEINTIDOS EUROS con VEINTIDOS CÉNTIMOS	
0867	ETCM1000B	UD	ESTACIÓN LOCAL TELECONTROL BOMBEO BERGASA Estación local de telecontrol tipo S4W MEDIUM 12-2-4 - 1000I - 2MXES - GSM-ETH de Sofrel Lacroix o equivalente, formado por cajetín compacto ampliable con módulos de comunicación y de entradas/salidas. Módem 3G y un puerto Ethernet 100 Mbits/s, así como 2 puertos USB, entradas digitales DI / AI y salidas DO, pilotos de servicio LED, batería de alimentación de 12 Vcc-12Ah de plomo gelificado. Módulo de comunicación RS485, fuente de alimentación 230 CAC/24Vdc 40 W. Antena GSM/GPRS-2/3 banda c dB. Totalmente instalada y probada. Resto de características según ET de proyecto.		2.047,87
				DOS MIL CUARENTA Y SIETE EUROS con OCHENTA Y SIETE CÉNTIMOS	
0868	ETCM1000D	UD	ESTACIÓN LOCAL TELECONTROL DEPÓSITOS Y ARQUETAS Estación local de telecontrol tipo S4W SMAL 8-2-2 - 500I - 0MXES - GSM-ETH de Sofrel Lacroix o equivalente, formado por cajetín compacto ampliable con módulos de comunicación y de entradas/salidas. Módem 3G y un puerto Ethernet 100 Mbits/s, así como 2 puertos USB, entradas digitales DI / AI y salidas DO, pilotos de servicio LED, batería de alimentación de 12 Vcc-12Ah de plomo gelificado. Módulo de comunicación RS485, extensión a 10 módulos, módulo 4AI-4-20mA, fuente de alimentación 230 CAC/24Vdc 40 W. Antena GSM/GPRS-2/3 banda c dB. Totalmente instalada y probada. Resto de características según ET de proyecto.		1.972,68
				MIL NOVECIENTOS SETENTA Y DOS EUROS con SESENTA Y OCHO CÉNTIMOS	

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Nº	CÓDIGO	UD	DESCRIPCIÓN	PRECIO EN LETRA	IMPORTE
0869	ETCM1000E	UD	ESTACIÓN LOCAL TELECONTROL BOMBEO VALLE DE OCON-AUSEJO Estación local de telecontrol tipo S4W MEDIUM 12-2-4 - 1000I - 2MXES - GSM-ETH de Sofrel Lacroix o equivalente, formado por cajetín compacto ampliable con módulos de comunicación y de entradas/salidas. Módem 3G y un puerto Ethernet 100 Mbits/s, así como 2 puertos USB, entradas digitales DI / AI y salidas DO, pilotos de servicio LED, batería de alimentación de 12 Vcc-12Ah de plomo gelificado. Módulo de comunicación RS485, fuente de alimentación 230 CAC/24Vdc 40 W. Antena GSM/GPRS-2/3 banda c dB. Totalmente instalada y probada. Resto de características según ET de proyecto.		3.097,01
				TRES MIL NOVENTA Y SIETE EUROS con UN CÉNTIMOS	
0870	ETCM1000F	UD	SOFTWARE TELEGESTIÓN DE TODOS LOS PUNTOS Software Sofrel PC Win2 o equivalente de puesto de control de telegestión de hasta 50 estaciones remotas (RTU+DL), software SG4000 servidor VPN-50 ER s4/s500, incluso llave de protección de hardware (USB), montado y probado.		6.777,59
				SEIS MIL SETECIENTOS SETENTA Y SIETE EUROS con CINCUENTA Y NUEVE CÉNTIMOS	
0871	ETCM1000G	UD	SUMINISTRO Y MONTAJE DE DETECTOR VOLUMÉTRICO Suministro y montaje de detector volumétrico doble tecnología 37x3 o 61x5. Doble tecnología infrarrojo/microondas. Alcance 61x5m o 37x3m (cortina). Anti-enmascaramiento por infrarrojo activo. Autochequeo. Defensa contra insectos de margen cero, incluso cableado, pequeño material y accesorios. Totalmente instalado, conectado y funcionando.		231,61
				DOSCIENTOS TREINTA Y UN EUROS con SESENTA Y UN CÉNTIMOS	
0872	ETI316025	ML	TUBERÍA DE INOXIDABLE AISI 316L DN25 Tubería de acero inoxidable de diámetro DN25 mm. Construcción: Mediante soldadura. Espesor 1,5 mm. Material: Acero inoxidable AISI -316 L. Material accesorios acero inoxidable AISI - 316L. Acabado: Decapado. Incluso p.p. de uniones, piezas especiales, bridas, codos, tes, injertos para otras tuberías y p.p. de estructuras y elementos de anclajes a solera y/o muros. Montada y probada.		28,49
				VEINTIOCHO EUROS con CUARENTA Y NUEVE CÉNTIMOS	
0873	ETI316050	ML	TUBERÍA DE INOXIDABLE AISI 316L DN 50 Tubería de acero inoxidable de diámetro DN 50 mm. Construcción: Mediante soldadura. Espesor 2 mm. Material: Acero inoxidable AISI -316 L. Material accesorios acero inoxidable AISI - 316L. Acabado: Decapado. Incluso p.p. de uniones, piezas especiales, bridas, codos, tes, injertos para otras tuberías y p.p. de estructuras y elementos de anclajes a solera y/o muros. Montada y probada.		34,27
				TREINTA Y CUATRO EUROS con VEINTISIETE CÉNTIMOS	
0874	ETI316065	ML	TUBERÍA DE INOXIDABLE AISI 316L DN 65 Tubería de acero inoxidable de diámetro DN 65 mm. Construcción: Mediante soldadura. Espesor 2 mm. Material: Acero inoxidable AISI -316 L. Material accesorios acero inoxidable AISI - 316L. Acabado: Decapado. Incluso p.p. de uniones, piezas especiales, bridas, codos, tes, injertos para otras tuberías y p.p. de estructuras y elementos de anclajes a solera y/o muros. Montada y probada.		39,24
				TREINTA Y NUEVE EUROS con VEINTICUATRO CÉNTIMOS	

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Nº	CÓDIGO	UD	DESCRIPCIÓN	PRECIO EN LETRA	IMPORTE
0875	ETI316080	ML	TUBERÍA DE INOXIDABLE AISI 316L DN 80 Tubería de acero inoxidable de diámetro DN 80 mm. Construcción: Mediante soldadura. Espesor 2 mm. Material: Acero inoxidable AISI -316 L. Material accesorios acero inoxidable AISI - 316L. Acabado: Decapado. Incluso p.p. de uniones, piezas especiales, bridas, codos, tes, injertos para otras tuberías y p.p. de estructuras y elementos de anclajes a solera y/o muros. Montada y probada.	CUARENTA Y DOS EUROS con CINCUENTA Y CUATRO CÉNTIMOS	42,54
0876	ETI316100	ML	TUBERÍA DE INOXIDABLE AISI 316L DN 100 Tubería de acero inoxidable de diámetro DN 100 mm. Construcción: Mediante soldadura. Espesor 1,5 mm. Material: Acero inoxidable AISI -316 L. Material accesorios acero inoxidable AISI - 316L. Acabado: Decapado. Incluso p.p. de uniones, piezas especiales, bridas, codos, tes, injertos para otras tuberías y p.p. de estructuras y elementos de anclajes a solera y/o muros. Montada y probada.	CUARENTA Y TRES EUROS con TREINTA Y SEIS CÉNTIMOS	43,36
0877	ETI316125	ML	TUBERÍA DE INOXIDABLE AISI 316L DN 125 Tubería de acero inoxidable de diámetro DN 125 mm. Construcción: Mediante soldadura. Espesor 2 mm. Material: Acero inoxidable AISI -316 L. Material accesorios acero inoxidable AISI - 316L. Acabado: Decapado. Incluso p.p. de uniones, piezas especiales, bridas, codos, tes, injertos para otras tuberías y p.p. de estructuras y elementos de anclajes a solera y/o muros. Montada y probada.	CINCUENTA Y DOS EUROS con TRECE CÉNTIMOS	52,13
0878	ETI316150	ML	TUBERÍA DE INOXIDABLE AISI 316L DN 150 Tubería de acero inoxidable de diámetro DN 150 mm. Construcción: Mediante soldadura. Espesor 2 mm. Material: Acero inoxidable AISI -316 L. Material accesorios acero inoxidable AISI - 316L. Acabado: Decapado. Incluso p.p. de uniones, piezas especiales, bridas, codos, tes, injertos para otras tuberías y p.p. de estructuras y elementos de anclajes a solera y/o muros. Montada y probada.	SESENTA Y CUATRO EUROS con TRES CÉNTIMOS	64,03
0879	ETI316200	ML	TUBERÍA DE INOXIDABLE AISI 316L DN 200 Tubería de acero inoxidable de diámetro DN 200 mm. Construcción: Mediante soldadura. Espesor 2 mm. Material: Acero inoxidable AISI -316 L. Material accesorios acero inoxidable AISI - 316L. Acabado: Decapado. Incluso p.p. de uniones, piezas especiales, bridas, codos, tes, injertos para otras tuberías y p.p. de estructuras y elementos de anclajes a solera y/o muros. Montada y probada.	SESENTA Y UN EUROS con CINCUENTA Y CINCO CÉNTIMOS	61,55
0880	ETI316250	ML	TUBERÍA DE INOXIDABLE AISI 316L DN 250 Tubería de acero inoxidable de diámetro DN 250 mm. Construcción: Mediante soldadura. Espesor 2 mm. Material: Acero inoxidable AISI -316 L. Material accesorios acero inoxidable AISI - 316L. Acabado: Decapado. Incluso p.p. de uniones, piezas especiales, bridas, codos, tes, injertos para otras tuberías y p.p. de estructuras y elementos de anclajes a solera y/o muros. Montada y probada.	CIENTO CUATRO EUROS con CINCUENTA Y CUATRO CÉNTIMOS	104,54

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Nº	CÓDIGO	UD	DESCRIPCIÓN	PRECIO EN LETRA	IMPORTE
0881	ETI316300	ML	TUBERÍA DE INOXIDABLE AISI 316L DN 300 Tubería de acero inoxidable de diámetro DN 300 mm. Construcción: Mediante soldadura. Espesor 2 mm. Material: Acero inoxidable AISI -316 L. Material accesorios acero inoxidable AISI - 316L. Acabado: Decapado. Incluso p.p. de uniones, piezas especiales, bridas, codos, tes, injertos para otras tuberías y p.p. de estructuras y elementos de anclajes a solera y/o muros. Montada y probada.	CIENTO VEINTINUEVE EUROS con TREINTA Y CUATRO CÉNTIMOS	129,34
0882	ETI316400	ML	TUBERÍA DE INOXIDABLE AISI 316L DN 400 Tubería de acero inoxidable de diámetro DN 400 mm. Construcción: Mediante soldadura. Espesor 2 mm. Material: Acero inoxidable AISI -316 L. Material accesorios acero inoxidable AISI - 316L. Acabado: Decapado. Incluso p.p. de uniones, piezas especiales, bridas, codos, tes, injertos para otras tuberías y p.p. de estructuras y elementos de anclajes a solera y/o muros. Montada y probada.	CIENTO NOVENTA Y CINCO EUROS con CUARENTA Y SEIS CÉNTIMOS	195,46
0883	ETI316500	ML	TUBERÍA DE INOXIDABLE AISI 316L DN 500 Tubería de acero inoxidable de diámetro DN 500 mm. Construcción: Mediante soldadura. Espesor 2 mm. Material: Acero inoxidable AISI -316 L. Material accesorios acero inoxidable AISI - 316L. Acabado: Decapado. Incluso p.p. de uniones, piezas especiales, bridas, codos, tes, injertos para otras tuberías y p.p. de estructuras y elementos de anclajes a solera y/o muros. Montada y probada.	DOSCIENTOS VEINTE EUROS con VEINTISIETE CÉNTIMOS	220,27
0884	ETI316900	ML	TUBERÍA DE INOXIDABLE AISI 316L DN 900 Tubería de acero inoxidable de diámetro DN 900 mm. Construcción: Mediante soldadura. Espesor 8 mm. Material: Acero inoxidable AISI -316 L. Material accesorios acero inoxidable AISI - 316L. Acabado: Decapado. Incluso p.p. de uniones, piezas especiales, bridas, codos, tes, injertos para otras tuberías y p.p. de estructuras y elementos de anclajes a solera y/o muros. Montada y probada.	SETECIENTOS OCHO EUROS con UN CÉNTIMO	708,01
0885	ETTFD01	UD	TORNILLO TRANSPORTADOR DE FANGOS DESHIDRATADOS 5,0 m ³ /h Tornillo transportador para fangos deshidratados. Capacidad: 5,0 m ³ /h. Diámetro: 260 mm. Material: acero inoxidable AISI-316L. Longitud: 5,0 m. Potencia motor eléctrico: 0,75 kW. Posición de trabajo horizontal. Espiral en acero F1515 o EN10025-S355. Canal y tapas en acero inoxidable AISI-316 L. Zona de compactación en acero inoxidable AISI-316 L. Dos tolvas para acople de las centrífugas, y soportes standard en acero inoxidable AISI-316 L. Sistema de lavado automático con agua. Incluso transporte, montaje, conexión eléctrica y pruebas de funcionamiento. Resto de características según E.T.	SIETE MIL SEISCIENTOS SETENTA Y TRES EUROS con NOVENTA Y SIETE CÉNTIMOS	7.673,97

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ABASTECIMIENTO A VARIOS MUNICIPIOS DE LA RIOJA. SISTEMA CIDACOS

Nº	CÓDIGO	UD	DESCRIPCIÓN	PRECIO EN LETRA	IMPORTE
0886	ETTFD02	UD	TORNILLO TRANSPORTADOR PARA REJAS DE GRUESOS 3,0 m3/h Tornillo transportador para residuos de la reja de gruesos. Capacidad: 3,0 m³/h. Diámetro: 273 mm. Material: acero inoxidable AISI-304L. Longitud: 4,20 m. Potencia motor eléctrico: 0,75 kW. Posición de trabajo inclinado a 25º horizontal. Espiral en AISI-304L. Canal y tapas en acero inoxidable AISI-304 L. Zona de compactación en acero inoxidable AISI-304 L. Dos tolvas para acople de las rejas, y soportes standard en acero inoxidable AISI-304 L. Sistema de lavado automático con agua. Incluso transporte, montaje, conexiones eléctricas y pruebas de funcionamiento. Resto de características según E.T.	ONCE MIL SETECIENTOS NOVENTA EUROS con NOVENTA Y CINCO CÉNTIMOS	11.790,95
0887	ETTFD03	UD	TORNILLO TRANSPORTADOR PARA TAMICES 3,0 m3/h Tornillo transportador para residuos de los tamices. Capacidad: 3,0 m³/h. Diámetro: 273 mm. Material: acero inoxidable AISI-304L. Longitud: 6,20 m. Potencia motor eléctrico: 0,75 kW. Posición de trabajo inclinado a 15º. Espiral en AISI-304L. Canal y tapas en acero inoxidable AISI-304 L. Zona de compactación en acero inoxidable AISI-304 L. Dos tolvas para acople de las rejas, y soportes standard en acero inoxidable AISI-304 L. Sistema de lavado automático con agua. Incluso transporte, montaje, conexiones eléctricas y pruebas de funcionamiento. Resto de características según E.T.	DIEZ MIL DOSCIENTOS NOVENTA EUROS con CINCUENTA Y SEIS CÉNTIMOS	10.290,56
0888	EVBI0032	UD	VÁLVULA BOLA INOX DN=32 mm. / 16 atm. Válvula de bola de 32 mm. de diámetro nominal y 16 At. de P.N., de acero inoxidable, tornillería de acero inoxidable, totalmente colocada.	TREINTA Y DOS EUROS con SESENTA Y UN CÉNTIMOS	32,61
0889	EVCMT06516	UD	VÁLVULA DE COMPUERTA MANUAL DN65 PN16 Válvula de compuerta de cierre elástico de 65 mm. de diámetro nominal y 16 At. de P.N., de accionamiento manual por volante, de cuerpo de fundición nodular GGG-50, con eje de acero inoxidable al 13 % Cr. con roscas conformadas por laminación en frío, cierre en fundición nodular, tornillería de acero inoxidable, protegida contra la corrosión mediante aplicación de doble capa de pintura epoxy, totalmente colocada y probada. Resto de características según ET.	NOVENTA Y OCHO EUROS con TREINTA Y TRES CÉNTIMOS	98,33
0890	EVCMT080	UD	VÁLVULA DE COMPUERTA MANUAL DN80 PN16 Válvula de compuerta de cierre elástico de 80 mm. de diámetro nominal y 16 At. de P.N., de accionamiento manual por volante, de cuerpo de fundición nodular GGG-50, con eje de acero inoxidable al 13 % Cr. con roscas conformadas por laminación en frío, cierre en fundición nodular, tornillería de acero inoxidable, protegida contra la corrosión mediante aplicación de doble capa de pintura epoxy, totalmente colocada y probada. Resto de características según ET.	CIENTO DIEZ EUROS con CUARENTA Y SIETE CÉNTIMOS	110,47

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ABASTECIMIENTO A VARIOS MUNICIPIOS DE LA RIOJA. SISTEMA CIDACOS

Nº	CÓDIGO	UD	DESCRIPCIÓN	PRECIO EN LETRA	IMPORTE
0891	EVCMT12516	UD	VÁLVULA DE COMPUERTA MANUAL DN125 PN16 Válvula de compuerta de cierre elástico de 125 mm. de diámetro nominal y 16 At. de P.N., de accionamiento manual por volante, de cuerpo de fundición nodular GGG-50, con eje de acero inoxidable al 13 % Cr. con roscas conformadas por laminación en frío, cierre en fundición nodular, tornillería de acero inoxidable, protegida contra la corrosión mediante aplicación de doble capa de pintura epoxy, totalmente colocada y probada. Resto de características según ET.	DOSCIENTOS DOS EUROS con TREINTA Y DOS CÉNTIMOS	202,32
0892	EVCMT12525	UD	VÁLVULA DE COMPUERTA MANUAL DN125 PN25 Válvula de compuerta de cierre elástico de 125 mm. de diámetro nominal y 25 At. de P.N., de accionamiento manual por volante, de cuerpo de fundición nodular GGG-50, con eje de acero inoxidable al 13 % Cr. con roscas conformadas por laminación en frío, cierre en fundición nodular, tornillería de acero inoxidable, protegida contra la corrosión mediante aplicación de doble capa de pintura epoxy, totalmente colocada y probada. Resto de características según ET.	TRESCIENTOS CUARENTA Y OCHO EUROS con OCHENTA Y DOS CÉNTIMOS	348,82
0893	EVCMT12516	UD	VÁLVULA DE COMPUERTA MOTORIZADA DN125 PN16 Válvula de compuerta de cierre elástico de 125 mm. de diámetro nominal y 16 At. de P.N., de accionamiento motorizado, de cuerpo de fundición nodular GGG-50, con eje de acero inoxidable al 13 % Cr. con roscas conformadas por laminación en frío, cierre en fundición nodular, tornillería de acero inoxidable, protegida contra la corrosión mediante aplicación de doble capa de pintura epoxy, totalmente colocada y probada. Resto de características según ET.	MIL OCHOCIENTOS VEINTINUEVE EUROS con DIECISEIS CÉNTIMOS	1.829,16
0894	EVCMT15025	UD	VÁLVULA DE COMPUERTA MOTORIZADA DN150 PN25 Válvula de compuerta de cierre elástico de 150 mm. de diámetro nominal y 25 At. de P.N., de accionamiento motorizado, de cuerpo de fundición nodular GGG-50, con eje de acero inoxidable al 13 % Cr. con roscas conformadas por laminación en frío, cierre en fundición nodular, tornillería de acero inoxidable, protegida contra la corrosión mediante aplicación de doble capa de pintura epoxy, totalmente colocada y probada. Resto de características según ET.	DOS MIL CUARENTA EUROS con TRECE CÉNTIMOS	2.040,13
0895	EVCMT250.1	UD	VÁLVULA DE COMPUERTA MANUAL DN250 PN40 Válvula de compuerta de cierre elástico de 250 mm. de diámetro nominal y 40 At. de P.N., de accionamiento manual, de cuerpo de fundición nodular GGG-50, con eje de acero inoxidable al 13 % Cr. con roscas conformadas por laminación en frío, cierre en fundición nodular, tornillería de acero inoxidable, protegida contra la corrosión mediante aplicación de doble capa de pintura epoxy, totalmente colocada y probada. Resto de características según ET.	NOVECIENTOS CUARENTA Y SEIS EUROS con TREINTA Y SIETE CÉNTIMOS	946,37

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ABASTECIMIENTO A VARIOS MUNICIPIOS DE LA RIOJA. SISTEMA CIDACOS

Nº	CÓDIGO	UD	DESCRIPCIÓN	PRECIO EN LETRA	IMPORTE
0896	EVCMT300	UD	VÁLVULA DE COMPUERTA MOTORIZADA DN300 PN16 Válvula de compuerta de cierre elástico de 300 mm. de diámetro nominal y 16 At de P.N., de accionamiento motorizado, de cuerpo de fundición nodular GGG-50, con eje de acero inoxidable al 13 % Cr. con roscas conformadas por laminación en frío, cierre en fundición nodular, tornillería de acero inoxidable, protegida contra la corrosión mediante aplicación de doble capa de pintura epoxy, totalmente colocada y probada. Resto de características según ET.	TRES MIL TRESCIENTOS QUINCE EUROS con TREINTA Y CUATRO CÉNTIMOS	3.315,34
0897	EVENT01	UD	VENTILADOR HELICOIDAL:Q=3.650M3/H Ventilador extractor helicoidal mural marca: SODECA o equivalente. Caudal: 3.650 m3/h. Velocidad: 2.780 rpm. Nivel sonoro: 72 dB(A) . Materiales:marco soporte en chapa de acero, Helice: poliamida 6 reforzada con fibra de vidrio, Accionamiento: motor electrico. Potencia: 0,18 KW. Accesorios: Rejilla de proteccion. Realización de hueco en muro de bloque, ayudas de albañilería, colocado y funcionando.Totalmente instalado.	TRESCIENTOS NOVENTA Y NUEVE EUROS con OCHENTA Y DOS CÉNTIMOS	399,82
0898	EVMM0450	UD	VÁLVULA DE MARIPOSA DOBLE EXCENTRICIDAD DN 450 mm PN16 MANUAL Válvula de mariposa de doble excentricidad de 450 mm de diámetro y PN16, de accionamiento manual por reductor, incluso mecanismo de accionamiento, maniobra y control, transporte, montaje, juntas, tornillería y pintura totalmente instalada y probada. Resto de características según ET de proyecto.	DOS MIL NOVECIENTOS VEINTIOCHO EUROS con SESENTA Y SEIS CÉNTIMOS	2.928,66
0899	EVMM0450.1	UD	VÁLVULA DE MARIPOSA DOBLE EXCENTRICID. DN 450 mm PN16 MOTORIZADA Válvula de mariposa de doble excentricidad de 450 mm de diámetro y PN16, de accionamiento motorizado, incluso mecanismo de accionamiento, maniobra y control, transporte, montaje, juntas, tornillería y pintura totalmente instalada y probada. Resto de características según ET de proyecto.	TRES MIL CUATROCIENTOS OCHENTA Y CUATRO EUROS con VEINTINUEVE CÉNTIMOS	3.484,29
0900	EVMM0500	UD	VÁLVULA DE MARIPOSA DOBLE EXCENTRICIDAD DN 500 mm PN16 MANUAL Válvula de mariposa de doble excentricidad de 500 mm de diámetro y PN16, de accionamiento manual por reductor, incluso mecanismo de accionamiento, maniobra y control, transporte, montaje, juntas, tornillería y pintura totalmente instalada y probada. Resto de características según ET de proyecto.	TRES MIL CUATROCIENTOS SESENTA Y SEIS EUROS con OCHENTA Y DOS CÉNTIMOS	3.466,82
0901	EVMM0500.1	UD	VÁLVULA DE MARIPOSA DOBLE EXCENTRICIDAD DN 500 mm PN25 MANUAL Válvula de mariposa de doble excentricidad de 500 mm de diámetro y PN25, de accionamiento manual por reductor, incluso mecanismo de accionamiento, maniobra y control, transporte, montaje, juntas, tornillería y pintura totalmente instalada y probada. Resto de características según ET de proyecto.	CUATRO MIL SEISCIENTOS OCHENTA Y UN EUROS con TREINTA CÉNTIMOS	4.681,30

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ABASTECIMIENTO A VARIOS MUNICIPIOS DE LA RIOJA. SISTEMA CIDACOS

Nº	CÓDIGO	UD	DESCRIPCIÓN	PRECIO EN LETRA	IMPORTE
0902	EVMM0900	UD	VÁLVULA DE MARIPOSA DOBLE EXCENTRICIDAD DN 900 mm PN16 MANUAL Válvula de mariposa de doble excentricidad de 900 mm de diámetro y PN16, de accionamiento manual por reductor, incluso mecanismo de accionamiento, maniobra y control, transporte, montaje, juntas, tornillería y pintura totalmente instalada y probada. Resto de características según ET de proyecto.	DIEZMIL CIEEN EUROS con SESENTA Y NUEVE CÉNTIMOS	10.100,69
0903	EVMM1000	UD	VÁLVULA DE MARIPOSA DOBLE EXCENTRICIDAD DN 1000 mm PN16 MANUAL Válvula de mariposa de doble excentricidad de 1000 mm de diámetro y PN16, de accionamiento manual por reductor, incluso mecanismo de accionamiento, maniobra y control, transporte, montaje, juntas, tornillería y pintura totalmente instalada y probada. Resto de características según ET de proyecto.	DIEZMIL QUINIENTOS OCHENTA Y NUEVE EUROS con CINCUENTA Y DOS CÉNTIMOS	10.589,52
0904	EVMM150	UD	VÁLVULA DE MARIPOSA DN150 N16 MANUAL Válvula de mariposa de 150 mm de diámetro y PN16, de accionamiento manual por reductor, incluso mecanismo de accionamiento, maniobra y control, transporte, montaje, juntas, tornillería y pintura totalmente instalada y probada. Resto de características según ET de proyecto.	DOSCIENTOS SESENTA EUROS con VEINTINUEVE CÉNTIMOS	260,29
0905	EVMM400	UD	VÁLVULA DE MARIPOSA DOBLE EXCENTRICIDAD DN 400 mm PN16 MANUAL Válvula de mariposa de doble excentricidad de 400 mm de diámetro y PN16, de accionamiento manual por reductor, incluso mecanismo de accionamiento, maniobra y control, transporte, montaje, juntas, tornillería y pintura totalmente instalada y probada. Resto de características según ET de proyecto.	DOS MIL DOSCIENTOS OCHENTA Y UN EUROS con NOVENTA Y SEIS CÉNTIMOS	2.281,96
0906	EVMM400.1	UD	VÁLVULA DE MARIPOSA DOBLE EXCENTRICIDAD DN 400 mm PN25 MANUAL Válvula de mariposa de doble excentricidad de 400 mm de diámetro y PN25, de accionamiento manual por reductor, incluso mecanismo de accionamiento, maniobra y control, transporte, montaje, juntas, tornillería y pintura totalmente instalada y probada. Resto de características según ET de proyecto.	DOS MIL QUINIENTOS NOVENTA Y CUATRO EUROS con SETENTA CÉNTIMOS	2.594,70
0907	EVMM800P	UD	VÁLVULA DE MARIPOSA DOBLE EXCENTRICIDAD DN 800 mm PN25 MANUAL Válvula de mariposa de doble excentricidad de 800 mm de diámetro y PN25, de accionamiento manual por reductor, incluso mecanismo de accionamiento, maniobra y control, transporte, montaje, juntas, tornillería y pintura totalmente instalada y probada. Resto de características según ET de proyecto.	NUEVE MIL SETECIENTOS NUEVE EUROS con NOVENTA Y CINCO CÉNTIMOS	9.709,95

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ABASTECIMIENTO A VARIOS MUNICIPIOS DE LA RIOJA. SISTEMA CIDACOS

Nº	CÓDIGO	UD	DESCRIPCIÓN	PRECIO EN LETRA	IMPORTE
0908	EVMMT050	UD	VÁLVULA DE MARIPOSA DN=50 mm PN16 MOTORIZADA Válvula de mariposa de 50 mm de diámetro y PN16, motorizada, incluso carrete, mecanismo de accionamiento, maniobra y control, transporte, montaje, juntas, tornillería y pintura totalmente instalada y probada.	MIL DOSCIENTOS OCHO EUROS con DIEZ CÉNTIMOS	1.208,10
0909	EVMMT250	UD	VÁLVULA DE MARIPOSA DN250 PN16 MOTORIZADA Válvula de mariposa de 250 mm de diámetro y PN16, de accionamiento motorizado, incluso mecanismo de accionamiento, maniobra y control, transporte, montaje, juntas, tornillería y pintura totalmente instalada y probada. Resto de características según ET de proyecto.	MIL OCHOCIENTOS QUINCE EUROS con CUARENTA Y CUATRO CÉNTIMOS	1.815,44
0910	EVMMT900	UD	VÁLVULA DE MARIPOSA DOBLE EXCENRICID. DN 900 mm PN16 MOTORIZADA Válvula de mariposa de doble excentricidad de 900 mm de diámetro y PN16, de accionamiento motorizado, incluso mecanismo de accionamiento, maniobra y control, transporte, montaje, juntas, tornillería y pintura totalmente instalada y probada. Resto de características según ET de proyecto.	TRECE MIL QUINIENTOS CINCUENTA EUROS con SETENTA Y UN CÉNTIMOS	13.550,71
0911	EVMNE250	UD	VÁLVULA DE MARIPOSA DN250 PN16 NEUMÁTICA Válvula de mariposa de 250 mm de diámetro y PN16, de accionamiento neumático, incluso mecanismo de accionamiento, maniobra y control, transporte, montaje, juntas, tornillería y pintura totalmente instalada y probada. Resto de características según ET de proyecto.	SETECIENTOS SESENTA Y SIETE EUROS con NOVENTA Y CINCO CÉNTIMOS	767,95
0912	EVMNE300	UD	VÁLVULA DE MARIPOSA DN300 PN16 NEUMÁTICA Válvula de mariposa de 300 mm de diámetro y PN16, de accionamiento neumático, incluso mecanismo de accionamiento, maniobra y control, transporte, montaje, juntas, tornillería y pintura totalmente instalada y probada. Resto de características según ET de proyecto.	MIL CUATROCIENTOS CUARENTA Y TRES EUROS con CINCUENTA CÉNTIMOS	1.443,50
0913	EVMNE400	UD	VÁLVULA DE MARIPOSA DOBLE EXCENRICIDAD DN 400 mm PN16 NEUMÁTICA Válvula de mariposa de doble excentricidad de 400 mm de diámetro y PN16, de accionamiento neumático, incluso mecanismo de accionamiento, maniobra y control, transporte, montaje, juntas, tornillería y pintura totalmente instalada y probada. Resto de características según ET de proyecto.	TRES MIL SETECIENTOS UN EUROS con SESENTA Y SIETE CÉNTIMOS	3.701,67
0914	EVRB065	UD	VÁLVULA DE RETENCIÓN DE BOLA DN65 Válvula de retención de bola DN 65 PN16. Cuerpo y tapa: Fundición nodular GGG-40. Bola de aluminio/fundición+Resina fenólica. Tornillería de acero inoxidable AISI 316. Junta de tapa: Nitrilo. Acabados con recubrimiento anticorrosivo interior y exterior con polvo de poliamida Epoxy aplicado electrostáticamente (RAL 5015 Epoxi azul). Instalada y probada. Resto de características según ET.	CIENTO NOVENTA Y TRES EUROS con OCHENTA Y TRES CÉNTIMOS	193,83

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ABASTECIMIENTO A VARIOS MUNICIPIOS DE LA RIOJA. SISTEMA CIDACOS

Nº	CÓDIGO	UD	DESCRIPCIÓN	PRECIO EN LETRA	IMPORTE
0915	EVRB080	UD	VÁLVULA DE RETENCIÓN DE BOLA DN80 Válvula de retención de bola DN 80 PN16. Cuerpo y tapa: Fundición nodular GGG-40. Bola de aluminio/fundición+Resina fenólica. Tornillería de acero inoxidable AISI 316. Junta de tapa: Nitrilo. Acabados con recubrimiento anticorrosivo interior y exterior con polvo de poliamida Epoxy aplicado electrostáticamente (RAL 5015 Epoxi azul). Instalada y probada. Resto de características según ET.	DOSCIENTOS NUEVE EUROS con UN CÉNTIMOS	209,01
0916	EVRB100	UD	VÁLVULA DE RETENCIÓN DE BOLA DN100 Válvula de retención de bola DN 100 PN16. Cuerpo y tapa: Fundición nodular GGG-40. Bola de aluminio/fundición+Resina fenólica. Tornillería de acero inoxidable AISI 316. Junta de tapa: Nitrilo. Acabados con recubrimiento anticorrosivo interior y exterior con polvo de poliamida Epoxy aplicado electrostáticamente (RAL 5015 Epoxi azul). Instalada y probada. Resto de características según ET.	DOSCIENTOS CUARENTA Y SEIS EUROS con VEINTIDOS CÉNTIMOS	246,22
0917	EVRB125	UD	VÁLVULA DE RETENCIÓN DE BOLA DN125 Válvula de retención de clapetas tipo Wafer, PN 16 y DN-250, con racores de bridas. Instalada y probada. Resto de características según ET.	TRESCIENTOS EUROS con NOVENTA Y CUATRO CÉNTIMOS	300,94
0918	EVRC050.1	UD	VÁLVULA DE RETENCIÓN DE DISCO PARTIDO DN50 PN25 Válvula de retención de disco partido PN 25 y DN-50, con racores de bridas, totalmente instalada. Resto de características según E.T de Proyecto.	CIENTO OCHENTA Y DOS EUROS con CUARENTA Y SEIS CÉNTIMOS	182,46
0919	EVRC065	UD	VÁLVULA DE RETENCIÓN DE CLAPETAS DN65 PN16 Válvula de retención de clapeta tipo Wafer, PN 16 y DN-65, con racores de bridas, totalmente instalada. Resto de características según E.T de Proyecto.	DOSCIENTOS TRECE EUROS con CINCUENTA Y NUEVE CÉNTIMOS	213,59
0920	EVRC100	UD	VÁLVULA DE RETENCIÓN DE DISCOS CONCENTRICOS DN100 PN16/25 Suministro y colocación de válvula de retención de discos concéntricos DN-100, PN-16/25, modelo CLASAR de BELGICAST o equivalente. Cuerpo y tapa en fundición nodular GGG-40, obturador en poliuretano, resortes en acero inoxidable, junta de cierre cuerpo-tapa en nitrilo; colocada mediante unión wafer. Resto características según ET de Proyecto. Totalmente equipada, instalada y funcionando.	QUINIENTOS CINCO EUROS con CINCO CÉNTIMOS	505,05
0921	EVRC150	UD	VÁLVULA DE RETENCIÓN DE CLAPETAS DN150 PN16 Válvula de retención de clapeta tipo Wafer, PN 16 y DN-150, con racores de bridas, totalmente instalada. Resto de características según E.T de Proyecto.	TRESCIENTOS OCHENTA Y TRES EUROS con CINCUENTA Y NUEVE CÉNTIMOS	383,59
0922	EVRW100	UD	VALVULA DE RETENCIÓN DE DISCO PARTIDO DN100 PN16 Válvula de retención de disco partido tipo Wafer, PN 16 y DN-100, con racores de bridas. Instalada y probada. Resto de características según ET.	DOSCIENTOS QUINCE EUROS con NUEVE CÉNTIMOS	215,09

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Nº	CÓDIGO	UD	DESCRIPCIÓN	PRECIO EN LETRA	IMPORTE
0923	EVRW250	UD	VALVULA DE RETENCIÓN DE DISCO PARTIDO DN250 PN16 Válvula de retención de disco partido tipo Wafer, PN 16 y DN-250, con racores de bridas. Instalada y probada. Resto de características según ET.	CUATROCIENTOS SESENTA Y SIETE EUROS con NUEVE CÉNTIMOS	467,09
0924	EX0002A	M3	EXCAVACION EN ZANJA O POZO Excavación en zanjas o pozos en terrenos de cualquier clase, por medios mecánicos con máquina retroexcavadora, incluso carga y transporte de productos sobrantes a vertedero a una distancia máxima de 50 km y parte proporcional de medios auxiliares para la realización de los trabajos.	CINCO EUROS con VEINTITRES CÉNTIMOS	5,23
0925	EXTABC	UD	EXTINT. POLVO ABC 6 Kg. EF 21A-113B Ud. Eextintor de polvo ABC con eficacia 21A-113B para extinción de fuego de materias sólidas, líquidas, productos gaseosos e incendios de equipos eléctricos, de 6 Kg. de agente extintor con soporte, manómetro y boquilla con difusor según norma UNE-23110, totalmente instalado según CTE/DB-SI 4. Certificado por AENOR.	VEINTISIETE EUROS con VEINTIDOS CÉNTIMOS	27,22
0926	GR001	M3	GESTIÓN DE RESIDUOS DE TIERRAS Y PIEDRAS (17 05 04) Canon de gestión de residuos de tierras y tierras (17 05 04).	UN EUROS con SETENTA Y CINCO CÉNTIMOS	1,75
0927	GR005	M3	GESTIÓN DE RESIDUOS NATURALEZA PÉTREA Canon de gestión de residuos de naturaleza pétreo (17 01 01, 17 01 02, 17 01 03, 17 01 07, 17 09 04).	TRES EUROS con DOS CÉNTIMOS	3,02
0928	GR010	M3	GESTIÓN DE RESIDUOS NATURALEZA NO PÉTREA Canon de gestión de residuos de naturaleza no pétreo (17 03 02, 17 02 01, 17 04 05, 17 02 03, 17 02 02, 17 08 02).	SEIS EUROS con SETENTA Y SIETE CÉNTIMOS	6,77
0929	GR029	M3	GESTIÓN DE RESIDUOS PELIGROSOS Transporte y gestión de residuos peligrosos en Gestor Autorizado.	TREINTA Y TRES EUROS con OCHO CÉNTIMOS	33,08
0930	GR030	UD	BALSAS DE LAVADO DE CUBAS DE HORMIGÓN Construcción de balsas de lavado de cubas de hormigón, incluso p/p. de retira y Gestión a Gestor autorizado.	CIENTO SESENTA Y CUATRO EUROS con CUARENTA Y TRES CÉNTIMOS	164,43
0931	GR031	UD	PUNTO LIMPIO PARA RPs Montaje y desmontaje de punto limpio para residuos peligrosos.	CIENTO OCHENTA Y SIETE EUROS con OCHENTA Y SIETE CÉNTIMOS	187,87
0932	KS01	ud	Panel solar fotovoltaico 200Wp 12V, incluido acumulador monobloc Panel solar fotovoltaico 200Wp, 12V, con estructura soporte para 1 módulo fotovoltaico, regulador de carga tecnología PWM 20 Amp, 12V, acumulador monobloc 185Ah C-100, 12V e inversor de onda senoidal pura 500 W, 12Vcc/220Vca, totalmente colocado y probado.	MIL DOSCIENTOS CINCUENTA Y TRES EUROS con OCHENTA Y SEIS CÉNTIMOS	1.253,86

CUADRO DE PRECIOS 1

ABASTECIMIENTO A VARIOS MUNICIPIOS DE LA RIOJA. SISTEMA CIDACOS

Nº	CÓDIGO	UD	DESCRIPCIÓN	PRECIO EN LETRA	IMPORTE
0933	PF0335	UD	PANEL FOTOVOLTAICO 335W Suministro e instalación de módulo solar JINKO SOLAR JKM335PP-72 o similar, de células de silicio policristalino, potencia máxima (Wp) 335 W, tensión a máxima potencia (Vmp= 38 V, intensidad a máxima potencia (Imp) 8,82 A, tensión de circuito abierto (Voc) 47,2 V, intensidad de cortocircuito (Isc) 9,18 A, eficiencia 17,26% , 72 células, vidrio exterior templado de 3,2 mm de espesor, capa adhesiva de etilvinilacetato (EVA), marco de aluminio anodizado, temperatura de trabajo -40°C hasta 85°C, dimensiones 1956x992x40 mm, máxima tensión del sistema 1000V, resistencia a la carga del viento 245 kg/m2, resistencia a la carga de nieve 551 kg/m2, peso 0,8 kg. con caja de conexiones IP68 con 3 diodos, cables y conectores. Incluso accesorios de montaje y material de conexionado eléctrico, sin incluir la estructura soporte. Totalmente montado, conexionado y probado.	CIENTO OCHO EUROS con DIECISEIS CÉNTIMOS	108,16
0934	PRAY001	ud	PARARRAYOS Sistema de pararrayos colocado sobre cubierta formado por punta captadora de Ingesco o equivalente, mástil, cableado, puesta a tierra, arqueta y puente de comprobación. Nivel de protección III y radio 90 m. Con certificado de empresa suministradora y certificado de empresa instaladora donde se refleje el valor de la resistencia de puesta a tierra.	DOS MIL NOVECIENTOS SETENTA Y NUEVE EUROS con VEINTICUATRO CÉNTIMOS	2.979,24
0935	SEÑAL01	UD	SEÑAL LUMINISCENTE EXT. INCENDIOS Ud. Señal luminiscente para elementos de extinción de incendios (extintores, bies, pulsadores....) de 297x210 por una cara en pvc rígido de 2 mm de espesor, totalmente instalada, según norma UNE 23033 y CTE/DB-SI 4.	SIETE EUROS con VEINTISIETE CÉNTIMOS Logroño, junio de 2020 El Ingeniero Autor del Proyecto: VºBº: El Director del Proyecto: Fdo: Ángel Castillo González Consortio de Aguas y Residuos de La Rioja	7,27
				Fdo: Oscar F. González Vega Ingeniero de Caminos, Canales y Puertos Colegiado Nº 10.755	



3. CUADRO DE PRECIOS Nº 2

CUADRO DE PRECIOS 2

ABASTECIMIENTO A VARIOS MUNICIPIOS DE LA RIOJA. SISTEMA CIDACOS

Nº	CÓDIGO	UD	DESCRIPCIÓN	IMPORTE
0001	001	M3	EXCAVACIÓN A CIELO ABIERTO Excavación a cielo abierto en todo tipo de terrenos incluido terrenos en roca, incluso agotamiento y transporte a lugar de empleo o vertedero.	
			Mano de obra	0,77
			Maquinaria.....	2,65
			Resto de obra y materiales	0,20
			TOTAL PARTIDA.....	3,62
0002	002	M3	EXCAVACIÓN EN ZANJAS Excavación en zanjas y zonas localizadas, en todo tipo de terrenos incluido terrenos en roca con medios mecánicos, incluso rasanteo, nivelación de la superficie de apoyo y transporte a lugar de empleo o vertedero.	
			Mano de obra	0,78
			Maquinaria.....	2,75
			Resto de obra y materiales	0,21
			TOTAL PARTIDA.....	3,74
0003	003	M3	EXCAVACIÓN EN ZANJAS CON AGOTAMIENTO Excavación en zanjas y zonas localizadas, en todo tipo de terrenos incluido terrenos en roca con medios mecánicos, incluso rasanteo, nivelación de la superficie de apoyo, agotamiento y transporte a lugar de empleo o vertedero.	
			Mano de obra	0,78
			Maquinaria.....	2,84
			Resto de obra y materiales	0,22
			TOTAL PARTIDA.....	3,84
0004	004	M3	EXCAVACIÓN EN ZANJAS MANUAL Excavación en zanjas y zonas localizadas, en todo tipo de terrenos por medios manuales, incluso transporte a lugar de empleo o vertedero.	
			Mano de obra	10,11
			Maquinaria.....	10,16
			Resto de obra y materiales	1,22
			TOTAL PARTIDA.....	21,49
0005	005	M3	TERRAPLENADO DE MATERIAL ADECUADO Terraplenado con material adecuado procedente de las excavaciones o préstamos, incluso material, carga, transporte, extendido y compactación.	
			Mano de obra	1,34
			Maquinaria.....	1,79
			Resto de obra y materiales	1,17
			TOTAL PARTIDA.....	4,30
0006	006	M3	RELLENOS CON MATERIAL DE BOLO Relleno con material seleccionado de bolo, para eviatar asentamientos, en trasdós de muros, estribos y otras estructuras procedente de préstamos incluso carga, transporte y extendido.	
			Mano de obra	1,34
			Maquinaria.....	0,77
			Resto de obra y materiales	4,03
			TOTAL PARTIDA.....	6,14

CUADRO DE PRECIOS 2

ABASTECIMIENTO A VARIOS MUNICIPIOS DE LA RIOJA. SISTEMA CIDACOS

Nº	CÓDIGO	UD	DESCRIPCIÓN	IMPORTE
0007	007	M2	ENTIBACIÓN MÓDULOS METÁLICOS Entibación a dos caras mediante módulos metálicos y articulados, en zonas de protección de zanja, medida la superficie efectiva.	
			Mano de obra	3,57
			Maquinaria.....	1,65
			Resto de obra y materiales	3,47
			TOTAL PARTIDA.....	8,69
0008	008	M2	DESPEJE Y DESBROCE Despeje y desbroce de capa de tierra vegetal con un espesor medio de 50 cm, incluso corte de árboles, extracción de tocones, nivelación de zona adyacente para el paso de maquinaria, transporte a lugar de acopio independiente para posterior reposición de tierra vegetal tras las obras y despedregado de las parcelas, así como transporte a vertedero de tierras sobrantes.	
			Mano de obra.....	0,10
			Maquinaria.....	0,44
			Resto de obra y materiales	0,03
			TOTAL PARTIDA.....	0,57
0009	0092REC	M2	RECRECIDO DE MORTERO m². Recrecido pegar un pavimento cerámico o similar, de 6 cm de espesor, realizada con mortero de cemento y arena de río 1/3 (M15), i/nivelación, maestreado y fratasado, s/NTE-RSS.	
			Mano de obra.....	2,82
			Resto de obra y materiales	4,98
			TOTAL PARTIDA.....	7,80
0010	0092sole	M2	SOLERA ARMADA + ENCACHADO+LAMINA m². Solera pulida de 15 cm de espesor, realizada con hormigón HA-25/P/20/11a N/mm², tamaño máximo del árido 20 mm elaborado en central, i/vertido, colocación y armado con mallazo electrosoldado #150x150x6 mm, incluso p.p. de juntas, aserrado de las mismas y fratasado. Según EHE-08, sobre lámina impermeabilizante PVC 1,5 mm, encachado de piedra machacada 40/80 de 15 cm de espesor, extendida y compactada.	
			Mano de obra.....	10,58
			Maquinaria.....	2,88
			Resto de obra y materiales	11,63
			TOTAL PARTIDA.....	25,09
0011	010	M3	RELLENO ZANJAS, CIMIENTOS Y TRASDOSES DE MATERIAL SELECCIONADO Relleno con material seleccionado en zanjas, cimientos, trasdós de muros, estribos y otras estructuras procedente de la excavación o préstamos incluso carga, transporte y compactación.	
			Mano de obra.....	1,34
			Maquinaria.....	1,79
			Resto de obra y materiales	0,19
			TOTAL PARTIDA.....	3,32

CUADRO DE PRECIOS 2

ABASTECIMIENTO A VARIOS MUNICIPIOS DE LA RIOJA. SISTEMA CIDACOS

Nº	CÓDIGO	UD	DESCRIPCIÓN	IMPORTE
0012	0100	ML	COLOCACIÓN DE TUBERÍA AUXILIAR PE DN315 PN10 Colocación de tubería auxiliar de PE DN315 PN10 a tubería existente de ficrocemento DN400, durante la ejecución de la excavación de la zanja de la nueva conducción, para tramos de 100 m, para mantenimiento de servicio de la tubería existente, incluso elementos de unión de la tubería auxiliar a dicha tubería, del llenado y vaciado del tramo de actuación, y de la tubería auxiliar para su desplazamiento, traslado de la tubería auxiliar a su nueva posición por tramos de 100 m, así como la colocación de los lastres de la tubería auxiliar.	
			Mano de obra.....	8,39
			Maquinaria.....	7,08
			Resto de obra y materiales.....	1,42
			TOTAL PARTIDA.....	16,89
0013	0101	ML	COLOCACIÓN DE TUBERÍA AUXILIAR PE DN315 PN10 Colocación de tubería auxiliar de PE DN315 PN10 a tubería existente de PEAD DN315, durante la ejecución de la excavación de la zanja de la nueva conducción, para tramos de 100 m, para mantenimiento de servicio de la tubería existente, incluso elementos de unión de la tubería auxiliar a dicha tubería, del llenado y vaciado del tramo de actuación, y de la tubería auxiliar para su desplazamiento, traslado de la tubería auxiliar a su nueva posición por tramos de 100 m, así como la colocación de los lastres de la tubería auxiliar.	
			Mano de obra.....	7,87
			Maquinaria.....	7,08
			Resto de obra y materiales.....	1,37
			TOTAL PARTIDA.....	16,32
0014	0102	ML	TRASLADO TUBERÍA PEAD DN=315 mm PN 10 Traslado de tubería PE DN315 PN10 de la derivación de Amedo para conexión a tubería existente de PEAD DN315, incluso p.p. de elementos de unión, corte para tralado y nuevo soldadura en tramo de 100 m.	
			Mano de obra.....	10,96
			Resto de obra y materiales.....	1,01
			TOTAL PARTIDA.....	11,97
0015	0103	ML	COLOCACIÓN DE TUBERÍA AUXILIAR PE DN160-DN110 PN10 Colocación de tubería auxiliar de PE DN160-DN100 PN10 a tubería existente de PEAD DN160-DN110 y FD150, durante la ejecución de la excavación de la zanja de la nueva conducción, para tramos de 100 m, para mantenimiento de servicio de la tubería existente, incluso elementos de unión de la tubería auxiliar a dicha tubería, del llenado y vaciado del tramo de actuación, y de la tubería auxiliar para su desplazamiento, traslado de la tubería auxiliar a su nueva posición por tramos de 100 m, así como la colocación de los lastres de la tubería auxiliar.	
			Mano de obra.....	5,82
			Maquinaria.....	5,90
			Resto de obra y materiales.....	1,08
			TOTAL PARTIDA.....	12,80
0016	0105	ML	TUBERÍA PEAD DN=315 mm PN 10 Tubería de PE DN315 PN10 para conexión a tubería existente de ficrocemento DN400, incluso p.p. de elementos de unión a tubería de ficrocemento DN400.	
			Mano de obra.....	3,25
			Resto de obra y materiales.....	20,72
			TOTAL PARTIDA.....	23,97

CUADRO DE PRECIOS 2

ABASTECIMIENTO A VARIOS MUNICIPIOS DE LA RIOJA. SISTEMA CIDACOS

Nº	CÓDIGO	UD	DESCRIPCIÓN	IMPORTE
0017	011	M3	RELLENO DE ARENA Arena para apoyo y protección de tuberías incluso carga, transporte, colocación, compactación y nivelación.	
			Mano de obra.....	1,82
			Maquinaria.....	3,83
			Resto de obra y materiales.....	6,44
			TOTAL PARTIDA.....	12,09
0018	012	M3	TERRAPLÉN O PEDRAPLÉN Terraplén o pedraplén procedente de las excavaciones o préstamos para carreteras, caminos y obras accesorias, incluso carga, transporte, extendido, humectación y compactación.	
			Mano de obra.....	0,67
			Maquinaria.....	1,80
			Resto de obra y materiales.....	0,15
			TOTAL PARTIDA.....	2,62
0019	013	M3	ESCOLLERA D50 =1,30 m Escollera caliza muy pesada de D50 = 1,30 m colocada en protección de cauces, incluido suministro y preparación de la superficie de apoyo, perfectamente rasanteada y terminada.	
			Mano de obra.....	3,93
			Maquinaria.....	6,76
			Resto de obra y materiales.....	17,99
			TOTAL PARTIDA.....	28,68
0020	014	M3	ESCOLLERA D50 =1,00 m Escollera caliza pesada de D50 = 1,00 m colocada en protección de cauces, incluido suministro y preparación de la superficie de apoyo, perfectamente rasanteada y terminada.	
			Mano de obra.....	4,90
			Maquinaria.....	9,01
			Resto de obra y materiales.....	19,06
			TOTAL PARTIDA.....	32,97
0021	015	M3	ESCOLLERA D50 = 0,65 m Escollera caliza media de D50 = 0,65 m colocada en protección de cauces, incluido suministro y preparación de la superficie de apoyo, perfectamente rasanteada y terminada.	
			Mano de obra.....	5,88
			Maquinaria.....	11,27
			Resto de obra y materiales.....	20,15
			TOTAL PARTIDA.....	37,30
0022	016	M3	ESCOLLERA D50 = 0,65 m HORMIGONADA	
			Mano de obra.....	8,86
			Maquinaria.....	11,27
			Resto de obra y materiales.....	26,67
			TOTAL PARTIDA.....	46,80
0023	017	M2	CHAPADO DE PIEDRA CALIZA Chapado de piedra caliza, incluso preparación de paramento, hormigón o mortero de agarre y elementos auxiliares de amarre con acero de sujeción, malla, etc.	
			Mano de obra.....	64,98
			Resto de obra y materiales.....	18,51
			TOTAL PARTIDA.....	83,49

CUADRO DE PRECIOS 2

ABASTECIMIENTO A VARIOS MUNICIPIOS DE LA RIOJA. SISTEMA CIDACOS

Nº	CÓDIGO	UD	DESCRIPCIÓN	IMPORTE
0024	018	M3	DEMOLICIÓN DE HORMIGÓN Demolición de hormigón en masa o armado en estructuras, pozos y arquetas, con máquina retroexcavadora con martillo, incluso carga y transporte a vertedero.	
			Mano de obra	4,11
			Maquinaria.....	14,15
			Resto de obra y materiales	1,10
			TOTAL PARTIDA.....	19,36
0025	019	M2	DEMOLICIÓN DE FIRMES Demolición de firmes de cualquier tipo, incluso precorte, carga y transporte a vertedero, posterior perfilado y compactación del terreno.	
			Mano de obra	0,47
			Maquinaria.....	1,89
			Resto de obra y materiales	0,14
			TOTAL PARTIDA.....	2,50
0026	020	KG	ACERO S 275 J PERFILES LAMINADOS Acero S 275 J en perfiles laminados elaborado y colocado.	
			Mano de obra	0,56
			Resto de obra y materiales	1,39
			TOTAL PARTIDA.....	1,95
0027	023	KG	ACERO CORRUGADO B-500-S Acero redondo corrugado para armar tipo B-500-S elaborado y colocado.	
			Mano de obra	0,10
			Maquinaria.....	0,03
			Resto de obra y materiales	0,83
			TOTAL PARTIDA.....	0,96
0028	025	M2	ENCOFRADO RECTO EN PARAMENTOS OCULTOS Encofrado recto en paramentos ocultos, incluso colocación, fijación y desencofrado.	
			Mano de obra	14,40
			Maquinaria.....	0,73
			Resto de obra y materiales	2,52
			TOTAL PARTIDA.....	17,65
0029	026	M2	ENCOFRADO RECTO EN PARAMENTOS VISTOS 1C Encofrado recto en paramentos vistos a una cara, incluso colocación, fijación y desencofrado.	
			Mano de obra	12,85
			Maquinaria.....	5,61
			Resto de obra y materiales	2,72
			TOTAL PARTIDA.....	21,18
0030	026.1	M2	ENCOFRADO RECTO EN LOSAS VISTOS Encofrado recto en losas vistos, incluso colocación, fijación y desencofrado.	
			Mano de obra	17,73
			Maquinaria.....	5,61
			Resto de obra y materiales	4,34
			TOTAL PARTIDA.....	27,68

CUADRO DE PRECIOS 2

ABASTECIMIENTO A VARIOS MUNICIPIOS DE LA RIOJA. SISTEMA CIDACOS

Nº	CÓDIGO	UD	DESCRIPCIÓN	IMPORTE
0031	026.2	M2	ENCOFRADO RECTO EN PILARES VISTOS Encofrado recto en pilares vistos, incluso colocación, fijación y desencofrado.	
			Mano de obra	17,73
			Maquinaria.....	5,61
			Resto de obra y materiales	4,34
			TOTAL PARTIDA.....	27,68
0032	026.3	M2	ENCOFRADO RECTO EN VIGAS VISTOS Encofrado recto en vigas vistos, incluso colocación, fijación, apuntalamiento o cimbras, y desencofrado.	
			Mano de obra	19,68
			Maquinaria.....	5,61
			Resto de obra y materiales	4,55
			TOTAL PARTIDA.....	29,84
0033	027	M2	ENCOFRADO CURVO EN PARAMENTOS VISTOS Encofrado curvo en paramentos vistos, incluso colocación, fijación y desencofrado.	
			Mano de obra.....	15,39
			Maquinaria.....	6,79
			Resto de obra y materiales	2,94
			TOTAL PARTIDA.....	25,12
0034	027.1	M2	ENCOFRADO CURVO EN PARAMENTOS OCULTOS Encofrado curvo en paramentos ocultos, incluso colocación, fijación y desencofrado.	
			Mano de obra.....	12,41
			Maquinaria.....	6,79
			Resto de obra y materiales	2,76
			TOTAL PARTIDA.....	21,96
0035	028	M3	HORMIGÓN DE LIMPIEZA HL-150 Hormigón de limpieza HL-150, de consistencia plástica, árido de tamaño máximo 40 mm y cemento CEM-II-D/42,5/SR, para saneos y enchachados, incluyendo fabricación y transporte totalmente colocado.	
			Mano de obra.....	6,67
			Maquinaria.....	0,46
			Resto de obra y materiales	37,63
			TOTAL PARTIDA.....	44,76
0036	030	M3	HORMIGÓN HNE-20/B/40 Hormigón HNE-20/B/40, con cemento CEM III/A-D/42,5/SR (UNE 80303:96), en masa o ligeramente armado, colocado en cualquier tipo de obra, incluso fabricación, carga y transporte, totalmente colocado.	
			Mano de obra.....	7,65
			Maquinaria.....	0,70
			Resto de obra y materiales	42,03
			TOTAL PARTIDA.....	50,38
0037	031	M3	HORMIGÓN HA-25/B/20/IIa Hormigón HA-25/B/20/IIa, con cemento CEM III/A-D/42,5/SR, incluyendo fabricación, transporte, puesta en obra y vibrado, totalmente ejecutado, incluso curado y juntas.	
			Mano de obra.....	7,65
			Maquinaria.....	0,70
			Resto de obra y materiales	45,04
			TOTAL PARTIDA.....	53,39

CUADRO DE PRECIOS 2

ABASTECIMIENTO A VARIOS MUNICIPIOS DE LA RIOJA. SISTEMA CIDACOS

Nº	CÓDIGO	UD	DESCRIPCIÓN	IMPORTE
0038	032.1	M3	HORMIGÓN HA-30/P/30/IV Hormigón armado HA-30/B/30/IV, con una dosificación de hormigón de 325 kg/m3 de cemento, consistencia plástica, elaborado en central para estructuras, incluso bombeado y medios manuales, vibrado y colocado.	
			Mano de obra.....	4,58
			Maquinaria.....	9,92
			Resto de obra y materiales.....	62,49
			TOTAL PARTIDA.....	76,99
0039	033	M3	HORMIGÓN HA-35/P/40/IIa+Qa Hormigón HA-35/P/40/IIa+Qa, con cemento CEM II/A-D/42,5/SR (UNE 80303:96), incluyendo fabricación, transporte, puesta en obra y vibrado, totalmente ejecutado, incluso curado y juntas.	
			Mano de obra.....	12,74
			Maquinaria.....	4,81
			Resto de obra y materiales.....	48,19
			TOTAL PARTIDA.....	65,74
0040	034.1	UD	ARQUETA HORMIGÓN DE 3,0x3,0 M Y HASTA 2,50 m DE PROFUNDIDAD Arqueta de hormigón armado HA-25/P/40/IIa para alojamiento de válvulas de tuberías de dimensiones interiores 3,0x3,0 m y una altura de hasta 2,50 m, con solera de 30 cm de canto, muros de 25 cm de espesor y tapa de 25 cm de canto, armado con parrilla de 20x20 cm con rondos de 12 mm, incluso excavación, relleno posterior, encofrado, ganchos de elevación de tapa, totalmente terminada.	
			Mano de obra.....	192,36
			Maquinaria.....	52,59
			Resto de obra y materiales.....	2.877,72
			TOTAL PARTIDA.....	3.122,67
0041	034.2	UD	ARQUETA HORMIGÓN DE 3,00x2,50 M Y HASTA 2,50 m DE PROFUNDIDAD Arqueta de hormigón armado HA-25/P/40/IIa para alojamiento de válvulas de tuberías de dimensiones interiores 3,0x2,5 m y una altura de hasta 2,50 m, con solera de 30 cm de canto, muros de 25 cm de espesor y tapa de 25 cm de canto, armado con parrilla de 20x20 cm con rondos de 12 mm, incluso excavación, relleno posterior, encofrado, totalmente terminada.	
			Mano de obra.....	192,36
			Maquinaria.....	52,59
			Resto de obra y materiales.....	2.610,51
			TOTAL PARTIDA.....	2.855,46
0042	050	M2	RESTITUCIÓN DE FORMAS EN PARAMENTOS DE ESTRIBOS Restitución de formas en paramentos de estribos, incluso armadura adicional y mortero de reparación.	
			Mano de obra.....	106,63
			Resto de obra y materiales.....	50,96
			TOTAL PARTIDA.....	157,59
0043	051	KG	RESINA EPOXI SELLADO HORMIGÓN Resina epoxi en sellado de unión de refuerzos de cabeza de fuste de hormigón, incluso inyección y pequeño material.	
			Mano de obra.....	24,74
			Resto de obra y materiales.....	6,42
			TOTAL PARTIDA.....	31,16

CUADRO DE PRECIOS 2

ABASTECIMIENTO A VARIOS MUNICIPIOS DE LA RIOJA. SISTEMA CIDACOS

Nº	CÓDIGO	UD	DESCRIPCIÓN	IMPORTE
0044	051pc2	KG	REVESTIMIENTO MULTICAPA RESINA EPOXI m². Suministro y puesta en obra del Sistema Multicapa Epoxi MASTERTOP 1220 Polykit, con un espesor de 2,0 mm, consistente en formación de capa base epoxi sin disolventes coloreada MASTERTOP 1200 o similar (rendimiento 1,6 kg/m²); espolvoreo en fresco de árido de cuarzo MASTERTOP F 5 o similar con una granulometría 0,3-0,8 mm (rendimiento 3,0 kg/m²); sellado con el revestimiento epoxi sin disolventes coloreado MASTERTOP 1200 o similar (rendimiento 0,600 kg/m²), sobre superficies de hormigón o mortero, sin incluir la preparación del soporte. Colores Estándar.	
			Mano de obra.....	3,54
			Resto de obra y materiales.....	17,16
			TOTAL PARTIDA.....	20,70
0045	052	ML	JUNTAS DE ESTANQUEIDAD DE PVC 32 CM Junta de trabajo interior de policloruro de vinilo (PVC) 100% virgen, con una fuerza máxima de dilatación > 250 %, de 32 cm de ancho, MASTERFLEX 2000 TI-24 de BASF o equivalente, colocada simétricamente en el eje de la losa o muro, incluso solapes y piezas especiales para cruces o ángulos. Medida la longitud ejecutada.	
			Mano de obra.....	0,52
			Resto de obra y materiales.....	6,79
			TOTAL PARTIDA.....	7,31
0046	052A	ML	MEDIA CAÑA DE IMPERMEABILIZACIÓN JUNTAS DE ESQUINA Suministro y puesta en obra de realización de medias cañas con el mortero de reparación estructural Clase R4, según Normativa Vigente UNE EN 1504, consistente en una capa de imprimación con la resina epoxi EMACO EPOXIPRIMER BP o equivalente (rendimiento 0,08 kg/m); realización de media caña con el mortero cementoso EMACO S-88 TIXOTRÓPICO o equivalente (rendimiento 4,0 kg/m). Incluso preparación de superficie. Medida la longitud ejecutada. Terminada.	
			Mano de obra.....	4,25
			Resto de obra y materiales.....	4,88
			TOTAL PARTIDA.....	9,13
0047	052B	ML	SELLADO DE JUNTAS Y ESQUINAS CON BANDA ELÁSTICA E=1 mm Sellado de juntas con banda de elastómero termoplástico (TPE) de 1 mm de espesor y 20 cm de ancho, con un alargamiento a la rotura del 600 % según DIN 53504 S2 y una dureza Shore A de aprox. 80 según ISO 868, Apta para Agua Potable según RD 140/2003, adherida al soporte al menos en 6 cm a cada lado de la junta mediante resina epoxi sin disolventes, MASTERFLEX 3000 ADHESIVO de BASF o equivalente, incluso limpieza del soporte y p.p. de solapes. Medida la longitud real ejecutada.	
			Mano de obra.....	4,25
			Resto de obra y materiales.....	21,41
			TOTAL PARTIDA.....	25,66
0048	053	M2	GEOTEXTIL 200 gr/m2 Geotextil de polipropileno de 200 gr/m2, totalmente colocado incluso solapes.	
			Mano de obra.....	1,53
			Resto de obra y materiales.....	0,93
			TOTAL PARTIDA.....	2,46

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ABASTECIMIENTO A VARIOS MUNICIPIOS DE LA RIOJA. SISTEMA CIDACOS

Nº	CÓDIGO	UD	DESCRIPCIÓN	IMPORTE
0049	053PR	M2	AISLAMIENTO ACÚSTICO FORJADO m². Aislamiento acústico a ruido aéreo y de impacto en forjados con compuesto bicapa TriACUSTIC 35, de 3,6 kg/m². de peso y 7 mm de espesor, formado por una lámina viscoelástica de alta densidad adherida térmicamente a una lámina de polietileno.	
			Mano de obra.....	0,70
			Resto de obra y materiales.....	8,28
			TOTAL PARTIDA.....	8,98
0050	053imp	M2	IMPERMEABILIZACIÓN DE SOLERA m². Impermeabilización de soleras constituida por 0,3 kg/m² de imprimación asfáltica CURIDAN y lámina de betún modificado con elastómeros SBS de 4 kg/m² de peso medio, de superficie no protegida, con armadura de fieltro de poliéster y acabada con film de polietileno por ambas caras, ESTERDAN 40 P ELAST (Tipo LBM 40 FP), totalmente adherida al soporte con soplete, y geotextil de 200 g/m² como protección; lista para recibir capa de hormigón. Dispone de DIT. "Esterdan pendiente cero". N.º 550/10.	
			Mano de obra.....	3,52
			Resto de obra y materiales.....	5,32
			TOTAL PARTIDA.....	8,84
0051	054	T	PAVIMENTO DE MBC AC16 surf S Pavimento de mezcla bituminosa en caliente en capa de rodadura tipo AC 16 surf S de 5 cm de espesor, que incluye riego de imprimación con dotación de 1 Kg/m2, con betún B60/70 en dotación de 70 Kg/Tm, puesto en obra y terminado.	
			Mano de obra.....	1,54
			Maquinaria.....	1,12
			Resto de obra y materiales.....	34,04
			TOTAL PARTIDA.....	36,70
0052	055	M2	PAVIMENTO DOBLE TRATAMIENTO SUPERFICIAL Pavimento doble tratamiento superficial formado por árido 13/7 y 6/3, y ligante emulsión C60B3 ADH con dotación 4 kg/m2, incluso riego de imprimación previo con ligante emulsión C60BF4 IMP en dotación 1 kg/m2, puesto en obra y terminado.	
			Mano de obra.....	0,93
			Maquinaria.....	1,22
			Resto de obra y materiales.....	0,37
			TOTAL PARTIDA.....	2,52
0053	056	M3	ZAHORRA ARTIFICIAL Zahorra artificial compactada.	
			Mano de obra.....	2,57
			Maquinaria.....	3,30
			Resto de obra y materiales.....	11,11
			TOTAL PARTIDA.....	16,98
0054	058	ML	TUBERÍA FD 800 mm Tubería de fundición dúctil de diámetro interior 800 mm y PFA de 32 bar, revestida interiormente con mortero de cemento y exteriormente con una capa de cinc y otra bituminosa, i/p.p. de junta automática flexible, cinta señalizadora y medios auxiliares, totalmente colocada y probada.	
			Mano de obra.....	3,08
			Maquinaria.....	1,39
			Resto de obra y materiales.....	256,45
			TOTAL PARTIDA.....	260,92

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ABASTECIMIENTO A VARIOS MUNICIPIOS DE LA RIOJA. SISTEMA CIDACOS

Nº	CÓDIGO	UD	DESCRIPCIÓN	IMPORTE
0055	058A	ML	TUBERÍA FD 900 mm Tubería de fundición dúctil de diámetro interior 900 mm y PFA de 32 bar, revestida interiormente con mortero de cemento y exteriormente con una capa de cinc y otra bituminosa, i/p.p. de junta automática flexible, banda de señalización y medios auxiliares, totalmente colocada y probada.	
			Mano de obra.....	3,16
			Maquinaria.....	1,42
			Resto de obra y materiales.....	301,25
			TOTAL PARTIDA.....	305,83
0056	058B	ML	TUBERÍA FD 1000 mm Tubería de fundición dúctil de diámetro interior 1000 mm y PFA de 32 bar, revestida interiormente con mortero de cemento y exteriormente con una capa de cinc y otra bituminosa, i/p.p. de junta automática flexible, banda de señalización y medios auxiliares, totalmente colocada y probada.	
			Mano de obra.....	3,16
			Maquinaria.....	1,42
			Resto de obra y materiales.....	370,37
			TOTAL PARTIDA.....	374,95
0057	058C	ML	TUBERÍA FD 700 mm Tubería de fundición dúctil de diámetro interior 700 mm y PFA de 34 bar, revestida interiormente con mortero de cemento y exteriormente con una capa de cinc y otra bituminosa, i/p.p. de junta automática flexible y medios auxiliares, totalmente colocada y probada.	
			Mano de obra.....	3,08
			Maquinaria.....	1,39
			Resto de obra y materiales.....	236,30
			TOTAL PARTIDA.....	240,77
0058	058R	ML	TUBERÍA FD 800 mm CON JUNTA ACERROJADA Tubería de fundición dúctil de diámetro interior 800 mm y PFA de 32 bar, revestida interiormente con mortero de cemento y exteriormente con una capa de cinc y otra bituminosa, i/p.p. de junta acerrojada, cinta señalizadora y medios auxiliares, totalmente colocada y probada.	
			Mano de obra.....	22,30
			Maquinaria.....	1,39
			Resto de obra y materiales.....	289,29
			TOTAL PARTIDA.....	312,98
0059	058RA	ML	TUBERÍA FD 900 mm CON JUNTA ACERROJADA Tubería de fundición dúctil de diámetro interior 900 mm y PFA de 32 bar, revestida interiormente con mortero de cemento y exteriormente con una capa de cinc y otra bituminosa, i/p.p. de junta acerrojada, cinta señalizadora y medios auxiliares, totalmente colocada y probada.	
			Mano de obra.....	22,30
			Maquinaria.....	1,39
			Resto de obra y materiales.....	341,03
			TOTAL PARTIDA.....	364,72

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ABASTECIMIENTO A VARIOS MUNICIPIOS DE LA RIOJA. SISTEMA CIDACOS

Nº	CÓDIGO	UD	DESCRIPCIÓN	IMPORTE
0060	060	ML	TUBERÍA FD 500 mm Tubería de fundición dúctil de diámetro interior 500 mm y PFA de 38 bar, revestida interiormente con mortero de cemento y exteriormente con una capa de cinc y otra bituminosa, i/p.p. de junta automática flexible, banda de señalización y medios auxiliares, totalmente colocada y probada.	
			Mano de obra.....	2,64
			Maquinaria.....	1,19
			Resto de obra y materiales.....	82,76
			TOTAL PARTIDA.....	86,59
0061	061	ML	TUBERÍA FD 400 mm Tubería de fundición dúctil de diámetro interior 400 mm y PFA de 42 bar, revestida interiormente con mortero de cemento y exteriormente con una capa de cinc y otra bituminosa, i/p.p. de junta automática flexible, banda de señalización y medios auxiliares, totalmente colocada y probada.	
			Mano de obra.....	1,99
			Maquinaria.....	0,89
			Resto de obra y materiales.....	65,82
			TOTAL PARTIDA.....	68,70
0062	062	ML	TUBERÍA FD 300 mm Tubería de fundición dúctil de diámetro interior 300 mm y PFA de 49 bar, revestida interiormente con mortero de cemento y exteriormente con una capa de cinc y otra bituminosa, i/p.p. de junta automática flexible, banda de señalización y medios auxiliares, totalmente colocada y probada.	
			Mano de obra.....	1,99
			Maquinaria.....	0,89
			Resto de obra y materiales.....	43,53
			TOTAL PARTIDA.....	46,41
0063	063	ML	TUBERÍA FD 250 mm Tubería de fundición dúctil de diámetro interior 250 mm y PFA de 54 bar, revestida interiormente con mortero de cemento y exteriormente con una capa de cinc y otra bituminosa, i/p.p. de junta automática flexible, banda de señalización y medios auxiliares, totalmente colocada y probada.	
			Mano de obra.....	1,99
			Maquinaria.....	0,89
			Resto de obra y materiales.....	34,93
			TOTAL PARTIDA.....	37,81
0064	065	ML	TUBERÍA FD 150 mm Tubería de fundición dúctil de diámetro interior 150 mm y PFA de 64 bar, revestida interiormente con mortero de cemento y exteriormente con una capa de cinc y otra bituminosa, i/p.p. de junta automática flexible, banda de señalización y medios auxiliares, totalmente colocada y probada.	
			Mano de obra.....	1,62
			Maquinaria.....	0,73
			Resto de obra y materiales.....	19,07
			TOTAL PARTIDA.....	21,42

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ABASTECIMIENTO A VARIOS MUNICIPIOS DE LA RIOJA. SISTEMA CIDACOS

Nº	CÓDIGO	UD	DESCRIPCIÓN	IMPORTE
0065	066	ML	TUBERÍA FD 125 mm Tubería de fundición dúctil de diámetro interior 125 mm y PFA de 64 bar, revestida interiormente con mortero de cemento y exteriormente con una capa de cinc y otra bituminosa, i/p.p. de junta automática flexible, cinta señalizadora y medios auxiliares, totalmente colocada y probada.	
			Mano de obra.....	1,47
			Maquinaria.....	0,66
			Resto de obra y materiales.....	18,07
			TOTAL PARTIDA.....	20,20
0066	067	ML	TUBERÍA FD 100 mm Tubería de fundición dúctil de diámetro interior 100 mm y PFA de 64 bar, revestida interiormente con mortero de cemento y exteriormente con una capa de cinc y otra bituminosa, i/p.p. de junta automática flexible, cinta señalizadora y medios auxiliares, totalmente colocada y probada.	
			Mano de obra.....	1,47
			Maquinaria.....	0,66
			Resto de obra y materiales.....	18,94
			TOTAL PARTIDA.....	21,07
0067	068	UD	CODO FD 1/32 800 mm Codo de fundición dúctil de 1/32 de diámetro interior 800 mm y PFA 25 bar, con revestimiento interior y exterior epoxi, incluso p.p. de juntas y medios auxiliares, totalmente colocado y probado.	
			Mano de obra.....	36,16
			Maquinaria.....	6,61
			Resto de obra y materiales.....	1.520,93
			TOTAL PARTIDA.....	1.563,70
0068	068A	UD	CODO FD 1/32 900 mm Codo de fundición dúctil de 1/32 de diámetro interior 900 mm y PFA 25 bar, con revestimiento interior y exterior epoxi, incluso p.p. de juntas y medios auxiliares, totalmente colocado y probado.	
			Mano de obra.....	36,16
			Maquinaria.....	6,61
			Resto de obra y materiales.....	1.747,98
			TOTAL PARTIDA.....	1.790,75
0069	068B	UD	CODO FD 1/32 1000 mm Codo de fundición dúctil de 1/32 de diámetro interior 1000 mm y PFA 25 bar, con revestimiento interior y exterior epoxi, incluso p.p. de juntas y medios auxiliares, totalmente colocado y probado.	
			Mano de obra.....	36,16
			Maquinaria.....	6,61
			Resto de obra y materiales.....	1.995,38
			TOTAL PARTIDA.....	2.038,15
0070	069	UD	CODO FD 1/16 800 mm Codo de fundición dúctil de 1/16 de diámetro interior 800 mm y PFA 25 bar, con revestimiento interior y exterior epoxi, incluso p.p. de juntas y medios auxiliares, totalmente colocado y probado.	
			Mano de obra.....	36,16
			Maquinaria.....	6,61
			Resto de obra y materiales.....	1.847,63
			TOTAL PARTIDA.....	1.890,40

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ABASTECIMIENTO A VARIOS MUNICIPIOS DE LA RIOJA. SISTEMA CIDACOS

Nº	CÓDIGO	UD	DESCRIPCIÓN	IMPORTE
0071	069A	UD	CODO FD 1/16 900 mm Codo de fundición dúctil de 1/16 de diámetro interior 900 mm y PFA 25 bar, con revestimiento interior y exterior epoxi, incluso p.p. de juntas y medios auxiliares, totalmente colocado y probado.	
			Mano de obra.....	36,16
			Maquinaria.....	6,61
			Resto de obra y materiales.....	2.123,69
			TOTAL PARTIDA.....	2.166,46
0072	069B	UD	CODO FD 1/16 1000 mm Codo de fundición dúctil de 1/16 de diámetro interior 1000 mm y PFA 25 bar, con revestimiento interior y exterior epoxi, incluso p.p. de juntas y medios auxiliares, totalmente colocado y probado.	
			Mano de obra.....	36,16
			Maquinaria.....	6,61
			Resto de obra y materiales.....	2.371,41
			TOTAL PARTIDA.....	2.414,18
0073	070	UD	CODO FD 1/8 800 mm Codo de fundición dúctil de 1/8 de diámetro interior 800 mm y PFA 25 bar, con revestimiento interior y exterior epoxi, incluso p.p. de juntas y medios auxiliares, totalmente colocado y probado.	
			Mano de obra.....	36,16
			Maquinaria.....	6,61
			Resto de obra y materiales.....	1.921,69
			TOTAL PARTIDA.....	1.964,46
0074	070A	UD	CODO FD 1/8 900 mm Codo de fundición dúctil de 1/8 de diámetro interior 900 mm y PFA 25 bar, con revestimiento interior y exterior epoxi, incluso p.p. de juntas y medios auxiliares, totalmente colocado y probado.	
			Mano de obra.....	36,16
			Maquinaria.....	6,61
			Resto de obra y materiales.....	2.208,88
			TOTAL PARTIDA.....	2.251,65
0075	070B	UD	CODO FD 1/8 1000 mm Codo de fundición dúctil de 1/8 de diámetro interior 1000 mm y PFA 25 bar, con revestimiento interior y exterior epoxi, incluso p.p. de juntas y medios auxiliares, totalmente colocado y probado.	
			Mano de obra.....	36,16
			Maquinaria.....	6,61
			Resto de obra y materiales.....	2.619,42
			TOTAL PARTIDA.....	2.662,19
0076	070R	UD	CODO FD 1/4 800 mm Codo de fundición dúctil de 1/4 de diámetro interior 800 mm y PFA 25 bar, con revestimiento interior y exterior epoxi, incluso p.p. de juntas y medios auxiliares, totalmente colocado y probado.	
			Mano de obra.....	36,16
			Maquinaria.....	6,61
			Resto de obra y materiales.....	1.971,30
			TOTAL PARTIDA.....	2.014,07

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ABASTECIMIENTO A VARIOS MUNICIPIOS DE LA RIOJA. SISTEMA CIDACOS

Nº	CÓDIGO	UD	DESCRIPCIÓN	IMPORTE
0077	070RA	UD	CODO FD 1/4 900 mm Codo de fundición dúctil de 1/4 de diámetro interior 900 mm y PFA 25 bar, con revestimiento interior y exterior epoxi, incluso p.p. de juntas y medios auxiliares, totalmente colocado y probado.	
			Mano de obra.....	36,16
			Maquinaria.....	6,61
			Resto de obra y materiales.....	2.265,92
			TOTAL PARTIDA.....	2.308,69
0078	070RB	UD	CODO FD 1/4 1000 mm Codo de fundición dúctil de 1/4 de diámetro interior 1000 mm y PFA 25 bar, con revestimiento interior y exterior epoxi, incluso p.p. de juntas y medios auxiliares, totalmente colocado y probado.	
			Mano de obra.....	36,16
			Maquinaria.....	6,61
			Resto de obra y materiales.....	2.677,29
			TOTAL PARTIDA.....	2.720,06
0079	074	UD	CODO FD 1/8 500 mm Codo de fundición dúctil de 1/8 de diámetro interior 500 mm y PFA 30 bar, con revestimiento interior y exterior epoxi, incluso p.p. de juntas y medios auxiliares, totalmente colocado y probado.	
			Mano de obra.....	27,13
			Maquinaria.....	4,96
			Resto de obra y materiales.....	497,02
			TOTAL PARTIDA.....	529,11
0080	074R	UD	CODO FD 1/4 500 mm Codo de fundición dúctil de 1/8 de diámetro interior 500 mm y PFA 30 bar, con revestimiento interior y exterior epoxi, incluso p.p. de juntas y medios auxiliares, totalmente colocado y probado.	
			Mano de obra.....	27,13
			Maquinaria.....	4,96
			Resto de obra y materiales.....	546,63
			TOTAL PARTIDA.....	578,72
0081	075	UD	CODO FD 1/16 500 mm Codo de fundición dúctil de 1/16 de diámetro interior 500 mm y PFA 30 bar, con revestimiento interior y exterior epoxi, incluso p.p. de juntas y medios auxiliares, totalmente colocado y probado.	
			Mano de obra.....	27,13
			Maquinaria.....	4,96
			Resto de obra y materiales.....	426,05
			TOTAL PARTIDA.....	458,14
0082	076	UD	CODO FD 1/32 500 mm Codo de fundición dúctil de 1/32 de diámetro interior 500 mm y PFA 30 bar, con revestimiento interior y exterior epoxi, incluso p.p. de juntas y medios auxiliares, totalmente colocado y probado.	
			Mano de obra.....	27,13
			Maquinaria.....	4,96
			Resto de obra y materiales.....	353,37
			TOTAL PARTIDA.....	385,46

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Nº	CÓDIGO	UD	DESCRIPCIÓN	IMPORTE
0083	077	UD	CODO FD 1/8 400 mm Codo de fundición dúctil de 1/8 de diámetro interior 400 mm y PFA 30 bar, con revestimiento interior y exterior epoxi, incluso p.p. de juntas y medios auxiliares, totalmente colocado y probado.	
			Mano de obra.....	24,41
			Maquinaria.....	4,46
			Resto de obra y materiales.....	307,96
			TOTAL PARTIDA.....	336,83
0084	078	UD	CODO FD 1/16 A 1/32 400 mm Codo de fundición dúctil de 1/16 a 1/32 de diámetro interior 400 mm y PFA 30 bar, con revestimiento interior y exterior epoxi, incluso p.p. de juntas y medios auxiliares, totalmente colocado y probado.	
			Mano de obra.....	24,41
			Maquinaria.....	4,46
			Resto de obra y materiales.....	296,75
			TOTAL PARTIDA.....	325,62
0085	079	UD	CODO FD 1/4 400 mm Codo de fundición dúctil de 1/4 de diámetro interior 400 mm y PFA 30 bar, con revestimiento interior y exterior epoxi, incluso p.p. de juntas y medios auxiliares, totalmente colocado y probado.	
			Mano de obra.....	24,41
			Maquinaria.....	4,46
			Resto de obra y materiales.....	360,03
			TOTAL PARTIDA.....	388,90
0086	079.1	UD	CODO FD 1/4 300 mm Codo de fundición dúctil de 1/4 de diámetro interior 300 mm y PFA 30 bar, con revestimiento interior y exterior epoxi, incluso p.p. de juntas y medios auxiliares, totalmente colocado y probado.	
			Mano de obra.....	24,41
			Maquinaria.....	4,46
			Resto de obra y materiales.....	304,87
			TOTAL PARTIDA.....	333,74
0087	080	UD	CODO FD 1/8 A 1/32 300 mm Codo de fundición dúctil de 1/8 a 1/32 de diámetro interior 300 mm y PFA 40 bar, con un revestimiento interior y exterior epoxi, incluso p.p. de juntas y medios auxiliares, totalmente colocado y probado.	
			Mano de obra.....	24,41
			Maquinaria.....	4,46
			Resto de obra y materiales.....	215,41
			TOTAL PARTIDA.....	244,28
0088	081	UD	CODO FD 1/8 A 1/32 250 mm Codo de fundición dúctil de 1/8 a 1/32 de diámetro interior 250 mm y PFA 54 bar, con un revestimiento interior y exterior epoxi, incluso p.p. de juntas y medios auxiliares, totalmente colocado y probado.	
			Mano de obra.....	21,68
			Maquinaria.....	3,97
			Resto de obra y materiales.....	142,92
			TOTAL PARTIDA.....	168,57

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ABASTECIMIENTO A VARIOS MUNICIPIOS DE LA RIOJA. SISTEMA CIDACOS

Nº	CÓDIGO	UD	DESCRIPCIÓN	IMPORTE
0089	082	UD	CODO FD 1/4 250 mm Codo de fundición dúctil de 1/8 de diámetro interior 250 mm y PFA 40 bar, con revestimiento interior y exterior epoxi, incluso p.p. de juntas y medios auxiliares, totalmente colocado y probado.	
			Mano de obra.....	21,68
			Maquinaria.....	3,97
			Resto de obra y materiales.....	212,41
			TOTAL PARTIDA.....	238,06
0090	084	UD	CODO FD 1/4 200 mm Codo de fundición dúctil de 1/4 de diámetro interior 200 mm y PFA 16 bar, con revestimiento interior y exterior epoxi, incluso p.p. de juntas y medios auxiliares, totalmente colocado y probado.	
			Mano de obra.....	36,16
			Maquinaria.....	6,61
			Resto de obra y materiales.....	215,24
			TOTAL PARTIDA.....	258,01
0091	084.1	UD	CODO FD 1/4 200 mm Codo de fundición dúctil de 1/4 de diámetro interior 200 mm y PFA 40 bar, con revestimiento interior y exterior epoxi, incluso p.p. de juntas y medios auxiliares, totalmente colocado y probado.	
			Mano de obra.....	36,16
			Maquinaria.....	6,61
			Resto de obra y materiales.....	246,83
			TOTAL PARTIDA.....	289,60
0092	085	UD	CODO FD 1/8 A 1/32 150 mm Codo de fundición dúctil de 1/8 a 1/32 de diámetro interior 150 mm y PFA 40 bar, con un revestimiento interior y exterior epoxi, incluso p.p. de juntas y medios auxiliares, totalmente colocado y probado.	
			Mano de obra.....	18,07
			Maquinaria.....	3,31
			Resto de obra y materiales.....	65,13
			TOTAL PARTIDA.....	86,51
0093	086	UD	CODO FD 1/4 A 1/32 125 mm Codo de fundición dúctil de 1/4 a 1/32 de diámetro interior 125 mm y PFA 40 bar, con un revestimiento interior y exterior epoxi, incluso p.p. de juntas y medios auxiliares, totalmente colocado y probado.	
			Mano de obra.....	18,07
			Maquinaria.....	3,31
			Resto de obra y materiales.....	56,40
			TOTAL PARTIDA.....	77,78
0094	087	UD	CODO FD 1/4 A 1/32 100 mm Codo de fundición dúctil de 1/4 a 1/32 de diámetro interior 100 mm y PFA 40 bar, con un revestimiento interior y exterior epoxi, incluso p.p. de juntas y medios auxiliares, totalmente colocado y probado.	
			Mano de obra.....	18,07
			Maquinaria.....	3,31
			Resto de obra y materiales.....	45,28
			TOTAL PARTIDA.....	66,66

CUADRO DE PRECIOS 2

ABASTECIMIENTO A VARIOS MUNICIPIOS DE LA RIOJA. SISTEMA CIDACOS

Nº	CÓDIGO	UD	DESCRIPCIÓN	IMPORTE
0095	088	UD	REDUCCIÓN FD 900 A 800 mm Reducción en fundición dúctil de 900 mm a 800 mm con enchufes y PN 16-25 bar, con un revestimiento interior y exterior epoxi, i/p.p. de junta de unión y medios auxiliares, totalmente colocada y probada.	
			Mano de obra.....	23,58
			Maquinaria.....	4,96
			Resto de obra y materiales.....	1.528,88
			TOTAL PARTIDA.....	1.557,42
0096	089	UD	REDUCCIÓN FD 600 A 500/400 mm PN16/25 Reducción en fundición dúctil de 600 mm a 500-450-400 mm con dos bridas PN 16/25 bar, con un revestimiento interior y exterior epoxi, i/p.p. de junta de unión y medios auxiliares, totalmente colocada y probada.	
			Mano de obra.....	36,16
			Maquinaria.....	6,61
			Resto de obra y materiales.....	1.209,20
			TOTAL PARTIDA.....	1.251,97
0097	092	UD	REDUCCIÓN FD 800 A 700/500 mm PN16/25 Reducción en fundición dúctil de 800 mm a 700-600-500 mm con dos bridas PN 16/25 bar, con un revestimiento interior y exterior epoxi, i/p.p. de junta de unión y medios auxiliares, totalmente colocada y probada.	
			Mano de obra.....	24,41
			Maquinaria.....	4,46
			Resto de obra y materiales.....	1.893,85
			TOTAL PARTIDA.....	1.922,72
0098	097	UD	REDUCCIÓN FD 500 A 450/350 mm PN16/25 Reducción en fundición dúctil de 500 mm a 450-400-350 mm con dos bridas PN 16/25 bar, con un revestimiento interior y exterior epoxi, i/p.p. de junta de unión y medios auxiliares, totalmente colocada y probada.	
			Mano de obra.....	33,68
			Maquinaria.....	6,61
			Resto de obra y materiales.....	792,02
			TOTAL PARTIDA.....	832,31
0099	098	UD	REDUCCIÓN FD 400 A 350/250 mm PN16/25 Reducción en fundición dúctil de 400 mm a 350-300-250 mm con dos bridas PN 16/25 bar, con un revestimiento interior y exterior epoxi, i/p.p. de junta de unión y medios auxiliares, totalmente colocada y probada.	
			Mano de obra.....	24,41
			Maquinaria.....	4,46
			Resto de obra y materiales.....	352,01
			TOTAL PARTIDA.....	380,88
0100	098.1	UD	REDUCCIÓN FD 400 A 350/250 mm PN40 Reducción en fundición dúctil de 400 mm a 350-300-250 mm con dos bridas PN 40 bar, con un revestimiento interior y exterior epoxi, i/p.p. de junta de unión y medios auxiliares, totalmente colocada y probada.	
			Mano de obra.....	24,41
			Maquinaria.....	4,46
			Resto de obra y materiales.....	395,75
			TOTAL PARTIDA.....	424,62

CUADRO DE PRECIOS 2

ABASTECIMIENTO A VARIOS MUNICIPIOS DE LA RIOJA. SISTEMA CIDACOS

Nº	CÓDIGO	UD	DESCRIPCIÓN	IMPORTE
0101	1-46	m	COND. UNIP. ALUMIN.-ACERO LA-56 CONDUCTOR UNIPOLAR DE ALUMINIO ACERO LA-56, TOTALMENTE INSTALADO, TENSIONADO Y COLOCADO SEGUN NORMAS DE LA COMPAÑIA SUMINISTRADORA.	
			Mano de obra.....	0,04
			Resto de obra y materiales.....	1,01
			TOTAL PARTIDA.....	1,05
0102	104.1	UD	REDUCCIÓN FD 300 A 200 mm PN40 Reducción en fundición dúctil de 300 mm a 200 mm con dos bridas PN 40bar, con un revestimiento interior y exterior epoxi, i/p.p. de tornillería y medios auxiliares, totalmente colocada y probada.	
			Mano de obra.....	22,60
			Maquinaria.....	3,64
			Resto de obra y materiales.....	351,81
			TOTAL PARTIDA.....	378,05
0103	105	UD	REDUCCIÓN FD 300 A 250/150 mm PN16 Reducción en fundición dúctil de 300 mm a 250-200-150 mm con dos bridas PN 16 bar, con un revestimiento interior y exterior epoxi, i/p.p. de junta de unión y medios auxiliares, totalmente colocada y probada.	
			Mano de obra.....	22,60
			Maquinaria.....	3,64
			Resto de obra y materiales.....	177,96
			TOTAL PARTIDA.....	204,20
0104	106	UD	REDUCCIÓN FD 250 A 200/125 mm PN16 Reducción en fundición dúctil de 250 mm a 200-150-125 mm con dos bridas PN 25 bar, con un revestimiento interior y exterior epoxi, i/p.p. de junta de unión y medios auxiliares, totalmente colocada y probada.	
			Mano de obra.....	19,32
			Maquinaria.....	3,31
			Resto de obra y materiales.....	87,81
			TOTAL PARTIDA.....	110,44
0105	107	UD	REDUCCIÓN FD 250 A 200/125 mm PN25 Reducción en fundición dúctil de 250 mm a 200-150-125 mm con dos bridas PN 16 bar, con un revestimiento interior y exterior epoxi, i/p.p. de junta de unión y medios auxiliares, totalmente colocada y probada.	
			Mano de obra.....	19,32
			Maquinaria.....	3,31
			Resto de obra y materiales.....	138,26
			TOTAL PARTIDA.....	160,89
0106	107.1	UD	REDUCCIÓN FD 250 A 200/125 mm PN40 Reducción en fundición dúctil de 250 mm a 200-150-125 mm con dos bridas PN 40 bar, con un revestimiento interior y exterior epoxi, i/p.p. de junta de unión y medios auxiliares, totalmente colocada y probada.	
			Mano de obra.....	19,32
			Maquinaria.....	3,31
			Resto de obra y materiales.....	177,36
			TOTAL PARTIDA.....	199,99

CUADRO DE PRECIOS 2

ABASTECIMIENTO A VARIOS MUNICIPIOS DE LA RIOJA. SISTEMA CIDACOS

Nº	CÓDIGO	UD	DESCRIPCIÓN	IMPORTE
0107	109	UD	REDUCCIÓN FD 200 A 150/100 mm PN16 Reducción en fundición dúctil de 200 mm a 150-125-100 mm con dos bridas PN 16 bar, con un revestimiento interior y exterior epoxi, i/p.p. de junta de unión y medios auxiliares, totalmente colocada y probada.	
			Mano de obra	19,32
			Maquinaria.....	3,31
			Resto de obra y materiales	68,74
			TOTAL PARTIDA.....	91,37
0108	109A	UD	RACORD TIPO BARCELONA SALIDAS 80-200 mm Rosca Racord tipo Barcelona con salidad entre 80 y 200 mm para enchufe de manguera, totalmente instalado y terminado.	
			Mano de obra	19,32
			Resto de obra y materiales	131,34
			TOTAL PARTIDA.....	150,66
0109	111	UD	REDUCCIÓN FD 150 A 125/50 mm PN16/25 Reducción en fundición dúctil de 150 mm a 125-100-80-65-60-50 mm con dos bridas PN 16/25 bar, con un revestimiento interior y exterior epoxi, i/p.p. de junta de unión y medios auxiliares, totalmente colocada y probada.	
			Mano de obra	18,07
			Maquinaria.....	2,97
			Resto de obra y materiales	76,22
			TOTAL PARTIDA.....	97,26
0110	113	UD	REDUCCIÓN FD 100 A 80/50 mm PN25 Reducción en fundición dúctil de 100 mm a 80-65-60-50 mm con dos bridas PN 25 bar, con un revestimiento interior y exterior epoxi, i/p.p. de tornillería y medios auxiliares, totalmente colocada y probada.	
			Mano de obra	16,26
			Maquinaria.....	2,64
			Resto de obra y materiales	52,85
			TOTAL PARTIDA.....	71,75
0111	113.1	UD	REDUCCIÓN FD 100 A 80/50 mm PN40 Reducción en fundición dúctil de 100 mm a 80-65-60-50 mm con dos bridas PN 40 bar, con un revestimiento interior y exterior epoxi, i/p.p. de tornillería y medios auxiliares, totalmente colocada y probada.	
			Mano de obra	16,26
			Maquinaria.....	2,64
			Resto de obra y materiales	69,27
			TOTAL PARTIDA.....	88,17
0112	114	UD	REDUCCIÓN FD 100 A 80/50 mm PN16/25 Reducción en fundición dúctil de 100 mm a 80-65-60-50 mm con dos bridas PN 16/25 bar, con un revestimiento interior y exterior epoxi, i/p.p. de tornillería y medios auxiliares, totalmente colocada y probada.	
			Mano de obra	16,26
			Maquinaria.....	2,64
			Resto de obra y materiales	31,38
			TOTAL PARTIDA.....	50,28

CUADRO DE PRECIOS 2

ABASTECIMIENTO A VARIOS MUNICIPIOS DE LA RIOJA. SISTEMA CIDACOS

Nº	CÓDIGO	UD	DESCRIPCIÓN	IMPORTE
0113	114.1	UD	BRIDA LISO FD 900 mm PN16 Brida lisa de fundición dúctil de PFA 16 bar para tubería de 900 mm, con un revestimiento interior y exterior epoxi, i/p.p. de junta de unión y medios auxiliares, totalmente colocada y probada.	
			Mano de obra	36,16
			Maquinaria.....	6,61
			Resto de obra y materiales	1.620,78
			TOTAL PARTIDA.....	1.663,55
0114	114.10	UD	REDUCCIÓN FD 125 A 100/50 mm PN16/25 Reducción en fundición dúctil de 125 mm a 80-65-60-50 mm con dos bridas PN 16/25 bar, con un revestimiento interior y exterior epoxi, i/p.p. de tornillería y medios auxiliares, totalmente colocada y probada.	
			Mano de obra.....	16,26
			Maquinaria.....	2,64
			Resto de obra y materiales	35,38
			TOTAL PARTIDA.....	54,28
0115	114.2	UD	BRIDA LISO FD 500 mm PN16/25 Brida lisa de fundición dúctil de PFA 16 bar para tubería de 500 mm, con un revestimiento interior y exterior epoxi, i/p.p. de junta de unión y medios auxiliares, totalmente colocada y probada.	
			Mano de obra.....	36,16
			Maquinaria.....	6,61
			Resto de obra y materiales	407,21
			TOTAL PARTIDA.....	449,98
0116	114.3	UD	BRIDA LISO FD 250 mm PN16/25 Brida lisa de fundición dúctil de PFA 16/25 bar para tubería de 250 mm, con un revestimiento interior y exterior epoxi, i/p.p. de junta de unión y medios auxiliares, totalmente colocada y probada.	
			Mano de obra.....	36,16
			Maquinaria.....	6,61
			Resto de obra y materiales	160,04
			TOTAL PARTIDA.....	202,81
0117	114.4	UD	BRIDA LISO FD DN<150 mm PN16/25/40 Brida lisa de fundición dúctil de PFA 16/25/40 bar para tubería de diámetro menor o igual de 150 mm, con un revestimiento interior y exterior epoxi, i/p.p. de junta de unión y medios auxiliares, totalmente colocada y probada.	
			Mano de obra.....	36,16
			Maquinaria.....	6,61
			Resto de obra y materiales	36,03
			TOTAL PARTIDA.....	78,80
0118	114.5	UD	BRIDA LISO FD 800 mm PN25/40 Brida lisa de fundición dúctil de PFA 25/40 bar para tubería de 800 mm, con un revestimiento interior y exterior epoxi, i/p.p. de junta de unión y medios auxiliares, totalmente colocada y probada.	
			Mano de obra.....	36,16
			Maquinaria.....	6,61
			Resto de obra y materiales	1.576,13
			TOTAL PARTIDA.....	1.618,90

CUADRO DE PRECIOS 2

ABASTECIMIENTO A VARIOS MUNICIPIOS DE LA RIOJA. SISTEMA CIDACOS

Nº	CÓDIGO	UD	DESCRIPCIÓN	IMPORTE
0119	114.6	UD	BRIDA LISO FD 400 mm PN16/25 Brida lisa de fundición dúctil de PFA 16/25 bar para tubería de 400 mm, con un revestimiento interior y exterior epoxi, i/p.p. de junta de unión y medios auxiliares, totalmente colocada y probada.	
			Mano de obra.....	36,16
			Maquinaria.....	6,61
			Resto de obra y materiales.....	398,94
			TOTAL PARTIDA.....	441,71
0120	114.8	UD	REDUCCIÓN FD 50 A 40/25 mm PN16/25 Reducción en fundición dúctil de 50 mm a 40-25 mm con dos bridas PN 16/25 bar, con un revestimiento interior y exterior epoxi, i/p.p. de tornillería y medios auxiliares, totalmente colocada y probada.	
			Mano de obra.....	7,34
			Resto de obra y materiales.....	21,20
			TOTAL PARTIDA.....	28,54
0121	115.1	UD	BRIDA ENCHUFE FD 900 mm PN16 Brida enchufe de fundición dúctil de PFA 16 bar para tubería de 900 mm, con un revestimiento interior y exterior epoxi, i/p.p. de junta de unión y medios auxiliares, totalmente colocada y probada.	
			Mano de obra.....	36,16
			Maquinaria.....	6,61
			Resto de obra y materiales.....	2.106,03
			TOTAL PARTIDA.....	2.148,80
0122	115.11	UD	BRIDA ENCHUFE FD 250 mm PN40 Brida enchufe de fundición dúctil de PFA 40 bar para tubería de 250 mm, con un revestimiento interior y exterior epoxi, i/p.p. de junta de unión y medios auxiliares, totalmente colocada y probada.	
			Mano de obra.....	36,16
			Maquinaria.....	6,61
			Resto de obra y materiales.....	122,01
			TOTAL PARTIDA.....	164,78
0123	115.12	UD	BRIDA ENCHUFE FD 300 mm PN16 Brida enchufe de fundición dúctil de PFA 16 bar para tubería de 300 mm, con un revestimiento interior y exterior epoxi, i/p.p. de junta de unión y medios auxiliares, totalmente colocada y probada.	
			Mano de obra.....	36,16
			Maquinaria.....	6,61
			Resto de obra y materiales.....	164,18
			TOTAL PARTIDA.....	206,95
0124	115.13	UD	BRIDA ENCHUFE FD 400 mm PN40 Brida enchufe de fundición dúctil de PFA 40 bar para tubería de 400 mm, con un revestimiento interior y exterior epoxi, i/p.p. de junta de unión y medios auxiliares, totalmente colocada y probada.	
			Mano de obra.....	36,16
			Maquinaria.....	6,61
			Resto de obra y materiales.....	424,11
			TOTAL PARTIDA.....	466,88

CUADRO DE PRECIOS 2

ABASTECIMIENTO A VARIOS MUNICIPIOS DE LA RIOJA. SISTEMA CIDACOS

Nº	CÓDIGO	UD	DESCRIPCIÓN	IMPORTE
0125	115.2	UD	BRIDA ENCHUFE FD 800 mm PN25 Brida enchufe de fundición dúctil de PFA 25 bar para tubería de 800 mm, con un revestimiento interior y exterior epoxi, i/p.p. de junta de unión y medios auxiliares, totalmente colocada y probada.	
			Mano de obra.....	36,16
			Maquinaria.....	6,61
			Resto de obra y materiales.....	1.705,92
			TOTAL PARTIDA.....	1.748,69
0126	115.3	UD	BRIDA ENCHUFE FD 800 mm PN16 Brida enchufe de fundición dúctil de PFA 16 bar para tubería de 800 mm, con un revestimiento interior y exterior epoxi, i/p.p. de junta de unión y medios auxiliares, totalmente colocada y probada.	
			Mano de obra.....	36,16
			Maquinaria.....	6,61
			Resto de obra y materiales.....	1.705,92
			TOTAL PARTIDA.....	1.748,69
0127	115.4	UD	BRIDA ENCHUFE FD 500 mm PN16/25 Brida enchufe de fundición dúctil de PFA 16 bar para tubería de 500 mm, con un revestimiento interior y exterior epoxi, i/p.p. de junta de unión y medios auxiliares, totalmente colocada y probada.	
			Mano de obra.....	36,16
			Maquinaria.....	6,61
			Resto de obra y materiales.....	488,21
			TOTAL PARTIDA.....	530,98
0128	115.5	UD	BRIDA ENCHUFE FD 400 mm PN16/25 Brida enchufe de fundición dúctil de PFA 16/25 bar para tubería de 400 mm, con un revestimiento interior y exterior epoxi, i/p.p. de junta de unión y medios auxiliares, totalmente colocada y probada.	
			Mano de obra.....	36,16
			Maquinaria.....	6,61
			Resto de obra y materiales.....	402,25
			TOTAL PARTIDA.....	445,02
0129	115.6	UD	BRIDA ENCHUFE FD 250 mm PN16/25 Brida enchufe de fundición dúctil de PFA 16/25 bar para tubería de 250 mm, con un revestimiento interior y exterior epoxi, i/p.p. de junta de unión y medios auxiliares, totalmente colocada y probada.	
			Mano de obra.....	36,16
			Maquinaria.....	6,61
			Resto de obra y materiales.....	122,01
			TOTAL PARTIDA.....	164,78
0130	115.7	UD	BRIDA ENCHUFE FD DN<150 mm PN16/25/40 Brida enchufe de fundición dúctil de PFA 16/25/40 bar para tubería de diámetro menor o igual de 150 mm, con un revestimiento interior y exterior epoxi, i/p.p. de junta de unión y medios auxiliares, totalmente colocada y probada.	
			Mano de obra.....	36,16
			Maquinaria.....	6,61
			Resto de obra y materiales.....	61,25
			TOTAL PARTIDA.....	104,02

CUADRO DE PRECIOS 2

ABASTECIMIENTO A VARIOS MUNICIPIOS DE LA RIOJA. SISTEMA CIDACOS

Nº	CÓDIGO	UD	DESCRIPCIÓN	IMPORTE
0131	115.8	UD	BRIDA ENCHUFE FD 300 mm PN40 Brida enchufe de fundición dúctil de PFA 40 bar para tubería de 300 mm, con un revestimiento interior y exterior epoxi, i/p.p. de junta de unión y medios auxiliares, totalmente colocada y probada.	
			Mano de obra	36,16
			Maquinaria.....	6,61
			Resto de obra y materiales.....	238,57
			TOTAL PARTIDA.....	281,34
0132	116	UD	TE FD BBB 800 mm PN25 SALIDA DN800/150 "T" de fundición dúctil de PFA 25 bar, con dos enchufes y derivación con brida para tubería de 800 mm con salida comprendida entre 800 y 150 mm, con un revestimiento interior y exterior epoxi, i/p.p. de junta de unión y medios auxiliares, totalmente colocada y probada.	
			Mano de obra	36,16
			Maquinaria.....	6,61
			Resto de obra y materiales.....	3.247,68
			TOTAL PARTIDA.....	3.290,45
0133	116.1	UD	BRIDA ENCHUFE FD 1000 mm PN16 Brida enchufe de fundición dúctil de PFA 16 bar para tubería de 1000 mm, con un revestimiento interior y exterior epoxi, i/p.p. de junta de unión y medios auxiliares, totalmente colocada y probada.	
			Mano de obra	36,16
			Maquinaria.....	6,61
			Resto de obra y materiales.....	2.788,06
			TOTAL PARTIDA.....	2.830,83
0134	116A	UD	TE FD EEB DN900 mm PN16 SALIDA HASTA DN200 "T" de fundición dúctil de PFA 16 bar, con dos enchufes y derivación con brida para tubería de 900 mm con salida comprendida entre 900 y 200 mm, con un revestimiento interior y exterior epoxi, i/p.p. de junta de unión y medios auxiliares, totalmente colocada y probada.	
			Mano de obra	36,16
			Maquinaria.....	6,61
			Resto de obra y materiales.....	4.366,18
			TOTAL PARTIDA.....	4.408,95
0135	116B	UD	TE FD EEB DN1000 mm PN16 SALIDA HASTA DN200 "T" de fundición dúctil de PFA 16 bar, con dos enchufes y derivación con brida para tubería de 1000 mm con salida comprendida entre 1000 y 200 mm, con un revestimiento interior y exterior epoxi, i/p.p. de junta de unión y medios auxiliares, totalmente colocada y probada.	
			Mano de obra	36,16
			Maquinaria.....	6,61
			Resto de obra y materiales.....	5.688,88
			TOTAL PARTIDA.....	5.731,65
0136	119	UD	TE FD 500 mm PN25 "T" de fundición dúctil de PFA 25 bar, con dos enchufes y derivación con brida para tubería de 500 mm con salida comprendida entre 500 y 100 mm, con un revestimiento interior y exterior epoxi, i/p.p. de junta de unión y medios auxiliares, totalmente colocada y probada.	
			Mano de obra	36,16
			Maquinaria.....	6,61
			Resto de obra y materiales.....	803,19
			TOTAL PARTIDA.....	845,96

CUADRO DE PRECIOS 2

ABASTECIMIENTO A VARIOS MUNICIPIOS DE LA RIOJA. SISTEMA CIDACOS

Nº	CÓDIGO	UD	DESCRIPCIÓN	IMPORTE
0137	120	UD	TE FD EEB 500 mm PN16 SALIDA DN500/100 "T" de fundición dúctil de PFA 16 bar, con dos enchufes y derivación con brida para tubería de 500 mm y salida comprendida entre 500 y 100 mm, con un revestimiento interior y exterior epoxi, i/p.p. de junta de unión y medios auxiliares, totalmente colocada y probada.	
			Mano de obra.....	36,16
			Maquinaria.....	6,61
			Resto de obra y materiales.....	604,28
			TOTAL PARTIDA.....	647,05
0138	121	UD	TE FD EEB 400 mm PN16/25 SALIDA DN400/80 "T" de fundición dúctil de PFA 16/25 bar, con dos enchufes y derivación con brida para tubería de 400 mm con salida comprendida entre 400 y 80 mm, con un revestimiento interior y exterior epoxi, i/p.p. de junta de unión y medios auxiliares, totalmente colocada y probada.	
			Mano de obra.....	36,16
			Maquinaria.....	6,61
			Resto de obra y materiales.....	627,10
			TOTAL PARTIDA.....	669,87
0139	121.1	UD	TE FD BBB 400 mm PN16/25 SALIDA DN400/80 "T" de fundición dúctil de PFA 16/25 bar, con tres bridas para tubería de 400 mm con salida comprendida entre 400 y 80 mm, con un revestimiento interior y exterior epoxi, i/p.p. de junta de unión y medios auxiliares, totalmente colocada y probada.	
			Mano de obra.....	36,16
			Maquinaria.....	6,61
			Resto de obra y materiales.....	627,10
			TOTAL PARTIDA.....	669,87
0140	125	UD	TE FD BBB 300 mm PN16/25 SALIDA DN300/40 "T" de fundición dúctil de PFA 16/25 bar, con tres bridas para tubería de 300 mm con salida comprendida entre 300 y 40 mm, con un revestimiento interior y exterior epoxi, i/p.p. de junta de unión y medios auxiliares, totalmente colocada y probada.	
			Mano de obra.....	24,41
			Maquinaria.....	4,46
			Resto de obra y materiales.....	242,45
			TOTAL PARTIDA.....	271,32
0141	126	UD	TE FD BBB 250 mm PN40 SALIDA DN250/60 "T" de fundición dúctil de PFA 40 bar, con tres bridas para tubería de 250 mm con salida comprendida entre 250 y 60 mm, con un revestimiento interior y exterior epoxi, i/p.p. de junta de unión y medios auxiliares, totalmente colocada y probada.	
			Mano de obra.....	21,68
			Maquinaria.....	3,97
			Resto de obra y materiales.....	229,95
			TOTAL PARTIDA.....	255,60
0142	128.1	UD	TE FD BBB 200 mm PN40 SALIDA DN200/40 "T" de fundición dúctil de PFA 40 bar, con tres bridas para tubería de 200 mm con salida comprendida entre 200 y 40 mm, con un revestimiento interior y exterior epoxi, i/p.p. de junta de unión y medios auxiliares, totalmente colocada y probada.	
			Mano de obra.....	21,68
			Maquinaria.....	3,97
			Resto de obra y materiales.....	152,24
			TOTAL PARTIDA.....	177,89

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ABASTECIMIENTO A VARIOS MUNICIPIOS DE LA RIOJA. SISTEMA CIDACOS

Nº	CÓDIGO	UD	DESCRIPCIÓN	IMPORTE
0143	129.1	UD	TE FD EEB 150 mm PN16/25 SALIDA DN150/40 "T" de fundición dúctil de PFA 16/25 bar, con dos enchufes y derivación con brida para tubería de 150 mm y salida comprendida entre 150 y 40 mm, con un revestimiento interior y exterior epoxi, i/p.p. de junta de unión y medios auxiliares, totalmente colocada y probada.	
			Mano de obra.....	21,68
			Maquinaria.....	3,97
			Resto de obra y materiales.....	74,97
			TOTAL PARTIDA.....	100,62
0144	129.8	UD	TE FD EEB 125 mm PN16/25 SALIDA DN125/40 "T" de fundición dúctil de PFA 16/25 bar, con dos enchufes y derivación con brida para tubería de 125 mm y salida comprendida entre 125 y 40 mm, con un revestimiento interior y exterior epoxi, i/p.p. de junta de unión y medios auxiliares, totalmente colocada y probada.	
			Mano de obra.....	21,68
			Maquinaria.....	3,97
			Resto de obra y materiales.....	66,25
			TOTAL PARTIDA.....	91,90
0145	129.9	UD	TE FD EEB 100 mm PN16/25 SALIDA DN100/40 "T" de fundición dúctil de PFA 16/25 bar, con dos enchufes y derivación con brida para tubería de 100 mm y salida comprendida entre 100 y 40 mm, con un revestimiento interior y exterior epoxi, i/p.p. de junta de unión y medios auxiliares, totalmente colocada y probada.	
			Mano de obra.....	21,68
			Resto de obra y materiales.....	53,19
			TOTAL PARTIDA.....	74,87
0146	132.1	UD	TE FD BBB 100 mm PN16/25 SALIDA DN100/40 "T" de fundición dúctil de PFA 16 bar, con tres bridas para tubería de 100 mm con salida comprendida entre 100 y 40 mm, con un revestimiento interior y exterior epoxi, i/p.p. de junta de unión y medios auxiliares, totalmente colocada y probada.	
			Mano de obra.....	18,07
			Maquinaria.....	3,31
			Resto de obra y materiales.....	47,98
			TOTAL PARTIDA.....	69,36
0147	132.2	UD	TE FD BBB 80 mm PN16 SALIDA DN80/40 "T" de fundición dúctil de PFA 16 bar, con tres bridas para tubería de 80 mm con salida comprendida entre 80 y 40 mm, con un revestimiento interior y exterior epoxi, i/p.p. de junta de unión y medios auxiliares, totalmente colocada y probada.	
			Mano de obra.....	18,07
			Maquinaria.....	3,31
			Resto de obra y materiales.....	44,82
			TOTAL PARTIDA.....	66,20
0148	133	UD	TE FD BBB 500 mm PN16/25 SALIDA DN500/100 "T" de fundición dúctil de PFA 16/25 bar, con tres bridas para tubería de 500 mm con salida comprendida entre 400 y 100 mm, con un revestimiento interior y exterior epoxi, i/p.p. de junta de unión y medios auxiliares, totalmente colocada y probada.	
			Mano de obra.....	37,86
			Maquinaria.....	3,31
			Resto de obra y materiales.....	802,92
			TOTAL PARTIDA.....	844,09

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ABASTECIMIENTO A VARIOS MUNICIPIOS DE LA RIOJA. SISTEMA CIDACOS

Nº	CÓDIGO	UD	DESCRIPCIÓN	IMPORTE
0149	134	UD	TE FD BBB 250 mm PN16/25 SALIDA DN250/60 "T" de fundición dúctil de PFA 16/25 bar, con tres bridas para tubería de 250 mm con salida comprendida entre 250 y 60 mm, con un revestimiento interior y exterior epoxi, i/p.p. de junta de unión y medios auxiliares, totalmente colocada y probada.	
			Mano de obra.....	37,86
			Maquinaria.....	3,31
			Resto de obra y materiales.....	230,03
			TOTAL PARTIDA.....	271,20
0150	135	UD	TE FD EEB 250 mm PN16/25 SALIDA DN250/60 "T" de fundición dúctil de PFA 16/25 bar, con dos enchufes y derivación con brida para tubería de 250 mm y salida comprendida entre 250 y 60 mm, con un revestimiento interior y exterior epoxi, i/p.p. de junta de unión y medios auxiliares, totalmente colocada y probada.	
			Mano de obra.....	37,86
			Maquinaria.....	3,31
			Resto de obra y materiales.....	331,33
			TOTAL PARTIDA.....	372,50
0151	135.1	UD	TE FD EEB 300 mm PN16/25/40 SALIDA DN300/60 "T" de fundición dúctil de PFA 16/25/40 bar, con dos enchufes y derivación con brida para tubería de 300 mm y salida comprendida entre 300 y 60 mm, con un revestimiento interior y exterior epoxi, i/p.p. de junta de unión y medios auxiliares, totalmente colocada y probada.	
			Mano de obra.....	37,86
			Maquinaria.....	3,31
			Resto de obra y materiales.....	352,39
			TOTAL PARTIDA.....	393,56
0152	137	UD	TE FD BBB 200 mm PN16/25 SALIDA DN200/40 "T" de fundición dúctil de PFA 16 bar, con tres bridas para tubería de 200 mm con salida comprendida entre 200 y 40 mm, con un revestimiento interior y exterior epoxi, i/p.p. de junta de unión y medios auxiliares, totalmente colocada y probada.	
			Mano de obra.....	34,35
			Maquinaria.....	3,31
			Resto de obra y materiales.....	114,28
			TOTAL PARTIDA.....	151,94
0153	138	UD	TE FD BBB 150 mm PN16/25 SALIDA DN150/40 "T" de fundición dúctil de PFA 16 bar, con tres bridas para tubería de 150 mm con salida comprendida entre 150 y 40 mm, con un revestimiento interior y exterior epoxi, i/p.p. de junta de unión y medios auxiliares, totalmente colocada y probada.	
			Mano de obra.....	37,86
			Maquinaria.....	3,31
			Resto de obra y materiales.....	76,28
			TOTAL PARTIDA.....	117,45
0154	141	UD	CARRETE DE DESMONTAJE DN=250 mm PN25 Carrete de desmontaje autoportante de PFA 25 bar de D=250 mm, colocado.	
			Mano de obra.....	7,40
			Resto de obra y materiales.....	477,15
			TOTAL PARTIDA.....	484,55

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ABASTECIMIENTO A VARIOS MUNICIPIOS DE LA RIOJA. SISTEMA CIDACOS

Nº	CÓDIGO	UD	DESCRIPCIÓN	IMPORTE
0155	142	UD	CARRETE DE DESMONTAJE DN=200 mm PN40 Carrete de desmontaje autoportante de PFA 40 bar de D=200 mm, colocado.	
			Mano de obra.....	7,40
			Resto de obra y materiales.....	564,08
			TOTAL PARTIDA.....	571,48
0156	143	UD	CARRETE DE DESMONTAJE DN=200 mm PN16 Carrete telescópico de desmontaje DN200 PN 16, bridas de acero al carbono, virolas de acero inoxidable, protección epoxi, tornillos y tuercas en acero F-114, cincado y posterior baño de cromo-niquel, incluido p.p. de brida enchufe, totalmente instalado y probado en obra.	
			Mano de obra.....	9,60
			Resto de obra y materiales.....	266,85
			TOTAL PARTIDA.....	276,45
0157	144	UD	CARRETE DE DESMONTAJE DN=200 mm PN25 Carrete de desmontaje autoportante de PFA 25 bar de D=200 mm, colocado.	
			Mano de obra.....	7,40
			Resto de obra y materiales.....	366,74
			TOTAL PARTIDA.....	374,14
0158	145	UD	CARRETE DE DESMONTAJE DN=150 mm PN25 Carrete telescópico de desmontaje DN150 PN25, bridas de acero al carbono, virolas de acero inoxidable, protección epoxi, tornillos y tuercas en acero F-114, cincado y posterior baño de cromo-niquel, incluido p.p. de brida enchufe, totalmente instalado y probado en obra.	
			Mano de obra.....	9,40
			Resto de obra y materiales.....	259,05
			TOTAL PARTIDA.....	268,45
0159	145.1	UD	CARRETE DE DESMONTAJE DN=150 mm PN40 Carrete telescópico de desmontaje DN150 PN40, bridas de acero al carbono, virolas de acero inoxidable, protección epoxi, tornillos y tuercas en acero F-114, cincado y posterior baño de cromo-niquel, incluido p.p. de brida enchufe, totalmente instalado y probado en obra.	
			Mano de obra.....	9,40
			Resto de obra y materiales.....	316,21
			TOTAL PARTIDA.....	325,61
0160	148	UD	CARRETE DE DESMONTAJE DN=80 mm PN25 Carrete de desmontaje autoportante de PFA 25 bar de D=80 mm, colocado.	
			Mano de obra.....	6,34
			Resto de obra y materiales.....	152,35
			TOTAL PARTIDA.....	158,69
0161	148A	ML	TUBERÍA DE HORMIGÓN EN MASA (D=400 mm.) CLASE 180 Tubería de hormigón en masa de 400 mm. de diámetro clase 180, de enchufe campana y junta de goma de enchufe rápido, con fresado de macho para acanaladura en alojamiento de junta, puesta en obra y colocada en zanja, incluso pruebas.	
			Mano de obra.....	15,29
			Maquinaria.....	3,31
			Resto de obra y materiales.....	23,65
			TOTAL PARTIDA.....	42,25

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ABASTECIMIENTO A VARIOS MUNICIPIOS DE LA RIOJA. SISTEMA CIDACOS

Nº	CÓDIGO	UD	DESCRIPCIÓN	IMPORTE
0162	149	UD	CARRETE DE DESMONTAJE DN=80 mm PN16 Carrete de desmontaje autoportante de PFA 16 bar de D=80 mm, colocado.	
			Mano de obra.....	6,34
			Resto de obra y materiales.....	121,73
			TOTAL PARTIDA.....	128,07
0163	150	UD	CARRETE DE DESMONTAJE DN=50 mm PN16 Carrete de desmontaje autoportante de PFA 16 bar de D=50 mm, colocado.	
			Mano de obra.....	5,29
			Resto de obra y materiales.....	102,57
			TOTAL PARTIDA.....	107,86
0164	150.1	UD	CARRETE DE DESMONTAJE DN=50 mm PN25 Carrete de desmontaje autoportante de PFA 25 bar de D=50 mm, colocado.	
			Mano de obra.....	5,29
			Resto de obra y materiales.....	113,05
			TOTAL PARTIDA.....	118,34
0165	152	UD	ADAPTADOR BRIDA-ENCHUFE FD DN 100-200 PN16 Adaptador brida-enchufe, brida-liso o enchufe-enchufe de FD de diámetros 100 a 200 mm y PN 16 bar, incluso juntas de unión y tornillería, totalmente colocado y probado.	
			Mano de obra.....	14,68
			Resto de obra y materiales.....	34,06
			TOTAL PARTIDA.....	48,74
0166	160	UD	MANGUITO FD 100 A 250 mm PN40 Manguito de fundición dúctil con bridas diámetros de 100 a 250 mm, longitud comprendida entre 0,20 y 1,00 m y PN40, incluso p.p. de tornillería y medios auxiliares, totalmente colocado y probado.	
			Mano de obra.....	23,45
			Resto de obra y materiales.....	170,31
			TOTAL PARTIDA.....	193,76
0167	162	UD	MANGUITO FD DN100 A DN250 mm PN16/25 Manguito de fundición dúctil con bridas diámetros de 100 a 250 mm, longitud comprendida entre 0,20 y 1,00 m y PN16/25, incluso p.p. de tornillería y medios auxiliares, totalmente colocado y probado.	
			Mano de obra.....	23,45
			Resto de obra y materiales.....	86,69
			TOTAL PARTIDA.....	110,14
0168	162.1	UD	MANGUITO FD DN300 A DN400 mm PN16/25 Manguito de fundición dúctil con bridas diámetros de 300 a 400 mm, longitud comprendida entre 0,20 y 1,00 m y PN16/25, incluso p.p. de tornillería y medios auxiliares, totalmente colocado y probado.	
			Mano de obra.....	23,45
			Resto de obra y materiales.....	177,50
			TOTAL PARTIDA.....	200,95

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ABASTECIMIENTO A VARIOS MUNICIPIOS DE LA RIOJA. SISTEMA CIDACOS

Nº	CÓDIGO	UD	DESCRIPCIÓN	IMPORTE
0169	162.2	UD	MANGUITO FD DN100 A DN250 mm PN40 Manguito de fundición dúctil con bridas diámetros de 100 a 250 mm, longitud comprendida entre 0,20 y 1,00 m y PN40, incluso p.p. de tornillería y medios auxiliares, totalmente colocado y probado.	
			Mano de obra.....	23,45
			Resto de obra y materiales.....	136,40
			TOTAL PARTIDA.....	159,85
0170	162.3	UD	MANGUITO FD DN450 A DN600 mm PN16/25 Manguito de fundición dúctil con bridas diámetros de 450 a 600 mm, longitud comprendida entre 0,20 y 1,00 m y PN16/25, incluso p.p. de tornillería y medios auxiliares, totalmente colocado y probado.	
			Mano de obra.....	23,45
			Resto de obra y materiales.....	351,10
			TOTAL PARTIDA.....	374,55
0171	164	UD	MANGUITO FD 50 A 80 mm PN16 Manguito de fundición dúctil con bridas diámetros de 50 a 80 mm, longitud comprendida entre 0,20 y 1,00 m y PN16, incluso p.p. de tornillería y medios auxiliares, totalmente colocado y probado.	
			Mano de obra.....	13,56
			Resto de obra y materiales.....	39,56
			TOTAL PARTIDA.....	53,12
0172	171	ML	TUBERÍA PEAD DN=160 mm PN 16 Tubería de polietileno de alta densidad de 160 mm de diámetro exterior, y PN=16 bar, colocada en zanja incluso p.p. de junta de unión colocada y medios auxiliares, totalmente colocada.	
			Mano de obra.....	7,34
			Maquinaria.....	1,65
			Resto de obra y materiales.....	22,71
			TOTAL PARTIDA.....	31,70
0173	171A	ML	TUBERÍA PEAD DN=200 mm PN 16 Tubería de polietileno de alta densidad de 200 mm de diámetro exterior, y PN=16 bar, colocada en zanja incluso p.p. de junta de unión colocada y medios auxiliares, totalmente colocada.	
			Mano de obra.....	7,34
			Maquinaria.....	1,65
			Resto de obra y materiales.....	38,04
			TOTAL PARTIDA.....	47,03
0174	172	ML	TUBERÍA PEAD DN=110 mm PN 16 Tubería de polietileno de alta densidad de 110 mm de diámetro exterior y PN=16 bar, colocada en zanja incluso banda de señalización, p.p. de junta de unión colocada, codos, tes, portabridas, así como piezas especiales y medios auxiliares, totalmente colocada.	
			Mano de obra.....	5,36
			Maquinaria.....	1,65
			Resto de obra y materiales.....	11,55
			TOTAL PARTIDA.....	18,56

CUADRO DE PRECIOS 2

ABASTECIMIENTO A VARIOS MUNICIPIOS DE LA RIOJA. SISTEMA CIDACOS

Nº	CÓDIGO	UD	DESCRIPCIÓN	IMPORTE
0175	172.1	ML	TUBERÍA PEAD DN=110 mm PN 10 Tubería de polietileno de alta densidad de 110 mm de diámetro exterior y PN=10 bar, colocada en zanja incluso banda de señalización, p.p. de junta de unión colocada, codos, tes, portabridas, así como piezas especiales y medios auxiliares, totalmente colocada.	
			Mano de obra.....	5,36
			Maquinaria.....	1,65
			Resto de obra y materiales.....	8,97
			TOTAL PARTIDA.....	15,98
0176	173R	ML	TUBERÍA PEAD DN=75 mm PN 16 Tubería de polietileno de alta densidad de 75 mm de diámetro exterior y PN=16 bar, colocada en zanja incluso p.p. de junta de unión colocada, cinta señalizadora, piezas especiales y medios auxiliares, totalmente colocada.	
			Mano de obra.....	4,52
			Maquinaria.....	1,65
			Resto de obra y materiales.....	5,06
			TOTAL PARTIDA.....	11,23
0177	174	ML	TUBERÍA PEAD DN=63 mm PN 16 Tubería de polietileno de alta densidad de 63 mm de diámetro exterior y PN=16 bar, colocada en zanja incluso banda de señalización, p.p. de junta de unión colocada, codos, tes, portabridas, así como piezas especiales y medios auxiliares, totalmente colocada.	
			Mano de obra.....	3,96
			Maquinaria.....	1,65
			Resto de obra y materiales.....	3,99
			TOTAL PARTIDA.....	9,60
0178	174A	ML	REPOSICIÓN TUBERÍA DE RIEGO Reposición de tubería en riego, colocada en zanja incluso banda de señalización, p.p. de junta de unión colocada así como piezas especiales y medios auxiliares, totalmente colocada.	
			Mano de obra.....	3,96
			Maquinaria.....	1,65
			Resto de obra y materiales.....	3,52
			TOTAL PARTIDA.....	9,13
0179	175	UD	"T" PEAD DN 140 A 63 mm PN16 "T" de derivación en polietileno de alta densidad de 140 mm de diámetro exterior a 63 mm y PN=16 bar, colocada en zanja incluso p.p. de junta de unión colocada y medios auxiliares, totalmente colocada y probada.	
			Mano de obra.....	2,44
			Resto de obra y materiales.....	67,21
			TOTAL PARTIDA.....	69,65
0180	176	UD	"T" PEAD TRES BOCAS 110 mm "T" en polietileno de alta densidad de tres bocas iguales de 110 mm de diámetro, colocada en zanja incluso p.p. de junta de unión colocada y medios auxiliares, totalmente colocada y probada.	
			Mano de obra.....	2,44
			Resto de obra y materiales.....	70,00
			TOTAL PARTIDA.....	72,44

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ABASTECIMIENTO A VARIOS MUNICIPIOS DE LA RIOJA. SISTEMA CIDACOS

Nº	CÓDIGO	UD	DESCRIPCIÓN	IMPORTE
0181	177.1	UD	REDUCCIÓN PEAD 63 A 50 mm DIÁMETRO Reducción en polietileno de alta densidad de 63 mm a 50 mm de diámetro, totalmente colocada y probada.	
			Mano de obra.....	2,44
			Resto de obra y materiales.....	18,59
			TOTAL PARTIDA.....	21,03
0182	177.2	UD	REDUCCIÓN PEAD 75 A 50 mm DIÁMETRO Reducción en polietileno de alta densidad de 75 mm a 50 mm de diámetro, totalmente colocada y probada.	
			Mano de obra.....	2,44
			Resto de obra y materiales.....	20,25
			TOTAL PARTIDA.....	22,69
0183	177.8	UD	COLLARÍN DE TOMA PEAD 63 A 25 mm DIÁMETRO Collarín de toma en polietileno de alta densidad de 63 mm a 25 mm de diámetro, totalmente colocada y probada.	
			Mano de obra.....	2,44
			Resto de obra y materiales.....	12,80
			TOTAL PARTIDA.....	15,24
0184	177.9	UD	COLLARÍN DE TOMA PEAD 75 A 25 mm DIÁMETRO Collarín de toma en polietileno de alta densidad de 75 mm a 25 mm de diámetro, totalmente colocada y probada.	
			Mano de obra.....	2,44
			Resto de obra y materiales.....	14,47
			TOTAL PARTIDA.....	16,91
0185	181	ML	TUBERÍA DE ACERO DN=632 mm Tubería de acero AE-42 helicosoldado, de límite elástico no inferior a 2000 Kp/cm2, de diámetro exterior 632 mm y PN 16 bar, con recubrimiento interior de 300 micras de pintura epoxi tipo alimentario y recubrimiento exterior de tres capas de polietileno extruido en caliente, incluso montaje, soldaduras y pruebas de control.	
			Mano de obra.....	34,82
			Maquinaria.....	17,00
			Resto de obra y materiales.....	139,12
			TOTAL PARTIDA.....	190,94
0186	194	ML	TUBO PVC CORRUGADO DN 110 mm CANALIZACIONES ELÉCTRICAS Tubo corrugado de PVC de D=110 mm, para reposición de línea eléctrica subterránea, totalmente colocado.	
			Mano de obra.....	2,55
			Resto de obra y materiales.....	1,72
			TOTAL PARTIDA.....	4,27
0187	195	ML	TUBERÍA DE PVC 250 mm Tubería de PVC con junta elástica de 250 mm de diámetro exterior y PN=6 bar, incluso banda de señalización, totalmente colocada en zanja.	
			Mano de obra.....	5,34
			Maquinaria.....	1,65
			Resto de obra y materiales.....	19,75
			TOTAL PARTIDA.....	26,74

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Nº	CÓDIGO	UD	DESCRIPCIÓN	IMPORTE
0188	196	ML	TUBERÍA DE PVC 200 mm Tubería de PVC con junta elástica de 200 mm de diámetro exterior, y PN=6 bar, incluso banda de señalización, totalmente colocada en zanja.	
			Mano de obra.....	5,34
			Maquinaria.....	1,65
			Resto de obra y materiales.....	11,68
			TOTAL PARTIDA.....	18,67
0189	196A	ML	TUBERIA PVC DP Ø 200 mm DRENAJE CAMA CERRADA Tubería ranurada de PVC de doble pared de 200 mm de diámetro nominal, con ranuras en arco de 220° y cama sin ranurar, con una rigidez de SN 4KN/m2, unión por junta elástica, incluso parte proporcional de uniones y accesorios. Totalmente colocada	
			Mano de obra.....	2,92
			Resto de obra y materiales.....	6,48
			TOTAL PARTIDA.....	9,40
0190	196B	ML	TUBERÍA DE PVC DP SN-8, PARA SANEAMIENTO DE 315 MM Tubería de PVC de doble pared SN8 para saneamiento de 315 mm de diámetro exterior, con junta elástica, totalmente colocada en zanja.	
			Mano de obra.....	3,65
			Maquinaria.....	1,65
			Resto de obra y materiales.....	21,24
			TOTAL PARTIDA.....	26,54
0191	196C	ML	TUBERÍA DE PVC DP SN-8, PARA SANEAMIENTO DE 400 MM Tubería de PVC de doble pared SN8 para saneamiento de 400 mm de diámetro exterior, con junta elástica, totalmente colocada en zanja.	
			Mano de obra.....	3,65
			Maquinaria.....	1,65
			Resto de obra y materiales.....	27,40
			TOTAL PARTIDA.....	32,70
0192	197	ML	TUBERÍA DE PVC 160 mm Tubería de PVC con junta elástica de 160 mm de diámetro exterior, y PN=6 bar, incluso banda de señalización, totalmente colocada en zanja.	
			Mano de obra.....	3,65
			Maquinaria.....	1,65
			Resto de obra y materiales.....	8,02
			TOTAL PARTIDA.....	13,32
0193	198	ML	TUBERÍA DE PVC 110 mm Tubería de PVC con junta elástica de 110 mm de diámetro exterior, y PN=6 bar, incluso banda de señalización, totalmente colocada en zanja.	
			Mano de obra.....	1,83
			Maquinaria.....	0,83
			Resto de obra y materiales.....	4,76
			TOTAL PARTIDA.....	7,42
0194	198110	ML	TUBERÍA DE PVC 110 mm Sn4 Tubería de PVC con junta elástica de 110 mm de diámetro exterior, Sn-4, fabricados según UNE EN 1401-1, colocada en zanja recubierta con arena.	
			Mano de obra.....	4,37
			Resto de obra y materiales.....	4,30
			TOTAL PARTIDA.....	8,67

CUADRO DE PRECIOS 2

ABASTECIMIENTO A VARIOS MUNICIPIOS DE LA RIOJA. SISTEMA CIDACOS

Nº	CÓDIGO	UD	DESCRIPCIÓN	IMPORTE
0195	198110b	ML	TUBERÍA DE PVC 110 mm serie B m. Tubería de PVC sanitaria serie B, de 110 mm de diámetro y 3,2 mm de espesor, unión por adhesivo, color gris, colocada en bajantes y red de saneamiento horizontal colgada, con una pendiente mínima del 1 %, i/ p.p. de piezas especiales según UNE EN 1329 y CTE/DB-HS 5.	
			Mano de obra.....	6,56
			Resto de obra y materiales.....	4,44
			TOTAL PARTIDA.....	11,00
0196	198112	ML	TUBERÍA DE PVC 125 mm Sn4 Tubería de PVC con junta elástica de 125 mm de diámetro exterior, Sn-4, fabricados según UNE EN 1401-1, colocada en zanja recubierta con arena.	
			Mano de obra.....	4,37
			Resto de obra y materiales.....	4,76
			TOTAL PARTIDA.....	9,13
0197	198116	ML	TUBERÍA DE PVC 160 mm Sn4 Tubería de PVC con junta elástica de 160 mm de diámetro exterior, Sn-4, fabricados según UNE EN 1401-1, colocada en zanja recubierta con arena.	
			Mano de obra.....	5,10
			Resto de obra y materiales.....	6,19
			TOTAL PARTIDA.....	11,29
0198	199	ML	TUBERÍA DE PVC 90 mm Tubería de PVC con junta elástica de 90 mm de diámetro exterior, y PN=6 bar, incluso banda de señalización, totalmente colocada en zanja.	
			Mano de obra.....	1,15
			Maquinaria.....	0,83
			Resto de obra y materiales.....	4,80
			TOTAL PARTIDA.....	6,78
0199	204	m	TUBO DE PVC RÍGIDO DE 25 MM DIÁMETRO Tubo rígido de PVC d=25mm para canalización de conductores, incluso soportes y anclajes a pared, instalado.	
			Mano de obra.....	1,95
			Resto de obra y materiales.....	2,22
			TOTAL PARTIDA.....	4,17
0200	208	ML	TUBERÍA PRFV DN 1200 mm Tubería de poliéster reforzado con fibra de vidrio de diámetro nominal DN=1200 mm y PN 6 bar, incluso juntas y banda de señalización, totalmente colocada.	
			Mano de obra.....	11,87
			Maquinaria.....	5,53
			Resto de obra y materiales.....	154,53
			TOTAL PARTIDA.....	171,93
0201	209	ML	TUBERÍA HORMIGÓN DN=60 cm Tubería de hormigón centrifugado de diámetro interior 60 cm, fabricada con cemento CEM III/A-D/42,5/SR (UNE 80303:96), totalmente terminada.	
			Mano de obra.....	20,56
			Maquinaria.....	8,26
			Resto de obra y materiales.....	10,82
			TOTAL PARTIDA.....	39,64

CUADRO DE PRECIOS 2

ABASTECIMIENTO A VARIOS MUNICIPIOS DE LA RIOJA. SISTEMA CIDACOS

Nº	CÓDIGO	UD	DESCRIPCIÓN	IMPORTE
0202	216.2	UD	VÁLVULA DE MARIPOSA DN=250 mm PN25 Válvula de mariposa de 250 mm de diámetro y PN25, de accionamiento manual por reductor, incluso mecanismo de accionamiento, maniobra y control, transporte, montaje, juntas, tornillería y pintura totalmente instalada y probada. Resto de características según ET de proyecto.	
			Mano de obra.....	82,06
			Maquinaria.....	33,05
			Resto de obra y materiales.....	1.035,90
			TOTAL PARTIDA.....	1.151,01
0203	225	UD	VÁLVULA DE COMPUERTA MANUAL DN400 PN16 Válvula de compuerta de accionamiento manual de diámetro nominal DN=400 mm de 16 bares de presión máxima admisible, con tornillería y juntas, totalmente instalada y probada, incluso volante de accionamiento.	
			Mano de obra.....	155,92
			Maquinaria.....	69,41
			Resto de obra y materiales.....	1.991,70
			TOTAL PARTIDA.....	2.217,03
0204	225.1	UD	VÁLVULA DE COMPUERTA MANUAL DN400 PN25 Válvula de compuerta de accionamiento manual de diámetro nominal DN=400 mm de 25 bares de presión máxima admisible, con tornillería y juntas, totalmente instalada y probada, incluso volante de accionamiento.	
			Mano de obra.....	155,92
			Maquinaria.....	69,41
			Resto de obra y materiales.....	2.198,16
			TOTAL PARTIDA.....	2.423,49
0205	228	UD	VÁLVULA DE COMPUERTA MANUAL DN250 PN25 Válvula de compuerta de accionamiento manual de diámetro nominal DN=250 mm de 25 bares de presión máxima admisible, con tornillería y juntas, totalmente instalada y probada, incluso volante de accionamiento.	
			Mano de obra.....	142,93
			Maquinaria.....	62,80
			Resto de obra y materiales.....	802,41
			TOTAL PARTIDA.....	1.008,14
0206	229	UD	VÁLVULA DE COMPUERTA MANUAL DN250 PN16 Válvula de compuerta de accionamiento manual de diámetro nominal DN=250 mm de 16 bares de presión máxima admisible, con tornillería y juntas, totalmente instalada y probada, incluso volante de accionamiento.	
			Mano de obra.....	142,93
			Maquinaria.....	62,80
			Resto de obra y materiales.....	619,43
			TOTAL PARTIDA.....	825,16
0207	229.1	UD	VÁLVULA DE COMPUERTA MANUAL DN300 PN16 Válvula de compuerta de accionamiento manual de diámetro nominal DN=300 mm de 16 bares de presión máxima admisible, con tornillería y juntas, totalmente instalada y probada, incluso volante de accionamiento.	
			Mano de obra.....	142,93
			Maquinaria.....	62,80
			Resto de obra y materiales.....	795,52
			TOTAL PARTIDA.....	1.001,25

CUADRO DE PRECIOS 2

ABASTECIMIENTO A VARIOS MUNICIPIOS DE LA RIOJA. SISTEMA CIDACOS

Nº	CÓDIGO	UD	DESCRIPCIÓN	IMPORTE
0208	229.2	UD	VÁLVULA DE COMPUERTA MANUAL DN300 PN25 Válvula de compuerta de accionamiento manual de diámetro nominal DN=300 mm de 25 bares de presión máxima admisible, con tornillería y juntas, totalmente instalada y probada, incluso volante de accionamiento.	
			Mano de obra.....	142,93
			Maquinaria.....	62,80
			Resto de obra y materiales.....	1.374,20
			TOTAL PARTIDA.....	1.579,93
0209	230	UD	VÁLVULA DE COMPUERTA MANUAL DN200 PN40 Válvula de compuerta de accionamiento manual de diámetro nominal DN=200 mm de 40 bares de presión máxima admisible, con tornillería y juntas, totalmente instalada y probada, incluso volante de accionamiento.	
			Mano de obra.....	128,53
			Maquinaria.....	57,84
			Resto de obra y materiales.....	711,47
			TOTAL PARTIDA.....	897,84
0210	231	UD	VÁLVULA DE COMPUERTA MANUAL DN200 PN25 Válvula de compuerta de cierre elástico de 200 mm. de diámetro nominal y 25 At. de P.N., de accionamiento manual por volante, de cuerpo de fundición nodular GGG-50, con eje de acero inoxidable al 13 % Cr. con roscas conformadas por laminación en frío, cierre en fundición nodular, tornillería de acero inoxidable, protegida contra la corrosión mediante aplicación de doble capa de pintura epoxy, totalmente colocada y probada. Resto de características según ET.	
			Mano de obra.....	128,53
			Maquinaria.....	57,84
			Resto de obra y materiales.....	675,04
			TOTAL PARTIDA.....	861,41
0211	232	UD	VÁLVULA DE COMPUERTA MANUAL DN200 PN16 Válvula de compuerta de cierre elástico de 200 mm. de diámetro nominal y 16 At. de P.N., de accionamiento manual por volante, de cuerpo de fundición nodular GGG-50, con eje de acero inoxidable al 13 % Cr. con roscas conformadas por laminación en frío, cierre en fundición nodular, tornillería de acero inoxidable, protegida contra la corrosión mediante aplicación de doble capa de pintura epoxy, totalmente colocada y probada. Resto de características según ET.	
			Mano de obra.....	128,53
			Maquinaria.....	57,84
			Resto de obra y materiales.....	328,15
			TOTAL PARTIDA.....	514,52
0212	233	UD	VÁLVULA DE COMPUERTA MANUAL DN150 PN40 Válvula de compuerta de accionamiento manual de diámetro nominal DN=150 mm de 40 bares de presión máxima admisible, con tornillería y juntas, totalmente instalada y probada, incluso volante de accionamiento.	
			Mano de obra.....	110,16
			Resto de obra y materiales.....	501,15
			TOTAL PARTIDA.....	611,31

CUADRO DE PRECIOS 2

ABASTECIMIENTO A VARIOS MUNICIPIOS DE LA RIOJA. SISTEMA CIDACOS

Nº	CÓDIGO	UD	DESCRIPCIÓN	IMPORTE
0213	234	UD	VÁLVULA DE COMPUERTA MANUAL DN150 PN25 Válvula de compuerta de cierre elástico de 150 mm. de diámetro nominal y 25 At. de P.N., de accionamiento manual por volante, de cuerpo de fundición nodular GGG-50, con eje de acero inoxidable al 13 % Cr. con roscas conformadas por laminación en frío, cierre en fundición nodular, tornillería de acero inoxidable, protegida contra la corrosión mediante aplicación de doble capa de pintura epoxy, totalmente colocada y probada. Resto de características según ET.	
			Mano de obra.....	110,16
			Resto de obra y materiales.....	380,46
			TOTAL PARTIDA.....	490,62
0214	235	UD	VÁLVULA DE COMPUERTA MANUAL DN150 PN16 Válvula de compuerta de accionamiento manual de diámetro nominal DN=150 mm de 16 bares de presión máxima admisible, con tornillería y juntas, totalmente instalada y probada, incluso volante de accionamiento.	
			Mano de obra.....	110,16
			Resto de obra y materiales.....	189,19
			TOTAL PARTIDA.....	299,35
0215	235.1	UD	VÁLVULA DE COMPUERTA MOTORIZADA DN150 PN16 Válvula de compuerta de cierre elástico de 150 mm. de diámetro nominal y 16 At. de P.N., de accionamiento motorizado, de cuerpo de fundición nodular GGG-50, con eje de acero inoxidable al 13 % Cr. con roscas conformadas por laminación en frío, cierre en fundición nodular, tornillería de acero inoxidable, protegida contra la corrosión mediante aplicación de doble capa de pintura epoxy, totalmente colocada y probada. Resto de características según ET.	
			Mano de obra.....	110,16
			Resto de obra y materiales.....	2.012,38
			TOTAL PARTIDA.....	2.122,54
0216	237	UD	VÁLVULA DE COMPUERTA MANUAL DN100 PN25 Válvula de compuerta de cierre elástico de 100 mm. de diámetro nominal y 25 At. de P.N., de accionamiento manual por volante, de cuerpo de fundición nodular GGG-50, con eje de acero inoxidable al 13 % Cr. con roscas conformadas por laminación en frío, cierre en fundición nodular, tornillería de acero inoxidable, protegida contra la corrosión mediante aplicación de doble capa de pintura epoxy, totalmente colocada y probada. Resto de características según ET.	
			Mano de obra.....	110,16
			Resto de obra y materiales.....	251,43
			TOTAL PARTIDA.....	361,59
0217	238	ud	VÁLVULA DE COMPUERTA MANUAL DN100 PN16 Válvula de compuerta de cierre elástico de 100 mm. de diámetro nominal y 16 At. de P.N., de accionamiento manual por volante, de cuerpo de fundición nodular GGG-50, con eje de acero inoxidable al 13 % Cr. con roscas conformadas por laminación en frío, cierre en fundición nodular, tornillería de acero inoxidable, protegida contra la corrosión mediante aplicación de doble capa de pintura epoxy, totalmente colocada y probada. Resto de características según ET.	
			Mano de obra.....	108,03
			Resto de obra y materiales.....	113,44
			TOTAL PARTIDA.....	221,47

CUADRO DE PRECIOS 2

ABASTECIMIENTO A VARIOS MUNICIPIOS DE LA RIOJA. SISTEMA CIDACOS

Nº	CÓDIGO	UD	DESCRIPCIÓN	IMPORTE
0218	239	UD	VÁLVULA DE COMPUERTA MANUAL DN80 PN40 Válvula de compuerta de accionamiento manual de diámetro nominal DN=80 mm de 40 bares de presión máxima admisible, con tornillería y juntas, totalmente instalada y probada, incluso volante de accionamiento.	
			Mano de obra.....	36,72
			Resto de obra y materiales.....	215,13
			TOTAL PARTIDA.....	251,85
0219	240	UD	VÁLVULA DE COMPUERTA MANUAL DN80 PN25 Válvula de compuerta de accionamiento manual de diámetro nominal DN=80 mm de 25 bares de presión máxima admisible, con tornillería y juntas, totalmente instalada y probada, incluso volante de accionamiento.	
			Mano de obra.....	36,72
			Resto de obra y materiales.....	201,46
			TOTAL PARTIDA.....	238,18
0220	240.1	UD	VÁLVULA DE COMPUERTA MOTORIZADA DN80 PN25 Válvula de compuerta de cierre elástico de 80 mm. de diámetro nominal y 25 At. de P.N., de accionamiento motorizado, de cuerpo de fundición nodular GGG-50, con eje de acero inoxidable al 13 % Cr. con roscas conformadas por laminación en frío, cierre en fundición nodular, tornillería de acero inoxidable, protegida contra la corrosión mediante aplicación de doble capa de pintura epoxy, totalmente colocada y probada. Resto de características según ET.	
			Mano de obra.....	36,72
			Resto de obra y materiales.....	1.814,43
			TOTAL PARTIDA.....	1.851,15
0221	242	UD	VÁLVULA DE COMPUERTA MANUAL DN50 PN16 Válvula de compuerta de accionamiento manual de diámetro nominal DN=50 mm de 16 bares de presión máxima admisible, con tornillería y juntas, totalmente instalada y probada, incluso volante de accionamiento.	
			Mano de obra.....	36,72
			Resto de obra y materiales.....	68,63
			TOTAL PARTIDA.....	105,35
0222	242.1	UD	VÁLVULA DE COMPUERTA MANUAL DN50 PN25 Válvula de compuerta de accionamiento manual de diámetro nominal DN=50 mm de 25 bares de presión máxima admisible, con tornillería y juntas, totalmente instalada y probada, incluso volante de accionamiento.	
			Mano de obra.....	36,72
			Resto de obra y materiales.....	130,88
			TOTAL PARTIDA.....	167,60
0223	243	UD	VENTOSA DN=150 mm PN25 Válvula ventosa de tres funciones de DN=150 mm y PN 25 bar incluido transporte, juntas, válvula de corte DN=150 mm y PN 25 bar y piezas especiales, totalmente colocada y probada.	
			Mano de obra.....	55,09
			Resto de obra y materiales.....	973,59
			TOTAL PARTIDA.....	1.028,68

CUADRO DE PRECIOS 2

ABASTECIMIENTO A VARIOS MUNICIPIOS DE LA RIOJA. SISTEMA CIDACOS

Nº	CÓDIGO	UD	DESCRIPCIÓN	IMPORTE
0224	243.1	UD	VENTOSA DN=200 mm PN16 Válvula ventosa de tres funciones de DN=200 mm y PN 16 bar incluido transporte, juntas, válvula de corte DN=200 mm y PN 16 bar y piezas especiales, totalmente colocada y probada.	
			Mano de obra.....	29,66
			Resto de obra y materiales.....	1.567,23
			TOTAL PARTIDA.....	1.596,89
0225	244	UD	VENTOSA DN=100 (4") mm PN25 Válvula ventosa de tres funciones de DN=100 mm y PN 25 bar incluido transporte, juntas, válvula de corte DN=100 mm y PN 25 bar y piezas especiales, totalmente colocada y probada.	
			Mano de obra.....	55,09
			Resto de obra y materiales.....	455,84
			TOTAL PARTIDA.....	510,93
0226	244.1	UD	VENTOSA DN=100 (4") mm PN16 Válvula ventosa de tres funciones de DN=100 mm y PN 16 bar incluido transporte, juntas, válvula de corte DN=100 mm y PN 16 bar y piezas especiales, totalmente colocada y probada.	
			Mano de obra.....	55,09
			Resto de obra y materiales.....	848,41
			TOTAL PARTIDA.....	903,50
0227	244.2	UD	VENTOSA DN=100 (4") mm PN16 RESIDUALES Válvula ventosa de tres funciones para aguas residuales de DN=100 mm y PN 16 bar incluido transporte, juntas, válvula de corte DN=100 mm y PN 16 bar y piezas especiales, totalmente colocada y probada.	
			Mano de obra.....	55,09
			Resto de obra y materiales.....	907,67
			TOTAL PARTIDA.....	962,76
0228	245	UD	VENTOSA DN=65 mm PN16/25 Válvula ventosa de tres funciones de DN=65 mm y PN 16/25 bar incluido transporte, juntas, válvula de corte DN=65 mm y PN 15/25y piezas especiales, totalmente colocada y probada.	
			Mano de obra.....	47,74
			Resto de obra y materiales.....	295,89
			TOTAL PARTIDA.....	343,63
0229	245.1	UD	VENTOSA DN=25 mm (1") PN16 Válvula ventosa de tres funciones de 1" (DN=25 mm) y PN 16 bar incluido transporte, juntas, válvula de corte DN=25 mm y PN 16 bar y piezas especiales, totalmente colocada y probada.	
			Mano de obra.....	47,74
			Resto de obra y materiales.....	114,47
			TOTAL PARTIDA.....	162,21
0230	245.2	UD	VENTOSA DN=80 (3") mm PN16 Válvula ventosa de tres funciones de DN=80 mm (3") y PN 16 bar incluido transporte, juntas, válvula de corte DN=80 mm y PN 16y piezas especiales, totalmente colocada y probada.	
			Mano de obra.....	47,74
			Resto de obra y materiales.....	385,16
			TOTAL PARTIDA.....	432,90

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ABASTECIMIENTO A VARIOS MUNICIPIOS DE LA RIOJA. SISTEMA CIDACOS

Nº	CÓDIGO	UD	DESCRIPCIÓN	IMPORTE
0231	245.3	UD	VENTOSA DN=50 (2") mm PN25 Válvula ventosa de tres funciones de DN=50 mm (2") y PN 25 bar incluido transporte, juntas, válvula de corte DN=50 mm y PN 25 y piezas especiales, totalmente colocada y probada.	
			Mano de obra.....	47,74
			Resto de obra y materiales.....	386,69
			TOTAL PARTIDA.....	434,43
0232	245.4	UD	VENTOSA DN=50 (2") mm PN16 Válvula ventosa de tres funciones de DN=50 mm (2") y PN 16 bar incluido transporte, juntas, válvula de corte DN=50 mm y PN 16 y piezas especiales, totalmente colocada y probada.	
			Mano de obra.....	47,74
			Resto de obra y materiales.....	319,90
			TOTAL PARTIDA.....	367,64
0233	245.5	UD	VENTOSA DN=80 (3") mm PN25 Válvula ventosa de tres funciones de DN=80 mm (3") y PN 25 bar incluido transporte, juntas, válvula de corte DN=80 mm y PN 25 y piezas especiales, totalmente colocada y probada.	
			Mano de obra.....	47,74
			Resto de obra y materiales.....	504,34
			TOTAL PARTIDA.....	552,08
0234	245.6	UD	VENTOSA DN=80 (3") mm PN40 Válvula ventosa de tres funciones de DN=80 mm (3") y PN 40 bar incluido transporte, juntas, válvula de corte DN=80 mm y PN 40 y piezas especiales, totalmente colocada y probada.	
			Mano de obra.....	47,74
			Resto de obra y materiales.....	638,83
			TOTAL PARTIDA.....	686,57
0235	245.7	UD	VENTOSA DN=50 (2") mm PN40 Válvula ventosa de tres funciones de DN=50 mm (2") y PN 40 bar incluido transporte, juntas, válvula de corte y piezas especiales, totalmente colocada y probada.	
			Mano de obra.....	47,74
			Resto de obra y materiales.....	538,50
			TOTAL PARTIDA.....	586,24
0236	245.8	UD	VENTOSA DN=25 mm (1") PN25 Válvula ventosa de tres funciones de 1" (DN=25 mm) y PN 25 bar incluido transporte, juntas, válvula de corte DN=25 mm y PN 25 bar y piezas especiales, totalmente colocada y probada.	
			Mano de obra.....	47,74
			Resto de obra y materiales.....	126,02
			TOTAL PARTIDA.....	173,76
0237	246	UD	FILTRO COLADOR EN Y DN=200 mm PN40 Filtro colador en "Y" de diámetro nominal DN=200 mm y brida PN=40 bar de presión, incluso juntas de unión y tornillería, totalmente instalado.	
			Mano de obra.....	47,74
			Maquinaria.....	2,87
			Resto de obra y materiales.....	1.538,75
			TOTAL PARTIDA.....	1.589,36

CUADRO DE PRECIOS 2

ABASTECIMIENTO A VARIOS MUNICIPIOS DE LA RIOJA. SISTEMA CIDACOS

Nº	CÓDIGO	UD	DESCRIPCIÓN	IMPORTE
0238	247	UD	FILTRO COLADOR EN Y DN=200 mm PN25 Filtro colador en "Y" de diámetro nominal DN=200 mm y brida PN=25 bar de presión, incluso juntas de unión y tornillería, totalmente instalado.	
			Mano de obra.....	47,74
			Maquinaria.....	2,87
			Resto de obra y materiales.....	1.156,65
			TOTAL PARTIDA.....	1.207,26
0239	2473CL0101	ud	BOMBA DE CALOR FERROLI NEPTUNO 60R Bomba de calor condensada por aire FERROLI NEPTUNO 60R con potencia frigorífica 59,6 kW y potencia calorífica 68,25 kW diseñada para producir agua caliente hasta 65°C con temperaturas exteriores de -10°C. Version alta eficiencia, limites operativos de -20°C trabajando en modo calefaccion y +48°C en modo refrigeracion. Refrigerante R410A. Con ventiladores axiales control de condensacion con capacidad continua de regulacion incorporado en bomba de calor, compresor scroll encapsulados y ekevada superficie de intercambio para un comportamiento silencioso, 2 circuitos frigoríficos independientes, con grupo hidrónico y bomba de implusión tipo 3 y kit antivibratorios VT15. Totalmente montado e instalado incluso pp de pequeño material y conexión eléctrica.	
			Sin descomposición	
			TOTAL PARTIDA.....	18.106,00
0240	2473CL0201	ud	FANCOIL CASSETTE DE TECHO Cassette de techo diseñado para emision sonora reducida. Grupo moto-ventilador con 3/4 velocidades. Estructura de sustentacion reforzada con faja lateral de acero galvanizado. Filtro de aire precargado electrostáticamente de facil extraccion y limpieza. Posibilidad de introduccion directa de aire exterior. Bandeja de condensados con grado de auto extincion VO. Incluido Plafon para cassette GLF10	
			Sin descomposición	
			TOTAL PARTIDA.....	450,27
0241	2473CL0301	Ud	RECUPERADOR DE CALOR Unidad de recuperacion de calor Equipada con recuperador de placas de aluminio a contracorriente de elevada eficiencia para lograr rendimientos secos superiores al 80% , ventiladores plug EC. Construida con perfiles de aluminio y paneles sandwich de 25mm de espesor fijados mediante compresion mecanica por perfil perimetral de aluminio que confiere el cerramiento gran resistencia mecanica. La unidad de recuperacion incluye: -Ejecucion en horizontal -Montaje con orejetas para instalacion interior en falso techo -Filtros F6+F8 -Compuertas para free cooling -Vneiladores con motor EC -Bateria de agua a 2 tubos -Display remoto hasta 30m -Cuadro de control y fuerza -Control de equipo a caudal constante -Comunicacion MODBUS	
			Sin descomposición	
			TOTAL PARTIDA.....	4.628,88

CUADRO DE PRECIOS 2

ABASTECIMIENTO A VARIOS MUNICIPIOS DE LA RIOJA. SISTEMA CIDACOS

Nº	CÓDIGO	UD	DESCRIPCIÓN	IMPORTE
0242	2473CL0302	Ud	VENTILADOR HELICONCENTRÍFUGO Ventilador helicocentrífugo in-line de bajo perfil, extremadamente silencioso, fabricado en material de plástico, con elementos acústicos, cuerpo-motor desmontable sin necesidad de tocar los conductos, juntas de goma en impulsión y descarga para absorber las vibraciones, caja de bornes externa orientable 360°.	
			Sin descomposición	
			TOTAL PARTIDA.....	99,89
0243	2473CL0401	m.	CONDUCTO CHAPA 0,8 mm. con aislamiento URSA AIR M2021 Canalización de aire realizada con chapa de acero galvanizada de 0,8 mm. de espesor, con aislamiento exterior URSA AIR M2021 o equivalente, para canalización de aire en zonas exteriores, i/embocaduras, derivaciones, elementos de fijación y piezas especiales, sellado de juntas, homologado, instalado, según normas UNE y NTE-ICI-23. Totalmente instalado y comprobado.	
			Sin descomposición	
			TOTAL PARTIDA.....	96,97
0244	2473CL0403	Ud	Rejilla de intemperie TROX WG-AL-WG 400x330 mm Rejilla de intemperie de aluminio de la marca TROX serie WG-AG-WG 400x330mm o equivalente, para toma de aire exterior de los equipos de climatización de medidas según indicaciones de planos adjuntos, con lamas fijas horizontales antilluvia y malla metálica posterior de protección anti-pájaros y anti-insectos para toma de aire o salida de aire de condensación, instalada sobre muro exterior con revestimiento hidrófugo pintado en color RAL según indicaciones de la dirección facultativa, s/NTE-ICI-27, totalmente instalada y comprobada.	
			Sin descomposición	
			TOTAL PARTIDA.....	62,14
0245	2473CL0405	Ud	Rejilla de extracción TROX AH-AF 325x225 mm Rejillas lineales de extracción de la instalación marca TROX modelo AH-AF 325x225mm o equivalente, compuesta por marco frontal, con lamas deflectoras horizontales y orientables en la cara frontal, montaje roscado (SM) y con compuerta corredera de regulación. Marco y lamas fabricadas en chapa de acero lacado y termoesmaltada en RAL 9010 (blanco) o en chapa de acero electrogalvanizado. Piezas adosadas en chapa de acero electrogalvanizado, totalmente instalado y comprobado.	
			Sin descomposición	
			TOTAL PARTIDA.....	47,57
0246	2473CL0406	Ud	Rejilla de extracción TROX AH-AF 225x165 mm Rejillas lineales de extracción de la instalación marca TROX modelo AH-AF 225x165mm o equivalente, compuesta por marco frontal, con lamas deflectoras horizontales y orientables en la cara frontal, montaje roscado (SM) y con compuerta corredera de regulación. Marco y lamas fabricadas en chapa de acero lacado y termoesmaltada en RAL 9010 (blanco) o en chapa de acero electrogalvanizado. Piezas adosadas en chapa de acero electrogalvanizado, totalmente instalado y comprobado.	
			Sin descomposición	
			TOTAL PARTIDA.....	36,89

CUADRO DE PRECIOS 2

ABASTECIMIENTO A VARIOS MUNICIPIOS DE LA RIOJA. SISTEMA CIDACOS

Nº	CÓDIGO	UD	DESCRIPCIÓN	IMPORTE
0247	2473CL0408	Ud	Rejilla de extracción TROX AH-AF 425x325 mm Rejillas lineales de extracción de la instalación marca TROX modelo AH-AF 425x325mm o equivalente, compuesta por marco frontal, con lamas deflectoras horizontales y orientables en la cara frontal, montaje roscado (SM) y con compuerta corredera de regulación. Marco y lamas fabricadas en chapa de acero lacado y termoesmaltada en RAL 9010 (blanco) o en chapa de acero electrogalvanizado. Piezas adosadas en chapa de acero electrogalvanizado, totalmente instalado y comprobado.	
			Sin descomposición	
			TOTAL PARTIDA.....	66,99
0248	2473CL04081	Ud	Difusor rotacional TROX ADLR D= 244 mm Difusor rotacional de diámetro 244 mm marca TROX modelo ADLR de deflectores fijos con placa frontal circular, con plenum de conexión horizontal de chapa de acero galvanizado, pintado en color RAL 9010, para instalar en alturas de hasta 4 m. Incluso accesorios de montaje y elementos de fijación.	
			Sin descomposición	
			TOTAL PARTIDA.....	86,99
0249	2473CL0409	Ud	Boca de extracción SCHAKO TVB -100 Boca de extracción Schako TVB-100 o similar, para aseos, complementan la instalación de los extractores de la serie TD, dedicados a la instalación en conductos circulares. Totalmente instalado y probado, i/p.p. de ayudas de albañilería, medios y elementos auxiliares necesarios.	
			Sin descomposición	
			TOTAL PARTIDA.....	42,98
0250	2473CL0410	Ud	Regulador de Caudal Constante marca SCHAKO modelo VRM-200 Caja de caudal constante circular marca Schako modelo VRM-200 o similar, adecuada para regulación continua de caudal constante hasta máx. 1000 Pa de diferencia de presión, incertidumbre de medida mas menos el 5% , equipada con bridas metu y clavetas de regulación de flujo. Carcasa fabricada en acero galvanizado, apropiado para tubos y conductos rectangulares según DIN 24145, totalmente instalado y comprobado.	
			Sin descomposición	
			TOTAL PARTIDA.....	127,35
0251	2473CL0503	PA	Conexiónado y cableado de control Suministro, montaje, acabado, puesta a punto y pruebas de las unidades y equipos de acuerdo a planos y especificaciones. Suministro e instalación de cableados formados por conductores tipo RVK 0,6/1Kv de distintas secciones y números de polos, desde panel de control a los puntos existentes según listado de funciones, incluso parte proporcional de canalizaciones mediante tubo de PVC flexible, en tramos ocultos, rígidos en tramos vistos y acero en el exterior.	
			Sin descomposición	
			TOTAL PARTIDA.....	514,56

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ABASTECIMIENTO A VARIOS MUNICIPIOS DE LA RIOJA. SISTEMA CIDACOS

Nº	CÓDIGO	UD	DESCRIPCIÓN	IMPORTE
0252	2473CL0601	Ud	<p>Tramitación Expediente y Certificados Instalador</p> <p>Tramitación del expediente administrativo ante la delegación de Industria de la Comunidad Autónoma y las Compañías Suministradoras, lo cual incluye la presentación y recogida de la documentación ante estos organismos, quedando a su cargo el abono de las correspondientes tasas de legalización.</p> <p>Así mismo, la empresa instaladora deberá de realizar y entregar ante estos organismos la siguiente documentación:</p> <ul style="list-style-type: none"> - Certificado de instalación técnica visado ante colegio oficial competente de instalación, realizado por el instalador autorizado. - Boletín de la instalación. <p>Dicha documentación ha de ser entregada en copia una vez tramitada por la Delegación de Industria a la Propiedad y a la Dirección Facultativa de Instalaciones.</p>	
Sin descomposición				
TOTAL PARTIDA.....				450,00
0253	248	UD	<p>FILTRO COLADOR EN Y DN=200 mm PN16</p> <p>Filtro colador en "Y" de diámetro nominal DN=200 mm y brida PN=16 bar de presión, incluso juntas de unión y tornillería, totalmente instalado.</p>	
Mano de obra.....				47,74
Maquinaria.....				2,87
Resto de obra y materiales.....				808,62
TOTAL PARTIDA.....				859,23
0254	249	UD	<p>FILTRO COLADOR EN Y DN=150 mm PN25</p> <p>Filtro colador en "Y" de diámetro nominal DN=150 mm y brida PN=25 bar de presión, incluso juntas de unión y tornillería, totalmente instalado.</p>	
Mano de obra.....				44,06
Maquinaria.....				2,65
Resto de obra y materiales.....				751,76
TOTAL PARTIDA.....				798,47
0255	249.1	UD	<p>FILTRO COLADOR EN Y DN=150 mm PN40</p> <p>Filtro colador en "Y" de diámetro nominal DN=150 mm y brida PN=40 bar de presión, incluso juntas de unión y tornillería, totalmente instalado.</p>	
Mano de obra.....				44,06
Maquinaria.....				2,65
Resto de obra y materiales.....				951,82
TOTAL PARTIDA.....				998,53
0256	250	UD	<p>FILTRO COLADOR EN Y DN=150 mm PN16</p> <p>Filtro colador en "Y" de diámetro nominal DN=150 mm y brida PN=16 bar de presión, incluso juntas de unión y tornillería, totalmente instalado.</p>	
Mano de obra.....				47,74
Maquinaria.....				2,87
Resto de obra y materiales.....				662,30
TOTAL PARTIDA.....				712,91
0257	250.1	UD	<p>FILTRO COLADOR EN Y DN=250 mm PN16</p> <p>Filtro colador en "Y" de diámetro nominal DN=250 mm y brida PN=16 bar de presión, incluso juntas de unión y tornillería, totalmente instalado.</p>	
Mano de obra.....				47,74
Maquinaria.....				2,87
Resto de obra y materiales.....				1.195,50
TOTAL PARTIDA.....				1.246,11

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ABASTECIMIENTO A VARIOS MUNICIPIOS DE LA RIOJA. SISTEMA CIDACOS

Nº	CÓDIGO	UD	DESCRIPCIÓN	IMPORTE
0258	250.12	UD	<p>FILTRO COLADOR EN Y DN=250 mm PN40</p> <p>Filtro colador en "Y" de diámetro nominal DN=250 mm y brida PN=40 bar de presión, incluso juntas de unión y tornillería, totalmente instalado.</p>	
Mano de obra.....				47,74
Maquinaria.....				2,87
Resto de obra y materiales.....				1.801,48
TOTAL PARTIDA.....				1.852,09
0259	250.2	UD	<p>FILTRO COLADOR EN Y DN=300 mm PN25</p> <p>Filtro colador en "Y" de diámetro nominal DN=300 mm y brida PN=25 bar de presión, incluso juntas de unión y tornillería, totalmente instalado.</p>	
Mano de obra.....				47,74
Maquinaria.....				2,87
Resto de obra y materiales.....				1.718,81
TOTAL PARTIDA.....				1.769,42
0260	250.3	UD	<p>FILTRO COLADOR EN Y DN=400 mm PN25</p> <p>Filtro colador en "Y" de diámetro nominal DN=400 mm y brida PN=25 bar de presión, incluso juntas de unión y tornillería, totalmente instalado.</p>	
Mano de obra.....				47,74
Maquinaria.....				2,87
Resto de obra y materiales.....				2.022,20
TOTAL PARTIDA.....				2.072,81
0261	251	UD	<p>FILTRO COLADOR EN Y DN=100 mm PN16/25</p> <p>Filtro colador en "Y" de diámetro nominal DN=100 mm y brida PN 16/25 bar de presión, incluso juntas de unión y tornillería, totalmente instalado.</p>	
Mano de obra.....				36,72
Maquinaria.....				2,21
Resto de obra y materiales.....				492,54
TOTAL PARTIDA.....				531,47
0262	253	UD	<p>FILTRO COLADOR EN Y DN=80 mm PN16</p> <p>Filtro colador en "Y" de diámetro nominal DN=80 mm y brida PN=16 bar de presión, incluso juntas de unión y tornillería, totalmente instalado.</p>	
Mano de obra.....				29,38
Maquinaria.....				1,77
Resto de obra y materiales.....				349,90
TOTAL PARTIDA.....				381,05
0263	254	UD	<p>FILTRO COLADOR EN Y DN=50 mm PN16</p> <p>Filtro colador en "Y" de diámetro nominal DN=50 mm y brida PN=16 bar de presión, incluso juntas de unión y tornillería, totalmente instalado.</p>	
Mano de obra.....				25,71
Maquinaria.....				1,55
Resto de obra y materiales.....				52,81
TOTAL PARTIDA.....				80,07
0264	255.1	UD	<p>VÁLVULA REDUCTORA DE PRESIÓN DN=250 mm PN16</p> <p>Válvula reductora de presión de diámetro DN=250 mm y PN 16 bar, incluso juntas de unión y tornillería, totalmente colocada y probada.</p>	
Mano de obra.....				128,53
Maquinaria.....				57,84
Resto de obra y materiales.....				10.884,43
TOTAL PARTIDA.....				11.070,80

CUADRO DE PRECIOS 2

ABASTECIMIENTO A VARIOS MUNICIPIOS DE LA RIOJA. SISTEMA CIDACOS

Nº	CÓDIGO	UD	DESCRIPCIÓN	IMPORTE
0265	255.2	UD	VÁLVULA REDUCTORA DE PRESIÓN DN=250 mm PN40 Válvula reductora de presión de diámetro DN=250 mm y PN 40 bar, incluso juntas de unión y tornillería, totalmente colocada y probada.	
			Mano de obra.....	128,53
			Maquinaria.....	57,84
			Resto de obra y materiales.....	16.912,59
			TOTAL PARTIDA.....	17.098,96
0266	255.3	UD	VÁLVULA REDUCTORA DE PRESIÓN DN=300 mm PN25 Válvula reductora de presión de diámetro DN=300 mm y PN 25 bar, incluso juntas de unión y tornillería, totalmente colocada y probada.	
			Mano de obra.....	128,53
			Maquinaria.....	57,84
			Resto de obra y materiales.....	14.177,93
			TOTAL PARTIDA.....	14.364,30
0267	255.4	UD	VÁLVULA REDUCTORA DE PRESIÓN DN=400 mm PN25 Válvula reductora de presión de diámetro DN=400 mm y PN 25 bar, incluso juntas de unión y tornillería, totalmente colocada y probada.	
			Mano de obra.....	128,53
			Maquinaria.....	57,84
			Resto de obra y materiales.....	26.499,61
			TOTAL PARTIDA.....	26.685,98
0268	256	UD	VÁLVULA REDUCTORA DE PRESIÓN DN=200 mm PN40 Válvula reductora de presión de diámetro DN=200 mm y PN 40 bar, incluso juntas de unión y tornillería, totalmente colocada y probada.	
			Mano de obra.....	128,53
			Maquinaria.....	57,84
			Resto de obra y materiales.....	10.964,62
			TOTAL PARTIDA.....	11.150,99
0269	257	UD	VÁLVULA REDUCTORA DE PRESIÓN DN=200 mm PN25 Válvula reductora de presión de diámetro DN=200 mm y PN 25 bar, incluso juntas de unión y tornillería, totalmente colocada y probada.	
			Mano de obra.....	128,53
			Maquinaria.....	57,84
			Resto de obra y materiales.....	5.723,46
			TOTAL PARTIDA.....	5.909,83
0270	259	UD	VÁLVULA REDUCTORA DE PRESIÓN DN=150 mm PN25 Válvula reductora de presión de diámetro DN=150 mm y PN 25 bar, incluso juntas de unión y tornillería, totalmente colocada y probada.	
			Mano de obra.....	110,16
			Maquinaria.....	49,58
			Resto de obra y materiales.....	3.150,54
			TOTAL PARTIDA.....	3.310,28
0271	259.1	UD	VÁLVULA REDUCTORA DE PRESIÓN DN=150 mm PN40 Válvula reductora de presión de diámetro DN=150 mm y PN 40 bar, incluso juntas de unión y tornillería, totalmente colocada y probada.	
			Mano de obra.....	110,16
			Maquinaria.....	49,58
			Resto de obra y materiales.....	5.435,49
			TOTAL PARTIDA.....	5.595,23

CUADRO DE PRECIOS 2

ABASTECIMIENTO A VARIOS MUNICIPIOS DE LA RIOJA. SISTEMA CIDACOS

Nº	CÓDIGO	UD	DESCRIPCIÓN	IMPORTE
0272	260	UD	VÁLVULA REDUCTORA DE PRESIÓN DN=150 mm PN16 Válvula reductora de presión de diámetro DN=150 mm y PN 16 bar, incluso juntas de unión y tornillería, totalmente colocada y probada.	
			Mano de obra.....	110,16
			Maquinaria.....	49,58
			Resto de obra y materiales.....	2.578,48
			TOTAL PARTIDA.....	2.738,22
0273	262	UD	VÁLVULA REDUCTORA DE PRESIÓN DN=80 mm PN25 Válvula reductora de presión de diámetro DN=80 mm y PN 25 bar, incluso juntas de unión y tornillería, totalmente colocada y probada.	
			Mano de obra.....	62,43
			Maquinaria.....	28,09
			Resto de obra y materiales.....	1.800,66
			TOTAL PARTIDA.....	1.891,18
0274	262.1	UD	VÁLVULA REDUCTORA DE PRESIÓN DN=80 mm PN16 Válvula reductora de presión de diámetro DN=80 mm y PN 16 bar, incluso juntas de unión y tornillería, totalmente colocada y probada.	
			Mano de obra.....	62,43
			Maquinaria.....	28,09
			Resto de obra y materiales.....	1.321,17
			TOTAL PARTIDA.....	1.411,69
0275	265	UD	VÁLVULA LIMITADORA DE CAUDAL DN=80 mm Válvula limitadora de caudal de DN=80 mm PN16, incluso juntas de unión y tornillería, totalmente colocada y probada.	
			Mano de obra.....	44,06
			Resto de obra y materiales.....	4.736,77
			TOTAL PARTIDA.....	4.780,83
0276	266.1	UD	VÁLVULA LIMITADORA DE CAUDAL DN=150 mm PN16 Válvula limitadora de caudal de DN=150 mm PN16, incluso juntas de unión y tornillería, totalmente colocada y probada.	
			Mano de obra.....	40,47
			Resto de obra y materiales.....	7.612,32
			TOTAL PARTIDA.....	7.652,79
0277	266.2	UD	VÁLVULA LIMITADORA DE CAUDAL DN=250 mm PN16 Válvula limitadora de caudal de DN=250 mm PN16, incluso juntas de unión y tornillería, totalmente colocada y probada.	
			Mano de obra.....	40,47
			Resto de obra y materiales.....	9.933,87
			TOTAL PARTIDA.....	9.974,34
0278	266.3	UD	VÁLVULA LIMITADORA DE CAUDAL DN=200 mm PN16 Válvula limitadora de caudal de DN=200 mm PN16, incluso juntas de unión y tornillería, totalmente colocada y probada.	
			Mano de obra.....	40,47
			Resto de obra y materiales.....	8.181,26
			TOTAL PARTIDA.....	8.221,73
0279	266.4	UD	VÁLVULA LIMITADORA DE CAUDAL DN=100 mm PN16 Válvula limitadora de caudal de DN=100 mm PN16, incluso juntas de unión y tornillería, totalmente colocada y probada.	
			Mano de obra.....	40,47
			Resto de obra y materiales.....	3.890,90
			TOTAL PARTIDA.....	3.931,37

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ABASTECIMIENTO A VARIOS MUNICIPIOS DE LA RIOJA. SISTEMA CIDACOS

Nº	CÓDIGO	UD	DESCRIPCIÓN	IMPORTE
0280	266.5	UD	VÁLVULA LIMITADORA DE CAUDAL DN=300 mm PN16 Válvula limitadora de caudal de DN=300 mm PN16 tipo MULTINAR de Ross o equivalente, eléctrica, incluso juntas de unión y tornillería, conexión eléctrica, totalmente colocada y probada.	
			Mano de obra	40,47
			Resto de obra y materiales	11.561,01
			TOTAL PARTIDA.....	11.601,48
0281	268.1	UD	VÁLVULA DE LLENADO DN=150 mm PN16 CIERRE LENTO Y SOLENOIDE Válvula de llenado de asiento inoxidable, con cierre lento y solenoide de diámetro nominal DN=150 mm y PN=16 bar, totalmente instalado y probado.	
			Mano de obra	40,47
			Resto de obra y materiales	2.225,11
			TOTAL PARTIDA.....	2.265,58
0282	268.2	UD	VÁLVULA DE LLENADO DN=250 mm PN16 CIERRE LENTO Y SOLENOIDE Válvula de llenado de asiento inoxidable, con cierre lento y solenoide de diámetro nominal DN=250 mm y PN=16 bar, totalmente instalado y probado.	
			Mano de obra	40,47
			Resto de obra y materiales	3.839,62
			TOTAL PARTIDA.....	3.880,09
0283	268.3	UD	VÁLVULA DE LLENADO DN=200 mm PN16 CIERRE LENTO Y SOLENOIDE Válvula de llenado de asiento inoxidable, con cierre lento y solenoide de diámetro nominal DN=200 mm y PN=16 bar, totalmente instalado y probado.	
			Mano de obra	40,47
			Resto de obra y materiales	3.489,25
			TOTAL PARTIDA.....	3.529,72
0284	268.4	UD	VÁLVULA DE LLENADO DN=80 mm PN16 CIERRE LENTO Y SOLENOIDE Válvula de llenado de asiento inoxidable, con cierre lento y solenoide de diámetro nominal DN=80 mm y PN=16 bar, totalmente instalado y probado.	
			Mano de obra	40,47
			Resto de obra y materiales	1.270,31
			TOTAL PARTIDA.....	1.310,78
0285	268.5	UD	VÁLVULA DE LLENADO DN=300 mm PN16 CIERRE LENTO Y SOLENOIDE Válvula de llenado de asiento inoxidable, con cierre lento y solenoide de diámetro nominal DN=300 mm y PN=16 bar, totalmente instalado y probado.	
			Mano de obra	40,47
			Resto de obra y materiales	7.235,94
			TOTAL PARTIDA.....	7.276,41

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ABASTECIMIENTO A VARIOS MUNICIPIOS DE LA RIOJA. SISTEMA CIDACOS

Nº	CÓDIGO	UD	DESCRIPCIÓN	IMPORTE
0286	270	UD	VÁLVULA DE LLENADO DN=50 mm PN16 APERTURA DIFERIDA Válvula de llenado de asiento inoxidable y apertura diferida de diámetro nominal DN=50 mm y PN=16 bar, totalmente instalado y probado.	
			Mano de obra	66,10
			Maquinaria	29,75
			Resto de obra y materiales	718,59
			TOTAL PARTIDA.....	814,44
0287	2700100	Ud	Conjunto de estanterías Estantería metálica desmontable de baldas regulables de las siguientes características: Dimensiones: 2,50 x 2,00 x 0,60 m.	
			Resto de obra y materiales	291,54
			TOTAL PARTIDA.....	291,54
0288	2700101	Ud	Banco de madera Banco de madera de 3.00 x 0.75 m, sujeto con perfiles metálicos.	
			Resto de obra y materiales	231,33
			TOTAL PARTIDA.....	231,33
0289	2700102	Ud	Panel portaherramientas. Panel portaherramientas.	
			Resto de obra y materiales	932,95
			TOTAL PARTIDA.....	932,95
0290	2700103	Ud	Taladro portátil Taladro portátil. Capacidad del portabrocas: hasta 12 mm. Con juego de brocas de 1 a 13 mm en acero al carbono.	
			Resto de obra y materiales	320,72
			TOTAL PARTIDA.....	320,72
0291	2700105	Ud	Caja herramientas mecánica Caja de herramientas mecánicas tipo arquilla. Marca: HECO-103. Incluyendo: 1 juego de llaves planas fijas (6/7 ÷ 20/22), 4 llaves inglesas de 18", 12", 15" y 6", 1 juego de llaves boca - estrella acodadas (6/7 ÷ 20/22), 1 destornillador 8/200, 1 destornillador 4/100, 1 destornillador punta plana 6/175, 1 destornillador punta plana 5/150, 1 arco de sierra con 5 hojas de recambio, 1 lima plana de 12" grano basto, 1 lima plana de 8" entrefina, 1 lima de media caña de 10" grano basto, 1 lima triangular de 6" grano basto, 1 lima redonda con mango de 8 mm, 1 martillo de bola de 320 gr, 1 martillo de peña de 320 gr, 1 martillo de plástico de 34 mm, 2 granetes de 115 mm, 1 botador de punta de 4 mm, 1 compás de semicírculo hasta 500 mm, 1 tijera para cortar chapa, 1 cinta métrica de 2 m, 1 alicata universal de 8", 1 Alicata punta plana de 160 mm, 1 alicata de punta redonda de 65 mm, 1 corta alambre oblicuo de 20 cm, 1 lima redonda de 10", 1 cortafrios de 250 mm, 1 juego de llaves ALLEN de 2 ÷ 12 mm, 1 tenaza de carpintería de 250 mm, 1 nivel metálico de 300 mm, 1 escuadra metálica lisa de 250 mm, 1 llave pico largo a presión extensible de 8 x 10" y 1 juego de sacabocados de 6, 8 , 10, 12 y 14 mm.	
			Resto de obra y materiales	1.341,11
			TOTAL PARTIDA.....	1.341,11

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ABASTECIMIENTO A VARIOS MUNICIPIOS DE LA RIOJA. SISTEMA CIDACOS

Nº	CÓDIGO	UD	DESCRIPCIÓN	IMPORTE
0292	2700106	Ud	Caja de herramientas eléctricas Caja de herramientas eléctricas tipo arquilla. Marca HECO-103. Incluyendo : 1 destornillador buscapolos, 1 destornillador punta plana 8 x 200, 1 destornillador punta plana 4 x 100, 1 estuche destornilladores, 1 corta alambres oblicuo de 8", 1 juego de llaves fijas de 6 x 22, 1 juego de llaves ALLEN de 2 ÷ 12 mm, 1 llave inglesa de 6", 1 navaja de electricista, 1 pelacables de electricista, 2 rollos de cinta aislante, 1 alicate universal de 8", 1 multitester Steinel y 1 pinza amperimétrica.	
			Resto de obra y materiales	1.224,49
			TOTAL PARTIDA.....	1.224,49
0293	2700107	Ud	Extractor de 3 garras Extractor universal de acero forjado de 3 garras. Capacidad: 305 mm	
			Resto de obra y materiales	87,48
			TOTAL PARTIDA.....	87,48
0294	2700110	Ud	Elevador Tráctel Elevador Tráctel. Capacidad de elevación: 1.500 Kg. Capacidad de tracción: 2.500 Kg. Con 20 m de cable, gancho y palanca.	
			Resto de obra y materiales	466,47
			TOTAL PARTIDA.....	466,47
0295	2700112	Ud	Bomba de achique Bomba de achique portátil de las siguientes características. Marca: ABS o similar. Ejecución: sumergible. Caudal: 50 m3/h. Altura manométrica: 10 m.c.a. Potencia motor: 1,5 Kw.	
			Resto de obra y materiales	643,74
			TOTAL PARTIDA.....	643,74
0296	2700114	Ud.	Amoladora portátil Amoladora portátil. Potencia motor: 250 w.	
			Resto de obra y materiales	734,71
			TOTAL PARTIDA.....	734,71
0297	2700117	Ud	Taladro fijo Taladro fijo de las siguientes características. Capacidad: hasta brocas de 20 mm. Tensión: 220 V.	
			Resto de obra y materiales	320,72
			TOTAL PARTIDA.....	320,72
0298	2700118	Ud	Piedra de esmeril doble Piedra de esmeril doble, gruesa y fina, sobre un soporte de pie. Potencia motor: 0,55 Kw.	
			Resto de obra y materiales	711,38
			TOTAL PARTIDA.....	711,38
0299	2700119	Ud	Cizalladora manual Cizalladora manual de palanca para cortar chapa de hasta 5 mm.	
			Resto de obra y materiales	250,75
			TOTAL PARTIDA.....	250,75
0300	2700121	Ud	Radial Radial	
			Resto de obra y materiales	204,08
			TOTAL PARTIDA.....	204,08

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Nº	CÓDIGO	UD	DESCRIPCIÓN	IMPORTE
0301	2700122	Ud	Llave dinámtrica. Llave dinámtrica.	
			Resto de obra y materiales	524,81
			TOTAL PARTIDA.....	524,81
0302	2700124	Ud	Tornillo de banco Tornillo de banco con abertura máxima de 150 mm.	
			Resto de obra y materiales	340,54
			TOTAL PARTIDA.....	340,54
0303	2700125	Ud.	Multímetro digital Multímetro digital, incluso pila, juego de fusibles, clavija y estuche.	
			Resto de obra y materiales	142,26
			TOTAL PARTIDA.....	142,26
0304	2700128	Ud	Gato hidráulico. Gato hidráulico. 10 Ton. Recorrido: 150 mm.	
			Resto de obra y materiales	198,26
			TOTAL PARTIDA.....	198,26
0305	2700134	Ud	Manguera Menguer	
			Resto de obra y materiales	373,19
			TOTAL PARTIDA.....	373,19
0306	2700135	Ud	Pinza amperimétrica Pinza amperimétrica	
			Resto de obra y materiales	339,36
			TOTAL PARTIDA.....	339,36
0307	2700136	Ud	Telurómetro Telurómetro	
			Resto de obra y materiales	932,95
			TOTAL PARTIDA.....	932,95
0308	271	UD	VÁLVULA ANTIINUNDACIÓN DN 300 mm PN25 Válvula antiinundación DN-300 mm, bridas PN25, incluido montaje y carrete de desmontaje.	
			Mano de obra	145,88
			Maquinaria	33,05
			Resto de obra y materiales	10.248,33
			TOTAL PARTIDA.....	10.427,26
0309	271.1	UD	VÁLVULA ANTIINUNDACIÓN DN 500 mm PN16 Válvula antiinundación DN-500 mm, bridas PN16, incluido montaje y carrete de desmontaje.	
			Mano de obra	145,88
			Maquinaria	33,05
			Resto de obra y materiales	24.302,02
			TOTAL PARTIDA.....	24.480,95
0310	273	UD	VÁLVULA ALIVIO DE PRESIÓN 3" PN 16 Válvula de alivio de presión de 3" brida PN 16 bar, incluso válvula de corte de 3", juntas de unión, y tornillería, totalmente colocada y probada.	
			Mano de obra	128,53
			Maquinaria	57,84
			Resto de obra y materiales	1.251,92
			TOTAL PARTIDA.....	1.438,29

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Nº	CÓDIGO	UD	DESCRIPCIÓN	IMPORTE
0311	273.1	UD	VÁLVULA ALIVIO DE PRESIÓN 2" PN 16 Válvula de alivio de presión de 2" brida PN 16 bar, incluso válvula de corte de 2", juntas de unión, y tornillería, totalmente colocada y probada.	
			Mano de obra	128,53
			Maquinaria.....	57,84
			Resto de obra y materiales	879,92
			TOTAL PARTIDA.....	1.066,29
0312	273.2	UD	VÁLVULA ALIVIO DE PRESIÓN 4" PN 16 Válvula de alivio de presión de 4" brida PN 16 bar, incluso válvula de corte de 4", juntas de unión, y tornillería, totalmente colocada y probada.	
			Mano de obra	128,53
			Maquinaria.....	57,84
			Resto de obra y materiales	1.357,26
			TOTAL PARTIDA.....	1.543,63
0313	274.1	UD	VÁLVULA ALIVIO DE PRESIÓN 2" PN 25 Válvula de alivio de presión de 2" brida PN 25 bar, incluso válvula de corte de 2", juntas de unión, collarín de toma y tornillería, totalmente colocada y probada.	
			Mano de obra	128,53
			Maquinaria.....	57,84
			Resto de obra y materiales	1.089,09
			TOTAL PARTIDA.....	1.275,46
0314	275	UD	VÁLVULA ALIVIO DE PRESIÓN 1" PN16 Válvula de alivio de presión de 1" NPT roscada y PN 16 bar, incluso juntas de unión, collarín de toma y tornillería, totalmente colocada y probada.	
			Mano de obra	128,53
			Maquinaria.....	57,84
			Resto de obra y materiales	758,41
			TOTAL PARTIDA.....	944,78
0315	280	UD	CAUDALÍMETRO ELECTROMAGNÉTICO DN 200 mm PN10 Equipo medidor de caudal de DN200 mm. tipo electromagnético y PN=10 atm. con salida 4/20 mA, tensión 220 V y escala 0-240 m3/h, totalmente instalado y probado. Incluido transporte, montaje, conexiones eléctricas y pruebas de funcionamiento. Resto de características, según ET.	
			Mano de obra	89,95
			Maquinaria.....	19,88
			Resto de obra y materiales	1.247,18
			TOTAL PARTIDA.....	1.357,01
0316	280.1	UD	CAUDALÍMETRO ELECTROMAGNÉTICO DN 250 mm PN10 Equipo medidor de caudal de DN250 mm. tipo electromagnético y PN=10 atm. con salida 4/20 mA, tensión 220 V y escala 0-240 m3/h, totalmente instalado y probado. Incluido transporte, montaje, conexiones eléctricas y pruebas de funcionamiento. Resto de características, según ET.	
			Mano de obra	89,95
			Maquinaria.....	19,88
			Resto de obra y materiales	1.608,65
			TOTAL PARTIDA.....	1.718,48

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ABASTECIMIENTO A VARIOS MUNICIPIOS DE LA RIOJA. SISTEMA CIDACOS

Nº	CÓDIGO	UD	DESCRIPCIÓN	IMPORTE
0317	280.2	UD	CAUDALÍMETRO ELECTROMAGNÉTICO DN 300 mm PN10 Equipo medidor de caudal de DN300mm. tipo electromagnético y PN=10 atm. con salida 4/20 mA, tensión 220 V y escala 0-240 m3/h, totalmente instalado y probado. Incluido transporte, montaje, conexiones eléctricas y pruebas de funcionamiento. Resto de características, según ET.	
			Mano de obra	89,95
			Maquinaria.....	19,88
			Resto de obra y materiales	2.034,48
			TOTAL PARTIDA.....	2.144,31
0318	281	UD	CAUDALÍMETRO ELECTROMAGNÉTICO DN 150 mm PN10 Equipo medidor de caudal de DN150 mm. tipo electromagnético y PN=25 atm. con salida 4/20 mA, tensión 220 V y escala 0-240 m3/h, totalmente instalado y probado. Incluido transporte, montaje, conexiones eléctricas y pruebas de funcionamiento. Resto de características, según ET.	
			Mano de obra	87,38
			Maquinaria.....	19,31
			Resto de obra y materiales	1.094,36
			TOTAL PARTIDA.....	1.201,05
0319	281.1	UD	CAUDALÍMETRO ELECTROMAGNÉTICO DN 150 mm PN25 Equipo medidor de caudal de DN250 mm. tipo electromagnético y PN=25 atm. con salida 4/20 mA, tensión 220 V y escala 0-240 m3/h, totalmente instalado y probado. Incluido transporte, montaje, conexiones eléctricas y pruebas de funcionamiento. Resto de características, según ET.	
			Mano de obra	87,38
			Maquinaria.....	19,31
			Resto de obra y materiales	2.513,30
			TOTAL PARTIDA.....	2.619,99
0320	288	UD	CONTADOR CON EMISOR DE PULSOS DN=25 mm Contador con emisor de pulsos para tubería de diámetro nominal DN=25 mm, incluso juntas de unión y tornillería, totalmente colocado y probado.	
			Mano de obra	36,72
			Resto de obra y materiales	201,11
			TOTAL PARTIDA.....	237,83
0321	289	UD	TAPA DE FUNDICIÓN DN600 Tapa de fundición normalizada DN600, incluyendo el marco, anclada, totalmente colocada.	
			Mano de obra	10,58
			Resto de obra y materiales	53,04
			TOTAL PARTIDA.....	63,62
0322	289B	M2	TAPA DE CHAPA LACRIMADA GALVANIZADA e=4mm Tapa de chapa lacrimada de acero galvanizado de 4 mm de espesor, incluyendo el marco, tiradores, aros para cerradura con candado, anclada, totalmente colocada.	
			Mano de obra	10,58
			Resto de obra y materiales	63,98
			TOTAL PARTIDA.....	74,56

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ABASTECIMIENTO A VARIOS MUNICIPIOS DE LA RIOJA. SISTEMA CIDACOS

Nº	CÓDIGO	UD	DESCRIPCIÓN	IMPORTE
0323	290	UD	PATE POLIPROPILENO Pate de polipropileno de dimensiones 30x25 cm, incluyendo fabricación, transporte a obra, perforación de anclajes y relleno con aportación de material de agarre, completamente colocado.	
			Mano de obra	3,99
			Resto de obra y materiales	1,64
			TOTAL PARTIDA.....	5,63
0324	290A	ML	ESCALERA TUBULAR INOXIDABLE CON ELEMENTOS ANTI-CAIDA Formación de escalera tubular de 50 mm de diámetro, de acero inoxidable AISI-316L, incluso protecciones circulares contra caídas según normativa, anclada a la pared y/o muros, totalmente ejecutada.	
			Mano de obra	10,58
			Resto de obra y materiales	65,51
			TOTAL PARTIDA.....	76,09
0325	290AA	ML	ESCALERA TUBULAR GALVANIZADO CON ELEMENTOS ANTI-CAIDA Formación de escalera tubular de 50 mm de diámetro, de acero galvanizado, incluso protecciones circulares contra caídas según normativa, anclada a la pared y/o muros, totalmente ejecutada.	
			Mano de obra	10,58
			Resto de obra y materiales	42,51
			TOTAL PARTIDA.....	53,09
0326	290B	M2	ESCALERA Y PASARELAS DE ACERO GALVANIZADO. BARANDILLAS GALVANIZ Escalera y pasarelas de acceso de forma según planos, ejecutada en perfiles de acero galvanizado en caliente, incluso barandilla tubular del mismo material, de 90 cm de altura en uno o dos lados, rodapié de seguridad del mismo en uno o dos lados, así como entramado metálico de 30x30x3 en descansillos y peldaños, medida según su proyección en planta. Anclada a los muros y/o solera, instalada.	
			Mano de obra	7,04
			Resto de obra y materiales	74,73
			TOTAL PARTIDA.....	81,77
0327	290BB	M2	ESCALERA Y PASARELAS DE ACERO GALVANIZADO. BARANDILLAS AISI316L Escalera y pasarelas de acceso de forma según planos, ejecutada en perfiles de acero galvanizado en caliente, incluso barandilla tubular del mismo material, de 90 cm de altura en uno o dos lados, rodapié de seguridad del mismo en uno o dos lados, así como entramado metálico de 30x30x3 en descansillos y peldaños, medida según su proyección en planta. Anclada a los muros y/o solera, instalada.	
			Mano de obra	17,62
			Resto de obra y materiales	94,44
			TOTAL PARTIDA.....	112,06
0328	290C	ML	GÁRGOLA DE ACERO GALVANIZADO DE 100 x100 mm. e=2 mm. Gárgola de acero galvanizado de 100 x 100 mm. espesor e=2mm, de 45 cm de longitud, incluso relleno de hueco y sellado a la lámina de cubierta, colocada.	
			Mano de obra	28,20
			Resto de obra y materiales	10,35
			TOTAL PARTIDA.....	38,55

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Nº	CÓDIGO	UD	DESCRIPCIÓN	IMPORTE
0329	300	UD	BOYA DE NIVEL DE MÁXIMO Y MÍNIMO Boya de nivel cableada con la válvula de llenado, incluso montaje y pruebas.	
			Mano de obra	21,27
			Resto de obra y materiales	28,47
			TOTAL PARTIDA.....	49,74
0330	335	m2	CERRAMIENTO TRASLÚCIDO Cerramiento translúcido con moldeados de vidrio de 200x200x80 mm. con mortero de cemento y redondos de acero corrugado B-500-S, según especificaciones NTE-FFV, completamente terminado, incluso replanteo, nivelación y aplomado, preparación, corte y colocación de las armaduras, p.p. de mermas, solapes, roturas, rellenos elásticos, cartón alquitranado, sellado y rejuntado, medida la superficie ejecutada.	
			Mano de obra	39,04
			Resto de obra y materiales	92,09
			TOTAL PARTIDA.....	131,13
0331	339	ud	Caja de protección y medida para 1 contador trifásico más reloj Caja de protección y medida para 1 contador trifásico más reloj. Montado con panel de montaje y bases portafusibles con soporte de caja para poste de hormigón incluso fijación de caja, totalmente instalado y conectado.	
			Mano de obra	70,48
			Resto de obra y materiales	138,05
			TOTAL PARTIDA.....	208,53
0332	364	M3	GRAVA SILÍCEA 3/5 mm Suministro de grava silícea de granulometría 3/5 mm y coeficiente de uniformidad 1.2, libre de arcilla, polvo y materia orgánica.	
			Mano de obra	10,58
			Resto de obra y materiales	7,06
			TOTAL PARTIDA.....	17,64
0333	364B	M3	GRAVA CANTO RODADO 20 mm Suministro de grava de canto rodado de granulometría 20 mm y coeficiente de uniformidad 1.2, libre de arcilla, polvo y materia orgánica.	
			Mano de obra	4,72
			Resto de obra y materiales	6,71
			TOTAL PARTIDA.....	11,43
0334	365	ML	CERRAMIENTO METÁLICO 2 m ALTURA Cerramiento metálico con malla plastificada S.T 50/17 de 2,00 m de altura, incluida p.p. de cimentación, postes intermedios, esquinas, tornapuntas, trípodes, alambres guías y tensores, puertas de acceso y elementos especiales, totalmente colocada.	
			Mano de obra	19,29
			Resto de obra y materiales	8,29
			TOTAL PARTIDA.....	27,58

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Nº	CÓDIGO	UD	DESCRIPCIÓN	IMPORTE
0335	366	ML	HINCA TUBO ACERO 355 mm TIERRAS Hinca de tubo de acero, de 355 mm de diámetro interior, bajo viales, en tierra o roca alterada, incluso p.p. de instalación de tubería de fundición dúctil comprendida entre 250 y 150 mm de diámetro interior y sus anclajes y apoyos; muros de reacción y contención; y todos los elementos necesarios para su montaje y desmontaje.	
			Mano de obra.....	58,97
			Maquinaria.....	100,16
			Resto de obra y materiales.....	141,52
			TOTAL PARTIDA.....	300,65
0336	367	ML	HINCA TUBO ACERO 455 mm TIERRAS Hinca de tubo de acero, de 455 mm de diámetro interior, bajo viales, en tierra o roca alterada, incluso p.p. de instalación de tubería de fundición dúctil comprendida entre 250 y 150 mm de diámetro interior y sus anclajes y apoyos; muros de reacción y contención; y todos los elementos necesarios para su montaje y desmontaje.	
			Mano de obra.....	71,83
			Maquinaria.....	139,44
			Resto de obra y materiales.....	157,61
			TOTAL PARTIDA.....	368,88
0337	368	ML	HINCA TUBO ACERO 609 mm TIERRAS Hinca de tubo de acero, de 609 mm de diámetro interior, bajo viales, en tierra o roca alterada, incluso p.p. de instalación de tubería de fundición dúctil comprendida entre 400 mm y 250 mm de diámetro interior y sus anclajes y apoyos; muros de reacción y contención; y todos los elementos necesarios para su montaje y desmontaje.	
			Mano de obra.....	102,62
			Maquinaria.....	174,30
			Resto de obra y materiales.....	238,33
			TOTAL PARTIDA.....	515,25
0338	369	ML	HINCA TUBO ACERO 813 mm TIERRAS Hinca de tubo de acero, de 813 mm de diámetro interior, bajo viales, en tierra o roca alterada, incluso p.p. de instalación de tubería de fundición dúctil de 500 mm de diámetro interior y sus anclajes y apoyos; muros de reacción y contención; y todos los elementos necesarios para su montaje y desmontaje.	
			Mano de obra.....	112,88
			Maquinaria.....	191,73
			Resto de obra y materiales.....	332,13
			TOTAL PARTIDA.....	636,74
0339	370	ML	HINCA TUBO ACERO 1100 mm TIERRAS Hinca de tubo de acero, de 1100 mm de diámetro interior, bajo viales, en tierra o roca alterada, incluso p.p. de instalación de tubería de fundición dúctil entre 600 y 900 mm de diámetro interior y sus anclajes y apoyos; muros de reacción y contención; y todos los elementos necesarios para su montaje y desmontaje.	
			Mano de obra.....	135,45
			Maquinaria.....	230,08
			Resto de obra y materiales.....	421,16
			TOTAL PARTIDA.....	786,69

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Nº	CÓDIGO	UD	DESCRIPCIÓN	IMPORTE
0340	373	UD	POZO DE REGISTRO DE AROS DE HORMIGÓN DN1200 Pozo de registro de abastecimiento para válvulas de control de cualquier altura de diámetro interior D=1200 mm, incluso base de hormigón HNE-20, aros de hormigón, cono prefabricado de hormigón, pates y tapa de fundición, totalmente terminado.	
			Mano de obra.....	109,41
			Maquinaria.....	33,05
			Resto de obra y materiales.....	215,38
			TOTAL PARTIDA.....	357,84
0341	373A	UD	POZO DE REGISTRO DE AROS DE HORMIGÓN DN1000 Pozo de registro de abastecimiento o saneamiento de cualquier altura de diámetro interior D=1000 mm, incluso base de hormigón HNE-20, aros de hormigón, cono prefabricado de hormigón, pates y tapa de fundición, totalmente terminado.	
			Mano de obra.....	109,41
			Maquinaria.....	33,05
			Resto de obra y materiales.....	178,27
			TOTAL PARTIDA.....	320,73
0342	377	UD	SEÑAL DE TRÁFICO NORMALIZADA Señal de tráfico normalizada con soporte, incluso adquisición, transporte y colocación en su lugar de emplazamiento.	
			Mano de obra.....	7,65
			Maquinaria.....	12,89
			Resto de obra y materiales.....	72,66
			TOTAL PARTIDA.....	93,20
0343	378.1	M2	SUPERFICIE REALMENTE PINTADA Pintura reflexiva blanca, en señalización de isletas, cebreados, etc, incluso premarcaje, totalmente terminada.	
			Mano de obra.....	9,87
			Resto de obra y materiales.....	1,78
			TOTAL PARTIDA.....	11,65
0344	380	M2	REPOSICIÓN DE PAVIMENTO DE HORMIGÓN Reposición de pavimento de hormigón HM-20/B/40/IIa+Qa de 15 cm de espesor, totalmente terminado.	
			Mano de obra.....	8,53
			Maquinaria.....	0,46
			Resto de obra y materiales.....	8,85
			TOTAL PARTIDA.....	17,84
0345	381	M2	REPOSICIÓN DE FIRME DE AGLOMERADO Reposición de firme de aglomerado en caliente en zonas afectadas por las obras.	
			Mano de obra.....	1,86
			Maquinaria.....	0,10
			Resto de obra y materiales.....	2,18
			TOTAL PARTIDA.....	4,14
0346	382	ML	REPOSICIÓN DE MURO DE HORMIGÓN EXISTENTE Reposición de muro de hormigón existente hasta 2,00 m de altura.	
			Mano de obra.....	12,81
			Maquinaria.....	0,68
			Resto de obra y materiales.....	29,21
			TOTAL PARTIDA.....	42,70

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Nº	CÓDIGO	UD	DESCRIPCIÓN	IMPORTE
0347	383	ML	REPOSICIÓN DE CERRAMIENTO EXISTENTE Reposición de cerramiento existente hasta 2,00 m de altura.	
			Resto de obra y materiales.....	9,37
			TOTAL PARTIDA.....	9,37
0348	384	M2	REPOSICIÓN DE ACERA DE HORMIGÓN Reposición de acera de hormigón existente en vía pública, incluso bordillo, totalmente terminada.	
			Mano de obra.....	25,27
			Maquinaria.....	0,42
			Resto de obra y materiales.....	16,73
			TOTAL PARTIDA.....	42,42
0349	385	M2	REPOSICIÓN DE JARDÍN EXISTENTE Reposición de jardín existente.	
			Mano de obra.....	30,71
			Resto de obra y materiales.....	13,91
			TOTAL PARTIDA.....	44,62
0350	386	M2	PAVIMENTO ADOQUÍN PREFABRICADO HORMIGÓN Pavimento de adoquín prefabricado de hormigón bicapa en color gris, de forma rectangular de 20x10x8 cm, colocado sobre cama de arena de río, rasanteada, de 3/4 cm de espesor, dejando entre ellos una junta de separación de 2/3 mm para su posterior relleno con arena caliza de machaqueo, i/recebado de juntas, barrido y compactado, a colocar sobre base firme existente, no incluido en el precio, compactada al 100% del ensayo Proctor.	
			Mano de obra.....	12,85
			Maquinaria.....	0,18
			Resto de obra y materiales.....	8,46
			TOTAL PARTIDA.....	21,49
0351	387	ML	REPOSICIÓN OBRA DE DRENAJE HASTA DN 1,00 m Reposición de obra de drenaje hasta 1,00 de diámetro, p.p. de boquilla de entrada y salida, excavación, hormigón de recubrimiento y relleno compactado, totalmente terminada.	
			Mano de obra.....	72,32
			Maquinaria.....	20,82
			Resto de obra y materiales.....	81,40
			TOTAL PARTIDA.....	174,54
0352	388	ML	REPOSICIÓN DE ACEQUIA HASTA 1 m ANCHURA Reposición de acequia prefabricada de hormigón hasta 1,00 m de anchura.	
			Resto de obra y materiales.....	87,65
			TOTAL PARTIDA.....	87,65
0353	389	ML	REPOSICIÓN DE ACEQUIA Reposición de acequia con tubo de hormigón hasta 1 m de diámetro.	
			Resto de obra y materiales.....	13,55
			TOTAL PARTIDA.....	13,55
0354	390	ML	REPOSICIÓN DE ACEQUIA HASTA 3 m ANCHURA Reposición de acequia de hormigón de 1,00 a 3,00 m de anchura.	
			Resto de obra y materiales.....	201,26
			TOTAL PARTIDA.....	201,26

CUADRO DE PRECIOS 2

ABASTECIMIENTO A VARIOS MUNICIPIOS DE LA RIOJA. SISTEMA CIDACOS

Nº	CÓDIGO	UD	DESCRIPCIÓN	IMPORTE
0355	391	ML	REPOSICIÓN DE POZO DE REGISTRO Reposición de pozo de registro para saneamiento o abastecimiento, incluso base de hormigón HM-20, p.p. de cono prefabricado de hormigón y tapa, totalmente terminado.	
			Resto de obra y materiales.....	47,47
			TOTAL PARTIDA.....	47,47
0356	392	UD	REPOSICIÓN DE ARQUETA Reposición de arqueta prefabricada de hormigón de 0,60 x 0,60 m para canalización eléctrica, incluso marco y tapa de registro, totalmente colocada.	
			Mano de obra.....	17,99
			Resto de obra y materiales.....	22,45
			TOTAL PARTIDA.....	40,44
0357	393	ML	CANALIZACIÓN TELEFÓNICA FIBRA ÓPTICA Canalización telefónica en zanja bajo calzada, para reposición de cable de fibra óptica de 12 a 16 fibras, incluso p.p. de arquetas y caja de empalmes, totalmente terminado.	
			Mano de obra.....	7,09
			Resto de obra y materiales.....	38,49
			TOTAL PARTIDA.....	45,58
0358	394	ML	CANALIZACIÓN TELEFÓNICA BAJO CALZADA 2 TUBOS Canalización telefónica en zanja bajo calzada, de 0,45x0,88 m para 2 conductos, en base 2, de PVC de 110 mm de diámetro, embebidos en prisma de hormigón HM-20 de central de 8 cm de recubrimiento superior e inferior y 10 cm lateralmente, incluso excavación de tierras a máquina en terrenos flojos, tubos, soportes distanciadores cada 70 cm, cuerda guía para cables, hormigón y relleno en la capa superior con tierras procedentes de la excavación, en tongadas < 25 cm, compactada al 95% del P.N., totalmente terminado.	
			Mano de obra.....	1,13
			Resto de obra y materiales.....	12,29
			TOTAL PARTIDA.....	13,42
0359	395	ML	CANALIZACIÓN TELEFÓNICA BAJO CALZADA 4 TUBOS Canalización telefónica en zanja bajo calzada, de 0,45x1,01 m para 4 conductos, en base 2, de PVC de 110 mm de diámetro, embebidos en prisma de hormigón HM-20 de central de 8 cm de recubrimiento superior e inferior y 10 cm lateralmente, incluso excavación de tierras a máquina en terrenos flojos, tubos, soportes distanciadores cada 70 cm, cuerda guía para cables, hormigón y relleno en la capa superior con tierras procedentes de la excavación, en tongadas < 25 cm, compactada al 95% del P.N., totalmente terminado.	
			Mano de obra.....	2,13
			Resto de obra y materiales.....	16,53
			TOTAL PARTIDA.....	18,66

CUADRO DE PRECIOS 2

ABASTECIMIENTO A VARIOS MUNICIPIOS DE LA RIOJA. SISTEMA CIDACOS

Nº	CÓDIGO	UD	DESCRIPCIÓN	IMPORTE
0360	396	ML	CANALIZACIÓN TELEFÓNICA BAJO CALZADA 6 TUBOS Canalización telefónica en zanja bajo calzada, de 0,45x1,01 m para 6 conductos, en base 2, de PVC de 110 mm de diámetro, embebidos en prisma de hormigón HM-20 de central de 8 cm de recubrimiento superior e inferior y 10 cm lateralmente, incluso excavación de tierras a máquina en terrenos flojos, tubos, soportes distanciadores cada 70 cm, cuerda guía para cables, hormigón y relleno en la capa superior con tierras procedentes de la excavación, en tongadas < 25 cm, compactada al 95% del P.N., totalmente terminado.	
			Mano de obra.....	2,84
			Resto de obra y materiales.....	23,04
			TOTAL PARTIDA.....	25,88
0361	397	ML	CANALIZACIÓN TELEFÓNICA BAJO CALZADA 8 TUBOS Canalización telefónica en zanja bajo calzada, de 0,65x1,01 m para 8 conductos, en base 4, de PVC de 110 mm de diámetro, embebidos en prisma de hormigón HM-20 de central de 8 cm de recubrimiento superior e inferior y 10 cm lateralmente, incluso excavación de tierras a máquina en terrenos flojos, tubos, soportes distanciadores cada 70 cm, cuerda guía para cables, hormigón y relleno en la capa superior con tierras procedentes de la excavación, en tongadas < 25 cm, compactada al 95% del P.N., totalmente terminado.	
			Mano de obra.....	3,54
			Resto de obra y materiales.....	27,94
			TOTAL PARTIDA.....	31,48
0362	398	ML	CANALIZACIÓN TELEFÓNICA BAJO CALZADA 12 TUBOS Canalización telefónica en zanja bajo calzada, de 0,65x1,01 m para 12 conductos, en base 5, de PVC de 110 mm de diámetro, embebidos en prisma de hormigón HM-20 de central de 8 cm de recubrimiento superior e inferior y 10 cm lateralmente, incluso excavación de tierras a máquina en terrenos flojos, tubos, soportes distanciadores cada 70 cm, cuerda guía para cables, hormigón y relleno en la capa superior con tierras procedentes de la excavación, en tongadas < 25 cm, compactada al 95% del P.N., totalmente terminado.	
			Mano de obra.....	5,32
			Resto de obra y materiales.....	41,33
			TOTAL PARTIDA.....	46,65
0363	399	ML	CUNETAS SIN REVESTIR EN DESMONTE Ejecución de cuneta sin revestir en desmonte de carretera, incluyendo perfilado, totalmente terminada.	
			Mano de obra.....	0,19
			Maquinaria.....	0,56
			Resto de obra y materiales.....	0,32
			TOTAL PARTIDA.....	1,07
0364	400	M2	SEMBRADO DE TALUDES EN ZONAS DE VARIACIÓN DE NIVEL Sembrado de taludes en zonas de variación de nivel y reposición de cubierta vegetal.	
			Mano de obra.....	0,76
			Maquinaria.....	0,52
			Resto de obra y materiales.....	0,09
			TOTAL PARTIDA.....	1,37

CUADRO DE PRECIOS 2

ABASTECIMIENTO A VARIOS MUNICIPIOS DE LA RIOJA. SISTEMA CIDACOS

Nº	CÓDIGO	UD	DESCRIPCIÓN	IMPORTE
0365	400-00	UD	P.A. DE DERECHOS DE ENGANCHE PARTIDA ALZADA A JUSTIFICAR EN CONCEPTO DE DERECHOS DE ENGANCHE, ACOMETIDA Y VERIFICACION A SATISFACER A LA COMPAÑIA SUMINISTRADORA.	
			Sin descomposición	
			TOTAL PARTIDA.....	452,38
0366	401	UD	ARBOL Plantación de árbol según especificaciones técnicas, en hoyos de 0,60x0,60x0,60 m, incluso riego y mantenimiento durante un año y parte proporcional de marras.	
			Mano de obra.....	5,09
			Maquinaria.....	3,02
			Resto de obra y materiales.....	16,51
			TOTAL PARTIDA.....	24,62
0367	402	M2	PLANTACIÓN DE ESPECIES ARBUSTIVAS DE 40-60 CM Plantación de especies arbustivas de 40-60 cm, incluso riego y mantenimiento durante un año y parte proporcional de marras.	
			Mano de obra.....	0,70
			Maquinaria.....	0,31
			Resto de obra y materiales.....	0,86
			TOTAL PARTIDA.....	1,87
0368	403	M3	RELLENO DE TIERRA VEGETAL EN PLANTACIONES Relleno de tierra vegetal en reposición de cultivos, plantaciones y cubrimiento de vertederos, procedente de la excavación o préstamos, incluso carga, transporte y extendido.	
			Mano de obra.....	0,51
			Maquinaria.....	0,73
			Resto de obra y materiales.....	0,07
			TOTAL PARTIDA.....	1,31
0369	410	ud	Centro de control de telemando y telecontrol del Sistema Cidacos Centro de control del Sistema Cidacos de abastecimiento, totalmente instalado y puesto a punto compuesto por: -2 PC de centro de control con procesador de primera marca con procesador Intel Core i9-9880H o equivalente, 16 GB RAM, unida de back-up DVD-RW, Ethernet 10/100, garantía 2 años y ratón ergonómicos e inalámbricos, monitor de 22". CD-RW, tarjeta de red, módem de línea 56k, impresora A3 color y B/N, sistema operativo Windows profesional de última generación con licencia, paquete de Microsoft Office con licencia, totalmente instalado y probado. -Licencias de Software. - 2 servidores redundantes. Configuración RAIS-5. - 2 Switch de comunicación redundantes. - 1 ordenador supervisor de telecontrol de las remotas. - System Builder hasta 20 RTU's. -Módulo DPN-3 MASTER/SLAVE SUPPORT con mejora de la aplicación TOOLBOX proporcionando soporte para el DPN3. -RIX-2 CENTRAL SOFTWARE. -Armario de conexiones con Router y concentrador de red.	
			Resto de obra y materiales.....	10.660,10
			TOTAL PARTIDA.....	10.660,10

CUADRO DE PRECIOS 2

ABASTECIMIENTO A VARIOS MUNICIPIOS DE LA RIOJA. SISTEMA CIDACOS

Nº	CÓDIGO	UD	DESCRIPCIÓN	IMPORTE
0370	411	m	Canalización con 2 tubos de PVC de 90 mm y banda señalización Realización de canalización con 2 tubos de PVC y diámetro de 90 mm sobre canalización abierta para colector de agua, incluido suministro de material y mandrilado de conductos y banda de señalización.	
			Mano de obra.....	0,13
			Resto de obra y materiales.....	2,69
			TOTAL PARTIDA.....	2,82
0371	412	ud	Arquetas de empalme tipo H de dimensiones exteriores 104x94x97cm Arquetas de empalme tipo H de dimensiones exteriores 104x94x97 cm, incluso tapa, totalmente colocada.	
			Resto de obra y materiales.....	366,50
			TOTAL PARTIDA.....	366,50
0372	413	m	Suministro e instalación de cable de 16 fo monomodo con armadura Suministro e instalación de cable de 16 fo monomodo con armadura de acero por conducto de 90 mm.	
			Resto de obra y materiales.....	1,66
			TOTAL PARTIDA.....	1,66
0373	414	ud	Realización de torpedo de empalme de paso (8/16 fo) con entrada Realización de torpedo de empalme de paso (8/16 fo) con entrada de 2 cables, incluido material y preparación de extremos.	
			Resto de obra y materiales.....	213,15
			TOTAL PARTIDA.....	213,15
0374	415	ud	Realización de torpedo de empalme de segregación (8/16 fo) con e Realización de torpedo de empalme de segregación (8/16 fo) con entrada de 3 cables, incluido material y preparación de extremos.	
			Resto de obra y materiales.....	325,03
			TOTAL PARTIDA.....	325,03
0375	418	ud	Puesta en marcha, documentación y curso de formación Puesta en marcha y pruebas globales del conjunto, documentación de referencia y curso de formación.	
			Resto de obra y materiales.....	13.520,26
			TOTAL PARTIDA.....	13.520,26
0376	420	ud	Batería de 3AH para controlador de estación remota Suministro de batería de 3AH para controlador de estación remota.	
			Resto de obra y materiales.....	14,27
			TOTAL PARTIDA.....	14,27
0377	421	ud	Módulo de 32 entradas digitales Suministro y montaje de módulo de 32 entradas digitales.	
			Resto de obra y materiales.....	150,31
			TOTAL PARTIDA.....	150,31
0378	422	ud	Módulo de 16 salidas digitales Suministro de módulo de 16 salidas digitales.	
			Resto de obra y materiales.....	150,31
			TOTAL PARTIDA.....	150,31

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ABASTECIMIENTO A VARIOS MUNICIPIOS DE LA RIOJA. SISTEMA CIDACOS

Nº	CÓDIGO	UD	DESCRIPCIÓN	IMPORTE
0379	423	ud	Módulo 8 Entradas analógicas 4-20mA; 2 DO ML; Suministro de módulo 8 Entradas analógicas 4-20mA; 2 DO ML.	
			Resto de obra y materiales.....	222,45
			TOTAL PARTIDA.....	222,45
0380	424	ud	Módulo 8 Salidas analógicas 4-20mA Suministro de módulo 8 Salidas analógicas 4-20 mA.	
			Resto de obra y materiales.....	215,70
			TOTAL PARTIDA.....	215,70
0381	427	ud	Sensor para válvula de corte Sensor para válvula de corte motorizada, cableado, instalado y probado.	
			Resto de obra y materiales.....	909,33
			TOTAL PARTIDA.....	909,33
0382	428	ud	Sensor para válvula de regulación Sensor para válvula de regulación motorizada, cableado, instalado y probado.	
			Resto de obra y materiales.....	652,50
			TOTAL PARTIDA.....	652,50
0383	431	ud	Módulo de comunicación HART Módulo de comunicación HART.	
			Resto de obra y materiales.....	340,45
			TOTAL PARTIDA.....	340,45
0384	435.1	UD	CUADROS PARA PLC 2000 x 800 x 400 mm Equipamiento y componentes para estación de automatización y control de ozonización, formada por autómata programable con configuración según planos y Anejo de Telecontrol en ED, SD, EA y SA (no incluidas), con bastidor de expansión y fuente de alimentación 220 VCA, comunicaciones por tarjeta ETHERNET, instalada en armario metálico de dimensiones 2000 x 800 x 400 mm, protecciones contra sobretensiones y separadores galvánicos, totalmente instalado, incluso programación de los algoritmos de automatización y puesta en servicio.	
			Mano de obra.....	165,11
			Resto de obra y materiales.....	5.181,11
			TOTAL PARTIDA.....	5.346,22
0385	435.2	UD	CUADROS PARA PLC 1200 x 800 x 400 mm Equipamiento y componentes para estación de automatización y control de ozonización, formada por autómata programable con configuración según planos y Anejo de Telecontrol en ED, SD, EA y SA (no incluidas), con bastidor de expansión y fuente de alimentación 220 VCA, comunicaciones por tarjeta ETHERNET, instalada en armario metálico de dimensiones 1200 x 800 x 400 mm, protecciones contra sobretensiones y separadores galvánicos, totalmente instalado, incluso programación de los algoritmos de automatización y puesta en servicio.	
			Mano de obra.....	165,11
			Resto de obra y materiales.....	4.106,87
			TOTAL PARTIDA.....	4.271,98
0386	436	ud	Programación de PLC y panel sinóptico Programación de PLC y panel sinóptico, incluso programa de control de adquisición de datos (SCADA), incluyendo licencia de uso, programación de la aplicación y puesta en marcha.	
			Resto de obra y materiales.....	25.069,00
			TOTAL PARTIDA.....	25.069,00

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ABASTECIMIENTO A VARIOS MUNICIPIOS DE LA RIOJA. SISTEMA CIDACOS

Nº	CÓDIGO	UD	DESCRIPCIÓN	IMPORTE
0387	439B	M2	FORJADO PLACA ALVEOLAR 15+5 cm Forjado unidireccional de losas alveolares prefabricadas de 15 cm de espesor y capa de compresión de 5 cm de hormigón HA-25 de 25 N/mm2, incluso armadura de negativos según planos, mallazo de reparto, formación de huecos, y elementos auxiliares.	
			Mano de obra.....	10,48
			Maquinaria.....	6,61
			Resto de obra y materiales.....	23,04
			TOTAL PARTIDA.....	40,13
0388	439C	M2	FORJADO PLACA ALVEOLAR 20+5 cm Forjado unidireccional de losas alveolares prefabricadas de 20 cm de espesor y capa de compresión de 5 cm de hormigón HA-25 de 25 N/mm2, incluso armadura de negativos según planos, mallazo de reparto, formación de huecos, y elementos auxiliares.	
			Mano de obra.....	10,48
			Maquinaria.....	6,61
			Resto de obra y materiales.....	27,68
			TOTAL PARTIDA.....	44,77
0389	439D	M2	FORJADO PLACA ALVEOLAR 25+5 cm Forjado unidireccional de losas alveolares prefabricadas de 25 cm de espesor y capa de compresión de 5 cm de hormigón HA-25 de 25 N/mm2, incluso armadura de negativos según planos, mallazo de reparto y elementos auxiliares.	
			Mano de obra.....	10,48
			Maquinaria.....	6,61
			Resto de obra y materiales.....	33,11
			TOTAL PARTIDA.....	50,20
0390	439E	M2	FORJADO PLACA ALVEOLAR 15+10 cm Forjado unidireccional de losas alveolares prefabricadas de 15 cm de espesor y capa de compresión de 10 cm de hormigón HA-30/F/20/IV, incluso armadura de negativos según planos, mallazo de reparto, formación de huecos, y elementos auxiliares.	
			Mano de obra.....	10,48
			Maquinaria.....	6,61
			Resto de obra y materiales.....	27,92
			TOTAL PARTIDA.....	45,01
0391	439F	ML	VIGAS PREFABRICADAS DE 40X75 CM Vigas prefabricadas de hormigón de 40 cm de ancho y 75 cm de canto, montadas.	
			Mano de obra.....	10,48
			Maquinaria.....	6,61
			Resto de obra y materiales.....	65,04
			TOTAL PARTIDA.....	82,13
0392	439G	ML	VIGAS PREFABRICADAS DE 25X60 CM Vigas prefabricadas de hormigón de 25 cm de ancho y 60 cm de canto, montadas.	
			Mano de obra.....	10,48
			Maquinaria.....	6,61
			Resto de obra y materiales.....	45,59
			TOTAL PARTIDA.....	62,68

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ABASTECIMIENTO A VARIOS MUNICIPIOS DE LA RIOJA. SISTEMA CIDACOS

Nº	CÓDIGO	UD	DESCRIPCIÓN	IMPORTE
0393	439H	ML	VIGAS PREFABRICADAS DE 25X50 CM Vigas prefabricadas de hormigón de 25 cm de ancho y 60 cm de canto, montadas.	
			Mano de obra.....	10,48
			Maquinaria.....	6,61
			Resto de obra y materiales.....	40,47
			TOTAL PARTIDA.....	57,56
0394	439I	ML	PILAR PREFABRICADAS DE 40X50 CM Pilar prefabricado de hormigón de 40 cm de ancho y 50 cm de canto, con p.p. de ménsulas de apoyo según planos, montados.	
			Mano de obra.....	10,48
			Maquinaria.....	6,61
			Resto de obra y materiales.....	78,34
			TOTAL PARTIDA.....	95,43
0395	439J	ML	PILAR PREFABRICADAS DE 30X40 CM Pilar prefabricado de hormigón de 30 cm de ancho y 40 cm de canto, con p.p. de ménsulas de apoyo según planos, montados.	
			Mano de obra.....	10,48
			Maquinaria.....	6,61
			Resto de obra y materiales.....	75,28
			TOTAL PARTIDA.....	92,37
0396	439K	ML	CORREAS TUBULARES PREFABRICADAS DE 25 CM Correas tubulares de 25 cm, montadas.	
			Mano de obra.....	10,48
			Maquinaria.....	6,61
			Resto de obra y materiales.....	22,34
			TOTAL PARTIDA.....	39,43
0397	439L	ML	VIGA PORTACANALÓN PREFABRICADA Viga portacanalón prefabricada, montadas.	
			Mano de obra.....	10,48
			Maquinaria.....	6,61
			Resto de obra y materiales.....	22,34
			TOTAL PARTIDA.....	39,43
0398	440acus	M2	FALSO TECHO METÁLICO ABSORCIÓN ACÚSTICA m². Techo formado por una doble estructura de perfiles de chapa de acero galvanizada, instalada a dos niveles. La estructura primaria se compone a base de Perfiles continuos PH-45 en forma de "V" invertida, modulados cada 1100 mm y debidamente suspendidos de forjado de placa por medio de varilla roscada Ø 6 mm y tuerca y contratuerca cada 1100 mm dotada de aisladores acústicos para evitar la transmisión a techo. La segunda estructura formada por perfiles T-47 se acopla perpendicularmente a la parte inferior de la estructura primaria cada 500 mm mediante encaje directo en las horquillas dobles troqueladas del perfil PH-45. A esta estructura de perfiles, se atornilla a la segunda estructura de perfiles T-47 y perpendicularmente a ella una falso techo de chapa perforada minionda de 0,6 mm de espesor y 18 mm de canto, galvanizada en caliente, R3T6, parte proporcional de anclajes, cuelgues, tornillería, etc, según requisitos del CTE-DB HR.	
			Mano de obra.....	14,10
			Resto de obra y materiales.....	27,22
			TOTAL PARTIDA.....	41,32

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Nº	CÓDIGO	UD	DESCRIPCIÓN	IMPORTE
0399	440ais	M2	AISLAMIENTO SOBRE FALSO TECHO m². Lana mineral ISOVER IBR constituido por una manta ligera de lana de vidrio, revestida por una de sus caras con papel kraft que actúa como barrera de vapor de 80 mm de espesor cumpliendo la norma UNE EN 13162 Productos Aislantes térmicos para aplicaciones en la edificación con una conductividad térmica de 0,040 W / (m·K), clase de reacción al fuego F y código de designación MW-EN-13162-T2-WS-Z3-AF5, para cubiertas y techos en posición horizontal o inclinada, sin carga.	
			Mano de obra	1,79
			Resto de obra y materiales	1,99
			TOTAL PARTIDA.....	3,78
0400	440aiss	M2	AISLAMIENTO BAJO SOLERA m². Aislamiento térmico mediante placas rígidas de poliestireno extruido de resistencia a compresión no menor de 500 kPa, de 40 mm de espesor, debajo o arriba de solera en contacto con enchado y terreno natural.	
			Mano de obra	1,79
			Resto de obra y materiales	4,96
			TOTAL PARTIDA.....	6,75
0401	440pacus	M2	PARAMENTOS ABSORCIÓN ACÚSTICA m². Revestimiento de paramentos con penel semirrígido de lana de roca volcánica de 50 kg/m3 de densidad, de 11 cm. de espesor, con hendidura para acople de la bandeja de solape. Instalación de bandejas perforadas de chapa de acero R3T6 totalmente terminado.	
			Mano de obra	7,09
			Resto de obra y materiales	21,69
			TOTAL PARTIDA.....	28,78
0402	440pya	M2	FALSO TECHO FONOABSORBENTE REGISTRABLE m². Techo formado por una doble estructura de perfiles PLADUR® de chapa de acero galvanizada, instalada a dos niveles. La estructura primaria se compone a base de Perfiles continuos PH-45 en forma de "V" invertida, modulados cada 1100 mm y debidamente suspendidos de cuadrillos por medio de varilla roscada Ø 6 mm y tuerca y contratuerca cada 1100 mm La segunda estructura formada por perfiles T-47 se acopla perpendicularmente a la parte inferior de la estructura primaria cada 500 mm mediante encaje directo en las horquillas dobles troqueladas del perfil PH-45 y apoyados perimetralmente en el Angular L A-30 TC, el cual está fijado mecánicamente en toda su longitud A esta estructura de perfiles, se atornilla a la segunda estructura de perfiles T-47 y perpendicularmente a ella una placa perforada para acondicionamiento acústico, tipo Pladur Fon+ C8/18, de 13 mm de espesor con tratamiento imprimación blanca para protección de rayos ultravioleta, pintado en blanco; parte proporcional de anclajes, cuelgues, tornillería, juntas estancas /acústicas de su perímetro, totalmente terminado. Montaje según Normativa Intersectorial de ATEDY y requisitos del CTE-DB HR.	
			Mano de obra	14,10
			Resto de obra y materiales	16,44
			TOTAL PARTIDA.....	30,54

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ABASTECIMIENTO A VARIOS MUNICIPIOS DE LA RIOJA. SISTEMA CIDACOS

Nº	CÓDIGO	UD	DESCRIPCIÓN	IMPORTE
0403	440pyl	M2	FALSO TECHO DE PLACA DE YESO LAMINADO m². Techo formado por una doble estructura de perfiles PLADUR® de chapa de acero galvanizada, instalada a dos niveles. La estructura primaria se compone a base de Perfiles continuos PH-45 en forma de "V" invertida, modulados cada 1100 mm y debidamente suspendidos de cuadrillos por medio de varilla roscada Ø 6 mm y tuerca y contratuerca cada 1100 mm La segunda estructura formada por perfiles T-47 se acopla perpendicularmente a la parte inferior de la estructura primaria cada 500 mm mediante encaje directo en las horquillas dobles troqueladas del perfil PH-45 y apoyados perimetralmente en el Angular L A-30 TC, el cual está fijado mecánicamente en toda su longitud A esta estructura de perfiles, se atornilla a la segunda estructura de perfiles T-47 y perpendicularmente a ella una placa de yeso laminado estandar tipo N de 13 mm de espesor, parte proporcional de anclajes, cuelgues, tornillería, juntas estancas /acústicas de su perímetro, pasta de juntas, etc. totalmente terminado con calidad de terminación Nivel 2 (Q2) para terminaciones estándar de pintura ó calidad de terminación Nivel 3 (Q3) para terminaciones de calidad alta de acabados lisos y de poco espesor. Montaje según Normativa Intersectorial de ATEDY: "Sistemas de techos continuos con estructura metálica. ATEDY 3" y requisitos del CTE-DB HR.	
			Mano de obra	14,10
			Resto de obra y materiales	9,26
			TOTAL PARTIDA.....	23,36
0404	440pyt	ML	TABICA YESO LAMINADO m. Faja o tabica de placa de yeso laminado de 20 a 30 cm de anchura, para falsos techos tanto fijos como desmontables, i/p.p. de perfilera de acero galvanizado de fijación incluso juntas, repaso de las mismas, colocación de andamios y limpieza, y cualquier tipo de medio auxiliar, completamente terminado.	
			Mano de obra	15,95
			Resto de obra y materiales	6,20
			TOTAL PARTIDA.....	22,15
0405	442	M2	ENLUCIDO DE YESO BLANCO, TERMINADO Enlucido de yeso blanco, terminado.	
			Mano de obra	2,20
			Resto de obra y materiales	0,24
			TOTAL PARTIDA.....	2,44
0406	4432	M2	ALICATADO AZULEJO Alicatado con azulejo blanco mate con cenefa en color diferenciado según local, formato no inferior a 40x20 cm, recibido con adhesivo, incluso preparación de paramentos, cortes, cantoneras cromadas, rejuntados y limpieza, ejecutado según NTE y especificaciones, medido en superficie real, deduciendo huecos superiores a 0,5 m2.	
			Mano de obra	9,40
			Resto de obra y materiales	11,57
			TOTAL PARTIDA.....	20,97
0407	4432A	M2	ALICATADO AZULEJO ANTIÁCIDO Alicatado con azulejo blanco mate antiácido, formato no inferior a 40x20 cm, recibido con adhesivo, incluso preparación de paramentos, cortes, cantoneras cromadas, rejuntados y limpieza, ejecutado según NTE y especificaciones, medido en superficie real, deduciendo huecos superiores a 0,5 m2.	
			Mano de obra	9,40
			Resto de obra y materiales	13,39
			TOTAL PARTIDA.....	22,79

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Nº	CÓDIGO	UD	DESCRIPCIÓN	IMPORTE
0408	444	M2	CARPINTERÍA DE MADERA MACIZA Carpintería de madera maciza, de pino Oregón en puertas, incluso herrajes, montada.	
			Mano de obra.....	28,00
			Resto de obra y materiales.....	60,40
			TOTAL PARTIDA.....	88,40
0409	444V	M2	MARCO VENTANAL DE MADERA MACIZA m². Ventanal fijo para la colocación de vidrio, con cerco de pino Oregón de 9x7 cm para barnizar, con tapajuntas de pino Oregón 7x1,5 cm, por ambas caras y junquillo fijación vidrio. Según CTE/DB-HS 3.	
			Mano de obra.....	55,99
			Resto de obra y materiales.....	9,20
			TOTAL PARTIDA.....	65,19
0410	446M2	UD	PUERTA CORTAFUEGOS EI2/60/C5 2h 1800 mm ud. Puerta resistente al fuego a partir de los datos obtenidos de los ensayos de resistencia al fuego con clasificación EI2/60/C5 según UNE EN-13501-2 (Integridad E: no transmisión de una cara a otra por llama o gases caliente; Aislamiento I: no transmisión de una cara a otra por transferencia de calor, con sufijo 2: para medición de distancias y temperaturas a tener en cuenta (100 mm/180°/100 mm); Tiempo t= 60 minutos o valor mínimo que debe cumplir tanto la integridad E como el aislamiento I; Capacidad de cierre automático C5; para uso s/ CTE (tabla 1.2 y 2.1 del DB-SI-1.1 y 1.2) siguiente: a) en paredes que delimitan sectores de incendios, con resistencia t de la puerta mitad del requerido a la pared en la que se encuentre, o bien la cuarta parte en caso de utilizar vestíbulos de independencia; b) puertas de locales de riesgo especial (bajo, medio o alto) en comunicación con el resto del edificio; con marcado CE y certificado y declaración CE de conformidad; de dos hojas abatibles de 1800x2150 mm con doble chapa de acero, i/p.p. de aislamiento de fibra mineral, cerco tipo "Z" electrosoldado de 3 mm de espesor, mecanismo de cierre automático y herrajes de colgar y de seguridad, juntas, etc... según CTE/DB-SI	
			Mano de obra.....	21,88
			Resto de obra y materiales.....	341,70
			TOTAL PARTIDA.....	363,58
0411	449	M2	PINTURA PLÁSTICA LISA MATE COLOR Pintura plástica lisa mate color, en interiores, en paramentos horizontales y verticales, dos manos, incluso lijado, mano de imprimación con plástico diluido, plastecido, lijado y acabado.	
			Mano de obra.....	1,85
			Resto de obra y materiales.....	1,33
			TOTAL PARTIDA.....	3,18
0412	452B	M2	ACERA DE BALDOSA HIDRÁULICA EXTERIOR (30x30x4 cm.) Acera de baldosa hidráulica tipo pétreo antideslizante uso exterior de dimensiones 30x30x4 cm., color y dibujo a definir en obra, colocada sobre 3 cm de mortero de agarre M-40 y 12 cm de espesor de hormigón HNE-20, enlechado y limpieza, totalmente terminado.	
			Mano de obra.....	3,54
			Resto de obra y materiales.....	12,36
			TOTAL PARTIDA.....	15,90

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Nº	CÓDIGO	UD	DESCRIPCIÓN	IMPORTE
0413	452BA	ud	BARRA APOYO ABATIBLE Ud. Barra de apoyo MEDICLINIC Ref. BG0800C acero inox AISI 304, o modelo equivalente, instalada con p.p. de elementos de anclaje de acero inox.	
			Mano de obra.....	11,71
			Resto de obra y materiales.....	91,15
			TOTAL PARTIDA.....	102,86
0414	452BAT	ud	BATER. 6 PANELES PLANOS FKC-1 W JUNKERS 13,50 M2 Ud. Batería de 6 captadores solares planos FKC-1 W de alto rendimiento, con tratamiento selectivo en cromo negro, para montaje en horizontal. Permite conexión en paralelo hasta 10 captadores. Circuito hidráulico de parrilla de tubos. Aislamiento de lana mineral de 55 mm de espesor. Estructura en forma de caja, realizada en fibra de vidrio. Superficie de apertura: 2,25 m2. Uniones mediante manguitos flexibles con abrazaderas de ajuste rápido. Instalado sobre cubierta plana mediante una estructura de soporte de aluminio con elementos de conexión incluyendo racores, válvulas de corte, purgador, etc. Incluso transporte, montaje, conexión, pruebas de funcionamiento y puesta en marcha. Conexión hidráulica entre captadores y sujeción física a estructura.	
			Mano de obra.....	286,08
			Resto de obra y materiales.....	2.817,27
			TOTAL PARTIDA.....	3.103,35
0415	452BF	ud	BARRA APOYO FIJA Ud. Barra de apoyo MEDICLINIC Ref. BR0600CS acero inox AISI 304, o modelo equivalente, instalada con p.p. de elementos de anclaje de acero inox.	
			Mano de obra.....	11,71
			Resto de obra y materiales.....	34,99
			TOTAL PARTIDA.....	46,70
0416	452C	ML	CERRAMIENTO MALLA GALVANIZADA Y PLASTIFICADA EN VERDE DE 2,00 m Cerramiento de malla metálica galvanizada plastificada en verde de 2,0 m. de altura, incluso p.p. de puerta de entrada peatonal con cerradura, p.p. de postes de acero galvanizado también plastificados en verde, colocados cada 3,0 m sobre cimentación de hormigón (no incluida), incluso p.p. jabalcones, esquinas, tensores, anclajes y resto de accesorios. Colocada y totalmente terminada.	
			Mano de obra.....	3,54
			Resto de obra y materiales.....	9,71
			TOTAL PARTIDA.....	13,25
0417	452D	M2	PAVIMENTO DE GRAVILLA 10/20 mm + GEOTEXTIL ANTIHIERBA 200gr/m2 Pavimento de gravilla 10/20 extendida de 15 cm. de espesor, dispuesto sobre un geotextil antihierba permeable y con protección UV de 200 gr/m2. Incluso maestreado y refinado de la superficie. totalmente terminado.	
			Mano de obra.....	3,54
			Resto de obra y materiales.....	1,78
			TOTAL PARTIDA.....	5,32
0418	452DJ	ud	DOSIFICADOR DE JABÓN ud. Dosificador de jabón MEDICLINICS DJ0111C o equivalente, acero inoxidable, instalado.	
			Mano de obra.....	5,86
			Resto de obra y materiales.....	36,09
			TOTAL PARTIDA.....	41,95

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Nº	CÓDIGO	UD	DESCRIPCIÓN	IMPORTE
0419	452E	UD	PUERTA DE ACCESO A ETAP DE 5,0 M Puerta de acceso a planta de 5 m de longitud por 2,0 m de altura de apertura manual, construida en perflería tubular de acero laminado S-275 JR movimiento longitudinal sobre ruedas de carril, zócalo fijo de chapa de 0,75 m de altura, y puerta peatonal de apertura manual, i/obra civil necesaria. Medida la unidad terminada y funcionando.	
			Mano de obra.....	106,38
			Maquinaria.....	37,62
			Resto de obra y materiales.....	530,11
			TOTAL PARTIDA.....	674,11
0420	452IA	ud	INODORO TANQUE BAJO ACCESIBLE Ud. Inodoro de Roca modelo Access de tanque bajo en blanco de 480 mm. de altura (sin asiento), con asiento y tapa con bisagras de acero inox., mecanismos, llave de escuadra 1/2" cromada, latiguillo flexible de 20 cm., empalme hasta bajante o tubería de avacuación de PVC de 110 mm., totalmente instalado.	
			Mano de obra.....	21,47
			Resto de obra y materiales.....	172,73
			TOTAL PARTIDA.....	194,20
0421	452IN	ud	INODORO TANQUE BAJO Ud. Inodoro de Roca modelo Victoria de tanque bajo en blanco, con asiento pintado en blanco y mecanismos, llave de escuadra 1/2" cromada, latiguillo flexible de 20 cm., empalme simple PVC de 110 mm., totalmentete instalado.	
			Mano de obra.....	21,47
			Resto de obra y materiales.....	125,17
			TOTAL PARTIDA.....	146,64
0422	452LP	ud	LAVABO SOBRE PEDESTAL ud. Lavabo de Roca o similar, modelo Victoria de 52x41 cm con pedestal en blanco, con grifería temporizada de 1/2" marca Presto 605 o similar, válvula de desagüe de 32 mm, llave de escuadra de 1/2" cromada y sifón individual PVC 40 mm y latiguillo flexible 20 cm, totalmente instalada.	
			Mano de obra.....	19,52
			Resto de obra y materiales.....	120,36
			TOTAL PARTIDA.....	139,88
0423	452LV	ud	LAVABO MURAL ACCESIBLE Ud. Lavabo mural de Roca modelo Hall de 450x380 mm. en blanco, con mezclador de lavabo monomando adaptado, válvula de desagüe de 32 mm., llaves de escuadra de 1/2" cromadas y sifon individual y tuberías de enlace a paramento y sanitario cromado 40 mm. y latiguillo flexible 20 cm., totalmente instalado.	
			Mano de obra.....	19,52
			Resto de obra y materiales.....	154,45
			TOTAL PARTIDA.....	173,97
0424	452Lm	ud	LAVABO MURAL Ud. Lavabo mural de Roca modelo Hall de 450x380 mm. en blanco, con mezclador de lavabo monomando, válvula de desagüe de 32 mm., llaves de escuadra de 1/2" cromadas y sifon individual y tuberías de enlace a paramento y sanitario cromado 40 mm. y latiguillo flexible 20 cm., totalmente instalado.	
			Mano de obra.....	19,52
			Resto de obra y materiales.....	140,02
			TOTAL PARTIDA.....	159,54

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Nº	CÓDIGO	UD	DESCRIPCIÓN	IMPORTE
0425	452PC	M2	PAVIMENTO CERÁMICO m². Solado de baldosa de gres (precio del material 18 euros/m²), en formato comercial, para interiores (resistencia al deslizamiento Rd s/ UNE-ENV 12633 según planos,recibido con cemento cola Weber.col classic blanco, i/piezas especiales, ejecución de cortes, rejuntado con mortero decorativo Weber col junta fina (< 3mm) y limpieza, s/ CTE BD SU y NTE-RSB-7.	
			Mano de obra.....	7,45
			Resto de obra y materiales.....	28,13
			TOTAL PARTIDA.....	35,58
0426	452PL	M2	PAVIMENTO LAMINADO m². Pavimento laminado AC5/33 con certificación como clase ASF2 (antiestático), con tablero base DPL de alta densidad de medidas 1285x191x11,0 mm dotado de junta de cierre click en los cuatro cantos de la tabla. Compuesto por tres elementos: A, capa de desgaste compuesta de una capa protectora fabricada a partir de resinas melamínicas y papel decorado con acabado de superficie similar a la madera (arce natural, haya, roble...). B, tablero base HDF dotado de sistema anti humedad y unión Click. C, contracapa de papel Krahf para mayor estabilidad del conjunto y sistema de reducción del sonido de la pisada, i/rodapié de 10 cm de MDF laminado en igual color que el pavimento, totalmente terminado..	
			Mano de obra.....	6,66
			Resto de obra y materiales.....	18,55
			TOTAL PARTIDA.....	25,21
0427	452PR	ud	DISPENSADOR PAPEL ROLLO ud. Dispensador de papel higiénico industrial circular, modelo MEDICLINICS PR0783CS o modelo equivalente, instalado.	
			Mano de obra.....	5,86
			Resto de obra y materiales.....	35,10
			TOTAL PARTIDA.....	40,96
0428	452PT	ud	DISPENSADOR PAPEL TOALLA ud. Dispensador de papel toalla modelo MEDICLINICS DT2106CS o modelo equivalente, instalado.	
			Mano de obra.....	5,86
			Resto de obra y materiales.....	43,67
			TOTAL PARTIDA.....	49,53
0429	452Pg	M2	PAVIMENTO GRANITO m². Solado de granito nacional con acabado pulido, de 2 cm de espesor para interiores (resistencia al deslizamiento Rd s/ UNE-ENV 12633 para: a) zonas secas, CLASE 1 para pendientes menores al 6% y CLASE 2 para pendientes superiores al 6% y escaleras), recibido con mortero de cemento y arena de miga 1/6 o cemento cola, rejuntado y limpieza, s/ CTE BD SU y NTE-RSP.	
			Mano de obra.....	13,30
			Resto de obra y materiales.....	34,54
			TOTAL PARTIDA.....	47,84

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Nº	CÓDIGO	UD	DESCRIPCIÓN	IMPORTE
0430	452Pgp	ML	PELDAÑO GRANITO m. Peldaño de granito nacional con huella y tabica, de 3 y 2 cm de espesor respectivamente, para interiores o exteriores (resistencia al deslizamiento Rd>45 s/ UNE-ENV 12633 CLASE 3), i/p.p. de zanquín del mismo material de 42x17 cm, recibido todo ello con mortero de cemento y arena de miga 1/6, rejuntado y limpieza, s/ CTE BD SU.	
			Mano de obra.....	18,81
			Resto de obra y materiales.....	38,88
			TOTAL PARTIDA.....	57,69
0431	452Pgr	ML	RODAPIÉ GRANITO m. Rodapie de granito nacional de 10x2 cm, con mortero de cemento y arena de río M5 según UNE-EN 998-2 o adhesivo si es a placa de yeso, i/rejuntado y limpieza, S/NTE-RSP-16.	
			Mano de obra.....	2,96
			Resto de obra y materiales.....	8,19
			TOTAL PARTIDA.....	11,15
0432	452Pr	M2	RODAPIÉ CERÁMICO m. Rodapie de gres de 7 cm recibido con mortero de cemento y arena de río M5 según UNE-EN 998-2 o adhesivo si es a placa de yeso, i/rejuntado y limpieza, S/ CTE BD SU y NTE-RSP-16.	
			Mano de obra.....	2,75
			Resto de obra y materiales.....	3,19
			TOTAL PARTIDA.....	5,94
0433	452TER	ud	TERMO ELÉCTRICO 80 L JUNKERS ud. Termo eléctrico vertical/horizontal para el servicio de a.c.s acumulada, JUNKERS modelo HS 80-3B, con una capacidad útil de 80 litros. Potencia 2,0 kW. Ajuste de temperatura en intervalos de 10°C y tensión de alimentación a 230 V. Tiempo de calentamiento 140 minutos. Testigo luminoso de funcionamiento y display con indicación de temperatura. Depósito de acero vitrificado. Aislamiento de espuma de poliuretano sin CFC y ánodo de sacrificio de magnesio. Presión máxima admisible de 8 bar. Dimensiones 948 mm de alto y 452 mm de diámetro.	
			Mano de obra.....	31,23
			Resto de obra y materiales.....	221,38
			TOTAL PARTIDA.....	252,61
0434	452UR	ud	URINARIO MURAL Ud. Urinario de Roca modelo Site, o equivalente, con grifo temporizado Presto 27 1/2" y enlace a urinario y sifón incorporado, totalmente instalado.	
			Mano de obra.....	21,47
			Resto de obra y materiales.....	200,08
			TOTAL PARTIDA.....	221,55
0435	452VT	ud	VERTEDERO ud. Vertedero modelo Garda completo con mezclador exterior de caño giratorio modelo Victoria Plus de Roca o similar, i/rejilla, desagüe, enchufe de unión y fijación instalada.	
			Mano de obra.....	23,42
			Resto de obra y materiales.....	149,97
			TOTAL PARTIDA.....	173,39

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Nº	CÓDIGO	UD	DESCRIPCIÓN	IMPORTE
0436	452ce	ud	C. ELÉCT./CON. SYSTEMTRONIC ACS 2 Ud. Cuadro eléctrico y de control formado por caja estanca e interruptores de protección. Incluso cableado y bornas de conexión. Control diferencial, marca SYSTEMTRONIC, modelo PTC 2001/rd, con dos sondas de inmersión para actuación de bomba del primario (P<250W) mediante termostato diferencial, termostato mínima en paneles y termostato de máxima en acumulación, mediante actuación directa. Incluso accesorios y pequeño material, completamente montado, probado y funcionando.	
			Mano de obra.....	107,28
			Resto de obra y materiales.....	254,72
			TOTAL PARTIDA.....	362,00
0437	452cen	ud	CENTRALITA CONTROL JUNKERS TDS 050 Ud. Centralita solar JUNKERS modelo TDS 050 de regulación para una aplicación. Regulador por temperatura diferencial. Dos entradas tipo NTC (Temperatura panel y temperatura parte inferior del depósito). Display LCD con esquema de instalación en movimiento. Indicación de temperaturas, códigos de error, modo de funcionamiento y estado de la bomba. Una salida de tensión de 230V de corriente alterna para el circulador. Posibilidad de ajuste de diferencia de temperatura de conexión. Posibilidad de aplicación para recirculación entre depósitos. Posibilidad de ajuste de temperatura máxima en acumulador. Dimensiones: 134 x 137 x 38 mm.	
			Mano de obra.....	35,76
			Resto de obra y materiales.....	127,78
			TOTAL PARTIDA.....	163,54
0438	452cis	ud	CIRCUITOS INSTALACIÓN SOLAR Ud. Ejecución de circuitos primario y secundario con tubería cobre rígido, incluso puesta a punto de soldadura dura o blanda según corresponda, codos, tes, manguitos y demás accesorios y pequeño material, aislada con coquilla de Armaflex, de espesor nominal de 30 mm, recubierta de pintura protectora exterior del aislante, vaso de expansión para sistemas cerrados, de 12 litros de capacidad, 4 bar y 120°C de presión y temperatura máximas de trabajo, 1,5 bar de presión inicial, homologado según directiva 97/23/CE de aparatos a presión, conexión roscada R 3/4", incluso válvula de seguridad de 3 kg/cm.2, llaves, de cierre, circulador Grundfos para instalación con presión y temperatura máxima de 10 bar y 110°C respectivamente, constituido por motor de rotor encapsulado, selector de 3 velocidades, manómetros, separador de aire, sonda de temperatura, purgador y demás accesorios y pequeño material, completamente montado, probado y funcionando.	
			Mano de obra.....	286,08
			Resto de obra y materiales.....	479,30
			TOTAL PARTIDA.....	765,38
0439	452dep	ud	ACUMULACIÓN A.C.S. Ud. Depósito para acumulación ACV, Mod. SMART SL de 160 litros de capacidad, fabricado en acero inoxidable, aislado térmicamente, válvula de seguridad de 1", válvula de retención de 1", 2 llaves de esfera de 1", vaciado, vaseo de expansión de 8 l., accesorios y pequeño material, completamente montado, probado y funcionando	
			Mano de obra.....	35,76
			Resto de obra y materiales.....	1.002,76
			TOTAL PARTIDA.....	1.038,52

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Nº	CÓDIGO	UD	DESCRIPCIÓN	IMPORTE
0440	452fp	M2	FELPUDO METÁLICO M2. Suministro y colocación de felpudo de estructura de aluminio, acabado moqueta negro, marca GS-Group ref. Pedimat CS 2050 modelo ebonita, colocado con .p.p. de perfil de acero inox mate de 2 mm. en forma de L, para remate del granito, incluso p.p. de tornillería de fijación.	
			Mano de obra.....	16,49
			Resto de obra y materiales.....	143,70
			TOTAL PARTIDA.....	160,19
0441	452gd	ud	GRIFERÍA DUCHAS Ud. Mezclador temporizado para ducha con pulsador de regulación de temperatura integrado, tipo Presto Alfa 80, y tubería de de enlace y rociador antivandálico, cromados para instalación vista, tipo Nofer 07072, o equivalente, i/p.p. de piezas especiales de enlace y fijación, totalmente instalado.	
			Mano de obra.....	23,42
			Resto de obra y materiales.....	156,50
			TOTAL PARTIDA.....	179,92
0442	452leg	ud	LEGALIZACIÓN INSTALACIÓN A.C.S. Ud. Legalización instalación de energía solar térmica de potencia inferior a 21 kW, comprende tasas administrativas y tramitación por parte de un Organismo de Control Autorizado.	
			Resto de obra y materiales.....	161,12
			TOTAL PARTIDA.....	161,12
0443	45316C	ML	AISLAM. COQUILLA D=16 MM iINT, E= 9 MM m. Aislamiento térmico con coquilla flexible autoadhesiva, elastómero extruido de célula cerrada, clase M1, de 9 mm de grueso, diámetro interior 16 mm, para utilizar con tubería de fontanería, con un coeficiente de conductividad térmica de 0,0,33 a 0,0037 W/m°C, en instalaciones de fontanería (Temperatura de trabajo entre -40°C y +110°C).	
			Mano de obra.....	0,64
			Resto de obra y materiales.....	0,66
			TOTAL PARTIDA.....	1,30
0444	45320C	ML	AISLAM. COQUILLA D=20 MM iINT, E= 9 MM m. Aislamiento térmico con coquilla flexible autoadhesiva, elastómero extruido de célula cerrada, clase M1, de 9 mm de grueso, diámetro interior 20 mm, para utilizar con tubería de fontanería, con un coeficiente de conductividad térmica de 0,0,33 a 0,0037 W/m°C, en instalaciones de fontanería (Temperatura de trabajo entre -40°C y +110°C).	
			Mano de obra.....	0,64
			Resto de obra y materiales.....	0,75
			TOTAL PARTIDA.....	1,39
0445	45325	ML	TUBERÍA POLIETILENO RETICULADO 25x2,3 m. Tubería de polietileno reticulado por el método Engel (Peróxido), según norma UNE-EN ISO 15875, de 25x2,3 mm de diámetro, colocada en instalaciones interiores para agua fría y caliente, sin protección superficial, con p.p. de accesorios Quick&Easy de PPSU, instalada y funcionando según CTE/ DB-HS 4 suministro de agua.	
			Mano de obra.....	0,98
			Resto de obra y materiales.....	4,60
			TOTAL PARTIDA.....	5,58

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Nº	CÓDIGO	UD	DESCRIPCIÓN	IMPORTE
0446	45325C	ML	AISLAM. COQUILLA D=25 MM iINT, E= 9 MM m. Aislamiento térmico con coquilla flexible autoadhesiva, elastómero extruido de célula cerrada, clase M1, de 9 mm de grueso, diámetro interior 25 mm, para utilizar con tubería de fontanería, con un coeficiente de conductividad térmica de 0,0,33 a 0,0037 W/m°C, en instalaciones de fontanería (Temperatura de trabajo entre -40°C y +110°C).	
			Mano de obra.....	0,64
			Resto de obra y materiales.....	0,93
			TOTAL PARTIDA.....	1,57
0447	45332	ML	TUBERÍA POLIETILENO RETICULADO 32x2,9 m. Tubería de polietileno reticulado por el método Engel (Peróxido), según norma UNE-EN ISO 15875, de 32x2,9 mm de diámetro, colocada en instalaciones interiores de para agua fría y caliente, sin protección superficial, con p.p. de accesorios Quick&Easy de PPSU, instalada y funcionando según CTE/ DB-HS 4 suministro de agua.	
			Mano de obra.....	0,98
			Resto de obra y materiales.....	4,60
			TOTAL PARTIDA.....	5,58
0448	45332C	ML	AISLAM. COQUILLA D=32 MM iINT, E= 9 MM m. Aislamiento térmico con coquilla flexible autoadhesiva, elastómero extruido de célula cerrada, clase M1, de 9 mm de grueso, diámetro interior 32 mm, para utilizar con tubería de fontanería, con un coeficiente de conductividad térmica de 0,0,33 a 0,0037 W/m°C, en instalaciones de fontanería (Temperatura de trabajo entre -40°C y +110°C).	
			Mano de obra.....	0,80
			Resto de obra y materiales.....	1,42
			TOTAL PARTIDA.....	2,22
0449	453A	UD	INSTALACIÓN DE FONTANERÍA Y EVACUACIÓN ASEOS PL.1 ud. Instalación de aseos y cuarto de limpieza de planta primera, de fontanería completa en TABIQUERÍA SECA, realizada con tuberías de polietileno reticulado (método Engel) utilizando el sistema Quick&Easy de derivaciones por tes para las redes de agua fría y caliente y con tuberías de PVC serie C para la red de desagüe con los diámetros necesarios para cada punto de consumo, totalmente terminada según CTE/ DB-HS 4 suministro de agua, sin incluir los aparatos sanitarios ni griferías, y con p.p. de redes interiores de ascendentes y bajantes.	
			Mano de obra.....	177,30
			Resto de obra y materiales.....	328,57
			TOTAL PARTIDA.....	505,87
0450	453AC	UD	ACOMETIDA ABASTECIMIENTO A EDIFICIO DE CONTROL Ud. Acometida a la red general, formada por tubería de polietileno de 1 1/2" y 10 Atm. para uso alimentario, brida de conexión, machón rosca, manguitos, llaves de paso tipo globo, válvula anti-retorno de 1 1/2", tapa de registro exterior, grifo de pruebas de latón de 1/2", incluso contador, según CTE/ DB-HS 4 suministro de agua.	
			Mano de obra.....	35,46
			Resto de obra y materiales.....	236,19
			TOTAL PARTIDA.....	271,65

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ABASTECIMIENTO A VARIOS MUNICIPIOS DE LA RIOJA. SISTEMA CIDACOS

Nº	CÓDIGO	UD	DESCRIPCIÓN	IMPORTE
0451	453ACE	UD	<p>INSTALACIÓN DE FONTANERÍA Y EVACUACIÓN ALMACÉN</p> <p>ud. Instalación del almacén y cuarto de equipos, de fontanería completa, realizada con tuberías de polietileno reticulado (método Engel) utilizando el sistema Quick&Easy de derivaciones por tes para las redes de agua fría y caliente y con tuberías de PVC serie C para la red de desagüe con los diámetros necesarios para cada punto de consumo, totalmente terminada según CTE/ DB-HS 4 suministro de agua, sin incluir los aparatos sanitarios ni griferías, y con p.p. de redes interiores de ascendentes y bajantes.</p>	
			Mano de obra.....	53,19
			Resto de obra y materiales.....	114,70
			TOTAL PARTIDA.....	167,89
0452	453AZ	UD	<p>ACOMETIDA ABASTECIMIENTO ZONA AZUD</p> <p>U.d. Acometida desde canal formada por tubería de polietileno de 1 1/2" y 10 Atm. para uso alimentario, brida de conexión, machón rosca, manguitos, llaves de paso tipo globo, válvula anti-retorno de 1 1/2", tapa de registro exterior, grifo de pruebas de latón de 1/2", incluso contador, según CTE/ DB-HS 4 suministro de agua.</p>	
			Mano de obra.....	35,46
			Maquinaria.....	19,84
			Resto de obra y materiales.....	85,91
			TOTAL PARTIDA.....	141,21
0453	453AZD	UD	<p>INSTALACIÓN DE FONTANERÍA EDIFICIO AZUD</p> <p>ud. Instalación de fontanería completa para para el edificio del azud, realizada con tuberías de polietileno reticulado (método Engel) utilizando el sistema Quick&Easy de derivaciones por tes para las redes de agua fría, totalmente terminada según CTE/ DB-HS, para suministro de lavajos, grupo de presión, preparador de reactivos, toma de agua, incluso rejillas de sumideros interiores de PVC, con tuberías de saneamiento de salida de PVC SN8 DN160-DN200 hasta al punto de vertido, y con p.p. de redes interiores de ascendentes y bajantes.</p>	
			Mano de obra.....	106,38
			Resto de obra y materiales.....	194,26
			TOTAL PARTIDA.....	300,64
0454	453L	UD	<p>INSTALACIÓN DE FONTANERÍA Y EVACUACIÓN LABORATORIO</p> <p>ud. Instalación del laboratorio y dependencias enexas, de fontanería completa en TABIQUERÍA SECA, realizada con tuberías de polietileno reticulado (método Engel) utilizando el sistema Quick&Easy de derivaciones por tes para las redes de agua fría y caliente y con tuberías de PVC serie C para la red de desagüe con los diámetros necesarios para cada punto de consumo, totalmente terminada según CTE/ DB-HS 4 suministro de agua, sin incluir los aparatos sanitarios ni griferías, y con p.p. de redes interiores de ascendentes y bajantes.</p>	
			Mano de obra.....	53,19
			Resto de obra y materiales.....	173,72
			TOTAL PARTIDA.....	226,91

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ABASTECIMIENTO A VARIOS MUNICIPIOS DE LA RIOJA. SISTEMA CIDACOS

Nº	CÓDIGO	UD	DESCRIPCIÓN	IMPORTE
0455	453R	UD	<p>INSTALACIÓN DE FONTANERÍA Y EVACUACIÓN REACTIVOS</p> <p>ud. Instalación del laboratorio y dependencias enexas, de fontanería completa en TABIQUERÍA SECA, realizada con tuberías de polietileno reticulado (método Engel) utilizando el sistema Quick&Easy de derivaciones por tes para las redes de agua fría y caliente y con tuberías de PVC serie C para la red de desagüe con los diámetros necesarios para cada punto de consumo, totalmente terminada según CTE/ DB-HS 4 suministro de agua, sin incluir los aparatos sanitarios ni griferías, y con p.p. de redes interiores de ascendentes y bajantes.</p>	
			Mano de obra.....	177,30
			Resto de obra y materiales.....	181,16
			TOTAL PARTIDA.....	358,46
0456	453T	UD	<p>INSTALACIÓN DE FONTANERÍA TALLER</p> <p>ud. Instalación de fontanería completa para el taller, realizada con tuberías de polietileno reticulado (método Engel) utilizando el sistema Quick&Easy de derivaciones por tes para las redes de agua fría, totalmente terminada según CTE/ DB-HS 4 suministro de agua, sin incluir los aparatos sanitarios ni griferías, y con p.p. de redes interiores de ascendentes y bajantes.</p>	
			Mano de obra.....	35,46
			Resto de obra y materiales.....	44,14
			TOTAL PARTIDA.....	79,60
0457	453br	UD	<p>RECIRCULACIÓN ACS</p> <p>U.d. Instalación de recirculación de a.c.s. con circulador de bronce SB 4Y, tubería de polietileno de d=20 con p.p. de accesorios y aislamiento armatex, 2 llaves de esfera de 3/4" H-H con bola de acero inox., 1 válvula de retención de 3/4", totalmente intalado.</p>	
			Mano de obra.....	70,92
			Resto de obra y materiales.....	145,29
			TOTAL PARTIDA.....	216,21
0458	453v	UD	<p>INSTALACIÓN DE FONTANERÍA Y EVACUACIÓN VESTUARIOS</p> <p>ud. Instalación de vetuarios, de fontanería completa en TABIQUERÍA SECA, realizada con tuberías de polietileno reticulado (método Engel) utilizando el sistema Quick&Easy de derivaciones por tes para las redes de agua fría y caliente y con tuberías de PVC serie C para la red de desagüe con los diámetros necesarios para cada punto de consumo, totalmente terminada según CTE/ DB-HS 4 suministro de agua, sin incluir los aparatos sanitarios ni griferías, y con p.p. de redes interiores de ascendentes y bajantes.</p>	
			Mano de obra.....	177,30
			Resto de obra y materiales.....	294,99
			TOTAL PARTIDA.....	472,29
0459	458B	ML	<p>BORDILLO PREFABRICADO DE HORMIGÓN 25x15x12 cm.</p> <p>Bordillo prefabricado de hormigón doble capa, tipo T-2 de dimensiones 25X15X12 cm en chaflán, colocado sobre solera de hormigón HNE-20, de 15 cm de espesor, incluso excavación necesaria, rejuntado y limpieza.</p>	
			Mano de obra.....	6,58
			Resto de obra y materiales.....	3,31
			TOTAL PARTIDA.....	9,89

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Nº	CÓDIGO	UD	DESCRIPCIÓN	IMPORTE
0460	459.1	UD	BOCA DE RIEGO Boca de riego de cierre elástico de 40 mm de diámetro nominal y 10 atm de PN con arqueta cuero y tapa de fundición gris (GG-25), tapa de fundición nodular (GGG-50) y cierre E.P.D.M. y revestimiento con doble capa de pintura epoxi conexas a red, totalmente colocada.	
			Mano de obra.....	10,84
			Resto de obra y materiales.....	60,68
			TOTAL PARTIDA.....	71,52
0461	460	UD	ARQUETA DE RECOGIDA DE 40x40x40 Arqueta de recogida de 40x40x40, colocada.	
			Mano de obra.....	118,39
			Maquinaria.....	27,75
			Resto de obra y materiales.....	40,91
			TOTAL PARTIDA.....	187,05
0462	460sR	UD	ARQUETA RED DE SNTO. DE 50x50x80 TAPA RELLENABLE Arqueta de red de saneamiento de 50x50 y 80 cm de altura media, de hormigón HM-20 dotada de cerco y tapa HERMÉTICA de aluminio rellenable, paso 50x50 cm	
			Mano de obra.....	86,47
			Maquinaria.....	0,14
			Resto de obra y materiales.....	103,70
			TOTAL PARTIDA.....	190,31
0463	460B	UD	SUMIDERO DE FUNDICIÓN 445X375 MM Sumidero sifónico en calzada, de hormigón prefabricado HNE-20/P/20/11b, con rejilla de fundición reforzada de 445x375 cm., sobre solera de hormigón, conexas a colector mediante tubería de PVC 160 mm de diámetro SN-8 J.E. totalmente colocado.	
			Mano de obra.....	37,46
			Resto de obra y materiales.....	115,77
			TOTAL PARTIDA.....	153,23
0464	460BC	UD	CANALETA TIPO ACO-DRAIN Canaleta tipo Aco-drain de hormigón polimérico o equivalente con rejilla de acero galvanizado de 10 cm de ancho, completamente colocada.	
			Mano de obra.....	3,64
			Resto de obra y materiales.....	65,41
			TOTAL PARTIDA.....	69,05
0465	460R	UD	ARQUETA ESTANCA DRENAJE DE 80x60x50 TAPA HORMIGÓN Arqueta estanca para red de drenaje de 80x60x50, de hormigón HNE-20 con tapa de hormigón para drenajes.	
			Mano de obra.....	37,46
			Maquinaria.....	0,12
			Resto de obra y materiales.....	65,99
			TOTAL PARTIDA.....	103,57
0466	460s	UD	ARQUETA RED DE SNTO. DE 40x40x40 TAPA FUNDICIÓN Arqueta de red de saneamiento de 40x40x40, de hormigón HM-20 dotada de cerco y tapa de fundición hidráulica de 40x40 cm C-250	
			Mano de obra.....	82,93
			Maquinaria.....	0,12
			Resto de obra y materiales.....	43,47
			TOTAL PARTIDA.....	126,52

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Nº	CÓDIGO	UD	DESCRIPCIÓN	IMPORTE
0467	460s2	UD	ARQUETA RED DE SNTO. DE 50x50x80 TAPA FUNDICIÓN Arqueta de red de saneamiento de 50x50 y 80 cm de altura media, de hormigón HM-20 dotada de cerco y tapa de fundición hidráulica de 50x50 cm C-250	
			Mano de obra.....	86,47
			Maquinaria.....	0,14
			Resto de obra y materiales.....	73,64
			TOTAL PARTIDA.....	160,25
0468	460sum	UD	SUMIDERO SIFÓNICO DE FUNDICIÓN 14,5x14,5 ud. Sumidero sifónico de fundición de 14,5x14,5 cm, salida d=50 mm, enlazado a arqueta mediante tubería de PVC de diámetro exterior 50 mm x 3 mm de espesor Serie B, totalmente instalado, según CTE/DB-HS 5.	
			Mano de obra.....	22,71
			Resto de obra y materiales.....	18,79
			TOTAL PARTIDA.....	41,50
0469	460sumi	UD	SUMIDERO SIFÓNICO ACERO INOX ud. Sumidero sifónico de acero inoxidable cm para instalación en suelos de vestuarios, totalmente instalado i/ p.p. de material de agarre, enlazado a arqueta mediante tubería de PVC de diámetro exterior 50 mm x 3 mm de espesor Serie B, totalmente instalado, según CTE/DB-HS 5..	
			Mano de obra.....	22,71
			Resto de obra y materiales.....	68,46
			TOTAL PARTIDA.....	91,17
0470	461	M2	TABICÓN DE LADRILLO HUECO DOBLE Tabicón de ladrillo hueco doble tomado con mortero de cemento y arena de río 1:6, construido según normas y especificaciones, medido en superficie, ejecutado deduciendo huecos superiores a 1 m2.	
			Mano de obra.....	23,68
			Resto de obra y materiales.....	3,31
			TOTAL PARTIDA.....	26,99
0471	462	M2	FÁBRICA BLOQUES 40x20x20 cm TIPO SPLIT COLOR Fábrica de bloques de hormigón tipo Split, de medidas 40x20x20 cm color i/relleno de hormigón y colocación de armaduras s/normativa y recibido con mortero de cemento y arena de río 1/6 i/p.p. de piezas especiales para dinteles y materialización de jambas, roturas, nivelados, aplomados, llagueados y limpieza, todo ello según normativa.	
			Mano de obra.....	12,33
			Resto de obra y materiales.....	19,47
			TOTAL PARTIDA.....	31,80
0472	463	M2	FÁBRICA BLOQUES 40x20x20 cm GRIS Fábrica de bloques de hormigón color gris de medidas 40x20x20 cm, para terminación posterior en peanas de ventilaciones, i/relleno de hormigón HM-20 y armadura en zona según normativa y recibido con mortero de cemento y arena de río 1/6, i/p.p. de piezas especiales, roturas, aplomados, nivelados y limpieza todo ello según NTE-FFB-6.	
			Mano de obra.....	12,33
			Resto de obra y materiales.....	18,38
			TOTAL PARTIDA.....	30,71

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Nº	CÓDIGO	UD	DESCRIPCIÓN	IMPORTE
0473	463CI	M2	CUBIERTA PLANA NO TRANSITABLE m². Cubierta invertida completa, no transitable, constituida por: capa de hormigón aligerado de 10 cm de espesor medio, para formación de pendientes, con tendido de mortero de cemento M5 de 2 cm de espesor para regularizar la superficie; lámina geotextil de 200 g/m²; lámina asfáltica de oxiasfalto, GLASDAN 40 P OXI, en posición flotante respecto al soporte, salvo en perímetros y puntos singulares; lámina asfáltica de oxiasfalto, ESTERDAN 40 P ELAST, totalmente adherida a la anterior con soplete; cazoleta con conexión a bajante d110 mm con paragravillas; aislamiento térmico con planchas de poliestireno extruido de 50 mm de espesor, DANOPREN 50; lámina geotextil; capa de gravilla de canto rodado de 5 cm de espesor. Solución según membrana PN-6 de la norma UNE 104-402/96. Cumple los requisitos del C.T.E.	
			Mano de obra.....	10,56
			Resto de obra y materiales.....	25,86
			TOTAL PARTIDA.....	36,42
0474	463F	M2	PANEL PREFABRICADO DE HORMIGÓN 12 cm SIN SELLAR M2. Panel de cerramiento con acabado gris natural, de 12 cm. de espesor para colocación horizontal, con modulación según proyecto, tratamiento anticarbonatación, ambas caras lisas, elementos de fijación de acero galvanizado en caliente, colocado, con p.p. de apoyos en la parte inferior para dejar hueco.	
			Mano de obra.....	7,04
			Maquinaria.....	3,69
			Resto de obra y materiales.....	10,42
			TOTAL PARTIDA.....	21,15
0475	463G	ML	VIGA PREFABRICADA DE HORMIGÓN ARMADO B 50 CM X H 60CM Viga prefabricada de hormigón armado de 50 cm de ancho x 60 de canto total preparada para apoyo de forjado de placa alveolar de 25+5 cm de canto. Incluido suministro, montaje y p.p. de anclajes según planos.	
			Mano de obra.....	7,04
			Maquinaria.....	3,69
			Resto de obra y materiales.....	103,61
			TOTAL PARTIDA.....	114,34
0476	463H	ML	PILAR PREFABRICADA DE HORMIGÓN ARMADO DE 60 X 60CM Pilar prefabricado de hormigón armado de 60x60 cm, preparado para apoyo de vigas prefabricadas. Incluido suministro, montaje y p.p. de placas de anclaje, vainas y pernos de anclajes según planos.	
			Mano de obra.....	7,04
			Maquinaria.....	3,69
			Resto de obra y materiales.....	126,17
			TOTAL PARTIDA.....	136,90
0477	463MTF	M2	MAMPARA TABLERO FENÓLICO m2 Mampara ligera de tablero fenólico compacto de 12 mm., sin vidrio, con puerta, con accesorios de aluminio extruido, incluso parte proporcional de bisagras y cornisas de aluminio lacado, cerraduras exteriores e interiores de acero inoxidable lacado on indicador de señalización libre/ocupado y manilla tipo Glutz 5059/160 mm. o similar, ralsinizada, color a elegir, pequeño material y medios auxiliares de montaje, incluso formación de encimeras lavabos con elementos de fijación de acero inox. Totalmente terminado.	
			Mano de obra.....	47,01
			Resto de obra y materiales.....	57,01
			TOTAL PARTIDA.....	104,02

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Nº	CÓDIGO	UD	DESCRIPCIÓN	IMPORTE
0478	463RC	M2	REVESTIMIENTO EXTERIOR DE CHAPA ONDULADA M2. Revestimiento de chapa ondulada de aluminio tipo tipo alubel ond-all 33 acabado lacado estandar a elegir, con p.p. elementos de fijación y remates inferior, a huecos, esquinas, coronación, etc, totalmente terminada.	
			Mano de obra.....	5,64
			Maquinaria.....	0,96
			Resto de obra y materiales.....	11,66
			TOTAL PARTIDA.....	18,26
0479	463RCH	M2	REVESTIMIENTO PETO CUBIERTA M2. Revestimiento de peto interior de cubierta entre coronación y solape con impermeabilizante de cubierta, realizado con chapa lacada 0,5 mm con p.p. elementos de fijación, totalmente terminada.	
			Mano de obra.....	3,88
			Resto de obra y materiales.....	4,37
			TOTAL PARTIDA.....	8,25
0480	463TB	M2	TABIQUE AUTOPORTANTE 2x15N+70+2x15N m². Tabique formado por una estructura de perfiles de chapa de acero galvanizada de 70 mm de ancho, a base de Montantes (elementos verticales) separados 400 mm entre ellos y canales (elementos horizontales). En cada cara se atomillan dos placas de yeso laminado, estandar tipo N de 15 mm de espesor, dando un ancho total terminado de 130 mm. Parte proporcional de tomillería, juntas estancas /acústicas de su perímetro, cintas y pasta de juntas, piezas de arriostamiento, anclajes mecánicos, etc. totalmente terminado con calidad de terminación Nivel 1 (Q1) para terminaciones de calidad de terminación Nivel 2 (Q2) para terminaciones estándar de pintura. Alma con Lana Mineral tipo Arena PR de 65 mm de espesor. Montaje según Norma UNE 102.041 IN y requisitos del CTE-DB HR. Montaje según Norma UNE 102.041 IN y requisitos del CTE-DB HR.	
			Mano de obra.....	15,26
			Resto de obra y materiales.....	20,02
			TOTAL PARTIDA.....	35,28
0481	463TB2h	M2	TABIQUE AUTOPORTANTE 1X15H+70+1x15H m². Tabique formado por una estructura de perfiles de chapa de acero galvanizada de 70 mm de ancho, a base de Montantes (elementos verticales) separados 400 mm entre ellos y canales (elementos horizontales). En cada cara se atomillan una placa de yeso laminado hidrofugada tipo H1, de 15 mm, dando un ancho total terminado de 115 mm. Parte proporcional de tomillería, juntas estancas /acústicas de su perímetro, cintas y pasta de juntas, piezas de arriostamiento, anclajes mecánicos, etc. totalmente terminado con calidad de terminación Nivel 1 (Q1) para terminaciones de alicatado. Alma con Lana Mineral tipo Arena PR de 65 mm de espesor. Montaje según Norma UNE 102.041 IN y requisitos del CTE-DB HR. Montaje según Norma UNE 102.041 IN y requisitos del CTE-DB HR.	
			Mano de obra.....	11,77
			Resto de obra y materiales.....	17,46
			TOTAL PARTIDA.....	29,23

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Nº	CÓDIGO	UD	DESCRIPCIÓN	IMPORTE
0482	463TBh	M2	TABIQUE AUTOPORTANTE 2x15N+70+1x15H m². Tabique formado por una estructura de perfiles de chapa de acero galvanizada de 70 mm de ancho, a base de Montantes (elementos verticales) separados 400 mm entre ellos y canales (elementos horizontales), En una cara se atomillan dos placas de yeso laminado, estandar tipo N de 15 mm de espesor y en la otra una placa de yeso laminado hidrofugada tipo H1, de 15 mm, dando un ancho total terminado de 115 mm. Parte proporcional de tornillería, juntas estancas /acústicas de su perímetro, cintas y pasta de juntas, piezas de arriostamiento, anclajes mecánicos, etc. totalmente terminado con calidad de terminación Nivel 1 (Q1) para terminación de alicatado en lado placa hidrofugada, y calidad de terminación Nivel 2 (Q2) para terminaciones estándar de pintura en lado Alma con Lana Mineral tipo Arena PR de 65 mm de espesor. Montaje según Norma UNE 102.041 IN y requisitos del CTE-DB HR. Montaje según Norma UNE 102.041 IN y requisitos del CTE-DB HR.	
			Mano de obra.....	13,09
			Resto de obra y materiales.....	18,79
			TOTAL PARTIDA.....	31,88
0483	463TR	M2	TRASDOSADO AUTOPORTANTE 70+2x15N m². Trasdosado autoportante formado por una estructura de perfiles de chapa de acero galvanizada de 70 mm de ancho, a base de Montantes (elementos verticales) colocados dobles en H, separados 400 mm entre ellos y canales (elementos horizontales). A éstos se atomillan dos placas de yeso laminado, estandar tipo N de 15 mm de espesor, dando un ancho total terminado de 100 mm. Parte proporcional de tornillería, juntas estancas /acústicas de su perímetro, cintas y pasta de juntas, piezas de arriostamiento, anclajes mecánicos, etc. totalmente terminado con calidad de terminación Nivel 2 (Q2) para terminaciones estándar de pintura. Alma con Lana Mineral tipo Arena PR de 65 mm de espesor. Montaje según Norma UNE 102.041 IN y requisitos del CTE-DB HR. Montaje según Norma UNE 102.041 IN y requisitos del CTE-DB HR.	
			Mano de obra.....	10,91
			Resto de obra y materiales.....	15,81
			TOTAL PARTIDA.....	26,72
0484	463TRh	M2	TRASDOSADO AUTOPORTANTE 70+1x15H m². Trasdosado autoportante formado por una estructura de perfiles de chapa de acero galvanizada de 70 mm de ancho, a base de Montantes (elementos verticales) colocados dobles en H, separados 400 mm entre ellos y canales (elementos horizontales). A éstos se atomilla una placa de yeso laminado, hidrofugada de 15 mm de espesor, dando un ancho total terminado de 85 mm. Parte proporcional de tornillería, juntas estancas /acústicas de su perímetro, cintas y pasta de juntas, piezas de arriostamiento, anclajes mecánicos, etc. totalmente terminado con calidad de terminación Nivel 1 (Q1) para terminaciones de alicatado. Alma con Lana Mineral tipo Arena PR de 65 mm de espesor. Montaje según Norma UNE 102.041 IN y requisitos del CTE-DB HR. Montaje según Norma UNE 102.041 IN y requisitos del CTE-DB HR.	
			Mano de obra.....	9,59
			Resto de obra y materiales.....	14,40
			TOTAL PARTIDA.....	23,99

CUADRO DE PRECIOS 2

ABASTECIMIENTO A VARIOS MUNICIPIOS DE LA RIOJA. SISTEMA CIDACOS

Nº	CÓDIGO	UD	DESCRIPCIÓN	IMPORTE
0485	463p	M2	PANEL PREFABRICADO DE HORMIGÓN 16 cm M2. Panel de cerramiento con acabado gris natural, de 16 cm. de espesor para colocación horizontal, con modulación según proyecto, tratamiento anticarbonatación, ambas caras lisas, /elementos de fijación de acero galvanizado en caliente y sellado de juntas interior y exterior con SILCOSELL o equivalente, colocado, (medido deduciendo huecos mayores de 10 m2.)	
			Mano de obra.....	7,04
			Maquinaria.....	5,29
			Resto de obra y materiales.....	20,28
			TOTAL PARTIDA.....	32,61
0486	464B1	ML	BARANDILLA VIDRIO RECTA m. Sistema de barandilla modular GlassFit SV-1401 Top "COMENZA", sin pasamanos, con perfil de montaje de aluminio anodizado, con sistema de nivelación interior Level In, capaz de soportar una fuerza horizontal uniformemente repartida de 0,8 kN/m aplicada en el borde superior del vidrio según CTE DB SE-AE, de altura máxima 110 cm, para vidrio laminar de seguridad, compuesto por dos lunas de 10 mm de espesor unidas mediante dos láminas incoloras de butiral de polivinilo, de 0,38 mm de espesor cada una; fijado sobre hormigón mediante anclaje químico con varilla roscada de acero zincado, montada	
			Mano de obra.....	71,52
			Resto de obra y materiales.....	155,41
			TOTAL PARTIDA.....	226,93
0487	464BP	ML	PASAMANOS ACERO INOX m. Pasamanos de tubo 40x1,5 y anclajes a paramento en L redondo liso macizo de 12 mm, todo ello de acero inox AISI 316, incluso codos y remate en curva a paramento en arranques, capaz de soportar una fuerza horizontal uniformemente repartida de 0,8 kN/m, montado	
			Mano de obra.....	35,76
			Resto de obra y materiales.....	48,73
			TOTAL PARTIDA.....	84,49
0488	464Be	ML	BARANDILLA VIDRIO ESCALERA CON PASAMANOS m. Sistema de barandilla modular GlassFit CC-775 con pasamanos RP-1400"COMENZA", con material de montaje de acero inox AISI 316, capaz de soportar una fuerza horizontal uniformemente repartida de 0,8 kN/m aplicada en el borde superior del vidrio según CTE DB SE-AE, de altura máxima 110 cm, para vidrio laminar de seguridad, compuesto por dos lunas de 10 mm de espesor unidas mediante dos láminas incoloras de butiral de polivinilo, de 0,38 mm de espesor cada una, rematado con pasamanos de acero inox; fijado sobre hormigón mediante anclaje químico con varilla roscada de acero zincado, montada en borde de escalera.	
			Mano de obra.....	107,28
			Resto de obra y materiales.....	202,64
			TOTAL PARTIDA.....	309,92

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ABASTECIMIENTO A VARIOS MUNICIPIOS DE LA RIOJA. SISTEMA CIDACOS

Nº	CÓDIGO	UD	DESCRIPCIÓN	IMPORTE
0489	464PC	M2	SISTEMA MODULAR DE POLICARBONATO CELULAR EN VENTANAS m². Sistema modular de policarbonato celular con encastre machiembrado y protección UV para paramentos verticales, con zonas abatibles según planos. Espesor de 40 mm. Estructura de 9 paredes con perfilera y tapetas de aluminio anonizado. Herrejes de sujeción, monado.	
			Mano de obra.....	8,62
			Resto de obra y materiales.....	256,17
			TOTAL PARTIDA.....	264,79
0490	464V1	M2	VIDRIO 6/16/6 BAJO EMISIVO Y CÁMARA CON ARGÓN m². Doble acristalamiento CLIMALIT PLUS, formado por un vidrio bajo emisivo Planitherm XN incoloro de 6 mm y una luna float Planiclear incolora de 6 mm (impreso en vestuarios y aseos), cámara de aire CON Argón de 16 mm con perfil separador de aluminio y doble sellado perimetral, fijado sobre carpintería con acañado mediante calzos de apoyo perimetrales y laterales y sellado en frío con silicona neutra, incluso cortes de vidrio y colocación de junquillos, según UNE 85222:1985.	
			Mano de obra.....	9,76
			Resto de obra y materiales.....	49,09
			TOTAL PARTIDA.....	58,85
0491	464V2	M2	VIDRIO AISLANTE Y DE SEGURIDAD 4+4/16/4+4 m². Doble acristalamiento CLIMALIT PLUS y espesor total 32 mm, formado por doble vidrio laminado acústico y de seguridad Stadip Silence 8 mm de espesor (4+4) y cámara de aire deshidratado de 16 mm con perfil separador de aluminio y doble sellado perimetral, fijado sobre carpintería con acañado mediante calzos de apoyo perimetrales y laterales y sellado en frío con silicona neutra, incluso colocación de junquillos, según UNE 85222:1985. Nivel de seguridad de uso según UNE EN 12600: NPD/1B1.	
			Mano de obra.....	9,76
			Resto de obra y materiales.....	97,67
			TOTAL PARTIDA.....	107,43
0492	464V3	M2	VIDRIO SEGURIDAD STADIP 44.1 INCOLORO (2B2) m². Acristalamiento de vidrio laminar de seguridad Stadip compuesto por dos vidrios de 4 mm de espesor unidos mediante lámina de butiral de polivinilo incolora de 0,38 mm, clasificado 2B2 según UNE-EN 12600, fijado sobre carpintería con acañado mediante calzos de apoyo perimetrales y laterales y sellado en frío con silicona neutra, incluso colocación de junquillos, según UNE 85222:1985.	
			Mano de obra.....	9,76
			Resto de obra y materiales.....	27,29
			TOTAL PARTIDA.....	37,05

CUADRO DE PRECIOS 2

ABASTECIMIENTO A VARIOS MUNICIPIOS DE LA RIOJA. SISTEMA CIDACOS

Nº	CÓDIGO	UD	DESCRIPCIÓN	IMPORTE
0493	464ca	M2	CARPINTERÍA ABATIBLE ALUMINIO EN VENTANAS m². Carpintería de hojas abatibles de aluminio modelo con rotura de puente térmico, Alfil A54RPT de SAPAGROUP con un ancho de marco de 54 mm y con un ancho de hoja de 61 mm, medida del frente de 96,3 mm, con sistema de cámara europea, con espesor de perfil de 1,5 mm, con sistema de cierre por junta central de estanqueidad en EPDM, coplanar exteriormente y con resalte de hoja sobre el marco al interior, para un acristalamiento con altura de galce de 22 mm y anchura hasta 44 mm en marcos y 51 mm en hojas, lacado (entre 60-100 micras) en color estándar (RAL estándar: blanco, gris...), herrajes de colgar, p.p. de cerradura Tesa o similar y costes indirectos. Homologada con Clase 4 en el ensayo de permeabilidad al aire según norma UNE-EN 1026:2000. La transmitancia máxima del marco es de 2,90 W/m² K, y cumple en las zonas A, B, C, D y E, según el CTE/DB-HE 1.	
			Mano de obra.....	8,62
			Resto de obra y materiales.....	227,12
			TOTAL PARTIDA.....	235,74
0494	464caP	M2	CARPINTERÍA ABATIBLE ALUMINIO EN PUERTAS m². Carpintería de hojas abatibles de aluminio modelo con rotura de puente térmico, Alfil A65RPT de SAPAGROUP con un ancho de marco de 65 mm y con un ancho de hoja de 721 mm, medida del frente de 96,3 mm, con sistema de cámara europea, con espesor de perfil de 1,5 mm, con sistema de cierre por junta central de estanqueidad en EPDM, coplanar exteriormente y con resalte de hoja sobre el marco al interior, para un acristalamiento con altura de galce de 22 mm y anchura hasta 65 mm en marcos y 72 mm en hojas, lacado (entre 60-100 micras) en color estándar (RAL estándar: blanco, gris...), herrajes de colgar, p.p. de cerradura Tesa, manilla y barra inox y costes indirectos. Homologada con Clase 4 en el ensayo de permeabilidad al aire según norma UNE-EN 1026:2000. La transmitancia máxima del marco es de 2,90 W/m² K, y cumple en las zonas A, B, C, D y E, según el CTE/DB-HE 1.	
			Mano de obra.....	8,62
			Resto de obra y materiales.....	260,92
			TOTAL PARTIDA.....	269,54
0495	464cf	M2	CARPINTERÍA FIJA ALUMINIO m². Carpintería fija con junquillos para la fijación del vidrio, de aluminio modelo con rotura de puente térmico, Alfil A54RPT de SAPAGROUP con un ancho de marco de 54 mm y con un ancho de hoja de 61 mm, medida del frente de 96,3 mm, con sistema de cámara europea, con espesor de perfil de 1,5 mm, con sistema de cierre por junta central de estanqueidad en EPDM, coplanar exteriormente y con resalte de hoja sobre el marco al interior, para un acristalamiento con altura de galce de 22 mm y anchura hasta 44 mm en marcos y 51 mm en hojas, lacado (entre 60-100 micras) en color estándar (RAL estándar: blanco, gris...), herrajes de colgar, p.p. de cerradura Tesa o similar y costes indirectos. Homologada con Clase 4 en el ensayo de permeabilidad al aire según norma UNE-EN 1026:2000. La transmitancia máxima del marco es de 2,90 W/m² K, y cumple en las zonas A, B, C, D y E, según el CTE/DB-HE 1.	
			Mano de obra.....	8,62
			Resto de obra y materiales.....	136,09
			TOTAL PARTIDA.....	144,71

CUADRO DE PRECIOS 2

ABASTECIMIENTO A VARIOS MUNICIPIOS DE LA RIOJA. SISTEMA CIDACOS

Nº	CÓDIGO	UD	DESCRIPCIÓN	IMPORTE
0496	465	M2	PUERTA DOBLE CHAPA ACERO Puerta de paso hojas abatibles de doble chapa lisa de acero de 1 mm de espesor, con aislamiento interno de fibre de vidrio, engatillada, realizada en dos bandejas, con rigidizadores de tubo rectangular, i/manillas de acero inoxidable y cerradura, patillas para recibir en fábricas, herrajes de colgar y de seguridad, imprimación antióxido y pintura al esmalte, totalmente colocada incluyendo el recibido de fábricas.	
			Mano de obra.....	12,41
			Resto de obra y materiales.....	51,97
			TOTAL PARTIDA.....	64,38
0497	465.1	M2	PUERTA DOBLE CHAPA ACERO CON LAMAS Puerta de paso hojas abatibles de doble chapa lisa de acero de 1 mm de espesor, con aislamiento interno de fibre de vidrio, engatillada, realizada en dos bandejas, con rigidizadores de tubo rectangular, i/manillas de acero inoxidable y cerradura, con dos o cuatro rejillas de ventilación con malla anti insectos interior, patillas para recibir en fábricas, herrajes de colgar y de seguridad, imprimación antióxido y pintura al esmalte, totalmente colocada incluyendo el recibido de fábricas.	
			Mano de obra.....	12,41
			Resto de obra y materiales.....	62,60
			TOTAL PARTIDA.....	75,01
0498	465.2	M2	PUERTA INDUSTRIAL SECCIONABLE AUTOMÁTICA Puerta seccional metrica industrial de Horman SPU-F42 o equivalente, acabado estuco color a elegir, fabricada con panel sandwich de 42 mm de espesor, con protección contra los dedos, protección de superficie con imprimación, cerco angular perfilado de acero galvanizado. Automatismo de apertura y cierre de eje WA 300S4 con desbloqueo de emergencia. Panel acristalado doble de seguridad. Pesitillo interior. Apertura y cierre automático. Cuadro de maniobra. Totalmente colocada incluyendo el recibido de fábricas y conexiones eléctricas.	
			Mano de obra.....	12,41
			Resto de obra y materiales.....	164,74
			TOTAL PARTIDA.....	177,15
0499	467	ML	NEOPRENO ZUNCHADO 150x20 mm Neopreno zunchado de 150x20 mm para apoyo de cubierta, totalmente colocado incluso mortero.	
			Mano de obra.....	0,89
			Resto de obra y materiales.....	9,19
			TOTAL PARTIDA.....	10,08
0500	468	M2	ENFOSCADO MAESTRADO Y FRATASADO Enfoscado maestreado y fratasado de 20 mm de espesor en toda su superficie con mortero de cemento y arena de río 1/4 en paramentos verticales, con maestras cada metro, i/preparación y humedecido de soporte, limpieza, p.p. de medios auxiliares con empleo, en su caso, de andamiaje homologado, así como distribución de material en tajos, s/NTE-RPE-7.	
			Mano de obra.....	10,87
			Resto de obra y materiales.....	1,42
			TOTAL PARTIDA.....	12,29
0501	469	M2	PINTURA PLÁSTICA BLANCA Pintura plástica picada blanca en paramentos verticales y horizontales, lavable dos manos, i/lijado y emplastecido.	
			Mano de obra.....	3,29
			Resto de obra y materiales.....	2,69
			TOTAL PARTIDA.....	5,98

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Nº	CÓDIGO	UD	DESCRIPCIÓN	IMPORTE
0502	469b	M2	BARNIZADO CARPINTERÍA DE MADERA m². Barnizado de carpintería de madera interior con Procobar filtro 10 o similar, lijado y relijado dos manos y una mano de imprimación.	
			Mano de obra.....	7,24
			Resto de obra y materiales.....	2,90
			TOTAL PARTIDA.....	10,14
0503	470	M2	IMPERMEABILIZACIÓN EXTERIOR DE MUROS Impermeabilización de paramentos con mortero cementoso impermeable, sulfuresistente, MASTERSEAL 531 de BASF o equivalente en dos manos cruzadas, con un consumo mínimo de 3 kg/m2 y un espesor de 2 mm. Incluso limpieza previa del paramento; según NBE-QB-90 y UNE-104. Posterior suministro y colocación de geocompuesto drenante compuesto por lámina de PEAD con geotextil incorporado en una de sus caras, DELTA NP DRAIN, de BASF o equivalente. Medida la superficie ejecutada.	
			Mano de obra.....	6,38
			Resto de obra y materiales.....	6,34
			TOTAL PARTIDA.....	12,72
0504	471jd	ML	JUNTA DE DILATACIÓN Formación de junta de dilatación con poliestireno expandido de 15 mm de espesor entre solera y muro y posterior sellado de 15 mm de anchura media con masilla de poliuretano COPSAFLEX 11C, en cartuchos, incluso cordón sellador de poliuretano previamente introducido en la junta. Según CTE/DB-HS 1.	
			Mano de obra.....	2,93
			Resto de obra y materiales.....	3,13
			TOTAL PARTIDA.....	6,06
0505	472	ML	SELLADO INTERIOR DE JUNTAS DE CONSTRUCCIÓN POLIURETANO Sellado de juntas en paramentos horizontales y verticales con un ancho de junta de 20 mm, con una Dureza Shore A aprox. 40 y Alargamiento a Rotura ISO 8339 > 250 % , con masilla de poliuretano monocomponente MASTERFLEX 474 de BASF o equivalente, Apta para Agua Potable según RD 140/2003. Incluso limpieza, imprimación en base poliuretano de los labios de la junta con MASTERFLEX PRIMER P (ELASTOPRIMER 110) de BASF o equivalente, y cordón de fondo de junta MASTERFLEX FJ de BASF o equivalente de 30 mm. de diámetro. Medida la longitud ejecutada.	
			Mano de obra.....	0,29
			Resto de obra y materiales.....	3,97
			TOTAL PARTIDA.....	4,26
0506	473	UD	RESPIRADERO DE CHAPA Suministro y colocación de capucha respiradero de chapa en huecos de ventilación de depósitos, realizado con estructura de tubo 70x70x3, convenientemente arriostrado, lamas de acero anti-lluvia de espesor 3 mm y cubierta de chapa del mismo espesor realizada a cuatro aguas, de dimensiones y forma detallada en planos, i/garras de anclaje a fábrica de bloques, recibido de las mismas, miniado y pintado al esmalte, totalmente colocadas.	
			Mano de obra.....	58,51
			Resto de obra y materiales.....	359,91
			TOTAL PARTIDA.....	418,42

CUADRO DE PRECIOS 2

ABASTECIMIENTO A VARIOS MUNICIPIOS DE LA RIOJA. SISTEMA CIDACOS

Nº	CÓDIGO	UD	DESCRIPCIÓN	IMPORTE
0507	474.1	ML	CANALON CHAPA PRELACADA 50cm Canalón de chapa prelacada en color, de 50 cm. de desarrollo fijado mediante ganchos ocultos con tornillo autoroscante 40 cm., incluso p.p. de embocadura de bajante, codos y piezas especiales.	
			Mano de obra.....	4,88
			Resto de obra y materiales.....	6,97
			TOTAL PARTIDA.....	11,85
0508	474.2	ML	BAJANTE DE CHAPA PRELACADA DN110 Bajante de chapa prelacada en color, DN110, fijado mediante ganchos con tornillo autoroscante 20 cm., incluso p.p. de embocadura de bajante, codos y piezas especiales.	
			Mano de obra.....	4,88
			Resto de obra y materiales.....	7,41
			TOTAL PARTIDA.....	12,29
0509	519	ML	REMATE DE CHAPA PRELACADA CUBIERTA Remate de chapa prelacada en color, para cubrir parte superior de bloque o panel, hasta el panel sandwich de la cubierta por el interior del peño, fijado mediante tacos y/o ganchos anclado a muro y o cubierta, dispuesto según planos.	
			Mano de obra.....	12,41
			Resto de obra y materiales.....	10,06
			TOTAL PARTIDA.....	22,47
0510	520	M2	CUBIERTA PANEL SANDWICH (E=50 mm.) Cubierta con panel tipo sandwich espesor 50 cm., con doble chapa prelacada de 0,4 mm de espesor, y aislamiento térmico de poliuretano, fijada con gancho de acero galvanizado, incluso p.p. de piezas de remate, totalmente colocada.	
			Mano de obra.....	12,41
			Resto de obra y materiales.....	14,62
			TOTAL PARTIDA.....	27,03
0511	521	M2	CELOSIA FIJA VENTILACIÓN Celosía metálica fija para ventilación, formada por cerco con empanelado de lamas de acero de 60 mm, con abertura mínima de 1 cm entre lamas, malla de 2 mm para evitar entrada de insectos, garras de sujeción a soporte de 10 cm, elaborada en taller y montada en obra, totalmente colocada.	
			Mano de obra.....	12,41
			Resto de obra y materiales.....	61,39
			TOTAL PARTIDA.....	73,80
0512	524.1	m	LINEA 3x1.5mm2 Cu 0.6/1kV RZ1-K (AS) Línea eléctrica con conductor multipolares 3x1.5mm2 RZ1-K (AS) en canalización existente, incluso conexionado en inicio y final de línea.	
			Mano de obra.....	1,95
			Resto de obra y materiales.....	1,39
			TOTAL PARTIDA.....	3,34

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ABASTECIMIENTO A VARIOS MUNICIPIOS DE LA RIOJA. SISTEMA CIDACOS

Nº	CÓDIGO	UD	DESCRIPCIÓN	IMPORTE
0513	563.1	ud	PANTALLA ESTANCA LED Luminaria estanca WT120C LED80S/840 de Philips o equivalente para montaje en superficie de dimensiones 1515x80, carcasa de policarbonato, óptica de polimetacrilato de metilo, flujo luminoso 8.000 lm, potencia 68 W, Tª color 4000 K, rango de Tª de 10°C a 35°C, protección IP-65 Clase I. Incluso p.p. de canalización y cableado, completamente instalado.	
			Mano de obra.....	1,95
			Resto de obra y materiales.....	26,35
			TOTAL PARTIDA.....	28,30
0514	568	ML	TUBO ACERO 609 mm Tubo de acero, de 609 mm de diámetro interior, bajo viales, incluso piezas especiales, medios auxiliares, totalmente terminada y colocada.	
			Mano de obra.....	34,21
			Resto de obra y materiales.....	187,22
			TOTAL PARTIDA.....	221,43
0515	571	ud	INTERRUPTOR EMPOTRAR SIMO 32 BLANCO. Interruptor empotrar blanco, totalmente instalado.	
			Mano de obra.....	1,95
			Resto de obra y materiales.....	7,30
			TOTAL PARTIDA.....	9,25
0516	596	m	Línea aérea en BT sobre apoyos de hormigón Tendido de línea aérea, formada por conductores aislados RZ, RZ 0,6/1KV 3x50 mm² AL + 1x54,6 mm² alm, sobre apoyos de hormigón. Alzado, tensado y retencionado de conductores. Incluso transporte y devolución de bobina y material sobrante a almacén	
			Mano de obra.....	140,96
			Resto de obra y materiales.....	16,59
			TOTAL PARTIDA.....	157,55
0517	609	ud	Poste de hormigón armado de 630 daN de esfuerzo útil y 9 m Poste de hormigón armado de 630 daN de esfuerzo útil en punta y 9 metros de altura. Herrajes para el fijado de conductor. Incluso excavación, izado y anclaje de poste, colocación de herrajes, acopio y transporte de elementos, etc.	
			Mano de obra.....	140,96
			Resto de obra y materiales.....	393,51
			TOTAL PARTIDA.....	534,47
0518	610	ud	Poste de hormigón armado de 400 daN de esfuerzo útil y 9 m Poste de hormigón armado de 400 daN de esfuerzo útil en punta y 9 metros de altura. Herrajes para el fijado de conductor. Incluso excavación, izado y anclaje de poste, colocación de herrajes, acopio y transporte de elementos, etc.	
			Mano de obra.....	140,96
			Resto de obra y materiales.....	340,84
			TOTAL PARTIDA.....	481,80
0519	612	ud	Caja general de protección, equipada con portafusibles Caja general de protección, equipada con portafusibles Incluso fijación de caja, conexionado, etc., totalmente instalada.	
			Mano de obra.....	70,48
			Resto de obra y materiales.....	110,97
			TOTAL PARTIDA.....	181,45

CUADRO DE PRECIOS 2

ABASTECIMIENTO A VARIOS MUNICIPIOS DE LA RIOJA. SISTEMA CIDACOS

Nº	CÓDIGO	UD	DESCRIPCIÓN	IMPORTE
0520	617	PA	<p>CONEXIÓN RED NUEVA CASETA CON DEPÓSITOS EXISTENTES PEAD</p> <p>Partida Alzada de Abono Íntegro para conexión de la red de abastecimiento desde la nueva caseta de válvulas con depósitos existentes, incluyendo, excavaciones, tuberías de PEAD de cualquier diámetro, rellenos, ayudas de albañilería, demoliciones, relleno de huecos con morteros sin retracción, anclaje de tuberías, así como todos los medios auxiliares necesarios para la conexión entre la salida de la nueva caseta de válvula y su salida al depósito.</p>	
			Resto de obra y materiales.....	240,49
			TOTAL PARTIDA.....	240,49
0521	617.1	PA	<p>CONEXIÓN RED NUEVA CASETA CON DEPÓSITOS EXISTENTES FD DN<300</p> <p>Partida Alzada de Abono Íntegro para conexión de la red de abastecimiento desde la nueva caseta de válvulas con depósitos existentes, incluyendo, excavaciones, tuberías de fundición de diámetro hasta 300 mm, rellenos, ayudas de albañilería, demoliciones, relleno de huecos con morteros sin retracción, anclaje de tuberías, así como todos los medios auxiliares necesarios para la conexión entre la salida de la nueva caseta de válvula y su salida al depósito.</p>	
			Resto de obra y materiales.....	1.728,51
			TOTAL PARTIDA.....	1.728,51
0522	617.2	PA	<p>CONEXIÓN RED NUEVA CASETA CON DEPÓSITOS EXISTENTES FD 300<DN<500</p> <p>Partida Alzada de Abono Íntegro para conexión de la red de abastecimiento desde la nueva caseta de válvulas con depósitos existentes, incluyendo, excavaciones, tuberías de fundición de diámetro desde 350 a 500 mm, rellenos, ayudas de albañilería, demoliciones, relleno de huecos con morteros sin retracción, anclaje de tuberías, así como todos los medios auxiliares necesarios para la conexión entre la salida de la nueva caseta de válvula y su salida al depósito.</p>	
			Resto de obra y materiales.....	2.404,89
			TOTAL PARTIDA.....	2.404,89
0523	617.3	PA	<p>CONEXIÓN ALIVIOS CON RED VACIADOS DEPÓSITO.</p> <p>Partida Alzada de Abono Íntegro para conexión de la salida de los alivios de la nueva caseta de válvulas con la red de vaciados del depósito, incluyendo, excavaciones, tuberías de PEAD DN de salida de alivio, rellenos, ayudas de albañilería, demoliciones, relleno de huecos con morteros sin retracción, anclaje de tuberías, así como todos los medios auxiliares necesarios para la conexión entre ambas tuberías.</p>	
			Resto de obra y materiales.....	240,49
			TOTAL PARTIDA.....	240,49
0524	617.4	PA	<p>CONEXIÓN ALIVIOS CON POZO EXTERIOR Y DESAGÜE</p> <p>Partida Alzada de Abono Íntegro para conexión de la salida de los alivios de la nueva caseta de válvulas con pozo exterior y salida a cuneta y/o cauce, incluyendo, excavaciones, tuberías de PEAD DN de salida de alivio, rellenos, ayudas de albañilería, demoliciones, relleno de huecos con morteros sin retracción, anclaje de tuberías, así como todos los medios auxiliares necesarios para la conexión entre ambas tuberías.</p>	
			Resto de obra y materiales.....	536,70
			TOTAL PARTIDA.....	536,70

CUADRO DE PRECIOS 2

ABASTECIMIENTO A VARIOS MUNICIPIOS DE LA RIOJA. SISTEMA CIDACOS

Nº	CÓDIGO	UD	DESCRIPCIÓN	IMPORTE
0525	618	PA	<p>CONEXIÓN RED ELÉCTRICA BT CON DEPÓSITOS EXISTENTES</p> <p>Partida Alzada de Abono Íntegro para conexión de la red eléctrica en BT con depósitos existentes.</p>	
			Resto de obra y materiales.....	323,15
			TOTAL PARTIDA.....	323,15
0526	619	PA	<p>REPOSICIÓN DE PARQUE EXISTENTE</p> <p>Partida Alzada de Abono Íntegro para la reposición de parque existente.</p>	
			Mano de obra.....	3.712,80
			Resto de obra y materiales.....	7.671,19
			TOTAL PARTIDA.....	11.383,99
0527	620	UD	<p>APOYOS DE TUBERÍA Y VÁLVULAS SOBRE SOLERA</p> <p>Apoyos de tuberías y válvulas en soleras, mediante dado de hormigón HA-25/P/20/IIa, ligeramente armado y anclado a la solera, así como cintas o eslingas de acero con material de protección de tubería para sujeción de las mismas, incluyendo el hormigón, encofrados, acero, eslingas, material de PE de protección, montado.</p>	
			Mano de obra.....	7,04
			Resto de obra y materiales.....	56,03
			TOTAL PARTIDA.....	63,07
0528	AL040	UD	<p>PROYECTOR BVP130 LED260-4S/740 S</p> <p>Instalación de proyector BVP130 LED 260-4S/740 S CLASE II de Philips o equivalente. CON GARANTÍA POR 10 AÑOS EMITIDA POR EL FABRICANTE. Incluyendo nueva caja de derivación para intemperie, caja Clavet con fusible, línea de 3x2,5mm² Cu 0,6/1kV hasta la luminaria, elemento adaptador de la entrada del proyector a cualquier tipo de columna, báculo o palomilla, totalmente conexionado, unido a soporte y probado. Con protección contra sobretensiones, sobreintensidades y sobretemperatura. Incluso desmontaje y retirada al almacén municipal del proyector existente.</p>	
			Mano de obra.....	17,62
			Maquinaria.....	18,81
			Resto de obra y materiales.....	334,13
			TOTAL PARTIDA.....	370,56
0529	AL071	UD	<p>COLUMNNA h=8m</p> <p>Suministro y colocación de columna metálica de chapa de acero galvanizada en caliente con altura 8 metros con puerta registrable incluso excavación y cimentación.</p>	
			Mano de obra.....	70,48
			Maquinaria.....	67,04
			Resto de obra y materiales.....	400,18
			TOTAL PARTIDA.....	537,70
0530	AL100	UD	<p>PALOMILLA BANDERA</p> <p>Palomilla bandera de tubo de acero galvanizado en caliente 50x40x4 mm. con dos anclajes a pared separados 50 cm. y vuelo comprendido entre 30 y 90 cm., galvanizado en caliente, tornillería de enlace de acero galvanizado, incluso obras auxiliares de apertura de huecos para anclajes y recibido en paramentos.</p>	
			Mano de obra.....	35,24
			Maquinaria.....	15,05
			Resto de obra y materiales.....	31,34
			TOTAL PARTIDA.....	81,63

CUADRO DE PRECIOS 2

ABASTECIMIENTO A VARIOS MUNICIPIOS DE LA RIOJA. SISTEMA CIDACOS

Nº	CÓDIGO	UD	DESCRIPCIÓN	IMPORTE
0531	AL110	UD	BRAZO SOPORTE RECTO/CURVO Brazo de tubo de acero estirado de 50 mm. de diámetro y 2,5 mm. de espesor, recto sin vuelo o con vuelo entre 0 y 1,5 m. y altura comprendida entre 2,00 y 5,00 m., galvanizado en caliente, tornillería de enlace de acero galvanizado, incluso obras auxiliares de adaptación a palomilla bandera existente o nueva.	
			Mano de obra.....	7,04
			Maquinaria.....	5,64
			Resto de obra y materiales.....	25,87
			TOTAL PARTIDA.....	38,55
0532	AL130	UD	ARQUETA PASO DERIVACIÓN 40x40x60 Arqueta prefabricada 40x40x60 cm libres, para paso, derivación o toma de tierra, con marco y tapa cuadrada 40x40 cm en fundición, medida la unidad ejecutada en obra.	
			Mano de obra.....	17,62
			Resto de obra y materiales.....	54,00
			TOTAL PARTIDA.....	71,62
0533	AL140	m	LINEA SUBTERRÁNEA 4x6 mm2 + 1x16 mm2 Línea de alimentación para alumbrado formada por conductor multipolar de cobre de 4x6 mm2 con aislamiento RV 0,6/1 kV y conductor de puesta a tierra 1x16 mm2 750 V, colocado en tendido subterráneo bajo tubo en canalización existente, instalada, transporte, montaje y conectado, medida la longitud en funcionamiento.	
			Mano de obra.....	0,36
			Resto de obra y materiales.....	4,21
			TOTAL PARTIDA.....	4,57
0534	BT030A	UD	PUNTO DE LUZ SENCILLO Punto de luz sencillo con parte proporcional de circuito general, bajo tubo corrugado d=16mm, cajas de registro con tapa atomillada, y conductores de cobre para una tensión de 750 V de sección 1.5 mm2, y p/p de mecanismo compuesto por interruptor, caja para empotrar y placa con bastidor, medida la unidad en funcionamiento. Canalización y conductores según ITC-BT-28 para locales de pública concurrencia.	
			Mano de obra.....	17,62
			Resto de obra y materiales.....	9,78
			TOTAL PARTIDA.....	27,40
0535	BT040A	UD	PUNTO DE LUZ CONMUTADO Punto de luz conmutado con parte proporcional de circuito general, bajo tubo corrugado d=16mm, cajas de registro con tapa atomillada, y conductores de cobre para una tensión de 750 V de sección 1.5 mm2, y p/p de mecanismo compuesto por interruptor, caja para empotrar y placa con bastidor, medida la unidad en funcionamiento. Canalización y conductores según ITC-BT-28 para locales de pública concurrencia.	
			Mano de obra.....	17,62
			Resto de obra y materiales.....	11,34
			TOTAL PARTIDA.....	28,96
0536	BT050	ML	BANDEJA AISLANTE 60x150 MM Bandeja perforada de PVC, color gris RAL 7035, de 60x150 mm, resistencia al impacto 5 julios, propiedades eléctricas: aislante, no propagador de la llama, estable frente a los rayos UV y con resistencia a la intemperie y a los agentes químicos, con 1 compartimento, con soporte horizontal, de PVC, color gris RAL 7035.	
			Mano de obra.....	14,10
			Resto de obra y materiales.....	28,16
			TOTAL PARTIDA.....	42,26

CUADRO DE PRECIOS 2

ABASTECIMIENTO A VARIOS MUNICIPIOS DE LA RIOJA. SISTEMA CIDACOS

Nº	CÓDIGO	UD	DESCRIPCIÓN	IMPORTE
0537	BT0505	ML	CANALIZACION REJIBAND 100 mm CON PAT Canalización aérea constituida por bandeja tipo Rejiband de 100 mm. Incluso soportes (cada 80 cm como máximo) y puesta a tierra con conductor desnudo de cobre de 35 mm2.	
			Mano de obra.....	7,04
			Resto de obra y materiales.....	5,82
			TOTAL PARTIDA.....	12,86
0538	BT050A	UD	PANTALLA ESTANCA Pantalla estanca WT120C L1200 1xLED40S/840 de Philips o equivalente, instalada y conexionada.	
			Mano de obra.....	7,04
			Resto de obra y materiales.....	34,60
			TOTAL PARTIDA.....	41,64
0539	BT060	ML	TUBO PVC RIGIDO d=20mm Tubo rígido de PVC d=16mm para canalización de conductores, incluso soportes y anclajes a pared, instalado.	
			Mano de obra.....	1,77
			Resto de obra y materiales.....	0,70
			TOTAL PARTIDA.....	2,47
0540	BT060A	UD	PANTALLA LED EMPOTRADA 60x60 Pantalla empotrada RC 132V 1xLED20S/840 W60L60 de Philips o equivalente, instalada y conexionada.	
			Mano de obra.....	7,04
			Resto de obra y materiales.....	54,95
			TOTAL PARTIDA.....	61,99
0541	BT070A	UD	DOWNLIGHT LED Downlight DN 130B D217 1xLED20S/840 de Philips o equivalente, instalado y conexionado.	
			Mano de obra.....	7,04
			Resto de obra y materiales.....	36,44
			TOTAL PARTIDA.....	43,48
0542	BT090A	UD	LUMINARIA EMERGENCIA 100 LM Emergencia Basic Led serie L de Luznor, modelo LL-100-T o equivalente de 100 lúmenes, instalada y conexionada.	
			Mano de obra.....	17,62
			Resto de obra y materiales.....	14,50
			TOTAL PARTIDA.....	32,12
0543	BT100A	UD	LUMINARIA EMERGENCIA 300 LM Emergencia Basic Led serie L de Luznor, modelo LL-300-T o equivalente de 300 lúmenes, instalada y conexionada.	
			Mano de obra.....	7,04
			Resto de obra y materiales.....	20,52
			TOTAL PARTIDA.....	27,56

CUADRO DE PRECIOS 2

ABASTECIMIENTO A VARIOS MUNICIPIOS DE LA RIOJA. SISTEMA CIDACOS

Nº	CÓDIGO	UD	DESCRIPCIÓN	IMPORTE
0544	BT110A	ML	CABLE TRANSMISION DATOS Cable eléctrico para transmisión de datos en red marca AMP, tipo U/UTP, categoría 5e, clase D, de 4 pares trenzados con conductores de cobre rígido, con cubierta de policloruro de vinilo (PVC), bajo tubo flexible aislante, incluso parte proporcional de cajas de registro y regletas de conexión.	
			Mano de obra.....	0,36
			Resto de obra y materiales.....	0,46
			TOTAL PARTIDA.....	0,82
0545	BT120A	ML	CABLE CIRCUITO ALUMBRADO 3x1.5 mm² Circuito de alumbrado realizado con conductor unipolar de cobre rígido, con aislamiento 700 V. y una sección de 3x1.5 mm², bajo tubo flexible aislante corrugado de PVC, de diámetro 16 mm. y grado de protección 7, en sistema monofásico (fase y neutro), incluso parte proporcional de cajas de registro y regletas de conexión. Canalización y conducciones según ITC-BT-28 para locales de pública concurrencia.	
			Mano de obra.....	1,77
			Resto de obra y materiales.....	0,83
			TOTAL PARTIDA.....	2,60
0546	BT130	ML	LINEA 3x2.5mm2 Cu 0.6/1kV RZ1-K (AS) Línea eléctrica de 3x2.5mm2 Cu 0.6/kV RZ1-K (AS) en canalización existente, con parte proporcional de cajas de derivación.	
			Mano de obra.....	1,77
			Resto de obra y materiales.....	1,28
			TOTAL PARTIDA.....	3,05
0547	BT130A	ML	CABLE CIRCUITO FUERZA 3x2.5 mm² M.I. Circuito de fuerza realizado con conductor unipolar de cobre rígido, con aislamiento 700 V. y una sección de 3x2.5 mm², bajo tubo flexible aislante corrugado de PVC, de diámetro 20 mm. y grado de protección 7, (fase +neutro+tierra), incluso parte proporcional de cajas de registro y regletas de conexión.	
			Mano de obra.....	1,77
			Resto de obra y materiales.....	1,08
			TOTAL PARTIDA.....	2,85
0548	BT131	* ML	LINEA 3x4mm2 Cu 0.6/1kV RZ1-K (AS) Línea eléctrica de 3x4mm2 Cu 0.6/kV RZ1-K (AS) en canalización existente, con parte proporcional de cajas de derivación.	
			Mano de obra.....	1,77
			Resto de obra y materiales.....	1,97
			TOTAL PARTIDA.....	3,74
0549	BT135	* ML	LINEA 4x4mm2 Cu 0.6/1kV RZ1-K (AS) Línea eléctrica de 4x4 mm2 Cu 0.6/kV RZ1KZ1-K (AS) en canalización existente, con parte proporcional de cajas de derivación.	
			Mano de obra.....	1,77
			Resto de obra y materiales.....	3,07
			TOTAL PARTIDA.....	4,84

CUADRO DE PRECIOS 2

ABASTECIMIENTO A VARIOS MUNICIPIOS DE LA RIOJA. SISTEMA CIDACOS

Nº	CÓDIGO	UD	DESCRIPCIÓN	IMPORTE
0550	BT140A	ML	CABLE CIRCUITO FUERZA 5x2.5 mm² M.I. Circuito de fuerza realizado con conductor unipolar de cobre rígido, con aislamiento 700 V. y una sección de 5x2.5 mm², bajo tubo flexible aislante corrugado de PVC, de diámetro 20 mm. y grado de protección 7, (3 fases +neutro+tierra), incluso parte proporcional de cajas de registro y regletas de conexión.	
			Mano de obra.....	1,77
			Resto de obra y materiales.....	1,54
			TOTAL PARTIDA.....	3,31
0551	BT150	UD	INTERRUPTOR ALUMBRADO Interruptor de alumbrado con mecanismo completo y p/p de conductor, tubo y cajas de derivación.	
			Mano de obra.....	8,81
			Resto de obra y materiales.....	11,67
			TOTAL PARTIDA.....	20,48
0552	BT150A	UD	BASE ENCHUFE MONOFÁSICA U.d. Base enchufe monofásica modelo a elegir, con toma de tierra lateral realizada bajo tubo según ITC-BT-21, tipo Aiscan CR (forroplast) o similar, empotrado en canalizaciones ordinarias en obra de fábrica (paredes, techos o falsos techos), D=20 mm no propagador de la llama UNE-EN 50085-1 y UNE EN 50086-1 y conductores de cobre unipolares aislados para una tensión nominal de 750 V y sección 2.5 mm2, (activo, neutro y protección), incluido caja registro, caja mecanismos especial con tornillo, base enchufe (II+T.T.), totalmente montado e instalado.	
			Mano de obra.....	5,29
			Resto de obra y materiales.....	12,69
			TOTAL PARTIDA.....	17,98
0553	BT160	UD	TOMA DE CORRIENTE Toma de corriente con mecanismo completo y p/p de conductor, tubo y cajas de derivación.	
			Mano de obra.....	8,81
			Resto de obra y materiales.....	13,63
			TOTAL PARTIDA.....	22,44
0554	BT160A	UD	BASE ENCHUFE TRIFÁSICA U.d. Base enchufe 2P+T 16A 380V modelo a elegir, con toma de tierra lateral realizada bajo tubo según ITC-BT-21, tipo Aiscan CR (forroplast) o similar, empotrado en canalizaciones ordinarias en obra de fábrica (paredes, techos o falsos techos), D=20 mm no propagador de la llama UNE-EN 50085-1 y UNE EN 50086-1 y conductores de cobre unipolares aislados para una tensión nominal de 750 V y sección 2.5 mm2, (activo, neutro y protección), incluido caja registro, caja mecanismos especial con tornillo, base enchufe de 16 A (II+T.T.), totalmente montado e instalado.	
			Mano de obra.....	5,29
			Resto de obra y materiales.....	20,70
			TOTAL PARTIDA.....	25,99

CUADRO DE PRECIOS 2

ABASTECIMIENTO A VARIOS MUNICIPIOS DE LA RIOJA. SISTEMA CIDACOS

Nº	CÓDIGO	UD	DESCRIPCIÓN	IMPORTE
0555	BT170A	UD	CAJA EMP. TOMAS 2 RED + MOD. RJ45 + MOD. RJ11 Ud. Suministro, colocación y conexionado de caja de empotrar en pared, mampara o pladur de 2 módulos dobles con marcado CE según normativa UNE 20 451:1997 fabricado en material autoextinguible y libre de halógenos, modelo CA2E + MB2E (incluye cubeta, marco y separador energía-datos) de color a elegir por la dirección facultativa y formada por 2 tomas de corriente tipo schuko 2P+TT 16A con led y obturador de seguridad y placa de 4 conectores RJ11 - RJ45.	
			Mano de obra.....	10,58
			Resto de obra y materiales.....	21,34
			TOTAL PARTIDA.....	31,92
0556	BT180A	UD	DETECTOR PRESENCIA Ud. Detector de presencia de montaje sobre techo, con ajustes de temporización, distancia de detección y nivel de luminosidad, para accionamiento de puntos de luz, realizado bajo tubo según ITC-BT-21, tipo Aiscan CR (forroplast) o similar, empotrado en canalizaciones ordinarias en obra de fábrica (paredes, techos o falsos techos), D=20 mm no propagador de la llama UNE-EN 50085-1 y UNE EN 50086-1 y conductor de cobre unipolar aislado, para una tensión nominal de 750 V y sección 1,5 mm2, incluyendo caja de registro, detector de presencia, accesorios para montaje, instalado y conexionado.	
			Mano de obra.....	7,04
			Resto de obra y materiales.....	15,88
			TOTAL PARTIDA.....	22,92
0557	BT181	UD	LUMINARIA EXTERIOR NAVE Campana industrial BGP 307 T25 1xLED99-4S/740 DM11 de Philips o equivalente, instalada y conexionada.	
			Mano de obra.....	35,24
			Resto de obra y materiales.....	36,07
			TOTAL PARTIDA.....	71,31
0558	BT190	UD	PANTALLA ESTANCA Pantalla estancia WT120C L1500 1xLED60S/840 de Philips o equivalente, instalada y conexionada.	
			Mano de obra.....	17,62
			Resto de obra y materiales.....	34,45
			TOTAL PARTIDA.....	52,07
0559	BT190A	UD	EQUIPOTENCIAL BAÑOS UD. Tierra equipotencial para baños, realizado con conductor de 4 mm2. sin protección mecánica y 2,5 mm2. con protección mecánica, conexionando las canalizaciones metálicas existentes y las masas de los aparatos sanitarios metálicos y todos los demás elementos conductores accesibles de acuerdo al Reglamento Electrotécnico para Baja Tensión actualmente en vigor.	
			Mano de obra.....	35,24
			Resto de obra y materiales.....	7,82
			TOTAL PARTIDA.....	43,06
0560	BT210	UD	EMERGENCIA 100 LM Emergencia Basic Led serie L de Luznor o equivalente, modelo LLE-100 de 100 lúmenes, instalada y conexionada.	
			Mano de obra.....	17,62
			Resto de obra y materiales.....	14,50
			TOTAL PARTIDA.....	32,12

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ABASTECIMIENTO A VARIOS MUNICIPIOS DE LA RIOJA. SISTEMA CIDACOS

Nº	CÓDIGO	UD	DESCRIPCIÓN	IMPORTE
0561	BT220	UD	EMERGENCIA 300 LM Emergencia Basic Led serie L de Luznor o equivalente, modelo LL-300-T de 300 lúmenes, instalada y conexionada.	
			Mano de obra.....	17,62
			Resto de obra y materiales.....	21,48
			TOTAL PARTIDA.....	39,10
0562	BT230	UD	PUESTA A TIERRA DE LA INSTALACION Puesta a tierra de la nave con 65 metros de conductor de cobre desnudo de 35mm2 y 4 picas de acero cobrizado de 2 metros.	
			Mano de obra.....	105,72
			Resto de obra y materiales.....	193,21
			TOTAL PARTIDA.....	298,93
0563	BT2301	UD	PUESTA A TIERRA DE LA INSTALACION Puesta a tierra de la nave con 65 metros de conductor de cobre desnudo de 35mm2 y 4 picas de acero cobrizado de 2 metros.	
			Mano de obra.....	105,72
			Resto de obra y materiales.....	163,73
			TOTAL PARTIDA.....	269,45
0564	BT2302	UD	PUESTA A TIERRA DE EDIFICIO Puesta a tierra de la nave con 28 metros de conductor de cobre desnudo de 50mm2 y 4 picas de acero cobrizado de 2 metros.	
			Mano de obra.....	105,72
			Resto de obra y materiales.....	157,84
			TOTAL PARTIDA.....	263,56
0565	BT2303	UD	PUESTA A TIERRA DE ZONA DE DESBASTE Puesta a tierra de la nave con 50 metros de conductor de cobre desnudo de 50mm2 y 4 picas de acero cobrizado de 2 metros.	
			Mano de obra.....	105,72
			Resto de obra y materiales.....	222,69
			TOTAL PARTIDA.....	328,41
0566	BT23031	UD	PUESTA A TIERRA DE EDIFICIO REACTIVOS Puesta a tierra de edificio de reactivos con 130 metros de conductor de cobre desnudo de 50mm2 y 4 picas de acero cobrizado de 2 metros.	
			Mano de obra.....	105,72
			Resto de obra y materiales.....	458,52
			TOTAL PARTIDA.....	564,24
0567	BT23032	UD	PUESTA A TIERRA DE ZONA ENTRADA DE AGUA BRUTA Puesta a tierra de zona entrada de agua bruta con 80 metros de conductor de cobre desnudo de 50mm2 y 4 picas de acero cobrizado de 2 metros.	
			Mano de obra.....	105,72
			Resto de obra y materiales.....	311,13
			TOTAL PARTIDA.....	416,85
0568	BT23033	UD	PUESTA A TIERRA DE ZONA DECANTADORES Puesta a tierra de zona decantadores con 160 metros de conductor de cobre desnudo de 50mm2 y 4 picas de acero cobrizado de 2 metros.	
			Mano de obra.....	105,72
			Resto de obra y materiales.....	546,95
			TOTAL PARTIDA.....	652,67

CUADRO DE PRECIOS 2

ABASTECIMIENTO A VARIOS MUNICIPIOS DE LA RIOJA. SISTEMA CIDACOS

Nº	CÓDIGO	UD	DESCRIPCIÓN	IMPORTE
0569	BT23034	UD	PUESTA A TIERRA DE EDIFICIO DE CONTROL Y ZONA DE FILTRACIÓN Puesta a tierra de edificio de control y zona de filtración con 190 metros de conductor de cobre desnudo de 50mm2 y 4 picas de acero cobrizado de 2 metros.	
			Mano de obra.....	105,72
			Resto de obra y materiales.....	635,39
			TOTAL PARTIDA.....	741,11
0570	BT23035	UD	PUESTA A TIERRA DE CASETA DE DEPÓSITO DE AGUA TRATADA Puesta a tierra de caseta de depósito de agua tratada con 400 metros de conductor de cobre desnudo de 50mm2 y 8 picas de acero cobrizado de 2 metros.	
			Mano de obra.....	105,72
			Resto de obra y materiales.....	1.320,05
			TOTAL PARTIDA.....	1.425,77
0571	BT260	Ud	OCA Inspección inicial y certificado de Organismo de Control autorizado.	
			Resto de obra y materiales.....	300,61
			TOTAL PARTIDA.....	300,61
0572	C04.04.01.03	UD	EXTINTOR DE CO2 EFICACIA 89B Ud. Extintor de CO2 (Nieve Carbónica) de 5 kg. de capacidad, eficacia 89B, equipado de manguera con difusor y homologado e instalado.	
			Mano de obra.....	1,95
			Resto de obra y materiales.....	67,75
			TOTAL PARTIDA.....	69,70
0573	C04.04.07.01	UD	CENTRAL ANAL. 2 LAZOS 198 DETEC. Ud. Central de detección de incendios Analógica con 2 lazos compacta (no ampliable) de 198 detectores + 198 módulos analógicos, con 5 salidas de relé, pantalla LCD de 128x64 píxeles retroiluminada, 2 salidas serie RS-232, fuente de alimentación y d baterías de 12V / 7 Ah, totalmente instalada, conexionada, programada y probada, según CTE/DB-SI 4. Incluye 9 módulos de entrada-salida programable para maniobra y estado de equipos no analógicos, y 5 módulos de entrada analógicos para identificar señales de equipos no analógicos. Incluye dos fuentes de alimentación de 24 V 5 A, instaladas.	
			Mano de obra.....	17,62
			Resto de obra y materiales.....	1.879,24
			TOTAL PARTIDA.....	1.896,86
0574	C04.04.07.04	UD	PULSADOR DE ALARMA REARMABLE Ud. Pulsador de alarma tipo rearmable, con tapa de plástico basculante totalmente instalado, i/p.p. de tubos y cableado, conexionado y probado, según CTE/DB-SI 4.	
			Mano de obra.....	9,76
			Resto de obra y materiales.....	39,01
			TOTAL PARTIDA.....	48,77
0575	C04.04.07.05	UD	SIRENA ELECTRÓNICA BITONAL 24 V. Ud. Sirena de alarma de incendios bitonal, para montaje interior con señal óptica y acústica a 24v, totalmente instalada, i/p.p. tubo y cableado, conexionado y probado, según CTE/DB-SI 4.	
			Mano de obra.....	9,76
			Resto de obra y materiales.....	23,45
			TOTAL PARTIDA.....	33,21

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Nº	CÓDIGO	UD	DESCRIPCIÓN	IMPORTE
0576	C04.04.07.06	UD	SIRENA ELECTRÓNICA BITONAL PARA EXTERIOR Ud. Sirena de alarma de incendios bitonal, para montaje exterior, con señal óptica y acústica a 24v, totalmente instalada, i/p.p. tubo y cableado, conexionado y probado, según CTE/DB-SI 4.	
			Mano de obra.....	9,76
			Resto de obra y materiales.....	58,08
			TOTAL PARTIDA.....	67,84
0577	C04.04.07.07	UD	INST. ELÉCTRICA TUBO PVC Instalación eléctrica bajo tubo de PVC rígido o flexible según casos, libre de halógenos, con p.p. de manguera apantallada no propagador de llamas de 2X1,5 mm2 de sección, cajas de derivación, bridas de fijación, bombas de conexión, etc. incluso mano de obra para instalación, programación y pruebas.	
			Mano de obra.....	6,67
			Resto de obra y materiales.....	2.175,59
			TOTAL PARTIDA.....	2.182,26
0578	C04.04.07.071	UD	INSTALACIÓN ELÉCTRICA TUBO PVC Instalación eléctrica bajo tubo de PVC rígido o flexible según casos, libre de halógenos, con p.p. de manguera apantallada no propagador de llamas de 2X1,5 mm2 de sección, cajas de derivación, bridas de fijación, bombas de conexión, etc. incluso mano de obra para instalación, programación y pruebas.	
			Mano de obra.....	6,67
			Resto de obra y materiales.....	936,73
			TOTAL PARTIDA.....	943,40
0579	C04.04.07.072	UD	INST. ELÉCTRICA TUBO PVC Instalación eléctrica bajo tubo de PVC rígido o flexible según casos, libre de halógenos, con p.p. de manguera apantallada no propagador de llamas de 2X1,5 mm2 de sección, cajas de derivación, bridas de fijación, bombas de conexión, etc. incluso mano de obra para instalación, programación y pruebas.	
			Mano de obra.....	6,67
			Resto de obra y materiales.....	234,92
			TOTAL PARTIDA.....	241,59
0580	CCMFANG	UD	CUADRO INSTALACIÓN FOTOVOLTAICA Cuadro de protección y control de instalación fotovoltaica de Schneider o equivalente formado por: - Envolvente metálico para locales húmedos, modelo Prisma P montado sobre zócalo con accesorios, puertas, placas de montaje, intalado, montado y conexionado. - Compartimentación mínima 2b. - Descargador de sobretensiones tipos I y II. - Poder de corte según las características de la instalación. - Interruptor general de 250 A IV. - Interruptor general de 40 A IV. - Protección diferencial de 40 A y 300 mA - Inversor fotovoltaico 20 kW - Contador de energía fotovoltaica con sistema antivertido. Completamente conexionado y en funcionamiento.	
			Mano de obra.....	176,20
			Resto de obra y materiales.....	7.147,57
			TOTAL PARTIDA.....	7.323,77

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ABASTECIMIENTO A VARIOS MUNICIPIOS DE LA RIOJA. SISTEMA CIDACOS

Nº	CÓDIGO	UD	DESCRIPCIÓN	IMPORTE
0581	CCMFANG12	UD	CAJA DE COENXIONES C.C. Caja de conexiones en C.C. con apartamentada y envolvente de Schneider, según esquema unifilar. Completamente conexionado y en funcionamiento.	
			Mano de obra	17,62
			Resto de obra y materiales	171,92
			TOTAL PARTIDA.....	189,54
0582	CCMLA	UD	C.C.M. 1. EDIFICIO DESHIDRATACIÓN Y REACTIVOS Cuadro general con apartamentada y envolvente de Schneider, compartimentación mínima 3B, formado por envolvente metálico con puertas montado sobre zócalo y conteniendo interruptor general automático NSX 400A regulable, limitador de sobretensiones, analizador de redes, variadores de frecuencia, protecciones magnetotérmicas y diferenciales según esquema unifilar, incluso cableado interior, perfiles omega y regletas de conexión.	
			Mano de obra	1.762,00
			Resto de obra y materiales	61.738,71
			TOTAL PARTIDA.....	63.500,71
0583	CCMLA2	UD	C.C.M. 2. EDIFICIO DE CONTROL Cuadro general con apartamentada y envolvente de Schneider, compartimentación mínima 3B, formado por envolvente metálico con puertas montado sobre zócalo y conteniendo interruptor general automático NSX 250A regulable, limitador de sobretensiones, analizador de redes, variadores de frecuencia, protecciones magnetotérmicas y diferenciales según esquema unifilar, incluso cableado interior, perfiles omega y regletas de conexión.	
			Mano de obra	1.409,60
			Resto de obra y materiales	27.486,81
			TOTAL PARTIDA.....	28.896,41
0584	CCMLA3	UD	C.C.M. 3. DEPÓSITO DE AGUA TRATADA Cuadro general con apartamentada y envolvente de Schneider, compartimentación mínima 3B, formado por envolvente metálico con puertas montado sobre zócalo y conteniendo interruptor general automático NSX 100A regulable, limitador de sobretensiones, analizador de redes, variadores de frecuencia, protecciones magnetotérmicas y diferenciales según esquema unifilar, incluso cableado interior, perfiles omega y regletas de conexión.	
			Mano de obra	704,80
			Resto de obra y materiales	11.191,16
			TOTAL PARTIDA.....	11.895,96
0585	CGBT	UD	Cuadro C.G.B.T. EDAR Cuadro general de Baja Tensión de la ETAP con apartamentada y envolvente de Schneider, compartimentación mínima 3B, formado por envolvente metálico con puertas montado sobre zócalo y conteniendo interruptor general automático NS 1000A regulable, limitador de sobretensiones, analizador de redes y protecciones magnetotérmicas y diferenciales según esquema unifilar, incluso cableado interior, perfiles omega y regletas de conexión.	
			Mano de obra	1.057,20
			Resto de obra y materiales	45.313,00
			TOTAL PARTIDA.....	46.370,20

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Nº	CÓDIGO	UD	DESCRIPCIÓN	IMPORTE
0586	D08AA010	m²	FORM. PTES. HORMIGÓN ALIGERADO 10 cm m². Formación de pendientes para cubiertas planas con hormigón aligerado HNE-15 N/mm², tamaño máx. del árido 20 mm, de 10 cm de espesor medio, i/replanteo, ejecución de maestras, regleado y capa de mortero de cemento M5 según UNE-EN 998-2 de 2 cm de espesor, i/p.p. de costes indirectos.	
			Mano de obra	3,52
			Resto de obra y materiales	8,51
			TOTAL PARTIDA.....	12,03
0587	E00011	M3	RELLENO ZANJAS CON PRODUCTOS DE EXCAVACIÓN Relleno de zanjas con productos clasificados procedentes de la excavación, incluso extendido, humectación y compactación en capas de 20 cm. de espesor, con un grado de compactación del 95% del proctor modificado, según se indica en la sección tipo en planos.	
			Mano de obra.....	0,70
			Maquinaria.....	1,25
			Resto de obra y materiales.....	0,23
			TOTAL PARTIDA.....	2,18
0588	E00065.1	ML	MESA MURAL DE ALTURA 900 Y 750 MM DE PROFUNDIDAD Mesa mural de altura 900 mm y 750 mm de profundidad, para armarios con zócalo, con tablero Trespa Toplab Plus (o de calidad superior) de 20 mm de espesor.	
			Mano de obra.....	15,72
			Resto de obra y materiales.....	38,69
			TOTAL PARTIDA.....	54,41
0589	E00065.10	UD	EXTRACTOR DE POLIPROPILENO Extractor de polipropileno con conexión al conducto de extracción existente.	
			Mano de obra.....	15,72
			Resto de obra y materiales.....	122,93
			TOTAL PARTIDA.....	138,65
0590	E00065.11	ML	TUBOS DE EXTRACCIÓN DE AUTOMUESTREADORES Y ARMARIOS DE RESIDUOS Tubos de extracción de automuestreadores y armarios de residuos independientes instalada por la parte trasera de la mesa y por debajo del tablero. Conexión en pared.	
			Mano de obra.....	15,72
			Resto de obra y materiales.....	255,74
			TOTAL PARTIDA.....	271,46
0591	E00065.2	UD	ARMARIO INFERIOR CON ZÓCALO DE 600X550X870 MM Armario inferior con zócalo de 600x550x870 mm con cajón superior y 2 puertas abatibles con balda intermedia.	
			Mano de obra.....	15,72
			Resto de obra y materiales.....	254,72
			TOTAL PARTIDA.....	270,44
0592	E00065.3	UD	ARMARIO COLGADO DEL SISTEMA DE SERVICIOS DE 600X350X760 MM Armario colgado del sistema de servicios de 600x350x760 mm con 1 puerta abatible parcialmente acristalada.	
			Mano de obra.....	15,72
			Resto de obra y materiales.....	295,26
			TOTAL PARTIDA.....	310,98

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ABASTECIMIENTO A VARIOS MUNICIPIOS DE LA RIOJA. SISTEMA CIDACOS

Nº	CÓDIGO	UD	DESCRIPCIÓN	IMPORTE
0593	E00065.4	UD	TABURETE DE LABORATORIO Taburete de laboratorio.	
			Mano de obra.....	15,72
			Resto de obra y materiales.....	122,93
			TOTAL PARTIDA.....	138,65
0594	E00065.5	ML	MESA MURAL DE ALTURA 900 Y 1200 MM DE PROFUNDIDAD. GRES Metros lineales de mesa mural de altura 900 mm y 750 mm de profundidad, para armarios con zócalo, con tablero de gres sin reborde de 20 mm de espesor.	
			Mano de obra.....	15,72
			Resto de obra y materiales.....	153,34
			TOTAL PARTIDA.....	169,06
0595	E00065.6	UD	FREGADERO MURAL DE GRES CON 1 SENO Y ESCURRIDOR Fregadero mural de gres con 1 seno y escurridor (fregadero a la derecha) de 1200 mm de longitud y 750 mm de profundidad, con grifo monomando mezclador, lavajos de emergencia. Con armario inferior de 1200mm y capacidad para 2 cubos de 15L para recogida de residuos. Con antisalpicaduras sólo lateral derecho y trasero.	
			Mano de obra.....	15,72
			Resto de obra y materiales.....	366,24
			TOTAL PARTIDA.....	381,96
0596	E00065.7	UD	CERRAMIENTO DE SOBREMESA (CAPOTAJE) DE 1800X900X1450 MM Cerramiento de sobremesa (capotaje) de 1800x900x1450 mm, con estructura metálica. Puertas correderas delanteras con cristal de seguridad ESG. Con extractor de polipropileno y conectado al conducto de extracción existente. Preinstalación en techo del cerramiento para extracción de dos equipos de microondas.	
			Resto de obra y materiales.....	283,86
			TOTAL PARTIDA.....	283,86
0597	E00065.8	UD	VITRINA DE GASES DE 1800X900X2700 MM Vitrina de gases de 1800x900x2700 mm para trabajos con ácidos a altas temperatura según EN-14175/7. Con tablero y revestimiento interior de gres técnico. Con servicios en el frontal inferior.	
			Resto de obra y materiales.....	390,30
			TOTAL PARTIDA.....	390,30
0598	E00065.9	UD	ARMARIO INFERIOR PARA ÁCIDOS Y BASES DE 900X550X640 MM. Armario inferior para ácidos y bases de 900x550x640 mm. Con extractor de polipropileno y conectado al conducto de extracción existente.	
			Mano de obra.....	15,72
			Resto de obra y materiales.....	315,55
			TOTAL PARTIDA.....	331,27
0599	E00090	ud	ARMARIO BALDAS 800x470 MM Ud. Conjunto de 2 armarios medios de 80x47 mm y 1250 de alto. Dotados de puertas batientes de vitrina y dos baldas en el interior. Fabricados en tablero melaminico con un espesor de 19 mm. Estantes regulables en altura.	
			Mano de obra.....	1,57
			Resto de obra y materiales.....	513,73
			TOTAL PARTIDA.....	515,30

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Nº	CÓDIGO	UD	DESCRIPCIÓN	IMPORTE
0600	E00340	UD	BOTIQUÍN PRIMEROS AUXILIOS 460x380x130mm Botiquín de primeros auxilios de pared fabricado en chapa de de acero esmaltado, con llave. Dotación incluida: 1 botella de 250 ml de alcohol, 1 botella de 250 ml de agua oxigenada, 1 paquete de algodón de 25 gr, 2 sobres de gasa estéril de 20x20 cm, 1 tijera de de 13 cm , 1 pinza de plástico de 13 cm, 1 caja de tiritas de 10 unidades en diversas medidas, 1 rollo de espaldrapo de 5m x 1,5cm, 2 guantes de latex, 2 vendas de malla de 5m x 10cm, 1 venda de malla de 5m x 10cm, 1 manual de primeros auxilios, de 460x380x10 cm.	
			Mano de obra.....	1,57
			Resto de obra y materiales.....	43,98
			TOTAL PARTIDA.....	45,55
0601	E00341	UD	pH metro/mV metro/termómetro portátil pH metro/mV metro/termómetro portátil de las siguientes características: Instrumento electrónico, digital y portátil. Los caracteres de diseño son: Total impermeabilidad IP-67 hasta 1 m de profundidad. Fabricado en material ABS resistente y ligero. Gran estabilidad en superficies. Como caracteres técnicos destacan: Rango de medición: 0-14 pH/± 399 mV/± 1999 mV/0-100°C. Capacidad de memorización y recuperación de valores de mV y pH. El equipo se presenta con un estuche de transporte que le permite una fácil medición, así como la calibración "in situ". Incluye las siguientes soluciones de calibración: Solución de pH 4,01 (460 cc). Solución de pH 4,01 (25 x 20 ml). Solución de pH 7,01 (460 cc). Solución de pH 10,01 (460 cc). Solución de pH 9,18 (460 cc). Solución de almacenamiento (460 cc). Solución de relleno (4 x 50 ml. Solución electrolito 3,5 M KCl + AgCl). Solución de limpieza para usos generales (460 cc). Solución certificada de pH 4,01 (460 cc). Solución certificada de pH 7,01 (460 cc). Solución certificada de pH 10,01 (460 cc). Solución de pH 7,01 (25 x 20 ml).	
			Resto de obra y materiales.....	1.107,87
			TOTAL PARTIDA.....	1.107,87
0602	E003410	Ud	Floculador de 6 brazos Floculador de 6 brazos con iluminación posterior, de las siguientes características: Equipos diseñado para efectuar pruebas de floculación y ensayos afines. Velocidad de giro de los ejes constante durante todo el ensayo. Iluminación inferior con luz blanca fluorescente. Chasis metálico recubierto de una capa de pintura plástica al horno. Varillas agitadoras de acero inoxidable. Equipo con interruptor, fusible y piloto generales, interruptor y piloto de iluminación, mando regulador de la velocidad, mando de ajuste y velocidad mínima VARI-O-MIM, temporizador regulable de 60 minutos y tacómetro digital. CARACTERISTICAS TECNICAS: Alimentación: 220 V.a.c., 50 Hz. Consumo: 30 W. Regulación velocidad: Electrónica digital. Velocidad de agitación: Desde muy lento a 250 r.p.m. Separación entre ejes: 140 mm. Diámetro pala agitadora: 60 mm. Altura útil: 220 mm. Altura de pala de agitación: 10 mm. Dimensiones: 380 cm alto x 900 cm ancho x 190 cm fondo. Peso: 12 Kg.	
			Resto de obra y materiales.....	3.556,87
			TOTAL PARTIDA.....	3.556,87

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Nº	CÓDIGO	UD	DESCRIPCIÓN	IMPORTE
0603	E003411	Ud	Material fungible. Material fungible. El lote de MATERIAL FUNGIBLE elaborado para un laboratorio de las dimensiones mencionadas está compuesto por: 3 vasos precipitados PYRES de 1.000 ml. 2 vasos precipitados PYRES de 500 ml. 3 vasos precipitados PYRES de 250 ml. 3 vasos precipitados PYRES de 75 ml. 1 probeta de vidrio de 1.000 ml. 2 probetas de vidrio de 500 ml. 2 probetas de vidrio de 250 ml. 3 probetas de vidrio de 100 ml. 6 matraces Erlenmeyer de 250 ml. 4 buretas de 25 ml. 2 soportes para buretas. 2 pinzas para buretas. 4 pipetas graduadas de 0-1,0 ml. 4 pipetas graduadas de 0-2,0 ml. 4 pipetas graduadas de 0-5,0 ml. 4 pipetas graduadas de 0-10,0 ml. 1 soporte para pipetas. 1 termómetro 0-120°C. 1 cuchara-espátula. 1 reloj avisador. 3 vidrios de reloj. 1 micropipeta. 2 conos Inhoff. 1 soporte para conos Inhoff. 1 pinzas para filtros.	
			Resto de obra y materiales	1.282,81
			TOTAL PARTIDA.....	1.282,81
0604	E003412	Ud	Frigorífico: 240 l frigorífico. 65 l congelador Frigorífico: 240 l frigorífico. 65 l congelador.	
			Resto de obra y materiales	675,85
			TOTAL PARTIDA.....	675,85
0605	E003413	Ud	Centrífuga ventilada Centrífuga ventilada de las siguientes características: PANEL DE MANDOS compuesto por: Interruptor. Reloj desconectador con posibilidad de temporizador hasta 60 min. o para trabajos en continuo. Variador de velocidad. Pulsador indicador de apertura de tapa. Lámpara de señalización de red. Taquímetro eléctrico indicador de velocidad. CARACTERÍSTICAS TÉCNICAS: Volumen máximo: 300 ml. Capacidad máx.: del tubo: 50 ml. Medidas exteriores: 29 x 39 x 44 (alto x ancho x fondo). Consumo: 190 W. Peso: 19 Kg. Incluye: Cabezal angular para 300 ml de capacidad máxima, mediante 6 tubos 5 de 50 ml cada uno.	
			Resto de obra y materiales	2.215,76
			TOTAL PARTIDA.....	2.215,76
0606	E003414	Ud	Conductivímetro digital Conductivímetro portátil de las siguientes características: Aparato portátil, electrónico para la medición de conductividad en líquidos. Las características principales del mismo son: Rango de medición : 0,0 ÷ 199,9 µS/cm ; 0 ÷ 1999 µS/cm ; 0,00 ÷ 19,99 mS/cm ; 0,0 ÷ 199,9 mS/cm. Calibración: en un punto. Compensación de la temperatura : Automática de +10 a +40°C. Alimentación: Pila de 9 V. Adaptador para suministro de 12 VDC. Se suministra con sonda de conductividad HI 76302 con 1 m de cable y maletín de transporte. Incluyendo las siguientes soluciones de calibración: Solución de conductividad de 1.413 µS (460 cc). Solución de conductividad de 12.880 µS (460 cc). Solución de conductividad de 111.800 µS (460 cc). Solución de conductividad de 80.000 µS (460 cc). Solución de conductividad de 80.000 µS (230 cc). Solución de conductividad de 84 µS (460 cc).	
			Resto de obra y materiales	874,65
			TOTAL PARTIDA.....	874,65
0607	E003415	Ud	Microscopio óptico Microscopio óptico.	
			Resto de obra y materiales	1.854,60
			TOTAL PARTIDA.....	1.854,60
0608	E003416	Ud	Equipo de filtración por vacío Equipo de filtración por vacío.	
			Resto de obra y materiales	188,84
			TOTAL PARTIDA.....	188,84

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Nº	CÓDIGO	UD	DESCRIPCIÓN	IMPORTE
0609	E003417	Ud	Destilador de agua Destilador de agua.	
			Resto de obra y materiales	784,18
			TOTAL PARTIDA.....	784,18
0610	E00342	Ud	Oxímetro portátil de las siguientes Medidor de oxígeno disuelto portátil de las siguientes características: Instrumento electrónico y portátil para la medición de la concentración de oxígeno disuelto en agua. Visualización: LCD (Display de cristal líquido) con botón para sobreiluminación. - Medición simultánea de oxígeno (mgr/l. ó % de saturación) y temperatura. - Rango de medición: 0.20 mgr/l. 0-200 % aire saturado. -5 a +45°C. - Resolución: 0,01 mgr/l. 0,1 % . 0,1°C. - Compensación automática de temperatura. - Compensación por presión y salinidad por introducción de los datos. - Cámara de calibración interna para la calibración en campo, transporte y almacenamiento. - Sonda de acero inoxidable. - Cable de 3 metros. de longitud. - Alimentación: 6 pilas tamaño AA para aprox. 100 horas.	
			Resto de obra y materiales	2.040,85
			TOTAL PARTIDA.....	2.040,85
0611	E00343	Ud	Estufa de desecación y esterilización Estufa para desecación y esterilización de las siguientes características: Convección natural de aire. Para temperaturas regulables de: 40°C a 250°C. Construidas conforme a normas DIN 12.880. Prueba térmica conforme a normas DIN 50.001. Sistema eléctrico, protección IP-20, según normas DIN 40.050. Homogeneidad de la temperatura: ±1,5% . Estabilidad de la temperatura: ±0,5% . Fabricado según normas comunitarias sobre seguridad. Marcado con el distintivo CE. CARACTERÍSTICAS: Caja interior y cotrapuerta en acero inox. AISI-304 (DIN 1.4301). Mueble exterior metálico pintado al horno con resina epoxi. Junta elástica de silicona en la puerta. Bandejas perforadas en acero inox. AISI-304, ajustables en altura, con dispositivo que permite retirarlas sin que vuelquen. Puerta exterior metálica pintada al horno. Dispositivo de aireación/salida gases, regulable. Calefacción por resistencias eléctricas de gran superficie, distribuidas alrededor de la caja. PANEL DE MANDOS: Interruptor general. Termostato hidráulico regulador de la temperatura con escala graduada en °C. Termómetro analógico de esfera, lector de la temperatura. Piloto de señalización de calefacción. Capacidad: 42 litros. Medidas interiores en cm: (400 x 350 x 300) (alto x ancho x fondo). Medidas exteriores en cm: (710 x 500 x 460) (alto x ancho x fondo). Potencia: 900 W. Peso: 38 kg. Se suministra con dos bandejas perforadas en acero inoxidable.	
			Resto de obra y materiales	1.690,99
			TOTAL PARTIDA.....	1.690,99
0612	E00344	Ud	Horno de mufla Horno de mufla de las siguientes características: Equipo con cámara refractario de baja densidad. Temperatura máxima: 1.200°C. Regulación de temperatura: automática con indicador analógico, o si se solicita bajo demanda, indicador digital. Dimensiones útiles: 160 x 200 x 230) (alto x ancho x fondo) (mm). Dimensiones exteriores: (490 x 430 x 450) (alto x ancho x fondo) (mm). Potencia: 3.800 W. Tensión: 220. Peso: 41 Kg.	
			Resto de obra y materiales	1.895,06
			TOTAL PARTIDA.....	1.895,06

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ABASTECIMIENTO A VARIOS MUNICIPIOS DE LA RIOJA. SISTEMA CIDACOS

Nº	CÓDIGO	UD	DESCRIPCIÓN	IMPORTE
0613	E00345	ud	BUTACA TAP.TELA APOYABR.MAD.C/PALA ABAT. Butaca tapizada con interior metálico instalada con pie central, y constituida con apoyabrazos de madera maciza de haya, tablero contrachapado de haya en el respaldo, bloque de asiento en espuma de poliuretano fundido en frío autoextinguible M-4, abatible automático tapizado con tela ignífuga M-1 al igual que el barnizado.	
			Mano de obra.....	1,57
			Resto de obra y materiales.....	225,90
			TOTAL PARTIDA.....	227,47
0614	E00346	Ud	Balanza diezmilésimal Balanza diezmilésimal de las siguientes características: Capacidad de rango de Tara (g): 220. Tamaño del plato en (mm): 80 DN. Reproducibilidad (±): 0,0001 g. Linealidad (±): 0,0003 g. Pesa de calibración (g): 200. Equipamiento incluido: Interface Rs-232. Ganchos para pesada inferior. Alimentador. Conector para batería recargable.	
			Resto de obra y materiales.....	5.109,09
			TOTAL PARTIDA.....	5.109,09
0615	E00347	Ud	Turbidímetro portátil microprocesado Turbidímetro portátil microprocesado de las siguientes características: Medidor portátil, para determinar la turbidez en aguas potables y residuales. Con un rango de 0 a 1000 NTU y dos escalas de medición, de 0.00 a 50.00 NTU y de 50 a 1000 NTU, ha sido diseñado de acuerdo con el Standard Internacional ISO 7027. El equipo selecciona automáticamente el rango apropiado, de acuerdo con la turbidez de la muestra. Su funcionamiento está basado en un rayo de luz infrarrojo que atraviesa la cubeta. El sensor, colocado a 90° con respecto a la dirección de la luz, detecta la cantidad de luz dispersada por las partículas en suspensión de la muestra, la cual es transformada en valores NTU por el microprocesador. Su carcasa pesa menos de 400 gramos, aviso de pila baja, auto-apagado. La duración de la fuente de luz del Diodo de Emisión es indefinida, garantizando así el funcionamiento del equipo. Se suministra con dos cubetas de cristal, una tapa de cubeta para transporte, pila de 9 V. e instrucciones. Rango: 0.00 a 50.000 NTU; 50 a 1.000 NTU. Resolución: 0.01 y 1 NTU. Precisión: ±5% de la lectura (0 a 50 NTU); ±10% de la lectura (50 a 1.000 NTU). Fuente de luz: LED de infrarrojos. Duración de la fuente: Vida del instrumento. Detector de luz: Fotocélula de silicón. Pilas: 4 x 1.5 V. Duración de las pilas: 60 horas ó 3.000 lecturas. Auto apagado: Transcurridos 4 minutos. Condiciones de trabajo: 0 a 50°C/0 a 95% HR. Dimensiones: 220 x 83 x 46 mm. Peso: 350 g.	
			Resto de obra y materiales.....	1.154,53
			TOTAL PARTIDA.....	1.154,53
0616	E00349	Ud	Placa calefactora Placa calefactora de 20 x 40 cm.	
			Resto de obra y materiales.....	1.003,79
			TOTAL PARTIDA.....	1.003,79
0617	E00350	ud	BUTACA TELA 720x760x770 NS Butaca de una placa tapizado en tela, nivel superior de acabado, de 720x760x770 mm.	
			Mano de obra.....	1,57
			Resto de obra y materiales.....	688,34
			TOTAL PARTIDA.....	689,91

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Nº	CÓDIGO	UD	DESCRIPCIÓN	IMPORTE
0618	E01007	M3	EXCAV. ZANJA O POZO EN TIERRA MEDIOS MECÁNICOS Excavación en zanja o pozo por medios mecánicos en cualquier clase de terreno, para colocación de tuberías de abastecimiento y/o saneamiento, incluso carga y transporte de productos sobrantes a vertedero autorizado o lugar de empleo.	
			Mano de obra.....	0,40
			Maquinaria.....	2,17
			Resto de obra y materiales.....	0,29
			TOTAL PARTIDA.....	2,86
0619	E01023	M3	HORMIGON DE LIMPIEZA HL-150/B/20 Hormigón de fck. 15 N/mm2. HL-150/B/20 con cemento CEM I, arena de río y árido rodado Tmáx.20 mm., para vibrar y consistencia blanda.	
			Mano de obra.....	17,82
			Resto de obra y materiales.....	38,07
			TOTAL PARTIDA.....	55,89
0620	E0104CH91	ML	BARANDILLA METÁLICA ACERO INOXIDABLE AISI-316L Barandilla metálica en acero inoxidable AISI-316L, de 90 cm. de altura, formada por perfilera de tubo hueco de 30 mm y 3 mm de espesor, incluso rodapié de seguridad, elementos de anclaje, colocada.	
			Mano de obra.....	18,44
			Resto de obra y materiales.....	51,47
			TOTAL PARTIDA.....	69,91
0621	E01535	ud	MESA RINCÓN Ud. Mesas de rincón. Medidas 60x60 cm. Estructura en acero. Tapa de DM rechapado en madera.	
			Mano de obra.....	1,57
			Resto de obra y materiales.....	115,65
			TOTAL PARTIDA.....	117,22
0622	E01620	ud	PAPELERA Ud. Papelera metálica de forma cúbica pintada, con la parte superior y la inferior recubierta de goma.	
			Mano de obra.....	1,57
			Resto de obra y materiales.....	15,08
			TOTAL PARTIDA.....	16,65
0623	E01625	ud	PARAGÜERO METÁLICO D-210 Paragüero metálico forrado en vinilo liso de color negro de 210 mm. de diámetro	
			Mano de obra.....	1,57
			Resto de obra y materiales.....	15,31
			TOTAL PARTIDA.....	16,88
0624	E01703	ud	PERCHERO Ud. Perchero metálico de pie, pintado, con 8 colgadores.	
			Mano de obra.....	1,57
			Resto de obra y materiales.....	41,76
			TOTAL PARTIDA.....	43,33

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Nº	CÓDIGO	UD	DESCRIPCIÓN	IMPORTE
0625	E01940	ud	<p>PUESTO TRABAJO RECTANGULAR 1800X800 MM</p> <p>Ud. Puesto de trabajo formado por una mesa rectangular de 1800x800, con ala de 100x600. Con cajonera rodante formada por un cajón y archivo de 550h mm. Los sobres fabricados con tablero de partículas tri-capa de espesor 19 mm., rematados con cantos rectos de PVC, fresados y redondeados. Estructura doble fabricada con tubo metálico. Los conjuntos permiten la electrificación horizontal y vertical. La cajonera tendrá los mismos acabados que el sobre de la mesa.</p>	<p>Mano de obra 1,57</p> <p>Resto de obra y materiales 373,20</p> <p>TOTAL PARTIDA..... 374,77</p>
0626	E01941	ud	<p>MESA REUNIÓN CIRCULAR 900 MM</p> <p>Ud. Mesa de reunión circular de 900 mm de diámetro, fabricada con tablero de partículas tri-capa de espesor 19 mm., rematados con cantos rectos de PVC, fresados y redondeados. Estructura doble fabricada con tubo metálico.</p>	<p>Mano de obra 1,57</p> <p>Resto de obra y materiales 513,73</p> <p>TOTAL PARTIDA..... 515,30</p>
0627	E02125	ud	<p>SILLA CONFIDENTE</p> <p>Ud. Silla apilable con o sin brazos, estructura de tubo de acero pulido de 20x2 mm pintado en epoxi-poliéster o cromado, brazos de poliamida-6 reforzada con fibra de vidrio, asiento y respaldo de polipropileno sin tapizar.</p>	<p>Mano de obra 1,57</p> <p>Resto de obra y materiales 163,07</p> <p>TOTAL PARTIDA..... 164,64</p>
0628	E02130	ud	<p>SILLÓN</p> <p>Ud. Sillón, asiento y respaldo tapizados, con apoyabrazos regulables 3-D. Altura regulable, respaldo regulable en altura. Ajuste sincronizado, regulación dureza del respaldo. Ajuste de la profundidad del asiento.</p>	<p>Mano de obra 1,57</p> <p>Resto de obra y materiales 422,13</p> <p>TOTAL PARTIDA..... 423,70</p>
0629	E02135	ud	<p>SOFÁ 2 PLAZAS TELA C/BRAZOS</p> <p>Sofá de dos plazas de diseño anatómico con brazos, armazón de poliuretano flexible inyectado, laterales de aluminio pulido y patas de tubo de acero pintado epoxy tapizado en tela, de 805x1200x700 mm.</p>	<p>Mano de obra 1,57</p> <p>Resto de obra y materiales 485,92</p> <p>TOTAL PARTIDA..... 487,49</p>
0630	E0A060	UD	<p>TRAMEX. ENTRAMADO METÁLICO 30X30X3</p> <p>Entramado metálico 30x30x3 tipo tramex o equivalente, incluso estructura auxiliar y suministro con parte proporcional de cerco también galvanizado, montaje, recibido y pintado.</p>	<p>Mano de obra 3,65</p> <p>Resto de obra y materiales 24,85</p> <p>TOTAL PARTIDA..... 28,50</p>

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Nº	CÓDIGO	UD	DESCRIPCIÓN	IMPORTE
0631	E3256	UD	<p>CONJUNTO TUBERÍAS PARA AGUA INDUST. Y POTABLE. PVC Y/O PE</p> <p>Conjunto de tuberías y válvulas para distribución de agua industrial y potable. Material: PVC y/o PE. Diámetro nominal: según planos mm. Presión nominal: 10 Atm. Incluso p.p. de válvulas, soportes y accesorios.</p>	<p>Mano de obra 40,52</p> <p>Resto de obra y materiales 82,35</p> <p>TOTAL PARTIDA..... 122,87</p>
0632	E3257	Ud	<p>CONJUNTO TUBERÍAS DISTRIBUCIÓN REACTIVOS PVC Y/O PP</p> <p>Conjunto de tuberías y válvulas para distribución de reactivos. Material: PVC y/o PP. Diámetro nominal: según planos mm. Presión nominal: 10 Atm. Incluso p.p. de válvulas, soportes y accesorios.</p>	<p>Mano de obra 36,87</p> <p>Resto de obra y materiales 81,74</p> <p>TOTAL PARTIDA..... 118,61</p>
0633	EAGC001	UD	<p>AGITADOR DE MEZCLA RÁPIDA. COAGULACIÓN P=1,5 KW. L=1.700 MM</p> <p>Agitador de mezcla rápida. Marca: MILTON ROY O o equivalente. Modelo: HR6A-080/200/E1,5/A. Potencia motor: 1,5 kW. Velocidad salida: 108 rpm. Diámetro de hélice: 800 mm. Longitud del eje: 1.700 mm. Material eje y hélice: acero AISI-316L. Incluido placa de anclaje, transporte, motaje, conexiones eléctricas y de control, y pruebas de funcionamiento. Resto de características, según ET.</p>	<p>Mano de obra 54,41</p> <p>Maquinaria 16,53</p> <p>Resto de obra y materiales 1.614,17</p> <p>TOTAL PARTIDA..... 1.685,11</p>
0634	EAGF01	UD	<p>AGITADOR DEPÓSITO LAVADO DE FILTROS P=5,6 KW</p> <p>Agitador sumergible de hélice. Marca: SULZER o equivalente. Modelo: RW4031-A40/8-EC-D05*10BC.. Número de álabes: 3. Diámetro de la hélice (mm): 400. Potencia de agitación: 2,6 kW. Protección térmica con sensores térmicos en el bobinado. Protección de estanqueidad por sistema DI. Incluye sistema de elevación y giro. Accionamiento: eléctrico. Potencia nominal en eje (kW): 4,0. Potencia nominal en eje (kW): 5,6. Tensión (V): 400. El agitador dispone de protección térmica por TCS con sensores térmicos en el bobinado, protección de estanqueidad por Sistema DI, con sonda en la cámara de aceite y sistema de refrigeración por sumergencia, módulo para supervisión de electrodos de temperatura y humedad. Incluso transporte, montaje, conexiones eléctricas y de control, pruebas de funcionamiento. Resto de características según E.T.</p>	<p>Mano de obra 282,07</p> <p>Maquinaria 66,10</p> <p>Resto de obra y materiales 5.437,32</p> <p>TOTAL PARTIDA..... 5.785,49</p>

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ABASTECIMIENTO A VARIOS MUNICIPIOS DE LA RIOJA. SISTEMA CIDACOS

Nº	CÓDIGO	UD	DESCRIPCIÓN	IMPORTE
0635	EAGF02	UD	<p>AGITADOR DEPÓSITO FANGOS ESPESADOS P=3,5 KW</p> <p>Agitador sumergible de hélice. Marca: SULZER o equivalente. Modelo: XRW3032-PA29/6-EC-D01*10BC. Número de álabes: 3. Diámetro de la hélice (mm): 300. Potencia de agitación: 2,1 kW. Protección térmica con sensores térmicos en el bobinado. Protección de estanqueidad por sistema DI. Incluye sistema de elevación y giro. Accionamiento: eléctrico. Potencia nominal en eje (kW): 2,9. Potencia nominal de red (kW): 3,5. Tensión (V): 400. El agitador dispone de protección térmica por TCS con sensores térmicos en el bobinado, protección de estanqueidad por Sistema DI, con sonda en la cámara de aceite y sistema de refrigeración por sumergencia, módulo para supervisión de electrodos de temperatura y humedad. Incluso transporte, montaje, conexiones eléctricas y de control, pruebas de funcionamiento. Resto de características según E.T.</p>	
			Mano de obra.....	282,07
			Maquinaria.....	66,10
			Resto de obra y materiales.....	4.207,68
			TOTAL PARTIDA.....	4.555,85
0636	EAGFL01	UD	<p>AGITADOR DE MEZCLA LENTA. FLOCULACIÓN. P=0,55 KW. L=2.000 MM</p> <p>Agitador de mezcla lenta. Marca: MILTON ROY O o equivalente. Modelo: HR5A-200/350/E0,55/. Potencia motor: 0,55 kW. Velocidad salida: 16 rpm. Diámetro de hélice: 2.000 mm. Longitud del eje: 2.000 mm. Material eje y hélice: acero AISI-316L. Incluido placa de anclaje, transporte, montaje, conexiones eléctricas y de control, y pruebas de funcionamiento. Resto de características, según ET.</p>	
			Mano de obra.....	54,41
			Maquinaria.....	16,53
			Resto de obra y materiales.....	2.775,51
			TOTAL PARTIDA.....	2.846,45
0637	EANOZ01	UD	<p>ANALIZADOR DE OZONO</p> <p>Analizador de ozono en el agua ATI Q45/64H. Incluso instalación y pruebas. Resto de características según E.T de proyecto.</p>	
			Mano de obra.....	37,46
			Resto de obra y materiales.....	2.609,34
			TOTAL PARTIDA.....	2.646,80
0638	EBDOS01	UD	<p>BOMBAS DOSIFICADORAS DE CAL DE 8 M3/H Y 20 MCA</p> <p>Bombas dosificadoras de lechada de cal de 8.000 l/h y 20 mca. AISI-3616L. Potencia de 1,1 kW. Incluso transporte, montaje, conexiones eléctricas y de control, pruebas de funcionamiento. Resto de características según E.T.</p>	
			Mano de obra.....	534,11
			Maquinaria.....	33,05
			Resto de obra y materiales.....	5.350,30
			TOTAL PARTIDA.....	5.917,46

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Nº	CÓDIGO	UD	DESCRIPCIÓN	IMPORTE
0639	EBHFP01	UD	<p>BOMBA TORNILLO PURGA DE FANGOS PRIMARIOS 65,0 m3/h y 12 mca</p> <p>Bomba helicoidal, para bombeo de fangos decantados. Marca: MONO o equivalente. Modelo: Z38KC11RMA. Velocidad de trabajo (rpm): 80-307. Caudal a la velocidad de trabajo (m3/h): 17-65. Presión en las condiciones de trabajo (bar): 1,2. - Paso de sólidos duros/deformables (mm): 16 / 53. Detector funcionamiento en vacío. Dimensiones aspiración (mm): DN125. Dimensiones impulsión (mm): DN125. Accionamiento: eléctrico mediante motorreductor. Potencia instalada (kW): 9,2. Velocidad motor (rpm): 1.450. Tensión (V): 400. Frecuencia (Hz): 50. Bancada metálica. Incluso transporte, montaje, conexiones eléctricas y de control, pruebas de funcionamiento. Resto de características según E.T.</p>	
			Mano de obra.....	54,41
			Maquinaria.....	16,53
			Resto de obra y materiales.....	4.339,92
			TOTAL PARTIDA.....	4.410,86
0640	EBHFP02	UD	<p>BOMBA TORNILLO DOSIFICACIÓN DE POLI 400 L/H y 25 mca</p> <p>Bomba helicoidal, para dosificación de poli. Marca: MONO o equivalente. Modelo: C22AC11RMA. Velocidad de trabajo (rpm): 50-215. Caudal a la velocidad de trabajo (l/h): 80-400. Presión en las condiciones de trabajo (bar): 2,5. - Paso de sólidos duros/deformables (mm): 3,5 / 10. Detector funcionamiento en vacío. Dimensiones aspiración: 1 1/4" rosca BP. Dimensiones impulsión: 1 1/4" rosca BP. Accionamiento: eléctrico mediante motorreductor. Potencia instalada (kW): 0,55. Velocidad motor (rpm): 1.450. Tensión (V): 400. Frecuencia (Hz): 50. Bancada metálica. Incluso transporte, montaje, conexiones eléctricas y de control, pruebas de funcionamiento. Resto de características según E.T.</p>	
			Mano de obra.....	54,41
			Maquinaria.....	16,53
			Resto de obra y materiales.....	908,27
			TOTAL PARTIDA.....	979,21
0641	EBHFP03	UD	<p>BOMBA TORNILLO DOSIFICACIÓN DE ALMIDON MODIF. 425 L/H y 25 mca</p> <p>Bomba helicoidal, para dosificación de almidón modificado. Marca: MONO o equivalente. Modelo: C22AC80MA. Velocidad de trabajo (rpm): 55-283. Caudal a la velocidad de trabajo (l/h): 80-425. Presión en las condiciones de trabajo (bar): 2,5. - Paso de sólidos duros/deformables (mm): 3,5 / 10. Detector funcionamiento en vacío. Dimensiones aspiración: 1 1/4" rosca BP. Dimensiones impulsión: 1 1/4" rosca BP. Accionamiento: eléctrico mediante motorreductor. Potencia instalada (kW): 0,37. Velocidad motor (rpm): 1.450. Tensión (V): 400. Frecuencia (Hz): 50. Bancada metálica. Incluso transporte, montaje, conexiones eléctricas y de control, pruebas de funcionamiento. Resto de características según E.T.</p>	
			Mano de obra.....	54,41
			Maquinaria.....	16,53
			Resto de obra y materiales.....	885,49
			TOTAL PARTIDA.....	956,43

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ABASTECIMIENTO A VARIOS MUNICIPIOS DE LA RIOJA. SISTEMA CIDACOS

Nº	CÓDIGO	UD	DESCRIPCIÓN	IMPORTE
0642	EBHFP04	UD	<p>BOMBA TORNILLO FANGOS A DESHIDRATACIÓN 16,0 m3/h y 15 mca</p> <p>Bomba helicoidal, para bombeo de fangos decantados. Marca: MONO o equivalente. Modelo: Z35KC11RMA. Velocidad de trabajo (rpm): 80-310. Caudal a la velocidad de trabajo (m3/h): 4,0-16,0. Presión en las condiciones de trabajo (bar): 1,5. - Paso de sólidos duros/deformables (mm): 10 / 35. Detector funcionamiento en vacío. Dimensiones aspiración (mm): DN80. Dimensiones impulsión (mm): DN80. Accionamiento: eléctrico mediante motorreductor. Potencia instalada (kW): 4,0. Velocidad motor (rpm): 1.450. Tensión (V): 400. Frecuencia (Hz): 50. Bancada metálica. Incluso transporte, montaje, conexiones eléctricas y de control, pruebas de funcionamiento. Resto de características según E.T.</p>	
			Mano de obra.....	54,41
			Maquinaria.....	16,53
			Resto de obra y materiales.....	2.035,45
			TOTAL PARTIDA.....	2.106,39
0643	EBHFP05	UD	<p>BOMBA TORNILLO FANGOS DESHIDRATADOS 2,5 m3/h y 9 BAR</p> <p>Bomba helicoidal con alimentación forzada, para bombeo de fangos deshidratados. Marca: MONO o equivalente. Modelo: CW62AL2R1/G412. Velocidad de trabajo (rpm): 35-78. Caudal a la velocidad de trabajo (m3/h): 1,0-2,5. Presión en las condiciones de trabajo (bar): 9,0. - Paso de sólidos duros/deformables (mm): 12 / 40. Detector funcionamiento en vacío. Dimensiones aspiración (mm): 1.000X360. Dimensiones impulsión (mm): DN100. Accionamiento: eléctrico mediante motorreductor. Potencia instalada (kW): 7,5. Velocidad motor (rpm): 1.450. Tensión (V): 400. Frecuencia (Hz): 50. Bancada metálica. Incluso sistema de protección ETI y protección contra sobrepresiones, transporte, montaje, conexiones eléctricas y de control, pruebas de funcionamiento. Resto de características según E.T.</p>	
			Mano de obra.....	54,41
			Maquinaria.....	16,53
			Resto de obra y materiales.....	5.171,82
			TOTAL PARTIDA.....	5.242,76
0644	EBLF01	M2	<p>BOMBA EJE VERTICAL Q=470 M3/H. H=10 MCA. P=22 KW</p> <p>Bomba centrífuga de eje vertical, marca CAPRARI o equivalente, modelo P16C/10/35/1H, capaz de elevar un caudal unitario de 470 m3/h a 10 m.c.a. Impulsor DN-250 mm. Potencia de la bomba 22 kW. Incluido el colador, la línea de transmisión, grupo de mando. Transporte de los materiales a obra, montaje, pruebas, limpieza y puesta en marcha. Resto de características según ET.</p>	
			Mano de obra.....	76,93
			Maquinaria.....	33,05
			Resto de obra y materiales.....	11.245,41
			TOTAL PARTIDA.....	11.355,39

CUADRO DE PRECIOS 2

ABASTECIMIENTO A VARIOS MUNICIPIOS DE LA RIOJA. SISTEMA CIDACOS

Nº	CÓDIGO	UD	DESCRIPCIÓN	IMPORTE
0645	EBMV01	UD	<p>BOMBA MONOBLOCK VERTICAL Q=18,32 l/s H=130 mca</p> <p>Bomba multietapa monoblock vertical tipo HVU 50/4A+V30370221-V de Caprari o equivalente para bombeo de un caudal de 66 m3/h (16,82 l/s) y una altura de 130 m.c.a. Aspiración DN65 e impulsión DN50. Cuerpo de función, rodete en acero inoxidable. Motor eléctrico asincrónico, trifásico, cerrado, estandarizado según normas UNEL-IEC de 37 kW-4P-50Hz-400V-IP-55, estructura de soporte en perfiles de acero electrosoldado. Transmisor de presión inteligente. Resto de características según E.T. de Proyecto. Instalada y probada en obra.</p>	
			Mano de obra.....	231,30
			Resto de obra y materiales.....	5.423,62
			TOTAL PARTIDA.....	5.654,92
0646	EBMV02	UD	<p>BOMBA CENTRIFUGA MULTIETAPA VERTICAL Q=6,69 l/s H=90 mca</p> <p>Bomba centrífuga multietapa vertical tipo CR 20-10 A-F-A-E-HQQE de Grundfos o equivalente para bombeo de un caudal de 6,69 l/s y una altura de 90 m.c.a. Aspiración DN50 e impulsión DN50. Cuerpo de función, rodete en acero inoxidable. Motor eléctrico asincrónico, trifásico, cerrado, de 11 kW-4P-50Hz-380-415V-IP-55, estructura de soporte en perfiles de acero electrosoldado. Cuadro controlador y supervisor de bombas según E.T. Resto de características según E.T. de Proyecto. Instalada y probada en obra.</p>	
			Mano de obra.....	231,30
			Resto de obra y materiales.....	6.070,31
			TOTAL PARTIDA.....	6.301,61
0647	EBMV03	UD	<p>BOMBA CENTRIFUGA MULTIETAPA VERTICAL Q=21,59 l/s H=180 mca</p> <p>Bomba centrífuga multietapa vertical tipo CR 95-8-2 A-F-A-E-HQQE de Grundfos o equivalente para bombeo de un caudal de 21,59 l/s y una altura de 180 m.c.a. Aspiración DN50 e impulsión DN50. Cuerpo de función, rodete en acero inoxidable. Motor eléctrico asincrónico, trifásico, cerrado, de 55kW-4P-50Hz-380-415V-IP-55, estructura de soporte en perfiles de acero electrosoldado. Cuadro controlador y supervisor de bombas según E.T. Resto de características según E.T. de Proyecto. Instalada y probada en obra.</p>	
			Mano de obra.....	231,30
			Resto de obra y materiales.....	21.739,13
			TOTAL PARTIDA.....	21.970,43
0648	EBMV04	UD	<p>BOMBA CENTRIFUGA MULTIETAPA VERTICAL Q=8,63 l/s H=15 mca</p> <p>Bomba centrífuga multietapa vertical tipo CRE 32-2-1 A-F-A-E-HQQE de Grundfos o equivalente para bombeo de un caudal de 8,63 l/s y una altura de 15 m.c.a. Aspiración DN50 e impulsión DN50. Cuerpo de función, rodete en acero inoxidable. Motor eléctrico asincrónico, trifásico, cerrado, de 5,5kW-4P-50Hz-380-415V-IP-55, estructura de soporte en perfiles de acero electrosoldado. Cuadro controlador y supervisor de bombas según E.T. Resto de características según E.T. de Proyecto. Instalada y probada en obra.</p>	
			Mano de obra.....	231,30
			Resto de obra y materiales.....	7.286,70
			TOTAL PARTIDA.....	7.518,00

CUADRO DE PRECIOS 2

ABASTECIMIENTO A VARIOS MUNICIPIOS DE LA RIOJA. SISTEMA CIDACOS

Nº	CÓDIGO	UD	DESCRIPCIÓN	IMPORTE
0649	EBSLF01	UD	BOMBA SUMERGIBLE Q= 130 m³/h a 6 m.c.a. P=3 kW Bomba sumergible para bombeo de aguas, de SULZER o equivalente modelo XFP100E-CB1.2-PE90/4-D05*10. Caudal: 130 m³/h. Altura manométrica: 6 m.c.a. Potencia nominal en eje: 3,0 kW. Ø Imp: 100 mm. Incluido módulo para supervisión de electrodos de temperatura y humedad, pedestal, anclajes, guía y cadena para izado. Incluso transporte, montaje, conexiones eléctricas y de control, pruebas de funcionamiento. Resto de características según E.T.	
			Mano de obra.....	229,66
			Maquinaria.....	16,53
			Resto de obra y materiales.....	2.614,06
			TOTAL PARTIDA.....	2.860,25
0650	EBSLF02	UD	BOMBA SUMERGIBLE Q= 16,0 m³/h a 14 m.c.a. P=1,7 kW Bomba sumergible para bombeo de aguas, de SULZER o equivalente modelo AS-0631D. Caudal: 16,0 m³/h. Altura manométrica: 14 m.c.a. Potencia nominal en eje: 1,7 kW. Ø Imp: 65 mm. Incluido módulo para supervisión de electrodos de temperatura y humedad, pedestal, anclajes, guía y cadena para izado. Incluso transporte, montaje, conexiones eléctricas y de control, pruebas de funcionamiento. Resto de características según E.T.	
			Mano de obra.....	72,92
			Maquinaria.....	16,53
			Resto de obra y materiales.....	488,31
			TOTAL PARTIDA.....	577,76
0651	EBSM01	UD	SKID PARA 4 BOMBAS DOSIFICADORAS Qu=235 L/HY 3 BAR Sistema de dosificación para sulfato de alúmina, de MILTON ROY, o equivalente, formado por 4 bombas de 235 l/h – 3 bar cada una. Equipo MRE de la serie DOSAPACK PD®. Modelo: PD-D7A1.D2/E3.B2.E1.BC.1.E1.E3.A1.C4.A1.P1.A1. 4 Bombas dosificadoras GM240 (3+1). Instalación con colectores de aspiración e impulsión, estructura metálica de acero, con soporte para todos los elementos, válvulas, amortiguadores, manómetros, etc, según características definidas en las E.T. de proyecto. Instalado y probado.	
			Mano de obra.....	54,41
			Maquinaria.....	16,53
			Resto de obra y materiales.....	9.908,19
			TOTAL PARTIDA.....	9.979,13
0652	EBSM02	UD	SKID PARA 2 BOMBAS DOSIFICADORAS Qu=11 L/HY 3 BAR Sistema de dosificación para ácido clorhídrico, de MILTON ROY, o equivalente, formado por 2 bombas de 11 l/h – 3 bar cada una. Equipo MRE de la serie DOSAPACK PD®. Modelo: PD-D3A1.B2/B1.B2.B1.BA.1.B1.B1.A1.C4.A1.P1.A1. 2 Bombas dosificadoras GA25 (1+1). Instalación con colectores de aspiración e impulsión, estructura plástica de PEHD, con soporte para todos los elementos, válvulas, amortiguadores, manómetros, etc, según características definidas en las E.T. de proyecto. Instalado y probado.	
			Mano de obra.....	54,41
			Maquinaria.....	16,53
			Resto de obra y materiales.....	5.843,56
			TOTAL PARTIDA.....	5.914,50

CUADRO DE PRECIOS 2

ABASTECIMIENTO A VARIOS MUNICIPIOS DE LA RIOJA. SISTEMA CIDACOS

Nº	CÓDIGO	UD	DESCRIPCIÓN	IMPORTE
0653	EBSM03	UD	SKID PARA 4 BOMBAS DOSIFICADORAS Qu=25 L/HY 3 BAR Sistema de dosificación para hipoclorito sódico, de MILTON ROY, o equivalente, formado por 4 bombas de 25 l/h – 3 bar cada una. Equipo MRE de la serie DOSAPACK PD®. Modelo: PD-D7A1.D2/B1.B2.B1.BA.1.B1.B1.A1.C4.A1.P1.A1. 4 Bombas dosificadoras GA25 (3+1). Instalación con colectores de aspiración e impulsión, estructura metálica de acero, con soporte para todos los elementos, válvulas, amortiguadores, manómetros, etc, según características definidas en las E.T. de proyecto. Instalado y probado.	
			Mano de obra.....	54,41
			Maquinaria.....	16,53
			Resto de obra y materiales.....	8.183,55
			TOTAL PARTIDA.....	8.254,49
0654	EBSM04	UD	SKID PARA 2 BOMBAS DOSIFICADORAS Qu=40 L/HY 3 BAR Sistema de dosificación para hipoclorito sódico, de MILTON ROY, o equivalente, formado por 2 bombas de 40 l/h – 3 bar cada una. Equipo MRE de la serie DOSAPACK PD®. Modelo: PD-A3A1.B2/B1.B2.A1.BA.1.B1.B1.A1.C2.A1.A1. 2 Bombas dosificadoras GA45 (1+1). Instalación con colectores de aspiración e impulsión, estructura plástica de PEHD, con soporte para todos los elementos, válvulas, amortiguadores, manómetros, etc, según características definidas en las E.T. de proyecto. Instalado y probado.	
			Mano de obra.....	54,41
			Maquinaria.....	16,53
			Resto de obra y materiales.....	3.816,16
			TOTAL PARTIDA.....	3.887,10
0655	EBSM05	UD	SKID PARA 2 BOMBAS DOSIFICADORAS Qu=210 L/HY 3 BAR Sistema de dosificación para permanganato potásico, de MILTON ROY, o equivalente, formado por 2 bombas de 210 l/h – 3 bar cada una. Equipo MRE de la serie DOSAPACK PD®. Modelo: PD-D3A1.B2/E3.B2.E1.BC.1.E1.E1.A1.C2.A1.P1.A1. 2 Bombas dosificadoras GM240 (1+1). Instalación con colectores de aspiración e impulsión, estructura metálica de acero, con soporte para todos los elementos, válvulas, amortiguadores, manómetros, etc, según características definidas en las E.T. de proyecto. Instalado y probado.	
			Mano de obra.....	54,41
			Maquinaria.....	16,53
			Resto de obra y materiales.....	5.532,34
			TOTAL PARTIDA.....	5.603,28
0656	EBSSA01	UD	BOMBA TRASIEGO SULFATO ALUMINA. 25M3/H. 15 MCA Grupo motobomba centrífuga horizontal para trasiego de sulfato de alúmina. Marca: STÜBBE o equivalente. Modelo: SHM 50-40L 9VDF/FPM. Caudal: 25 m³/h. Altura manométrica: 15 m.c.a. Potencia motor: 4,0 kW. Velocidad del motor: 2.950 r.p.m. Resto de características según ET. Incluido placa de anclaje, transporte, montaje, conexiones eléctricas y de control, y pruebas de funcionamiento.	
			Mano de obra.....	36,87
			Resto de obra y materiales.....	2.022,87
			TOTAL PARTIDA.....	2.059,74

CUADRO DE PRECIOS 2

ABASTECIMIENTO A VARIOS MUNICIPIOS DE LA RIOJA. SISTEMA CIDACOS

Nº	CÓDIGO	UD	DESCRIPCIÓN	IMPORTE
0657	EBSSA02	UD	BOMBA TRASIEGO ÁCIDO CLORHÍDRICO. 25M3/H. 15 MCA Grupo motobomba centrífuga horizontal para trasiego de ácido clorhídrico. Marca: STÜBBE o equivalente. Modelo: SHM 40-40L PP/EPDM. Caudal: 25 m³/h. Altura manométrica: 15 m.c.a. Potencia motor: 1,1 kW. Velocidad del motor: 2.880 r.p.m. Resto de características según ET. Incluido placa de anclaje, transporte, montaje, conexiones eléctricas y de control, y pruebas de funcionamiento.	
			Mano de obra.....	36,87
			Resto de obra y materiales.....	695,19
			TOTAL PARTIDA.....	732,06
0658	EBSSA03	UD	BOMBA TRASIEGO HIPOCLORITO SÓDICO. 25M3/H. 15 MCA Grupo motobomba centrífuga horizontal para trasiego de hipoclorito sódico. Marca: STÜBBE o equivalente. Modelo: SHM 50-40L PP/EPDM. Caudal: 25 m³/h. Altura manométrica: 15 m.c.a. Potencia motor: 3,0 kW. Velocidad del motor: 2.920 r.p.m. Resto de características según ET. Incluido placa de anclaje, transporte, montaje, conexiones eléctricas y de control, y pruebas de funcionamiento.	
			Mano de obra.....	36,87
			Resto de obra y materiales.....	1.145,92
			TOTAL PARTIDA.....	1.182,79
0659	ECAH1500	UD	EQUIPO ANTIARIETE HIDRONEUMÁTICO 1.500 l PN25 Equipo antiariete hidroneumático con membrana, marca Ibaiondo o equivalente modelo 1500 AHN PN25. Consistente en un calderín cilíndrico de 1.500 l, con presión máxima de servicio de 25 bares. Construido en chapa soldada de acero S-275JR s/EN-10025. Membrana interior de EPDM calidad alimentaria. Incluso llaves de aislamiento, indicador de nivel del agua, válvula de inflado, manómetro, boca de hombre y brida de conexión de agua DN 150. Acabado exterior granallado Sa 2 1/2, con imprimación de 10 micras de epoxi de dos componentes y acabado con 60 micras de esmalte de poliuretano; acabado interior granallado Sa 2 1/2. Incluido bancada con patas de apoyo. Según Directiva 2014/68/UE. Resto de características según E.T. de Proyecto. Totalmente instalado y en funcionamiento, incluso piezas especiales de acoplamiento a la tubería de entrada.	
			Mano de obra.....	106,38
			Resto de obra y materiales.....	6.324,86
			TOTAL PARTIDA.....	6.431,24
0660	ECAH18000	UD	EQUIPO ANTIARIETE HIDRONEUMÁTICO 18.000 l PN40 Equipo antiariete hidroneumático con membrana, marca Ibaiondo o equivalente modelo 18000 AHN PN40. Consistente en un calderín cilíndrico de 18.000 l, con presión máxima de servicio de 40 bares. Construido en chapa soldada de acero P265GH. Membrana interior de poliuretano calidad alimentaria. Incluso llaves de aislamiento, indicador de nivel del agua, válvula de inflado, manómetro, boca de hombre y brida de conexión de agua DN 250. Acabado exterior granallado Sa 2 1/2, con imprimación de 40 micras de epoxi de dos componentes y acabado con 30 micras de esmalte de poliuretano; acabado interior granallado Sa 2 1/2, con imprimación de 40 micras de epoxi de dos componentes. Incluido bancada con patas de apoyo. Según Directiva 2014/68/UE. Resto de características según E.T. de Proyecto. Totalmente instalado y en funcionamiento, incluso piezas especiales de acoplamiento a la tubería de entrada.	
			Mano de obra.....	106,38
			Resto de obra y materiales.....	51.516,05
			TOTAL PARTIDA.....	51.622,43

CUADRO DE PRECIOS 2

ABASTECIMIENTO A VARIOS MUNICIPIOS DE LA RIOJA. SISTEMA CIDACOS

Nº	CÓDIGO	UD	DESCRIPCIÓN	IMPORTE
0661	ECCMA01	UD	COMPUERTA CANAL MANUAL DE 800x1000 MM. INOX316L Compuerta canal manual de 0,80 m de ancho y 1,0 m de altura de tablero, con husillo y volante de altura variable. Altura máxima agua según planos. Número de cierres 3. Espesor de chapa de 5 mm (mínimo). Número de husillos 1. Accionamiento manual con volante, con rodamiento para absorber el esfuerzo axial. Materiales: Guías, marco, tablero y husillo de acero inoxidable AISI-316L. Incluso transporte, montaje y pruebas de funcionamiento. Resto de características según E.T.	
			Mano de obra.....	72,92
			Maquinaria.....	33,05
			Resto de obra y materiales.....	2.360,51
			TOTAL PARTIDA.....	2.466,48
0662	ECCMT01	UD	COMPUERTA CANAL MOTORIZADA DE 500x1000 MM. DE HUECO INOX316L Compuerta canal motorizada para hueco de 0,50 m de ancho y 1,0m de altura, con husillo de altura variable. Altura máxima agua según planos. Número de cierres 3. Espesor de chapa de 5 mm (mínimo). Número de husillos 1. Accionamiento motorizado, con rodamiento para absorber el esfuerzo axial. Materiales: Guías, marco, tablero y husillo de acero inoxidable AISI-316L. Incluso transporte, montaje, conexiones eléctricas y pruebas de funcionamiento. Resto de características según E.T.	
			Mano de obra.....	72,92
			Maquinaria.....	33,05
			Resto de obra y materiales.....	3.954,50
			TOTAL PARTIDA.....	4.060,47
0663	ECCMT02	UD	COMPUERTA CANAL MOTORIZADA DE 1000x1400 MM. DE HUECO INOX316L Compuerta canal motorizada para hueco de 1,0m de ancho y 1,4 m de altura, con husillo de altura variable. Altura máxima agua según planos. Número de cierres 3. Espesor de chapa de 5 mm (mínimo). Número de husillos 1. Accionamiento motorizado, con rodamiento para absorber el esfuerzo axial. Materiales: Guías, marco, tablero y husillo de acero inoxidable AISI-316L. Incluso transporte, montaje, conexiones eléctricas y pruebas de funcionamiento. Resto de características según E.T.	
			Mano de obra.....	72,92
			Maquinaria.....	33,05
			Resto de obra y materiales.....	5.257,01
			TOTAL PARTIDA.....	5.362,98
0664	ECD0065	UD	CARRETE DE DESMONTAJE DN=65 mm PN16 Carrete telescópico de desmontaje DN65 PN 16, bridas de acero al carbono, virolas de acero inoxidable, protección epoxi, tornillos y tuercas en acero F-114, cincado y posterior baño de cromo-niquel, incluido p.p. de brida enchufe, totalmente instalado y probado en obra.	
			Mano de obra.....	72,48
			Maquinaria.....	33,05
			Resto de obra y materiales.....	141,80
			TOTAL PARTIDA.....	247,33
0665	ECD01000	UD	CARRETE DE DESMONTAJE DN=1000 mm PN16 Carrete telescópico de desmontaje DN1000 PN 16, bridas de acero al carbono, virolas de acero inoxidable, protección epoxi, tornillos y tuercas en acero F-114, cincado y posterior baño de cromo-niquel, incluido p.p. de brida enchufe, totalmente instalado y probado en obra.	
			Mano de obra.....	72,48
			Maquinaria.....	33,05
			Resto de obra y materiales.....	2.387,73
			TOTAL PARTIDA.....	2.492,26

CUADRO DE PRECIOS 2

ABASTECIMIENTO A VARIOS MUNICIPIOS DE LA RIOJA. SISTEMA CIDACOS

Nº	CÓDIGO	UD	DESCRIPCIÓN	IMPORTE
0666	ECD010016	UD	CARRETE DE DESMONTAJE DN=100 mm PN16 Carrete telescópico de desmontaje DN100 PN16, bridas de acero al carbono, virolas de acero inoxidable, protección epoxi, tornillos y tuercas en acero F-114, cincado y posterior baño de cromo-niquel, incluido p.p. de brida enchufe, totalmente instalado y probado en obra.	
			Mano de obra.....	18,62
			Resto de obra y materiales.....	149,31
			TOTAL PARTIDA.....	167,93
0667	ECD010025	UD	CARRETE DE DESMONTAJE DN=100 mm PN25 Carrete telescópico de desmontaje DN100 PN25, bridas de acero al carbono, virolas de acero inoxidable, protección epoxi, tornillos y tuercas en acero F-114, cincado y posterior baño de cromo-niquel, incluido p.p. de brida enchufe, totalmente instalado y probado en obra.	
			Mano de obra.....	18,62
			Resto de obra y materiales.....	276,84
			TOTAL PARTIDA.....	295,46
0668	ECD012525	UD	CARRETE DE DESMONTAJE DN=125 mm PN25 Carrete telescópico de desmontaje DN125 PN25, bridas de acero al carbono, virolas de acero inoxidable, protección epoxi, tornillos y tuercas en acero F-114, cincado y posterior baño de cromo-niquel, incluido p.p. de brida enchufe, totalmente instalado y probado en obra.	
			Mano de obra.....	18,62
			Resto de obra y materiales.....	291,27
			TOTAL PARTIDA.....	309,89
0669	ECD0300	UD	CARRETE DE DESMONTAJE DN=300 mm PN16 Carrete telescópico de desmontaje DN300 PN16, bridas de acero al carbono, virolas de acero inoxidable, protección epoxi, tornillos y tuercas en acero F-114, cincado y posterior baño de cromo-niquel, incluido p.p. de brida enchufe, totalmente instalado y probado en obra.	
			Mano de obra.....	18,62
			Resto de obra y materiales.....	421,81
			TOTAL PARTIDA.....	440,43
0670	ECD0300.1	UD	CARRETE DE DESMONTAJE DN=300 mm PN25 Carrete telescópico de desmontaje DN300 PN25, bridas de acero al carbono, virolas de acero inoxidable, protección epoxi, tornillos y tuercas en acero F-114, cincado y posterior baño de cromo-niquel, incluido p.p. de brida enchufe, totalmente instalado y probado en obra.	
			Mano de obra.....	18,62
			Resto de obra y materiales.....	517,45
			TOTAL PARTIDA.....	536,07
0671	ECD0400	UD	CARRETE DE DESMONTAJE DN=400 mm PN16 Carrete telescópico de desmontaje DN400 PN16, bridas de acero al carbono, virolas de acero inoxidable, protección epoxi, tornillos y tuercas en acero F-114, cincado y posterior baño de cromo-niquel, incluido p.p. de brida enchufe, totalmente instalado y probado en obra.	
			Mano de obra.....	18,62
			Resto de obra y materiales.....	684,45
			TOTAL PARTIDA.....	703,07

CUADRO DE PRECIOS 2

ABASTECIMIENTO A VARIOS MUNICIPIOS DE LA RIOJA. SISTEMA CIDACOS

Nº	CÓDIGO	UD	DESCRIPCIÓN	IMPORTE
0672	ECD0400.1	UD	CARRETE DE DESMONTAJE DN=400 mm PN25 Carrete telescópico de desmontaje DN400 PN25, bridas de acero al carbono, virolas de acero inoxidable, protección epoxi, tornillos y tuercas en acero F-114, cincado y posterior baño de cromo-niquel, incluido p.p. de brida enchufe, totalmente instalado y probado en obra.	
			Mano de obra.....	18,62
			Resto de obra y materiales.....	836,26
			TOTAL PARTIDA.....	854,88
0673	ECD0450	UD	CARRETE DE DESMONTAJE DN=450 mm PN16 Carrete telescópico de desmontaje DN450 PN16, bridas de acero al carbono, virolas de acero inoxidable, protección epoxi, tornillos y tuercas en acero F-114, cincado y posterior baño de cromo-niquel, incluido p.p. de brida enchufe, totalmente instalado y probado en obra.	
			Mano de obra.....	18,62
			Resto de obra y materiales.....	912,16
			TOTAL PARTIDA.....	930,78
0674	ECD0500	UD	CARRETE DE DESMONTAJE DN=500 mm PN16 Carrete telescópico de desmontaje DN500 PN 16, bridas de acero al carbono, virolas de acero inoxidable, protección epoxi, tornillos y tuercas en acero F-114, cincado y posterior baño de cromo-niquel, incluido p.p. de brida enchufe, totalmente instalado y probado en obra.	
			Mano de obra.....	72,48
			Maquinaria.....	33,05
			Resto de obra y materiales.....	989,65
			TOTAL PARTIDA.....	1.095,18
0675	ECD0500.1	UD	CARRETE DE DESMONTAJE DN=500 mm PN25 Carrete telescópico de desmontaje DN500 PN 25, bridas de acero al carbono, virolas de acero inoxidable, protección epoxi, tornillos y tuercas en acero F-114, cincado y posterior baño de cromo-niquel, incluido p.p. de brida enchufe, totalmente instalado y probado en obra.	
			Mano de obra.....	72,48
			Maquinaria.....	33,05
			Resto de obra y materiales.....	1.141,45
			TOTAL PARTIDA.....	1.246,98
0676	ECD0800P	UD	CARRETE DE DESMONTAJE DN=800 mm PN25 Carrete telescópico de desmontaje DN800 PN25, bridas de acero al carbono, virolas de acero inoxidable, protección epoxi, tornillos y tuercas en acero F-114, cincado y posterior baño de cromo-niquel, incluido p.p. de brida enchufe, totalmente instalado y probado en obra.	
			Mano de obra.....	72,48
			Maquinaria.....	33,05
			Resto de obra y materiales.....	2.580,61
			TOTAL PARTIDA.....	2.686,14
0677	ECD0900	UD	CARRETE DE DESMONTAJE DN=900 mm PN16 Carrete telescópico de desmontaje DN900 PN 16, bridas de acero al carbono, virolas de acero inoxidable, protección epoxi, tornillos y tuercas en acero F-114, cincado y posterior baño de cromo-niquel, incluido p.p. de brida enchufe, totalmente instalado y probado en obra.	
			Mano de obra.....	72,48
			Maquinaria.....	33,05
			Resto de obra y materiales.....	2.084,10
			TOTAL PARTIDA.....	2.189,63

CUADRO DE PRECIOS 2

ABASTECIMIENTO A VARIOS MUNICIPIOS DE LA RIOJA. SISTEMA CIDACOS

Nº	CÓDIGO	UD	DESCRIPCIÓN	IMPORTE
0678	ECD15016	UD	CARRETE DE DESMONTAJE DN=150 mm PN16 Carrete telescópico de desmontaje DN150 PN16, bridas de acero al carbono, virolas de acero inoxidable, protección epoxi, tornillos y tuercas en acero F-114, cincado y posterior baño de cromo-niquel, incluido p.p. de brida enchufe, totalmente instalado y probado en obra.	
			Mano de obra.....	18,62
			Resto de obra y materiales.....	181,85
			TOTAL PARTIDA.....	200,47
0679	ECD25016	UD	CARRETE DE DESMONTAJE DN=250 mm PN16 Carrete telescópico de desmontaje DN250 PN16, bridas de acero al carbono, virolas de acero inoxidable, protección epoxi, tornillos y tuercas en acero F-114, cincado y posterior baño de cromo-niquel, incluido p.p. de brida enchufe, totalmente instalado y probado en obra.	
			Mano de obra.....	18,62
			Resto de obra y materiales.....	380,07
			TOTAL PARTIDA.....	398,69
0680	ECD25040	UD	CARRETE DE DESMONTAJE DN=250 mm PN40 Carrete telescópico de desmontaje DN250 PN40, bridas de acero al carbono, virolas de acero inoxidable, protección epoxi, tornillos y tuercas en acero F-114, cincado y posterior baño de cromo-niquel, incluido p.p. de brida enchufe, totalmente instalado y probado en obra.	
			Mano de obra.....	18,62
			Resto de obra y materiales.....	494,70
			TOTAL PARTIDA.....	513,32
0681	ECELEC01	UD	CUADRO ELÉCTRICO DOSIFICACIÓN DE CAL Cuadro eléctrico para el funcionamiento de la dosificación de cal, formado por un armario eléctrico metálico con elementos de potencia y maniobra para los equipos ofertados, con PLC y variador de frecuencia para dosificador. Alimentación cuadro de 230/400 VCA, 50 Hz, 3F+tierra. Incluso transporte, montaje, conexiones eléctricas y de control, pruebas de funcionamiento. Resto de características según E.T.	
			Mano de obra.....	1.058,21
			Resto de obra y materiales.....	25.366,02
			TOTAL PARTIDA.....	26.424,23
0682	ECELM032	UD	CAUDALÍMETRO ELECTROMAGNÉTICO POLI ELECT. DN 32 mm Equipo medidor de caudal de DN32 mm. tipo electromagnético para reactivos, con salida 4/20 mA, tensión 220 V, totalmente instalado y probado. Incluido transporte, montaje, conexiones eléctricas y pruebas de funcionamiento. Resto de características, según ET.	
			Mano de obra.....	39,46
			Resto de obra y materiales.....	743,55
			TOTAL PARTIDA.....	783,01
0683	ECELM080	UD	CAUDALÍMETRO ELECTROMAGNÉTICO DN 80 mm PN10 Equipo medidor de caudal de DN80 mm. tipo electromagnético y PN=10 atm. con salida 4/20 mA, tensión 220 V y escala 0-240 m3/h, totalmente instalado y probado. Incluido transporte, montaje, conexiones eléctricas y pruebas de funcionamiento. Resto de características, según ET.	
			Mano de obra.....	39,46
			Resto de obra y materiales.....	805,66
			TOTAL PARTIDA.....	845,12

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ABASTECIMIENTO A VARIOS MUNICIPIOS DE LA RIOJA. SISTEMA CIDACOS

Nº	CÓDIGO	UD	DESCRIPCIÓN	IMPORTE
0684	ECELM100	UD	CAUDALÍMETRO ELECTROMAGNÉTICO DN 100 mm Equipo medidor de caudal de DN100 mm. tipo electromagnético y PN=10 atm. con salida 4/20 mA, tensión 220 V y escala 0-240 m3/h, totalmente instalado y probado. Incluido transporte, montaje, conexiones eléctricas y pruebas de funcionamiento. Resto de características, según ET.	
			Mano de obra.....	39,46
			Resto de obra y materiales.....	912,21
			TOTAL PARTIDA.....	951,67
0685	ECELM125	UD	CAUDALÍMETRO ELECTROMAGNÉTICO DN 125 mm PN10 Equipo medidor de caudal de DN125 mm. tipo electromagnético y PN=10 atm. con salida 4/20 mA, tensión 220 V y escala 0-240 m3/h, totalmente instalado y probado. Incluido transporte, montaje, conexiones eléctricas y pruebas de funcionamiento. Resto de características, según ET.	
			Mano de obra.....	39,46
			Resto de obra y materiales.....	1.006,76
			TOTAL PARTIDA.....	1.046,22
0686	ECELM400	UD	CAUDALÍMETRO ELECTROMAGNÉTICO DN 400 mm Equipo medidor de caudal de DN400 mm. tipo electromagnético y PN=10 atm. con salida 4/20 mA, tensión 220 V y escala 0-240 m3/h, totalmente instalado y probado. Incluido transporte, montaje, conexiones eléctricas y pruebas de funcionamiento. Resto de características, según ET.	
			Mano de obra.....	74,92
			Maquinaria.....	33,05
			Resto de obra y materiales.....	2.306,16
			TOTAL PARTIDA.....	2.414,13
0687	ECELM900	UD	CAUDALÍMETRO ELECTROMAGNÉTICO DN 900 mm Equipo medidor de caudal de DN900 mm. tipo electromagnético y PN=10 atm. con salida 4/20 mA, tensión 220 V y escala 0-240 m3/h, totalmente instalado y probado. Incluido transporte, montaje, conexiones eléctricas y pruebas de funcionamiento. Resto de características, según ET.	
			Mano de obra.....	145,84
			Maquinaria.....	66,10
			Resto de obra y materiales.....	6.999,15
			TOTAL PARTIDA.....	7.211,09
0688	ECMMT01	UD	COMPUERTA MURAL MOTORIZADA DE 500x500 MM. DE HUECO INOX316L Compuerta mural motorizada para hueco de 0,50 m de ancho y 0,50m de altura, con husillo de altura variable. Altura máxima agua según planos. Número de cierres 4 . Espesor de chapa de 5 mm (mínimo). Número de husillos 1. Accionamiento motorizado, con rodamiento para absorber el esfuerzo axial. Materiales: Guías, marco, tablero y husillo de acero inoxidable AISI-316L. Incluso transporte, montaje, conexiones eléctricas y pruebas de funcionamiento. Resto de características según E.T.	
			Mano de obra.....	72,92
			Maquinaria.....	33,05
			Resto de obra y materiales.....	3.873,29
			TOTAL PARTIDA.....	3.979,26

CUADRO DE PRECIOS 2

ABASTECIMIENTO A VARIOS MUNICIPIOS DE LA RIOJA. SISTEMA CIDACOS

Nº	CÓDIGO	UD	DESCRIPCIÓN	IMPORTE
0689	ECMMT02	UD	<p>COMPUERTA MURAL MOTORIZADA DE 900x900 MM. DE HUECO INOX316L</p> <p>Compuerta mural motorizada para hueco de 0,90 m de ancho y 0,90m de altura, con husillo de altura variable. Altura máxima agua según planos. Número de cierres 4. Espesor de chapa de 5 mm (mínimo). Número de husillos 1. Accionamiento motorizado, con rodamiento para absorber el esfuerzo axial. Materiales: Guías, marco, tablero y husillo de acero inoxidable AISI-316L. Incluso transporte, montaje, conexiones eléctricas y pruebas de funcionamiento. Resto de características según E.T.</p>	<p>Mano de obra..... 72,92</p> <p>Maquinaria..... 33,05</p> <p>Resto de obra y materiales..... 4.819,82</p> <p>TOTAL PARTIDA..... 4.925,79</p>
0690	ECOMA01	UD	<p>COMPRESOR DE AIRE. 1.300 L/MIN 7,5 BAR. P=7,5 Kw</p> <p>Compresor de aire de tornillo lubricado de velocidad fija, modelo L07e de ATLAS COPCO o equivalente, de 1.300 l/min y 7,5 bar, con una potencia de 7,5 Kw. Tanque de 270 l. Incluso parte proporcional de válvulas y manguitos de unión a líneas, manómetro, separador de agua-acerite. Incluso transporte, conexiones eléctricas y de control, así como el montaje y pruebas de funcionamiento. Resto de características según ET.</p>	<p>Mano de obra..... 72,92</p> <p>Maquinaria..... 16,53</p> <p>Resto de obra y materiales..... 4.978,05</p> <p>TOTAL PARTIDA..... 5.067,50</p>
0691	ECOMA02	UD	<p>SECADOR DE AIRE. 1.400 L/MIN 7 BAR.</p> <p>Secador frigorífico para aire, modelo F014S de ATLAS COPCO o equivalente, de 1.400 l/min. Incluso parte proporcional de válvulas y manguitos de unión a líneas, prefiltro de 1.800 l/min, postfiltro de 1.800 l/min. Incluso transporte, conexiones eléctricas y de control, así como el montaje y pruebas de funcionamiento. Resto de características según ET.</p>	<p>Mano de obra..... 37,46</p> <p>Maquinaria..... 9,92</p> <p>Resto de obra y materiales..... 876,24</p> <p>TOTAL PARTIDA..... 923,62</p>
0692	ECONT01	UD	<p>CONTENEDOR METAL 5 m³</p> <p>Contenedor metálico de 5 m³ de capacidad para transporte sobre camión normalizado, de chapa de acero protegida contra la corrosión.</p>	<p>Mano de obra..... 3,14</p> <p>Maquinaria..... 6,61</p> <p>Resto de obra y materiales..... 494,07</p> <p>TOTAL PARTIDA..... 503,82</p>
0693	ECPREC01	UD	<p>CUBA DE PREPARACIÓN DE PP DE 2,5 M3</p> <p>Cuba de preparación de cal de 2,65 m3 de capacidad, realizada en PP, de 1500 mm de diámetro y 1.500 mm de altura total, electroagitador de 1,5 kW. Incluso transporte, montaje, conexiones eléctricas y de control, pruebas de funcionamiento. Resto de características según E.T.</p>	<p>Mano de obra..... 534,11</p> <p>Maquinaria..... 33,05</p> <p>Resto de obra y materiales..... 6.538,97</p> <p>TOTAL PARTIDA..... 7.106,13</p>

CUADRO DE PRECIOS 2

ABASTECIMIENTO A VARIOS MUNICIPIOS DE LA RIOJA. SISTEMA CIDACOS

Nº	CÓDIGO	UD	DESCRIPCIÓN	IMPORTE
0694	ECPSM150	UD	<p>PASAMUROS INOX AISI-316-L DN-150 mm</p> <p>Carrete pasamuros de acero inoxidable, con brida loca en un extremo y placa de estanqueidad, DN 150, longitud: 500 mm. Materiales:Carrete y placa de estanqueidad: AISI 316 L, brida: aluminio, totalmente instalado y probado en obra. Resto de características según ET.</p>	<p>Mano de obra..... 18,62</p> <p>Resto de obra y materiales..... 145,52</p> <p>TOTAL PARTIDA..... 164,14</p>
0695	ECPSM250	UD	<p>PASAMUROS INOX AISI-316-L DN-250 mm</p> <p>Carrete pasamuros de acero inoxidable, con brida loca en un extremo y placa de estanqueidad, DN 250, longitud: 500 mm. Materiales:Carrete y placa de estanqueidad: AISI 316 L, brida: aluminio, totalmente instalado y probado en obra. Resto de características según ET.</p>	<p>Mano de obra..... 18,62</p> <p>Resto de obra y materiales..... 172,09</p> <p>TOTAL PARTIDA..... 190,71</p>
0696	ECPSM300	UD	<p>PASAMUROS INOX AISI-316-L DN-300 mm</p> <p>Carrete pasamuros de acero inoxidable, con brida loca en un extremo y placa de estanqueidad, DN 300, longitud: 500 mm. Materiales:Carrete y placa de estanqueidad: AISI 316 L, brida: aluminio, totalmente instalado y probado en obra. Resto de características según ET.</p>	<p>Mano de obra..... 18,62</p> <p>Resto de obra y materiales..... 213,85</p> <p>TOTAL PARTIDA..... 232,47</p>
0697	ECPSM400	UD	<p>PASAMUROS INOX AISI-316-L DN-400 mm</p> <p>Carrete pasamuros de acero inoxidable, con brida loca en un extremo y placa de estanqueidad, DN 400, longitud: 500 mm. Materiales:Carrete y placa de estanqueidad: AISI 316 L, brida: aluminio, totalmente instalado y probado en obra. Resto de características según ET.</p>	<p>Mano de obra..... 18,62</p> <p>Resto de obra y materiales..... 266,97</p> <p>TOTAL PARTIDA..... 285,59</p>
0698	ECPSM500	UD	<p>PASAMUROS INOX AISI-316-L DN-500 mm</p> <p>Carrete pasamuros de acero inoxidable, con brida loca en un extremo y placa de estanqueidad, DN 500, longitud: 500 mm. Materiales:Carrete y placa de estanqueidad: AISI 316 L, brida: aluminio, totalmente instalado y probado en obra. Resto de características según ET.</p>	<p>Mano de obra..... 18,62</p> <p>Resto de obra y materiales..... 418,79</p> <p>TOTAL PARTIDA..... 437,41</p>
0699	ECPSM700	UD	<p>PASAMUROS INOX AISI-316-L DN-700 mm</p> <p>Carrete pasamuros de acero inoxidable, con brida loca en un extremo y placa de estanqueidad, DN 700, longitud: 500 mm. Materiales:Carrete y placa de estanqueidad: AISI 316 L, brida: aluminio, totalmente instalado y probado en obra. Resto de características según ET.</p>	<p>Mano de obra..... 18,62</p> <p>Resto de obra y materiales..... 578,19</p> <p>TOTAL PARTIDA..... 596,81</p>

CUADRO DE PRECIOS 2

ABASTECIMIENTO A VARIOS MUNICIPIOS DE LA RIOJA. SISTEMA CIDACOS

Nº	CÓDIGO	UD	DESCRIPCIÓN	IMPORTE
0700	ECPSM900	UD	PASAMUROS INOX AISI-316-L DN-900 mm Carrete pasamuros de acero inoxidable, con brida loca en un extremo y placa de estanqueidad, DN 900, longitud: 500 mm. Materiales: Carrete y placa de estanqueidad: AISI 316 L, brida: aluminio, totalmente instalado y probado en obra. Resto de características según ET.	
			Mano de obra.....	18,62
			Resto de obra y materiales.....	836,26
			TOTAL PARTIDA.....	854,88
0701	ECTTH01	M	CANALETAS RECOGIDA AGUA TIPO THOMSON 30 CM AISI-316 Canal vertedero tipo Thomson para recogida de agua decantada de 30 cm. de ancho, fabricado en chapa de acero inoxidable AISI 316-L, e= 2 mm, incluso chapa de acometida a entrada a filtros y estructura soporte. Totalmente montada y probada. Resto de características según ET.	
			Mano de obra.....	11,48
			Maquinaria.....	3,31
			Resto de obra y materiales.....	159,68
			TOTAL PARTIDA.....	174,47
0702	ECUFAN01	UD	CAMPANA CUBIERTA ESPESADOR PRFV DE 7.500 MM DE DIÁMETRO Cubierta de PRFV para espesor de fangos de 7,5 m de diámetro de cuba, formada por dos zonas. Pasarela de 1,2 m de anchura. Incluido transporte y montaje. Resto de características, según ET.	
			Mano de obra.....	544,12
			Maquinaria.....	165,25
			Resto de obra y materiales.....	5.314,05
			TOTAL PARTIDA.....	6.023,42
0703	ECVNE01	UD	CUADRO DE MANDO 6 ELECTROVALVULAS Armario para alojamiento de electroválvulas y elementos de mando neumático, 1 válvula de bola para aislamiento de 1/2". Grupo de tratamiento de aire, comprendiendo filtro, regulador y lubricador. 6 válvulas de bola 1/4" para aislamiento de electroválvulas. 6 electroválvulas 5V/3P 1/4". 3 silenciosos de escape. Conexionado interior de tuberías. Elementos eléctricos de mando. Montado y probado.	
			Mano de obra.....	37,46
			Maquinaria.....	9,92
			Resto de obra y materiales.....	2.037,59
			TOTAL PARTIDA.....	2.084,97
0704	ECVNE02	UD	CUADRO DE MANDO 4 ELECTROVALVULAS Armario para alojamiento de electroválvulas y elementos de mando neumático, 1 válvula de bola para aislamiento de 1/2". Grupo de tratamiento de aire, comprendiendo filtro, regulador y lubricador. 2 válvulas de bola 1/4" para aislamiento de electroválvulas. 2 electroválvulas 5V/3P 1/4". 2 silenciosos de escape. Conexionado interior de tuberías. Elementos eléctricos de mando. Montado y probado.	
			Mano de obra.....	37,46
			Maquinaria.....	9,92
			Resto de obra y materiales.....	1.341,53
			TOTAL PARTIDA.....	1.388,91
0705	ECVNEA01	UD	ACOMETIDA AIRE Acometida de aire desde compresor a todos los cuadro de accionamiento de EV. Instalada.	
			Mano de obra.....	37,46
			Resto de obra y materiales.....	378,22
			TOTAL PARTIDA.....	415,68

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ABASTECIMIENTO A VARIOS MUNICIPIOS DE LA RIOJA. SISTEMA CIDACOS

Nº	CÓDIGO	UD	DESCRIPCIÓN	IMPORTE
0706	ECVNRE01	UD	RED DE AIRE Red de aire a presión desde cuadro de EV a actuadores neumáticos de válvulas, ejecutada en poliuretano. Instalada.	
			Mano de obra.....	19,73
			Resto de obra y materiales.....	342,96
			TOTAL PARTIDA.....	362,69
0707	EDCENT01	UD	DECANTADOR CENTRÍFUGO 16,0 m3/h Extractor centrífugo para deshidratación de fangos. Marca: ALFA LAVAL o equivalente. Modelo: ALDEC 45 AT. Capacidad nominal hidráulica: 16,0 m³/h. Potencia motor accionamiento principal: 22 kW. Caja reductora con variador de frecuencia para ambos motores. Potencia motor trasero: 5,5 kW. Incluye cuadro eléctrico con controlador programable, 2 variadores de frecuencia, incluyendo BUS de DC, cuadro eléctrico para integrar VF y aparellaje eléctrico. Material: acero inoxidable AISI-316. Incluso transporte, montaje, conexiones eléctricas y de control, puesta en marcha y pruebas de funcionamiento. Resto de características según E.T.	
			Mano de obra.....	159,23
			Maquinaria.....	16,53
			Resto de obra y materiales.....	52.310,47
			TOTAL PARTIDA.....	52.486,23
0708	EDCENT02	UD	TOLVAS EN ACERO INOXIDABLE AISI 316L SALIDA FANGOS Y LÍQUIDOS Tolvas de acero inoxidable AISI 316L de 2 mm de espesor, con p.p. de piezas especiales, totalmente colocadas, una para la salida de fangos deshidratados a tornillo, y otra para salida de agua de deshidratación hasta arqueta de vaciados. Montada.	
			Mano de obra.....	54,41
			Maquinaria.....	16,53
			Resto de obra y materiales.....	172,00
			TOTAL PARTIDA.....	242,94
0709	EDIFOZ01	UD	DIFUSORES OZONO CERÁMICOS 120 MM SOBRE PARRILLAS AISI-3616L Difusores de ozono tipo 120 KT o equivalente, de 120 mm de diámetro, con disco cerámico y parte proporcional de parrilla de acero inoxidable 316 L, caudal de 0,20 a 2,0 Nm3/h, totalmente montados, incluso ayuda de albañilería. Incluido transporte, montaje, conexiones de control, y pruebas de funcionamiento. Resto de características, según ET	
			Mano de obra.....	157,23
			Maquinaria.....	33,05
			Resto de obra y materiales.....	2.275,84
			TOTAL PARTIDA.....	2.466,12

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ABASTECIMIENTO A VARIOS MUNICIPIOS DE LA RIOJA. SISTEMA CIDACOS

Nº	CÓDIGO	UD	DESCRIPCIÓN	IMPORTE
0710	EDLAVO01	UD	DUCHA LAVAOJOS Estructura construida en caño de acero galvanizado revestido con pintura epoxi color amarillo. Campana de ducha de diámetro 220 mm construida en acero inoxidable tipo diluvio, con baffle aliviador que produce una campana de agua de diámetro 500 mm. Lavaojos construido con bacha de acero inoxidable de diámetro 250 mm con tapa plástica rebatible automáticamente y rociadores de bronce cromados que producen espuma con efecto de lavaojos y lavacara posee paso calibrado regulador de presión y caudal y capuchones automáticos antipolvo. Accionamiento de la ducha por palanca manual de acero inoxidable con indicador e instructivo de alto impacto y válvula esférica de bronce. Accionamiento del lavaojos por pedal de plástico y palanca manual de acero inoxidable con instructivo e indicador y válvula esférica de bronce. Acometida de agua potable, sumidero de vaciado y conexión a la red de escurridos. Totalmente instalada.	
			Mano de obra.....	54,41
			Resto de obra y materiales.....	650,53
			TOTAL PARTIDA.....	704,94
0711	EDOZO01	UD	DESTRUCTOR DE OZONO PRE_OZONIZACIÓN 30 Nm3/h Equipo destructor de ozono en pre_ozonización serie COD de WEDE-CO o equivalente, con un flujo de gas máximo de 30 Nm3/h, montada sobre bancada. Demistor de ozono y embalaje. Conexiones. Incluido transporte, montaje, conexiones eléctricas y de control, y pruebas de funcionamiento. Resto de características, según ET.	
			Mano de obra.....	524,10
			Maquinaria.....	33,05
			Resto de obra y materiales.....	14.530,19
			TOTAL PARTIDA.....	15.087,34
0712	EDPA.1aa	Ud	Puerta 800x1800 mm. tablero fenólico con p.p. de herrajes Suministro y colocación de puerta abatible de una hoja para acristalar, de aluminio anodizado de 15 micras en su color natural, con unas dimensiones de 72.5x210 cm., compuesta por: cerco, hoja con zócalo inferior ciego de 40 cm., luna transparente incolora de 4 mm. de espesor, herrajes de colgar y de seguridad, precerco de aluminio, sellado de juntas y limpieza. Según norma NTE-FCL.	
			Mano de obra.....	19,52
			Resto de obra y materiales.....	128,68
			TOTAL PARTIDA.....	148,20
0713	EDPRFV15	UD	DEPÓSITO DE PRFV DP V=15.000 L Depósito vertical de PRFV de doble pared para almacenamiento de reactivos de 15.000 l de capacidad. Diámetro interior de 2.325 mm, altura 4.295 mm. Forma cilíndrica-vertical con fondo plano, válvula de drenaje, sensor e interruptor de nivel de máximo y mínimo, boca de hombre, detector de fugas, incluso preparación de superficie para colocación del mismo. Instalado y probado. Resto de características según E.T.	
			Mano de obra.....	54,41
			Maquinaria.....	16,53
			Resto de obra y materiales.....	7.016,31
			TOTAL PARTIDA.....	7.087,25

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ABASTECIMIENTO A VARIOS MUNICIPIOS DE LA RIOJA. SISTEMA CIDACOS

Nº	CÓDIGO	UD	DESCRIPCIÓN	IMPORTE
0714	EDPRFV2.5	UD	DEPÓSITO DE PRFV DP V=2.500 L Depósito vertical de PRFV de doble pared para almacenamiento de reactivos de 2.500 l de capacidad. Diámetro interior de 1.380 mm, altura 2.280 mm. Forma cilíndrica-vertical con fondo plano, válvula de drenaje, sensor e interruptor de nivel de máximo y mínimo, boca de hombre, detector de fugas, incluso preparación de superficie para colocación del mismo. Instalado y probado. Resto de características según E.T.	
			Mano de obra.....	54,41
			Maquinaria.....	16,53
			Resto de obra y materiales.....	3.134,54
			TOTAL PARTIDA.....	3.205,48
0715	EDPRFV25	UD	DEPÓSITO DE PRFV DP V=25.000 L Depósito vertical de PRFV de doble pared para almacenamiento de reactivos de 25.000 l de capacidad. Diámetro interior de 2.500 mm, altura 5.885 mm. Forma cilíndrica-vertical con fondo plano, válvula de drenaje, sensor e interruptor de nivel de máximo y mínimo, boca de hombre, detector de fugas, incluso preparación de superficie para colocación del mismo. Instalado y probado. Resto de características según E.T.	
			Mano de obra.....	54,41
			Maquinaria.....	16,53
			Resto de obra y materiales.....	8.916,93
			TOTAL PARTIDA.....	8.987,87
0716	EE0201	ud	Celda de línea entrada/salida Ud.- Celda de línea, marca Ormazábal o similar, modelo CGM24-CML, de corte y aislamiento en SF6, Vn=24kV., In=400A., con interruptor-seccionador, seccionador de puesta a tierra y aisladores testigo de presencia de tensión. Totalmente instalada.	
			Mano de obra.....	235,86
			Resto de obra y materiales.....	1.156,44
			TOTAL PARTIDA.....	1.392,30
0717	EE0202	ud	Celda de protección transformador Ud.-Celda de protección de transformador, marca Ormazábal, modelo CGM24-CML, de corte y aislamiento en SF6, Vn=24kV, In=400A., con interruptor seccionador, cartuchos fusibles, bobina de disparo, contactos auxiliares, relé de protección de sobreintensidad de fase y homopolar tipo RPTA, doble seccionador de puesta a tierra y aisladores testigo de presencia de tensión.	
			Mano de obra.....	271,32
			Resto de obra y materiales.....	1.661,81
			TOTAL PARTIDA.....	1.933,13
0718	EE0203	ud	Interconexión M.T. Borna/Cono Ud.- Interconexión M.T. Borna/Cono (longitud máxima aproximada por fase de 9 metros).	
			Mano de obra.....	97,60
			Resto de obra y materiales.....	649,73
			TOTAL PARTIDA.....	747,33
0719	EE070120	ud	Celda de Medida CGM-CMM Ud.- Celda de Medida con envolvente metálica, formada por un módulo de Vn=24KV., y co medidas 800 mm. de ancho por 1025 mm. de fondo por 1800 mm de alto. Se incluyen en la celda, para la medición de la energía eléctrica consumida dos transformadores de tensión y dos transformadores de intensidad, incluyendo su montaje y conexión.	
			Mano de obra.....	90,44
			Resto de obra y materiales.....	2.933,64
			TOTAL PARTIDA.....	3.024,08

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Nº	CÓDIGO	UD	DESCRIPCIÓN	IMPORTE
0720	EE070123	ud	<p>Interruptor automático</p> <p>Ud.- Interruptor automático de Baja Tensión incluido en envolvente metálica.</p>	<p>Mano de obra 58,56</p> <p>Resto de obra y materiales 1.917,29</p> <p>TOTAL PARTIDA..... 1.975,85</p>
0721	EE070125	ud	<p>Equipo de Medida</p> <p>Ud.- Conjunto de medida de energía en A.T., que incluye el tubo de acero galvanizado y sus fijaciones, el conductor para los circuitos de intensidad y tensión, y el módulo de medida de tarifa triple, con un maxímetro y un contador de reactiva, así como un reloj para la discriminación de las tarifas. Totalmente instalado y funcionando.</p>	<p>Mano de obra 39,04</p> <p>Resto de obra y materiales 949,70</p> <p>TOTAL PARTIDA..... 988,74</p>
0722	EE080114	ud	<p>Transformador 630 KVA - 13,2/24 KV</p> <p>Ud.- Transformador trifásico en baño de aceite de 630 kVA y relación 13,2/24kV/380-220V., con indicación del nivel de aceite, incluido el puente de conexión, bornas enchufables y la rejilla de protección así como el transporte y la colocación del mismo. Normativa Unesa 5201-D</p>	<p>Mano de obra 106,38</p> <p>Resto de obra y materiales 8.385,24</p> <p>TOTAL PARTIDA..... 8.491,62</p>
0723	EE120201	ud	<p>Edificio Transformación PFU-4/20</p> <p>Ud.- Envolvente prefabricada de hormigón tipo PFU-4/20 de Ormazábal o similar, que incluye el edificio y todos sus elementos interiores, incluyendo el transporte, montaje y accesorios. Totalmente instalado.</p>	<p>Mano de obra 145,42</p> <p>Resto de obra y materiales 4.205,88</p> <p>TOTAL PARTIDA..... 4.351,30</p>
0724	EE120209	ud	<p>Puentes de B.T. 380 V-Trafo</p> <p>Ud.- Juego de puentes de cables de Baja Tensión, de sección y material 1 x 240 Al. (Etileno-Propileno) sin armadura, y todos los accesorios para la conexión, formados por un grupo de cables en la cantidad de 2 x fase + 1 x neutro de 3 metros de longitud.</p>	<p>Mano de obra 27,49</p> <p>Resto de obra y materiales 195,97</p> <p>TOTAL PARTIDA..... 223,46</p>
0725	EE120211	ud	<p>Tierras exteriores</p> <p>Ud.- Instalación de tierras exteriores formada por tierra de protección de transformación, instalación de puesta a tierra de protección, debidamente montada y conexionada, empleando conductor de cobre desnudo, unido a picas de acero cobreado de 14mm. de diámetro, con las siguientes características, geometría anillo rectangular. Profundidad 0,5 metros. Número de picas seis. Longitud de picas 8 metros.</p> <p>Diámetro rectángulo 4.0 x 3.0 metros. Tierra de servicio o neutro del transformador: Instalación exterior realizada con cobre aislado con el mismo tipo de materiales que las de las tierras de protección.</p>	<p>Mano de obra 79,70</p> <p>Resto de obra y materiales 1.152,91</p> <p>TOTAL PARTIDA..... 1.232,61</p>

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Nº	CÓDIGO	UD	DESCRIPCIÓN	IMPORTE
0726	EE120212	ud	<p>Tierras interiores</p> <p>Ud.- Instalación de tierras interiores formadas por instalación interior de tierra de protección en el edificio de transformación, con el conductor de cobre desnudo grapado en la pared, y conectado a las celdas y demás apartamiento de este edificio, así como a una caja general de tierra de protección según las normas de la Compañía Suministradora. Instalación interior de tierra de servicio en el edificio de transformación, con el conductor de cobre aislado, grapado en la pared, y conectado al neutro de Baja Tensión, así como a una caja general de tierra de servicio, según las normas de la Compañía Suministradora.</p>	<p>Mano de obra 15,94</p> <p>Resto de obra y materiales 810,90</p> <p>TOTAL PARTIDA..... 826,84</p>
0727	EE120213	ud	<p>Defensa del Transformador</p> <p>Ud.- Defensa del transformador formada por una rejilla metálica, con una cerradura enclavada con la celda de protección correspondiente.</p>	<p>Mano de obra 7,97</p> <p>Resto de obra y materiales 213,85</p> <p>TOTAL PARTIDA..... 221,82</p>
0728	EE120214	ud	<p>Iluminación C.T.</p> <p>Ud.- Equipo de iluminación del Centro de Transformación formado por un equipo de alumbrado que permita la suficiente visibilidad para ejecutar las maniobras y revisiones necesarias en las celdas de A.T.</p>	<p>Mano de obra 7,97</p> <p>Resto de obra y materiales 104,35</p> <p>TOTAL PARTIDA..... 112,32</p>
0729	EE120215	ud	<p>Equipo de maniobra</p> <p>Ud.- Realización de las maniobras con aislamiento suficiente para proteger al personal durante la ejecución de las maniobras y operaciones de mantenimiento, compuesto por Banquillo aislante, par de guantes de amianto y extintor de eficacia 89B.</p>	<p>Resto de obra y materiales 147,82</p> <p>TOTAL PARTIDA..... 147,82</p>
0730	EEPPOL01	UD	<p>EQUIPO PREPARACIÓN POLIELECTROLITO 550 L/H</p> <p>Equipo de preparación de polielectrolito. Marca: POLITECH o equivalente. Modelo: POLIBASIC AP 5 PPH. Tipo: unidad compacta. Capacidad de preparación (l/h): 550. Dosificador de poli en polvo: tornillo+motor variador reductor de 0,18 kW. Tolva de alimentación de capacidad 60 litros. Depósito con dos compartimentos y tapas, de 650 l. de capacidad útil. Dos electroagitadores de eje vertical y amarre por brida. Potencia electroagitador (kW): 0,37+0,37. Sonda de nivel ultrasónico. Armario de control. Materiales: Cuba en PPH, electroagitadores y tobera: AISI 316. Dosificador volumétrico: PPH. Cuadro eléctrico. Incluso transporte, montaje, conexiones eléctricas y de control, pruebas de funcionamiento. Resto de características según E.T.</p>	<p>Mano de obra 54,41</p> <p>Maquinaria 16,53</p> <p>Resto de obra y materiales 4.540,30</p> <p>TOTAL PARTIDA..... 4.611,24</p>

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Nº	CÓDIGO	UD	DESCRIPCIÓN	IMPORTE
0731	EEPPOL02	UD	EQUIPO PREPARACIÓN POLIELECTROLITO 1200 L/H Equipo de preparación de polielectrolito. Marca: POLITECH o equivalente. Modelo: POLIBASIC AP 12 PPH. Tipo: unidad compacta. Capacidad de preparación (l/h): 1200. Dosificador de poli en polvo: tornillo+motorreductor de 0,18 kW. Tolva de alimentación de capacidad 60 litros. Depósito con tres compartimentos y tapas, de 1.350 l. de capacidad útil. Dos electroagitadores de eje vertical y amarre por brida. Potencia electroagitador (kW): 0,55+0,37. Sonda de nivel ultrasónico. Armario de control. Materiales: Cuba en PPH, electroagitadores y tobera: AISI 316. Dosificador volumétrico: PPH. Cuadro eléctrico. Incluso transporte, montaje, conexiones eléctricas y de control, pruebas de funcionamiento. Resto de características según E.T.	
			Mano de obra.....	54,41
			Maquinaria.....	16,53
			Resto de obra y materiales.....	5.299,33
			TOTAL PARTIDA.....	5.370,27
0732	EEPPOL03	UD	EQUIPO PREPARACIÓN PERMANGANATO 600 L/H Equipo de preparación de permanganato. Marca: POLITECH o equivalente. Modelo: POLIBASIC AP 8 PPH PERMANGANATO. Tipo: unidad compacta. Capacidad de preparación (l/h): 600. Dosificador de permanganato: tornillo+motorreductor de 0,18 kW. Tolva de alimentación de capacidad 60 litros. Depósito con tres compartimentos y tapas, de 1.000 l. de capacidad útil. Dos electroagitadores de eje vertical y amarre por brida. Potencia electroagitador (kW): 0,37. Sonda de nivel ultrasónico. Armario de control. Materiales: Cuba en PPH, electroagitadores y tobera: AISI 316. Dosificador volumétrico: PPH. Cuadro eléctrico. Incluso transporte, montaje, conexiones eléctricas y de control, pruebas de funcionamiento. Resto de características según E.T.	
			Mano de obra.....	54,41
			Maquinaria.....	16,53
			Resto de obra y materiales.....	5.527,04
			TOTAL PARTIDA.....	5.597,98
0733	EFAA01	M2	ARENA SILICEA PARA FILTRO Arena silicea según la especificación de la norma AWWA B100-80 (Revisión de la B100-72), con coeficiente de uniformidad: < 1,6, granulometría: 0,90-1,80 mm, densidad aparente: 1,58 t/m3, sílice contenida: > 98% , exenta de mica y materia orgánica, solubilidad al ácido: inferior al 5% . Obtención de la arena: cantera, lavada y clasificada. Incluso transporte a obra, y colocación y extendido en los filtros por medios mecánicos y manuales.	
			Mano de obra.....	7,69
			Maquinaria.....	1,65
			Resto de obra y materiales.....	57,59
			TOTAL PARTIDA.....	66,93

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Nº	CÓDIGO	UD	DESCRIPCIÓN	IMPORTE
0734	EFFFA01	M2	FALSOS FONDOS FILTRACIÓN Falsos fondos de filtración tipo LP Block de Apliclor o equivalente, incluyendo placas soporte tipo S o equivalente, de 450 micras, construidos en polietileno de alta densidad, sellado perimetral, anclajes, dentro del recinto del filtro, montado y probado. Cubiertas en extremos de filas en PE. Juntas tóricas para la interconexión de los bloques. Sellante Sikaflex para la unión "in situ" de los bloques y de las cubiertas en extremos. Cubiertas de papel autoadhesivo para usar como protección durante el proceso de montaje. Herramienta de montaje/ensamblaje de bloques en filas. Placas de orificio para la alimentación de las filas de bloques des del canal central (en AISI 304). Incluye asesoramiento en el dimensionamiento y diseño, y asistencia técnica de montaje y puesta en marcha, así como ingeniería de detalle de la instalación del sistema. Transporte de los materiales a obra, montaje, pruebas, limpieza y puesta en marcha. Resto de características según ET.	
			Mano de obra.....	76,93
			Maquinaria.....	33,05
			Resto de obra y materiales.....	355,93
			TOTAL PARTIDA.....	465,91
0735	EGEOZ01	UD	GENERADOR DE OZONO DE 3,0 KG O2/H Equipo de ozonización con sistema de generación de ozono a partir de oxígeno, unidad de generación de ozono SMOevoplus 560 LOX de WEDECO -XYLEM o equivalente, para un caudal de entrada de 3.400 m3/h, y una producción de 3,0 kg O2/h de capacidad máxima, válvula reductora de presión, en acero inoxidable AISI-316TI en cámara de ozonización. Sensor fugas O3 Atmosférico (Seguridad). Cuadro local de control y mando. Pequeño material, manómetros, grifos, etc. Incluso transporte, montaje, conexiones eléctricas y de control, y pruebas de funcionamiento. Resto de características, según ET.	
			Mano de obra.....	1.068,22
			Maquinaria.....	33,05
			Resto de obra y materiales.....	81.156,19
			TOTAL PARTIDA.....	82.257,46
0736	EGEOZ02	UD	ANALIZADOR OZONO, CONTROL Y COMUNICACIONES Unidad para análisis, formada por 2 analizadores Ozono GAS-DC control HC-400 (1 por generador), 3 controles automático de caudal de O3 a PRE (1 por cámara), 6 controles manuales de caudal de O3 a PRE (2 por cámara), comunicación Profibus// Ethernet para todos, así como el sistema de telecontrol. Incluso transporte, montaje, conexiones eléctricas y de control, y pruebas de funcionamiento. Resto de características, según ET.	
			Mano de obra.....	1.088,24
			Resto de obra y materiales.....	56.853,52
			TOTAL PARTIDA.....	57.941,76
0737	EGEOZ03	UD	REFRIGERADOR CERRADO AGUA-AGUA Equipo de refrigeración cerrado de agua-agua. Presión de entrada 1-3,5 bar. pérdida de carga de 0,15 bar. pH: 6-8. Cloruros menos de 100 mg/l, turbidez 0 NTU. Incluso transporte, montaje, conexiones eléctricas y de control, y pruebas de funcionamiento. Resto de características, según ET.	
			Mano de obra.....	264,05
			Resto de obra y materiales.....	14.657,32
			TOTAL PARTIDA.....	14.921,37

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Nº	CÓDIGO	UD	DESCRIPCIÓN	IMPORTE
0738	EGEOZ04	UD	SISTEMA MAIN PLC Sistema MAIN PLC. Control para la coordinación de todos los elementos adyacentes a los generadores de O3. Incluido transporte, montaje, conexiones eléctricas y de control, y pruebas de funcionamiento. Resto de características, según ET.	
			Mano de obra.....	264,05
			Resto de obra y materiales.....	25.496,69
			TOTAL PARTIDA.....	25.760,74
0739	EGEOZ05	UD	PROGRACIÓN, INGENIERIA DE DETALLE Y PUESTA EN MARCHA Ingeniería de detalle, programación de equipos de ozono, así como la puesta en marcha.	
			Resto de obra y materiales.....	14.998,69
			TOTAL PARTIDA.....	14.998,69
0740	EGEOZ06	UD	EQUIPAMIENTO DE ALARMA Equipamiento de alarma, formado por FH, siema, flash y display. Incluido transporte, montaje, conexiones eléctricas y de control, y pruebas de funcionamiento. Resto de características, según ET.	
			Mano de obra.....	264,05
			Resto de obra y materiales.....	1.064,84
			TOTAL PARTIDA.....	1.328,89
0741	EGEOZ07	UD	COMPRESOR DE GAS. 1,35 L/S. 10 BAR, P=0,55 Kw Compresor de aire para dopado de ozonización con secador de aire, modelo LFX 0,7 de ATLAS COPCO o equivalente, de 1,02 l/s. Potencia de 0,55 Kw. Tanque de 90 l. Incluso purga automática de compresor, parte proporcional de válvulas y manguitos de unión a líneas. Incluido transporte, montaje, conexiones eléctricas y de control, y pruebas de funcionamiento. Resto de características, según ET.	
			Mano de obra.....	264,05
			Resto de obra y materiales.....	3.830,07
			TOTAL PARTIDA.....	4.094,12
0742	EGEOZ08	UD	SENSOR TEMPERATURA AIRE Sensor de temperatura en sala. Incluido transporte, montaje, conexiones eléctricas y de control, y pruebas de funcionamiento. Resto de características, según ET.	
			Mano de obra.....	19,73
			Resto de obra y materiales.....	203,80
			TOTAL PARTIDA.....	223,53

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Nº	CÓDIGO	UD	DESCRIPCIÓN	IMPORTE
0743	EGRPR01	UD	GRUPO DE PRESIÓN DOS BOMBAS 50,0 m3/h 4 bar. Grupo de Presión de CAPRARI o equivalente de dos (1+1) bombas 50,0 m³/h 3 bar. Fluido a bombear: Agua industrial. Caudal unitario: 50 m³/h. Presión: 4 bar. Formado por 2 Uds. Electrobomba centrífuga vertical multicelular 10 C.V. Cuerpo y rodetes AISI-316L, eje motor AISI-420. Depósito acumulador 500 l, válvula de esfera, manguitos flexibles de conexión. Bancada de chapa de acero plegado. Colector de impulsión para las dos bombas. Válvulas de corte, carretes, válvulas de retención. Cuadro eléctrico, transductor de presión, boya de nivel. Manómetro y presostatos. Incluido, transporte, conexiones eléctricas y de control, así como el montaje y pruebas de funcionamiento. Resto de características según ET.	
			Mano de obra.....	72,92
			Maquinaria.....	16,53
			Resto de obra y materiales.....	4.922,64
			TOTAL PARTIDA.....	5.012,09
0744	EGRPR02	UD	RED DE AGUA Red de agua a presión para llenado de depósitos de reactivos, y otros, desde salida de grupo de presión hasta cubas y puntos de consumo, ejecutada en tubería de PE soldado. Instalada.	
			Mano de obra.....	72,92
			Maquinaria.....	16,53
			Resto de obra y materiales.....	450,33
			TOTAL PARTIDA.....	539,78
0745	EGTM01	UD	GRIFO TOMAMUESTRAS PN16/25 Grifo tomamuestras de 3/4" colocado en tubería de acero inoxidable por picaje, incluida la válvula PN16/25, montada y probada.	
			Mano de obra.....	5,47
			Resto de obra y materiales.....	19,35
			TOTAL PARTIDA.....	24,82
0746	EL210	ML	CANALIZACION ELÉCTRICA 1T PE DP 110 Canalización subterránea para red de baja tensión y constituida por zanja de dimensiones 0.40x1.00 (anchura x profundidad), lecho de hormigón, 1 tubo de PE DP d=110mm, cinta señalizadora y relleno con material procedente de la excavación.	
			Mano de obra.....	1,96
			Maquinaria.....	1,24
			Resto de obra y materiales.....	4,32
			TOTAL PARTIDA.....	7,51
0747	EL220	ML	CANALIZACION ELÉCTRICA 2T PE DP 110 Canalización subterránea para red de baja tensión y constituida por zanja de dimensiones 0.40x1.00 (anchura x profundidad), lecho de hormigón, 2 tubos de PE DP d=110mm, cinta señalizadora y relleno con material procedente de la excavación.	
			Mano de obra.....	1,96
			Maquinaria.....	1,24
			Resto de obra y materiales.....	5,94
			TOTAL PARTIDA.....	9,13

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Nº	CÓDIGO	UD	DESCRIPCIÓN	IMPORTE
0748	EL2301	ML	CANALIZACION ELÉCTRICA 4T PE DP 110 Canalización subterránea para red de baja tensión y constituida por zanja de dimensiones 0.40x1.00 (anchura x profundidad), lecho de hormigón, 4 tubos de PE DP d=110mm, cinta señalizadora y relleno con material procedente de la excavación.	
			Mano de obra.....	1,96
			Maquinaria.....	1,24
			Resto de obra y materiales.....	8,80
			TOTAL PARTIDA.....	11,99
0749	EL310	UD	SUBCUADRO TOMAS DE CORRIENTE Subcuadro para tomas de corriente de Schneider o equivalente con una salida trifásica protegida (32A y 16A) y dos salidas monofásicas también protegidas.	
			Mano de obra.....	17,62
			Resto de obra y materiales.....	379,57
			TOTAL PARTIDA.....	397,19
0750	EL362	ML	LINEA 5x2.5mm2 Cu 0.6/1kV RZ1-K (AS) Línea eléctrica con conductor multipolar 5x2.5mm2 RZ1-K (AS) en canalización existente, incluso conexionado en inicio y final de línea.	
			Mano de obra.....	0,70
			Resto de obra y materiales.....	1,69
			TOTAL PARTIDA.....	2,39
0751	EL3621	ML	LINEA 3x2.5mm2 Cu 0.6/1kV RZ1-K (AS) Línea eléctrica con conductores unipolares 3x2.5mm2 RZ1-K (AS) en canalización existente, incluso conexionado en inicio y final de línea.	
			Mano de obra.....	0,70
			Resto de obra y materiales.....	1,04
			TOTAL PARTIDA.....	1,74
0752	EL3623	ML	LINEA 4x2.5mm2 Cu 0.6/1kV RZ1-K (AS) Línea eléctrica con conductor multipolar 4x2.5mm2 RZ1-K (AS) en canalización existente, incluso conexionado en inicio y final de línea.	
			Mano de obra.....	0,70
			Resto de obra y materiales.....	1,35
			TOTAL PARTIDA.....	2,05
0753	EL36231	ML	LINEA 4x2.5mm2 Cu 0.6/1kV RZ1KZ1-K (AS) Línea eléctrica con conductor multipolar 4x2.5mm2 RZ1KZ1-K (AS) en canalización existente, incluso conexionado en inicio y final de línea.	
			Mano de obra.....	0,70
			Resto de obra y materiales.....	1,66
			TOTAL PARTIDA.....	2,36
0754	EL36232	ML	LINEA 5x2.5mm2 Cu 0.6/1kV RZ1KZ1-K (AS) Línea eléctrica con conductores unipolares 4x2.5mm2 RZ1KZ1-K (AS) en canalización existente, incluso conexionado en inicio y final de línea.	
			Mano de obra.....	0,70
			Resto de obra y materiales.....	1,66
			TOTAL PARTIDA.....	2,36

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Nº	CÓDIGO	UD	DESCRIPCIÓN	IMPORTE
0755	EL362321	ML	LINEA 5x2.5mm2 Cu 0.6/1kV RZ1-K (AS+) Línea eléctrica con conductores unipolares 4x2.5mm2 RZ1KZ1-K (AS) en canalización existente, incluso conexionado en inicio y final de línea.	
			Mano de obra.....	0,70
			Resto de obra y materiales.....	3,60
			TOTAL PARTIDA.....	4,30
0756	EL380	ML	LINEA 3x1.5mm2 Cu 0.6/1kV RZ1-K (AS) Línea eléctrica con conductor multipolares 3x1.5mm2 RZ1-K (AS) en canalización existente, incluso conexionado en inicio y final de línea.	
			Mano de obra.....	0,70
			Resto de obra y materiales.....	1,11
			TOTAL PARTIDA.....	1,81
0757	EL3801	ML	LINEA 5x1.5mm2 Cu 0.6/1kV RZ1-K (AS) Línea eléctrica con conductores unipolares 5x1.5mm2 RZ1-K (AS) en canalización existente, incluso conexionado en inicio y final de línea.	
			Mano de obra.....	0,70
			Resto de obra y materiales.....	1,81
			TOTAL PARTIDA.....	2,51
0758	ELA049	ML	CANALIZACIÓN ELÉCTRICA 2T PE DP 110 Canalización eléctrica formada por dos tubos PE DP 110 mm corrugado de doble pared con guía. Incluyendo corte de pavimento, excavación de zanja de 0,40 m de anchura y 1,0 m de profundidad, lecho de hormigón y recubierta 10 cm como mínimo del mismo material sobre la generatriz superior del tubo, relleno con material de la propia de excavación hasta la cota de terreno, cinta señalizadora, compactado y acabado superficial de hormigón con una altura mínima de 20 cm.	
			Mano de obra.....	1,42
			Maquinaria.....	0,48
			Resto de obra y materiales.....	12,79
			TOTAL PARTIDA.....	14,69
0759	ELA0491	ML	CANALIZACIÓN ELÉCTRICA 2T PE DP 160 Canalización subterránea para red de baja tensión y constituida por zanja de dimensiones 0.40x1.00 (anchura x profundidad), lecho de hormigón, 2 tubos de PE DP d=160mm, cinta señalizadora y relleno con material procedente de la excavación.	
			Mano de obra.....	2,67
			Maquinaria.....	1,24
			Resto de obra y materiales.....	8,69
			TOTAL PARTIDA.....	12,59
0760	ELA0492	ML	CANALIZACIÓN ELÉCTRICA 3T PE DP 160 Canalización subterránea para red de baja tensión y constituida por zanja de dimensiones 0.40x1.00 (anchura x profundidad), lecho de hormigón, 3 tubos de PE DP d=160mm, cinta señalizadora y relleno con material procedente de la excavación.	
			Mano de obra.....	2,67
			Maquinaria.....	1,24
			Resto de obra y materiales.....	11,66
			TOTAL PARTIDA.....	15,56

CUADRO DE PRECIOS 2

ABASTECIMIENTO A VARIOS MUNICIPIOS DE LA RIOJA. SISTEMA CIDACOS

Nº	CÓDIGO	UD	DESCRIPCIÓN	IMPORTE
0761	ELA0493	ML	CANALIZACIÓN ELÉCTRICA 4T PE DP 160 Canalización subterránea para red de baja tensión y constituida por zanja de dimensiones 0.40x1.00 (anchura x profundidad), lecho de hormigón, 4 tubos de PE DP d=160mm, cinta señalizadora y relleno con material procedente de la excavación.	
			Mano de obra.....	2,67
			Maquinaria.....	1,24
			Resto de obra y materiales.....	14,63
			TOTAL PARTIDA.....	18,53
0762	ELA0494	ML	CANALIZACIÓN ELÉCTRICA 6T PE DP 160 Canalización subterránea para red de baja tensión y constituida por zanja de dimensiones 0.40x1.00 (anchura x profundidad), lecho de hormigón, 6 tubos de PE DP d=160mm, cinta señalizadora y relleno con material procedente de la excavación.	
			Mano de obra.....	2,67
			Maquinaria.....	1,24
			Resto de obra y materiales.....	20,57
			TOTAL PARTIDA.....	24,47
0763	ELAR698631	ML	LÍNEA 2(4x240/120) mm2 AI 0.6/1 kV RV-AI (AS) Línea eléctrica con conductores unipolares 2(4x240/120)mm2 RV-AI (AS) en canalización existente, incluso conexionado en inicio y final de línea.	
			Mano de obra.....	0,70
			Resto de obra y materiales.....	47,25
			TOTAL PARTIDA.....	47,95
0764	ELAR698632	ML	LÍNEA 4x240/120 mm2 AI 0.6/1 kV RV-AI (AS) Línea eléctrica con conductores unipolares de 4x240/120 mm2 RV-AI (AS) en canalización existente, incluso conexionado en inicio y final de línea.	
			Mano de obra.....	0,70
			Resto de obra y materiales.....	23,66
			TOTAL PARTIDA.....	24,36
0765	ELAR698633	ML	LÍNEA 4x70/35 mm2 AI 0.6/1 kV RV-AI (AS) Línea eléctrica con conductores unipolares de 4x70/35 mm2 RV-AI (AS) en canalización existente, incluso conexionado en inicio y final de línea.	
			Mano de obra.....	0,70
			Resto de obra y materiales.....	23,45
			TOTAL PARTIDA.....	24,15
0766	ELAR698635	ML	LÍNEA 4x150/95 mm2 AI 0.6/1 kV RV-AI (AS) Línea eléctrica con conductores unipolares de 4x120/95 mm2 RV-AI (AS) en canalización existente, incluso conexionado en inicio y final de línea.	
			Mano de obra.....	0,70
			Resto de obra y materiales.....	17,80
			TOTAL PARTIDA.....	18,50
0767	ELAR69865	ML	LÍNEA 3x35/16 mm2 Cu 0.6/1 kV RZ1-K(AS) Línea eléctrica con conductores unipolares de 4x35/16mm2 RZ1KZ1-K(AS) en canalización existente, incluso conexionado en inicio y final de línea.	
			Mano de obra.....	0,70
			Resto de obra y materiales.....	19,93
			TOTAL PARTIDA.....	20,63

CUADRO DE PRECIOS 2

ABASTECIMIENTO A VARIOS MUNICIPIOS DE LA RIOJA. SISTEMA CIDACOS

Nº	CÓDIGO	UD	DESCRIPCIÓN	IMPORTE
0768	ELAR698651	ML	LÍNEA 4x35/16 mm2 Cu 0.6/1 kV RZ1-K(AS) Línea eléctrica con conductores unipolares de 4x35/16mm2 RZ1KZ1-K(AS) en canalización existente, incluso conexionado en inicio y final de línea.	
			Mano de obra.....	0,70
			Resto de obra y materiales.....	25,54
			TOTAL PARTIDA.....	26,24
0769	ELAR69866	ML	LÍNEA 4x50/25 mm2 Cu 0.6/1 kV RZ1-K(AS) Línea eléctrica con conductores unipolares de 4x50/25mm2 RZ1-K(AS) en canalización existente, incluso conexionado en inicio y final de línea.	
			Mano de obra.....	0,70
			Resto de obra y materiales.....	18,03
			TOTAL PARTIDA.....	18,73
0770	ELAR69868	* ML	LÍNEA 3x50/25 mm2 Cu 0.6/1 kV RZ1KZ1-K(AS) Línea multipolar de 3x50/25mm2 RZ1KZ1-K(AS) en canalización existente, incluso conexionado en inicio y final de línea.	
			Mano de obra.....	0,71
			Resto de obra y materiales.....	23,52
			TOTAL PARTIDA.....	24,23
0771	ELAR852	mI	CONDUCTOR 1x25 PARA PAT Conductor de cobre desnudo de 1x25mm2 para puesta a tierra con p/p de conexión entre conductores.	
			Mano de obra.....	0,36
			Resto de obra y materiales.....	1,45
			TOTAL PARTIDA.....	1,81
0772	ELE0118	UD	ARQUETA ELÉCTRICA FÁBRICA 100x100 CM Arqueta de paso de líneas construida en fábrica de ladrillo de 12 cm. de espesor y enfoscado en paredes, dimensiones interiores 100 x 100 y 100 cm. de profundidad, incluso marco y tapa de fundición.	
			Mano de obra.....	70,92
			Resto de obra y materiales.....	112,95
			TOTAL PARTIDA.....	183,87
0773	ELE013312	ML	LÍNEA 5x4mm2 Cu 0.6/1kV RZ1-K (AS) Línea de alimentación con conductores unipolares 5x4 mm2 Cu 0.6/1kV RZ1-K (AS) en canalización existente, incluso conexionado en inicio y final de línea.	
			Mano de obra.....	0,71
			Resto de obra y materiales.....	2,59
			TOTAL PARTIDA.....	3,30
0774	ELE0133211	ML	LÍNEA 5x10mm2 Cu 0.6/1kV RZ1-K (AS) Línea de alimentación con conductores unipolares 5x10 mm2 Cu 0.6/1kV RZ1-K (AS) en canalización existente, incluso conexionado en inicio y final de línea.	
			Mano de obra.....	0,70
			Resto de obra y materiales.....	4,32
			TOTAL PARTIDA.....	5,02

CUADRO DE PRECIOS 2

ABASTECIMIENTO A VARIOS MUNICIPIOS DE LA RIOJA. SISTEMA CIDACOS

Nº	CÓDIGO	UD	DESCRIPCIÓN	IMPORTE
0775	ELE0133212	ML	LINEA 5x10mm2 Cu 0.6/1kV RZ1KZ1-K (AS) Línea de alimentación con conductores unipolares 5x10 mm2 Cu 0.6/1kV RZ1KZ1-K (AS) en canalización existente, incluso conexas en inicio y final de línea.	
			Mano de obra.....	0,70
			Resto de obra y materiales.....	4,91
			TOTAL PARTIDA.....	5,61
0776	ELE0133215	ML	LINEA 5x16mm2 Cu 0.6/1kV RZ1-K (AS) Línea de alimentación con conductores unipolares 5x16 mm2 Cu 0.6/1kV RZ1-K (AS) en canalización existente, incluso conexas en inicio y final de línea.	
			Mano de obra.....	0,70
			Resto de obra y materiales.....	4,87
			TOTAL PARTIDA.....	5,57
0777	ELE01332151	ML	LINEA 4x16mm2 Cu 0.6/1kV RZ1KZ1-K (AS) Línea de alimentación con conductores unipolares 5x16 mm2 Cu 0.6/1kV RZ1KZ1-K (AS) en canalización existente, incluso conexas en inicio y final de línea.	
			Mano de obra.....	0,70
			Resto de obra y materiales.....	4,55
			TOTAL PARTIDA.....	5,25
0778	ELE013322	ML	LINEA 5x6mm2 Cu 0.6/1kV RZ1KZ1-K (AS) Línea eléctrica con conductores unipolares 5x6 mm2 Cu 0.6/1kV RZ1KZ1-K (AS) en canalización existente, incluso conexas en inicio y final de línea.	
			Mano de obra.....	0,70
			Resto de obra y materiales.....	4,00
			TOTAL PARTIDA.....	4,70
0779	ELE01333	ML	LINEA 4x6mm2 Cu 0.6/1kV RZ1-K (AS) Línea de alimentación con conductores unipolares 4x6 mm2 Cu 0.6/1kV RZ1-K (AS) en canalización existente, incluso conexas en inicio y final de línea.	
			Mano de obra.....	0,71
			Resto de obra y materiales.....	2,69
			TOTAL PARTIDA.....	3,40
0780	ELE013525	ML	LINEA 3x4mm2 Cu 0.6/1kV RZ1-K (AS) Línea de alimentación con conductores unipolares 3x4 mm2 Cu 0.6/1kV RZ1-K (AS) en canalización existente, incluso conexas en inicio y final de línea.	
			Mano de obra.....	0,70
			Resto de obra y materiales.....	1,58
			TOTAL PARTIDA.....	2,28
0781	ELE01356	ML	LINEA 3x4mm2 Cu 0.6/1kV RZ1-K (AS) Línea de alimentación con conductores unipolares 3x4 mm2 Cu 0.6/1kV RZ1-K (AS) en canalización existente, incluso conexas en inicio y final de línea.	
			Mano de obra.....	0,71
			Resto de obra y materiales.....	0,34
			TOTAL PARTIDA.....	1,05

CUADRO DE PRECIOS 2

ABASTECIMIENTO A VARIOS MUNICIPIOS DE LA RIOJA. SISTEMA CIDACOS

Nº	CÓDIGO	UD	DESCRIPCIÓN	IMPORTE
0782	ELE021	ML	LINEA GENERAL DE ALIMENTACIÓN DE 4x6mm2 Cu 0,6/1 kV (AS) Línea general de alimentación con cuatro conductores unipolares de 1x6mm2 Cu 0.6/1kV RZ1-K(AS) instalada en canalización subterránea bajo tubo d=160mm.	
			Mano de obra.....	7,04
			Resto de obra y materiales.....	15,89
			TOTAL PARTIDA.....	22,93
0783	ELE0214	ML	LINEA DE ALIMENTACIÓN DE 4(3x240/120mm2)AI 0,6/1 kV RZ1-AL(AS) Línea general de alimentación con 12 conductores unipolares de 1x240mm2 AI 0.6/1kV RZ1-AL y 4 conductores unipolares de 1x120mm2 AL 0.6/1kV RZ1-AL (AS) instalada en canalización subterránea bajo calzada bajo tubo compuesta por 6 tubos de PEAD de 160mm. Incluido reposición de pavimento existente.	
			Mano de obra.....	8,34
			Maquinaria.....	1,29
			Resto de obra y materiales.....	270,82
			TOTAL PARTIDA.....	280,45
0784	ELE02141	ML	LINEA 3(3x240/120mm2)AI 0,6/1 kV RZ1-AL(AS) Línea general de alimentación con 9 conductores unipolares de 1x240mm2 AI 0.6/1kV RZ1-AL y 3 conductores unipolares de 1x120mm2 AL 0.6/1kV RZ1-AL (AS) instalada en canalización subterránea bajo calzada bajo tubo compuesta por 6 tubos de PEAD de 160mm. Incluido reposición de pavimento existente.	
			Mano de obra.....	8,34
			Maquinaria.....	1,29
			Resto de obra y materiales.....	214,38
			TOTAL PARTIDA.....	224,01
0785	ELE02142	ML	LINEA 2(4x120/70mm2)AI 0,6/1 kV RZ1-AL(AS) Línea general de alimentación con 8 conductores unipolares de 1x120mm2 AI 0.6/1kV RZ1-AL y 2 conductores unipolares de 1x70mm2 AL 0.6/1kV RZ1-AL (AS) instalada en canalización subterránea bajo calzada bajo tubo compuesta por 6 tubos de PEAD de 160mm. Incluido reposición de pavimento existente.	
			Mano de obra.....	8,34
			Maquinaria.....	1,29
			Resto de obra y materiales.....	129,47
			TOTAL PARTIDA.....	139,10
0786	ELE022	* ML	LINEA GENERAL DE ALIMENTACIÓN DE 4x150mm2 Cu 0,6/1 kV (AS) Línea general de alimentación con cuatro conductores unipolares de 1x150mm2 Cu 0.6/1kV RZ1-K(AS) instalada en canalización subterránea bajo tubo d=180mm.	
			Mano de obra.....	7,04
			Resto de obra y materiales.....	79,39
			TOTAL PARTIDA.....	86,43

CUADRO DE PRECIOS 2

ABASTECIMIENTO A VARIOS MUNICIPIOS DE LA RIOJA. SISTEMA CIDACOS

Nº	CÓDIGO	UD	DESCRIPCIÓN	IMPORTE
0787	ELE030	UD	<p>CUADRO GENERAL BAJA TENSIÓN</p> <p>Cuadro general con apartamentación y envolvente de Schneider, formado por envolvente metálico con puertas montado sobre zócalo y conteniendo interruptor general automático NS 40A regulable, limitador de sobretensiones, analizador de redes, variadores de frecuencia 11 kW, protecciones magnetotérmicas y diferenciales según esquema unifilar, incluso cableado interior, perfiles omega y regletas de conexión.</p> <p>Armario:</p> <ul style="list-style-type: none"> - Preparado para instalar un interruptor general automático de hasta 250A. - Ampliable por uno de los costados. - Con reserva de espacio de al menos el 50% de la apartamentación instalada. 	<p>Mano de obra 352,40</p> <p>Resto de obra y materiales 8.840,32</p> <p>TOTAL PARTIDA..... 9.192,72</p>
0788	ELE0301	UD	<p>CUADRO GENERAL BAJA TENSIÓN</p> <p>Cuadro general con apartamentación y envolvente de Schneider, formado por envolvente metálico con puertas montado sobre zócalo y conteniendo interruptor general automático NS 40A regulable, limitador de sobretensiones, analizador de redes, variadores de frecuencia 11 kW, protecciones magnetotérmicas y diferenciales según esquema unifilar, incluso cableado interior, perfiles omega y regletas de conexión.</p> <p>Armario:</p> <ul style="list-style-type: none"> - Preparado para instalar un interruptor general automático de hasta 250A. - Ampliable por uno de los costados. - Con reserva de espacio de al menos el 50% de la apartamentación instalada. 	<p>Mano de obra 352,40</p> <p>Resto de obra y materiales 7.153,34</p> <p>TOTAL PARTIDA..... 7.505,74</p>
0789	ELE031	* UD	<p>CUADRO GENERAL BAJA TENSIÓN</p> <p>Cuadro general con apartamentación y envolvente de Schneider, formado por envolvente metálico con puertas montado sobre zócalo y conteniendo interruptor general automático NS 250 A regulable, limitador de sobretensiones, analizador de redes, 3 variadores de frecuencia 55 kW, 2 variadores de frecuencia de 5.5 kW, protecciones magnetotérmicas y diferenciales según esquema unifilar, incluso cableado interior, perfiles omega y regletas de conexión.</p> <p>Armario: Preparado para instalar un interruptor general automático de hasta 250A. Ampliable por uno de los costados. Con reserva de espacio de al menos el 50% de la apartamentación instalada.</p> <p>Montado y probado.</p>	<p>Mano de obra 352,40</p> <p>Resto de obra y materiales 32.195,24</p> <p>TOTAL PARTIDA..... 32.547,64</p>
0790	ELE0512	ML	<p>CANALIZACION BANDEJA PERFORADA CON TAPA (100x60 mm)</p> <p>Bandeja de U23X (PVC-M1 RoHS) serie 66 de Unex o equivalente de color gris, perforada, de 100x60 mm, con separador fuerza-control, con tapa y parte proporcional de accesorios, elementos de acabado y soportes.</p>	<p>Mano de obra 7,04</p> <p>Resto de obra y materiales 12,21</p> <p>TOTAL PARTIDA..... 19,25</p>

CUADRO DE PRECIOS 2

ABASTECIMIENTO A VARIOS MUNICIPIOS DE LA RIOJA. SISTEMA CIDACOS

Nº	CÓDIGO	UD	DESCRIPCIÓN	IMPORTE
0791	ELEC11	UD	<p>CONTACTOR III 16 A</p> <p style="text-align: right;">Sin descomposición</p>	<p>TOTAL PARTIDA..... 78,36</p>
0792	ELEGE250	UD	<p>Grupo electrógeno 250 kVA</p> <p>U.d. Grupo electrógeno fijo sobre bancada de funcionamiento automático, trifásico de 230/400 V de tensión, de 250 kVA de potencia, compuesto por alternador sin escobillas de 50 Hz de frecuencia; motor diesel de 1500 r.p.m. refrigerado por agua, con silenciador y depósito de combustible; cuadro eléctrico de control; y cuadro de conmutación con contactores de accionamiento manual calibrados a 500 A.</p>	<p>Mano de obra 352,40</p> <p>Resto de obra y materiales 18.795,92</p> <p>TOTAL PARTIDA..... 19.148,32</p>
0793	ELM001	UD	<p>APOYO TIPO CELOSÍA C12-2000, INCLUYENDO HORMIGONADO E IZADO</p> <p>Apoyo de celosía 12C-2000, incluyendo hormigonado e izado, y realización de tierras</p>	<p>Mano de obra 291,76</p> <p>Resto de obra y materiales 1.509,91</p> <p>TOTAL PARTIDA..... 1.801,67</p>
0794	ELM0011	UD	<p>APOYO TIPO CELOSÍA C16-2000, INCLUYENDO HORMIGONADO E IZADO</p> <p>Apoyo de celosía 16C-2000, incluyendo hormigonado e izado, y realización de tierras</p>	<p>Mano de obra 291,76</p> <p>Resto de obra y materiales 1.110,48</p> <p>TOTAL PARTIDA..... 1.402,24</p>
0795	ELM003	UD	<p>APOYO TIPO CELOSÍA C10-2000, INCLUYENDO HORMIGONADO E IZADO</p> <p>Apoyo de celosía 16C-1000, incluyendo hormigonado e izado, y realización de tierras</p>	<p>Mano de obra 291,76</p> <p>Resto de obra y materiales 689,38</p> <p>TOTAL PARTIDA..... 981,14</p>
0796	ELM004	UD	<p>APOYO TIPO CELOSÍA C14-500, INCLUYENDO HORMIGONADO E IZADO</p> <p>Apoyo de celosía 14C-500, incluyendo hormigonado e izado, y realización de tierras</p>	<p>Mano de obra 291,76</p> <p>Resto de obra y materiales 562,16</p> <p>TOTAL PARTIDA..... 853,92</p>
0797	ELM005	UD	<p>APOYO TIPO CELOSÍA C12-500, INCLUYENDO HORMIGONADO E IZADO</p> <p>Apoyo de celosía 12C-500, incluyendo hormigonado e izado, y realización de tierras</p>	<p>Mano de obra 291,76</p> <p>Resto de obra y materiales 491,23</p> <p>TOTAL PARTIDA..... 782,99</p>

CUADRO DE PRECIOS 2

ABASTECIMIENTO A VARIOS MUNICIPIOS DE LA RIOJA. SISTEMA CIDACOS

Nº	CÓDIGO	UD	DESCRIPCIÓN	IMPORTE
0798	ELM0051	UD	APOYO TIPO CELOSÍA C10-500, INCLUYENDO HORMIGONADO E IZADO Apoyo de celosía 12C-500, incluyendo hormigonado e izado, y realización de tierras	
			Mano de obra	291,76
			Resto de obra y materiales	413,82
			TOTAL PARTIDA.....	705,58
0799	ELM006	UD	APOYO TIPO CELOSÍA C10-1000, INCLUYENDO HORMIGONADO E IZADO Apoyo de celosía 10C-1000, incluyendo hormigonado e izado, y realización de tierras	
			Mano de obra	291,76
			Resto de obra y materiales	413,82
			TOTAL PARTIDA.....	705,58
0800	ELM007	UD	APOYO TIPO CELOSÍA C12-1000, INCLUYENDO HORMIGONADO E IZADO Apoyo de celosía 12C-1000, incluyendo hormigonado e izado, y realización de tierras	
			Mano de obra	291,76
			Resto de obra y materiales	491,23
			TOTAL PARTIDA.....	782,99
0801	ELM0071	UD	APOYO TIPO CELOSIA C16-1000, INCLUYENDO HORMIGONADO E IZADO Apoyo de celosía 16C-1000, incluyendo hormigonado e izado, y realización de tierras	
			Mano de obra	291,76
			Resto de obra y materiales	491,23
			TOTAL PARTIDA.....	782,99
0802	ELM008	UD	APOYO TIPO CELOSÍA C12-3000, INCLUYENDO HORMIGONADO E IZADO Apoyo de celosía 12C-3000, incluyendo hormigonado e izado, y realización de tierras	
			Mano de obra	291,76
			Resto de obra y materiales	986,62
			TOTAL PARTIDA.....	1.278,38
0803	ELM009	UD	APOYO TIPO CELOSIA C12-4500, INCLUYENDO HORMIGONADO E IZADO Apoyo de celosía 12C-4500, incluyendo hormigonado e izado, y realización de tierras	
			Mano de obra	291,76
			Resto de obra y materiales	1.420,11
			TOTAL PARTIDA.....	1.711,87
0804	ELM0091	UD	APOYO TIPO CELOSIA C14-4500, INCLUYENDO HORMIGONADO E IZADO Apoyo de celosía 14C-4500, incluyendo hormigonado e izado, y realización de tierras	
			Mano de obra	291,76
			Resto de obra y materiales	1.768,46
			TOTAL PARTIDA.....	2.060,22

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ABASTECIMIENTO A VARIOS MUNICIPIOS DE LA RIOJA. SISTEMA CIDACOS

Nº	CÓDIGO	UD	DESCRIPCIÓN	IMPORTE
0805	ELM010	UD	CRUCETA RECTA PARA APOYO TIPO CELOSÍA TIPO H-35 Suministro e instalación de cruceta recta para apoyo tipo celosía tipo H-35	
			Mano de obra	91,18
			Resto de obra y materiales	202,58
			TOTAL PARTIDA.....	293,76
0806	ELM014	UD	CRUCETA DE DERIVACIÓN Suministro e instalación de cruceta de derivación	
			Mano de obra	72,94
			Resto de obra y materiales	226,91
			TOTAL PARTIDA.....	299,85
0807	ELM016	UD	CRUCETA TIPO BOVEDA PARA APOYO DE HORMIGON TIPO BC Suministro e instalación de cruceta tipo bóveda para apoyo de celosía metélica tipo BC.	
			Mano de obra	109,41
			Resto de obra y materiales	332,68
			TOTAL PARTIDA.....	442,09
0808	ELM030	UD	CADENA DE AMARRE AISLADORES DE COMPOSITE NIVEL II UD. CADENA DE AMARRE AISLADORES DE COMPOSITE NIVEL II	
			Mano de obra	36,47
			Resto de obra y materiales	75,19
			TOTAL PARTIDA.....	111,66
0809	ELM031	UD	CADENA DE SUSPENSIÓN AISLADORES DE COMPOSITE NIVEL II UD. CADENA DE SUSPENSIÓN AISLADORES DE COMPOSITE NIVEL II	
			Mano de obra	29,18
			Resto de obra y materiales	58,80
			TOTAL PARTIDA.....	87,98
0810	ELM032-1	UD	SOPORTE Y SECCIONALIZADORES DE EXPULSIÓN TIPO UD. SOPORTE Y SECCIONALIZADORES DE EXPULSIÓN TIPO	
			Mano de obra	109,41
			Resto de obra y materiales	722,18
			TOTAL PARTIDA.....	831,59
0811	ELM033	UD	PASO AEREO-SUBTERRANEO SOBRE TORRE METÁLICA Paso aéreo-subterráneo sobre torre metálica incluyendo los siguientes conceptos: -Seccionadores tipo SELA: 3 uds. -Pararrayos autoválvulas: 3 uds. -Tubo de protección: 1 ud. -Terminaciones de exterior para cable tipo HEPRZ1 1x240 12/20 kV: 3 uds.	
			Mano de obra	547,05
			Resto de obra y materiales	2.651,11
			TOTAL PARTIDA.....	3.198,16

CUADRO DE PRECIOS 2

ABASTECIMIENTO A VARIOS MUNICIPIOS DE LA RIOJA. SISTEMA CIDACOS

Nº	CÓDIGO	UD	DESCRIPCIÓN	IMPORTE
0812	ELM034	UD	SOPORTE Y SECCIONADORES TIPO X/S Suministro e instalación de soporte y seccionadores de expulsión tipo X/S	
			Mano de obra.....	91,18
			Resto de obra y materiales.....	550,83
			TOTAL PARTIDA.....	642,01
0813	ELM040	UD	CHAPA ANTIESCALO Instalación de chapa antiescalo	
			Mano de obra.....	36,47
			Resto de obra y materiales.....	160,87
			TOTAL PARTIDA.....	197,34
0814	ELM041	UD	RED DE TIERRAS TIPO ANILLO DIFUSOR Instalación de red de tierras tipo anillo difusor	
			Mano de obra.....	36,47
			Resto de obra y materiales.....	160,84
			TOTAL PARTIDA.....	197,31
0815	ELM0526	UD	P.A. TRABAJOS DE REFUERZO Y ADECUACIÓN DE LÍNEA EXISTENTE	
			Sin descomposición	
			TOTAL PARTIDA.....	11.842,76
0816	ELM05261	UD	P.A. TRABAJOS DE REFUERZO Y ADECUACIÓN DE LÍNEA EXISTENTE	
			Sin descomposición	
			TOTAL PARTIDA.....	11.844,13
0817	ELM060	UD	EQUIPO MEDIDA NORMALIZADO POR UNION FENOSA Suministro y montaje de equipo de medida normalizado por IBERDROLA. Incluido bancada de hormigón	
			Mano de obra.....	291,76
			Resto de obra y materiales.....	368,13
			TOTAL PARTIDA.....	659,89
0818	ELM062	UD	CAJA DE PROTECCIÓN TIPO CGP-7-250A Suministro e instalación de caja de protección tipo CGP-7-250A, incluso fusibles y terminales	
			Mano de obra.....	54,71
			Resto de obra y materiales.....	172,83
			TOTAL PARTIDA.....	227,54
0819	ELM066	UD	CENTRO DE TRANSFORMACIÓN DE 25 KVA DE INTEMPERIE SOBRE APOYO Suministro e instalación de Centro de Transformación incluyendo los siguientes conceptos: -Transformador de 25 kVA 20 KV/400 V: 1 ud. -Bajada de trafo a equipo de medida -Puentes de M.T. -Autoválvulas -Puentes de B.T. -Red de tierra de herrajes -Placas de peligro y maniobra	
			Mano de obra.....	547,05
			Resto de obra y materiales.....	3.998,01
			TOTAL PARTIDA.....	4.545,06

CUADRO DE PRECIOS 2

ABASTECIMIENTO A VARIOS MUNICIPIOS DE LA RIOJA. SISTEMA CIDACOS

Nº	CÓDIGO	UD	DESCRIPCIÓN	IMPORTE
0820	ELM068	UD	CENTRO DE TRANSFORMACIÓN DE 160 KVA DE INTEMPERIE SOBRE APOYO Suministro e instalación de Centro de Transformación incluyendo los siguientes conceptos: -Transformador de 160 kVA 20 KV/400 V: 1 ud. -Bajada de trafo a equipo de medida -Puentes de M.T. -Autoválvulas -Puentes de B.T. -Red de tierra de herrajes -Placas de peligro y maniobra	
			Mano de obra.....	547,05
			Resto de obra y materiales.....	21.471,34
			TOTAL PARTIDA.....	22.018,39
0821	ELM101	UD	MONTAJE CRUCETA Y AMARRE DE CABLES 3 FASES TRABAJOS EN TENSIÓN Montaje de cruceta y amarre de cables 3 fases mediante trabajos en tensión método a contacto	
			Mano de obra.....	291,76
			Resto de obra y materiales.....	909,21
			TOTAL PARTIDA.....	1.200,97
0822	ELM102	UD	NUMERACIÓN Y COLOCACIÓN DE PLACAS DE PELIGRO EN LINEA Instalación de la numeración de apoyos y colocación de placas de peligro en línea	
			Mano de obra.....	1,70
			Resto de obra y materiales.....	6,74
			TOTAL PARTIDA.....	8,44
0823	ELM104	UD	PROYECTO Y DIRECCIÓN DE OBRA VISADO POR COLEGIO OFICIAL MT Proyecto y dirección de obra visado por Colegio Oficial de Ingenieros Industriales, legalización en consejería de industria, inspección por parte de OCA y realización de croquis de Media Tensión	
			Resto de obra y materiales.....	2.167,40
			TOTAL PARTIDA.....	2.167,40
0824	ELM106	UD	JORNADA DE BRIGADA DE TRABAJOS EN TENSION Jornada de brigada de trabajos en tensión método a contacto para incluyendo los siguientes conceptos: * Apertura de puentes: 6 ud. * Instalación de puentes de M.T: 6 ud. * Conexión de Autoválvulas: 6 ud. * Conexión de Terminaciones de Exterior: 6 ud. * Conexión de derivación aérea simple circuito:2 ud.	
			Mano de obra.....	291,76
			Resto de obra y materiales.....	2.778,62
			TOTAL PARTIDA.....	3.070,38
0825	ELM200	ML	ZANJA PARA LÍNEA DE MEDIA TENSIÓN (0,6x0,9 m) Zanja para línea subterránea de media tensión (0,6x0,9 m)	
			Mano de obra.....	16,98
			Maquinaria.....	13,70
			Resto de obra y materiales.....	2,82
			TOTAL PARTIDA.....	33,50

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ABASTECIMIENTO A VARIOS MUNICIPIOS DE LA RIOJA. SISTEMA CIDACOS

Nº	CÓDIGO	UD	DESCRIPCIÓN	IMPORTE
0826	ELM201	ML	CANALIZACION 2 TUBOS PLATICO ROJO DE 160 MM Canalización 2 tubos plástico rojo de 160 mm, incluida cinta señalización de cables	
			Mano de obra.....	11,76
			Resto de obra y materiales.....	16,52
			TOTAL PARTIDA.....	28,28
0827	ELM212	ML	CABLE DE ALUMINIO DE 4(1x240) 12/20 KV HEPRZ-1 Suministro y tendido de cable de aluminio de 4(1x240) 12/20 KV HEPRZ-1	
			Mano de obra.....	16,41
			Resto de obra y materiales.....	27,30
			TOTAL PARTIDA.....	43,71
0828	ELM214	UD	SUMINISTRO Y MONTAJE DE TERMINACIONES DE INTERIOR Suministro y Montaje de Terminaciones de interior enchufables-acodadas	
			Mano de obra.....	145,88
			Resto de obra y materiales.....	130,91
			TOTAL PARTIDA.....	276,79
0829	ELM215	ML	CABLE DE ALUMINIO DE 3(1x95) 12/20 KV HEPRZ-1 CABLE DE ALUMINIO DE 3(1x95) 12/20 KV HEPRZ-1	
			Mano de obra.....	12,76
			Resto de obra y materiales.....	15,30
			TOTAL PARTIDA.....	28,06
0830	EMANGL01	UD	MANÓMETRO DE ESFERA TIPO MUELLE TUBULAR DN100 Manómetro de esfera DN100 tipo muelle tubular con accesorios, sifón, válvula de aislamiento y purga. Incluso instalación y pruebas. Resto de características según E.T de proyecto.	
			Mano de obra.....	39,46
			Resto de obra y materiales.....	48,80
			TOTAL PARTIDA.....	88,26
0831	EMAV0100.1	UD	MANGUITO ANTIVIBRATORIO DN100 PN25 Manguito antivibratorio, de fuelle multilamina de acero inoxidable AISI321, PN25 de D=100 mm. Bridas fijas planos de acero al carbono. Tirantes limitadores de acero zincado. Resto de características según ET. Colocado.	
			Mano de obra.....	5,29
			Resto de obra y materiales.....	826,99
			TOTAL PARTIDA.....	832,28
0832	EMAV050	UD	MANGUITO ANTIVIBRATORIO DN50 PN16 Manguito antivibratorio, con cuerpo de simple onda, PN10/16 de D=50 mm. EPDM y bridas locas zincadas. Resto de características según ET. Colocado.	
			Mano de obra.....	5,29
			Resto de obra y materiales.....	40,14
			TOTAL PARTIDA.....	45,43

CUADRO DE PRECIOS 2

ABASTECIMIENTO A VARIOS MUNICIPIOS DE LA RIOJA. SISTEMA CIDACOS

Nº	CÓDIGO	UD	DESCRIPCIÓN	IMPORTE
0833	EMAV050.1	UD	MANGUITO ANTIVIBRATORIO DN50 PN25 Manguito antivibratorio, de fuelle multilamina de acero inoxidable AISI321, PN25 de D=50 mm. Bridas fijas planos de acero al carbono. Tirantes limitadores de acero zincado. Resto de características según ET. Colocado.	
			Mano de obra.....	5,29
			Resto de obra y materiales.....	624,07
			TOTAL PARTIDA.....	629,36
0834	EMAV065	UD	MANGUITO ANTIVIBRATORIO DN65 PN16 Manguito antivibratorio, con cuerpo de simple onda, PN10/16 de D=65 mm. EPDM y bridas locas zincadas. Resto de características según ET. Colocado.	
			Mano de obra.....	5,29
			Resto de obra y materiales.....	47,67
			TOTAL PARTIDA.....	52,96
0835	EMAV100	UD	MANGUITO ANTIVIBRATORIO DN100 PN16 Manguito antivibratorio, con cuerpo de simple onda, PN10/16 de D=100 mm. EPDM y bridas locas zincadas. Resto de características según ET. Colocado.	
			Mano de obra.....	5,29
			Resto de obra y materiales.....	69,46
			TOTAL PARTIDA.....	74,75
0836	EMCLL01	UD	MEDIDOR CONTROLADOR CLORO Medidor controlador de cloro libre controlado por microprocesador, incluido soporte para toma de muestras, p.p. de piezas de conexión, sujeción y/o anclaje. Incluso instalación y pruebas. Resto de características según E.T de proyecto.	
			Mano de obra.....	37,46
			Resto de obra y materiales.....	996,49
			TOTAL PARTIDA.....	1.033,95
0837	EMCONT01	UD	CONTROLADOR UNIVERSAL 1 CANAL Controlador universal SC200 de HACH o equivalent o equivalente, de 1 o 2 sondas. 2 salidas 4-20 mA, 4 relés de alarma. Alimentación 100-240 Vca. Resto de características según E.T de proyecto. Medios auxiliares y de sujeción y/o anclaje. Incluso instalación y pruebas. Resto de características según E.T de proyecto.	
			Mano de obra.....	37,46
			Resto de obra y materiales.....	650,78
			TOTAL PARTIDA.....	688,24
0838	EMDLAM01	UD	MECANISMO DECANTADOR LAMELAR CENTRAL DIÁMETRO 11 M. AISI 316L Mecanismo decantador de tracción central, a instalar en tanque de hormigón, de diámetro interior del tanque de hormigón de 12x12 m, banca del motorreductor en acero al carbono S275 JR EN 10025., semimangón de acoplamiento en acero al carbono F-114. Eje central AISI-316, brazos inferiores soportarrasquetas y rasquetas de fangos en acero inoxidable AISI-316. Láminas barredoras en EPDM. Accionamiento directo mediante motorreductor eléctrico de 0,12 Kw. Incluye limitador de par electrónico. Incluido transporte, montaje, conexiones eléctricas y pruebas de funcionamiento y de control. Resto de características, según ET.	
			Mano de obra.....	544,12
			Maquinaria.....	165,25
			Resto de obra y materiales.....	16.081,09
			TOTAL PARTIDA.....	16.790,46

CUADRO DE PRECIOS 2

ABASTECIMIENTO A VARIOS MUNICIPIOS DE LA RIOJA. SISTEMA CIDACOS

Nº	CÓDIGO	UD	DESCRIPCIÓN	IMPORTE
0839	EMFAR01	UD	MEDIDOR PERDIDA DE CARGA EN FILTROS DE ARENA Medidor pérdida de carga en filtros de arena, Electronica de medida de nivel , sensor de nivel ultrasónico, tuerca con brida y programador manual. Incluso instalación y pruebas. Resto de características según E.T de proyecto.	
			Mano de obra.....	39,46
			Resto de obra y materiales.....	1.422,88
			TOTAL PARTIDA.....	1.462,34
0840	EMLAM01	M2	LAMELAS DE PP. 60º Y 1.000 MM Lamelas para decantación montadas en bloques, de TECNO CONVERTING o equivalente, modelo H-60. Altura de los bloques: 1.000 mm. Separación entre lamelas: 62 mm. Inclinación: 60º. Peso: 70 Kg/m3. Material: Polipropileno alimentario (PPTV). Incluso vigas y perfiles en PRFV pultrusionado,, mesulas de soportación y tomillería en AISI-316, sistema antiflotación. Anclajes y tomillería en AISI-316. Totalmente montada y probada. Resto de características según ET.	
			Mano de obra.....	33,44
			Maquinaria.....	6,61
			Resto de obra y materiales.....	305,29
			TOTAL PARTIDA.....	345,34
0841	EMNBY01	UD	MEDIDOR POR BOYAS DE NIVEL MÁXIMO-MINIMO-SEGURIDAD Conjunto de boyas para el control de maximo, minimo y seguridad, incluso mecanismos de regulación y control, conexión y cableado desde cuadro a deposito. Medios auxiliares y de sujeción y/o anclaje. Incluso instalación y pruebas. Resto de características según E.T de proyecto.	
			Mano de obra.....	37,46
			Resto de obra y materiales.....	95,02
			TOTAL PARTIDA.....	132,48
0842	EMPH01	UD	MEDIDOR DE PH Y TEMPERATURA Equipo de medida de pH para montaje en línea con electrónica mural, con display y teclado, según E.T, instalado con soporte de acero AISI 316, totalmente cableado. Medios auxiliares y de sujeción y/o anclaje. Incluso instalación y pruebas. Resto de características según E.T de proyecto.	
			Mano de obra.....	37,46
			Resto de obra y materiales.....	501,31
			TOTAL PARTIDA.....	538,77
0843	EMRAD01	UD	MEDIDOR NIVEL DE RADAR Medidor de nivel por radar. Marca: ENDRESS-HAUSER o equivalente. Modelo: Micropilot M FMR231. Antena y longitud inactiva: PPS antiestático 360 mm (14"). Señal de salida (mA): 4..20. Precisión (%): +/- 0,2. Resolución (mm): 1. Sin efecto de la temperatura ambiente sobre el valor medido. Material convertidor: fundición de aluminio con recubrimiento epoxy. Incluso instalación y pruebas. Resto de características según E.T de proyecto.	
			Mano de obra.....	39,46
			Resto de obra y materiales.....	832,61
			TOTAL PARTIDA.....	872,07

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ABASTECIMIENTO A VARIOS MUNICIPIOS DE LA RIOJA. SISTEMA CIDACOS

Nº	CÓDIGO	UD	DESCRIPCIÓN	IMPORTE
0844	EMTURB01	UD	MEDIDOR DE TURBIDEZ Equipo para medida de turbidez compuesto por: Sistema de turbidez en PVC, rango 0-4000 ppm, por luz dispersada a 90º , temperatura -5º a 60º, presión máxima 6 bares, cable en longitud necesaria, conexión NPT 3/4". Portaelectrodos de PVC, longitud aproximada 1500 mm, fijación V4/A. Transmisor para montaje en pared, protección IP-65, en aluminio y poliéster, indicación digital en NTU, ppm, escala de salida programable, alimentación 220 V , salida 0/4-20 mA, temperatura 0-50º , señal de salida para temperatura, error máximo 0,5% FS, con dos relés de salida, instalado y conestado. Medios auxiliares y de sujeción y/o anclaje. Incluso instalación y pruebas. Resto de características según E.T de proyecto.	
			Mano de obra.....	37,46
			Resto de obra y materiales.....	1.628,14
			TOTAL PARTIDA.....	1.665,60
0845	EMUSO01	UD	MEDIDOR DE NIVEL POR ULTRASONIDOS Medidor de nivel por ultrasonidos. Pértiga en PP con brida. Incluso instalación y pruebas. Resto de características según E.T de proyecto.	
			Mano de obra.....	39,46
			Resto de obra y materiales.....	846,41
			TOTAL PARTIDA.....	885,87
0846	EMUSO02	UD	MEDIDOR DE NIVEL POR ULTRASONIDOS TANQUES REACTIVOS Medidor de nivel por ultrasonidos para tanque e reactivos. Medios auxiliares y de sujeción y/o anclaje. Incluso instalación y pruebas. Resto de características según E.T de proyecto.	
			Mano de obra.....	39,46
			Resto de obra y materiales.....	938,39
			TOTAL PARTIDA.....	977,85
0847	EPICJ01	UD	PICAJE TUBERIA CON VÁLVULA ESFERA 1/2" Picaje en tubería para toma de muestra y/o entrada de agua, incluso picaje, válvula de aislamiento de 1/2", instalación y pruebas.	
			Mano de obra.....	7,29
			Resto de obra y materiales.....	20,51
			TOTAL PARTIDA.....	27,80
0848	EPOLE1000	UD	POLIPASTO ELÉCTRICO DE 1.000 KG Polipasto. Servicio: Izado de equipos. Características:- Marca: VINCA, VICINAY o equivalente. Capacidad (kg): 1.000. Tipo de carro: monocarril. Cota mínima del gancho a la viga (mm): 880. Potencia motor elevación (KW): 1,85. Incluye limitador de carga, motor-freno en el carro de traslación. Incluso transporte, montaje, conexiones eléctricas y de control, pruebas de funcionamiento. Resto de características según E.T.	
			Mano de obra.....	82,06
			Maquinaria.....	33,05
			Resto de obra y materiales.....	2.128,89
			TOTAL PARTIDA.....	2.244,00

CUADRO DE PRECIOS 2

ABASTECIMIENTO A VARIOS MUNICIPIOS DE LA RIOJA. SISTEMA CIDACOS

Nº	CÓDIGO	UD	DESCRIPCIÓN	IMPORTE
0849	EPOLE2500	UD	POLIPASTO ELÉCTRICO DE 2.500 KG Polipasto. Servicio: Izado de equipos. Marca: VINCA, VICINAY o equivalente. Capacidad (kg): 2.500. Tipo de carro: monocarril. Cota mínima del gancho a la viga (mm): 880. Potencia motor elevación (KW): 1,85. Incluye limitador de carga y motor-freno en el carro de traslación. Incluso transporte, montaje, conexiones eléctricas y de control, pruebas de funcionamiento. Resto de características según E.T.	
			Mano de obra.....	82,06
			Maquinaria.....	33,05
			Resto de obra y materiales.....	2.831,56
			TOTAL PARTIDA.....	2.946,67
0850	EPOLM500	UD	POLIPASTO MANUAL DE 500 KG Polipasto. Servicio: Izado de equipos. Características: Marca: VINCA, VICINAY o equivalente. Capacidad (kg): 500. Tipo de carro: monocarril. Cota mínima del gancho a la viga (mm): 880. Incluso transporte, montaje, pruebas de funcionamiento. Resto de características según E.T.	
			Mano de obra.....	82,06
			Maquinaria.....	33,05
			Resto de obra y materiales.....	273,78
			TOTAL PARTIDA.....	388,89
0851	EPRFAN01	UD	PUENTE RASQUETAS ESPESADOR DE FANGOS Ø 7,5 m Y CAMPANA Mecanismo de puente de rasquetas del espesor de fangos, de 7.500 mm de diámetro, de acero inoxidable AISI-316L. Velocidad del racador 0,15-0,20 rpm., bancada del motorreductor en acero al carbono galvanizado, mangón de acoplamiento en acero al carbono cincado. Eje central AISI-316, campana deflectora AISI-316L, brazos inferiores soporta rasquetas y rasquetas de fangos en acero inoxidable AISI-316L. Rascadores de goma en EPDM. Accionamiento directo mediante motorreductor eléctrico de 0,18 Kw. Incluye campana deflectora AIAI-316L. limitador de par electrónico. Incluido transporte, montaje, conexiones eléctricas y pruebas de funcionamiento y de control. Resto de características, según ET.	
			Mano de obra.....	544,12
			Maquinaria.....	165,25
			Resto de obra y materiales.....	10.160,52
			TOTAL PARTIDA.....	10.869,89
0852	EQ70000	Ud	CONEXIÓN PARA LIMPIEZA DE CONDUCCIONES Conexión para limpieza de conducciones y baldeos, compuesta por válvulas de bola manual DN-25 y conexión rápida mediante racor.	
			Mano de obra.....	54,41
			Resto de obra y materiales.....	90,65
			TOTAL PARTIDA.....	145,06
0853	EQSAI1000	UD	UNIDAD SUM. AUTON. ENERGIA 1000 VA 1 HORA Unidad de suministro autónomo de energía, con potencia de salida de 1000 VA y autonomía de 1 hora. Tensión nominal de entrada: 230 V - 50 Hz. Tensión nominal de salida: 230 V - 50 Hz. Sistema on-line. Montado y probado.	
			Mano de obra.....	9,76
			Resto de obra y materiales.....	1.414,32
			TOTAL PARTIDA.....	1.424,08

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ABASTECIMIENTO A VARIOS MUNICIPIOS DE LA RIOJA. SISTEMA CIDACOS

Nº	CÓDIGO	UD	DESCRIPCIÓN	IMPORTE
0854	EQSAI5000	UD	UNIDAD SUM. AUTON. ENERGIA 5000 VA 1 HORA Unidad de suministro autónomo de energía, con potencia de salida de 5000 VA y autonomía de 1 hora. Tensión nominal de entrada: 230 V - 50 Hz. Tensión nominal de salida: 230 V - 50 Hz. Sistema on-line. Montado y probado.	
			Mano de obra.....	9,76
			Resto de obra y materiales.....	2.022,58
			TOTAL PARTIDA.....	2.032,34
0855	EQTLP060	UD	PANTALLA OLED 4K DE 77 PULGADAS Televisor OLED 4K de 77". Instalada en pared, conexiones y probada.	
			Mano de obra.....	9,76
			Resto de obra y materiales.....	1.714,07
			TOTAL PARTIDA.....	1.723,83
0856	EREG01	UD	REJA DE GRUESOS DE 472,22 L/S. PASO 40 MM. AISI-304L Reja de gruesos en la captación del azud. Capacidad: 472,22 l/s. Luz de paso de 40 mm. Material: acero inoxidable AISI-304L. Ángulo de inclinación 70°. Potencia 0,25 kW. Cuadro eléctrico y de control, así como 2 medidores de diferencia de nivel tipo radar. Incluso transporte, montaje, conexiones eléctricas y pruebas de funcionamiento. Resto de características según E.T.	
			Mano de obra.....	264,05
			Maquinaria.....	66,10
			Resto de obra y materiales.....	36.129,46
			TOTAL PARTIDA.....	36.459,61
0857	EREJ01	UD	REJA GRUESOS LIMPIEZA MANUAL IZABLE LUZ 40 mm Reja de desbaste de gruesos manual izable de 40 mm de paso, de acero inoxidable AISI-304L. Incluido rastrillo de limpieza, cestillo y guías y gancho para extracción. Incluso transporte, montaje y pruebas de funcionamiento.	
			Mano de obra.....	37,46
			Maquinaria.....	16,53
			Resto de obra y materiales.....	1.969,72
			TOTAL PARTIDA.....	2.023,71
0858	EREOZ01	UD	REGULADOR DE O2 Regulador de O2, con válvulas, manómetros, reguladores. Incluso instalación y pruebas. Resto de características según E.T de proyecto.	
			Mano de obra.....	37,46
			Resto de obra y materiales.....	1.101,51
			TOTAL PARTIDA.....	1.138,97
0859	EROMC01	UD	ROMPEBÓVEDAS DOSIFICADOR DE 2 M. Rompebóvedas-dosificador de cal, para asegurar una extracción continua, para un caudal de 125 a 250 kg/h. Cuerpo del rompebóvedas DN400, motorreductor de 0,55 kW, 1500 rpm. Dosificador de 2 m de longitud, motorreductor de 0,25 kW 1.500 rpm. Soporte orientabel. Material S-275 JR con protección. Válvula de aislamiento. Incluso transporte, montaje, conexiones eléctricas y de control, pruebas de funcionamiento. Resto de características según E.T.	
			Mano de obra.....	528,10
			Maquinaria.....	33,05
			Resto de obra y materiales.....	8.503,71
			TOTAL PARTIDA.....	9.064,86

CUADRO DE PRECIOS 2

ABASTECIMIENTO A VARIOS MUNICIPIOS DE LA RIOJA. SISTEMA CIDACOS

Nº	CÓDIGO	UD	DESCRIPCIÓN	IMPORTE
0860	EROT01	UD	<p>ROTÁMETRO PARA MEDIDA DE AGUA DE APORTE.</p> <p>Rotámetro para medida de agua de aporte. Rango de medida: 200 -2000 l/h. Instalación en línea. Material: acero inoxidable AISI-316</p>	
			Mano de obra	39,46
			Resto de obra y materiales	131,76
			TOTAL PARTIDA.....	171,22
0861	ESER01	UD	<p>SOPLANTE EMBOLOS Q= 2.100 Nm3/h. Pres.: 0,4 bar.</p> <p>Soplante de eje libre con embolos rotativos de Mapner o equivalente, modelo SEM.15 TRG.GCA, para un caudal de 2.100 Nm³/h. Presión diferencial: 0,4 bar. Ø impulsión: 150 mm. Potencia motor: 45 kW. Bancada - Filtro de aspiración - Válvula de presión - Válvula de retención - Transmisión por correas - Manguito elástico - Soportes antivibratorios, válvula coriolis de arranque sin carga DN80, cabina insonorizante con paneles, ventilación forzada, manómetro y detector de colmatación. Incluido, transporte, conexiones eléctricas y de control, así como el montaje y pruebas de funcionamiento. Resto de características según E.T.</p>	
			Mano de obra	179,30
			Maquinaria.....	16,53
			Resto de obra y materiales	8.032,35
			TOTAL PARTIDA.....	8.228,18
0862	ESILC01	UD	<p>SILO DE CAL DE 42 M3 CON FILTRO DE MANGAS.</p> <p>Silo metálico de cal, de 42 m3 de capacidad, de 2.400 mm de diámetro y 13.55 mm de altura total, dispuesto con filtros de mangas, detector de nivel, sistema de pesaje. Incluso transporte, montaje, conexiones eléctricas y de control, pruebas de funcionamiento. Resto de características según E.T.</p>	
			Mano de obra	2.106,41
			Maquinaria.....	66,10
			Resto de obra y materiales	28.084,66
			TOTAL PARTIDA.....	30.257,17
0863	ESLF01	UD	<p>SILO ALMACENAMIENTO DE FANGOS PRFV 35M3</p> <p>Tolva para almacenamiento de fango deshidratado de PRFV. Capacidad: 35 m³, incluido vibrador y compuerta tajadera para extracción colocada en la boca de descarga de 400x400 mm y accionamiento eléctrico. Diámetro: 3,0 m. Altura paso de camiones: 3,70 m. Altura total: 11,0 m. Incluso transporte, montaje, conexiones eléctricas y de control, y pruebas de funcionamiento. Resto de características según E.T.</p>	
			Mano de obra	544,12
			Maquinaria.....	99,15
			Resto de obra y materiales	16.644,93
			TOTAL PARTIDA.....	17.288,20
0864	ESTMF3	UD	<p>ESTRUCTURA DE FIJACIÓN MÓDULOS FOTOVOLTAICOS</p> <p>Ud. Soporte inclinado abierto para módulos solares en instalación sobre cubierta plana fabricado en periferia de aluminio y tornillería de acero inoxidable, válido para módulos fotovoltaicos de 2000x1000 mm con resistencia a la carga del viento 245 kg/m2, resistencia a la carga de nieve 551 kg/m2. Incluso fijaciones y tornillería de anclaje a cubierta. Totalmente instalado y conectado.</p>	
			Mano de obra	35,24
			Resto de obra y materiales	2.179,80
			TOTAL PARTIDA.....	2.215,04

CUADRO DE PRECIOS 2

ABASTECIMIENTO A VARIOS MUNICIPIOS DE LA RIOJA. SISTEMA CIDACOS

Nº	CÓDIGO	UD	DESCRIPCIÓN	IMPORTE
0865	ETAMI01	UD	<p>TAMIZ DE CHAPA PERFORADA DE 472,22 L/S. PASO 3 MM. AISI-304L</p> <p>Tamiz de chapa perforada para la captación del azud. Capacidad: 472,22 l/s. Chapa perforada de 3 mm.de paso. Material: acero inoxidable AISI-304L. Potencia 0,25 kW. Cuadro eléctrico y de control, así como 2 medidores de diferencia de nivel tipo radar. Lavado automático de prensado. Incluso transporte, montaje, conexiones eléctricas y pruebas de funcionamiento. Resto de características según E.T.</p>	
			Mano de obra	264,05
			Maquinaria.....	33,05
			Resto de obra y materiales	88.564,10
			TOTAL PARTIDA.....	88.861,20
0866	ETCM1000A	UD	<p>ESTACIÓN LOCAL TELECONTROL AZUD</p> <p>Estación local de telecontrol tipo S4W DUAL 8-0-0 - 1000I - 0MXES - GSM-ETH de Sofrel Lacroix o equivalente, formado por cajetín compacto ampliable con módulos de comunicación y de entradas/salidas. Módem 3G y un puerto Ethernet 100 Mbits/s, así como 2 puertos USB, entradas digitales DI / AI y salidas DO, pilotos de servicio LED, batería de alimentación de 12 Vcc-12Ah de plomo gelificado. Módulo de comunicación RS485, fuente de alimentación 230 CAC/24Vdc 40W. Pantalla táctil de 7 ". Antena GSM/GPRS-2/3 banda c dB. Totalmente instalada y probada. Resto de características según ET de proyecto.</p>	
			Mano de obra.....	36,47
			Resto de obra y materiales	1.685,75
			TOTAL PARTIDA.....	1.722,22
0867	ETCM1000B	UD	<p>ESTACIÓN LOCAL TELECONTROL BOMBEO BERGASA</p> <p>Estación local de telecontrol tipo S4W MEDIUM 12-2-4 - 1000I - 2MXES - GSM-ETH de Sofrel Lacroix o equivalente, formado por cajetín compacto ampliable con módulos de comunicación y de entradas/salidas. Módem 3G y un puerto Ethernet 100 Mbits/s, así como 2 puertos USB, entradas digitales DI / AI y salidas DO, pilotos de servicio LED, batería de alimentación de 12 Vcc-12Ah de plomo gelificado. Módulo de comunicación RS485, fuente de alimentación 230 CAC/24Vdc 40 W. Antena GSM/GPRS-2/3 banda c dB. Totalmente instalada y probada. Resto de características según ET de proyecto.</p>	
			Mano de obra.....	36,47
			Resto de obra y materiales	2.011,40
			TOTAL PARTIDA.....	2.047,87
0868	ETCM1000D	UD	<p>ESTACIÓN LOCAL TELECONTROL DEPÓSITOS Y ARQUETAS</p> <p>Estación local de telecontrol tipo S4W SMAL 8-2-2 - 500I - 0MXES - GSM-ETH de Sofrel Lacroix o equivalente, formado por cajetín compacto ampliable con módulos de comunicación y de entradas/salidas. Módem 3G y un puerto Ethernet 100 Mbits/s, así como 2 puertos USB, entradas digitales DI / AI y salidas DO, pilotos de servicio LED, batería de alimentación de 12 Vcc-12Ah de plomo gelificado. Módulo de comunicación RS485, extensión a 10 módulos, módulo 4AI-4-20mA, fuente de alimentación 230 CAC/24Vdc 40 W. Antena GSM/GPRS-2/3 banda c dB. Totalmente instalada y probada. Resto de características según ET de proyecto.</p>	
			Mano de obra.....	36,47
			Resto de obra y materiales	1.936,21
			TOTAL PARTIDA.....	1.972,68

CUADRO DE PRECIOS 2

ABASTECIMIENTO A VARIOS MUNICIPIOS DE LA RIOJA. SISTEMA CIDACOS

Nº	CÓDIGO	UD	DESCRIPCIÓN	IMPORTE
0869	ETCM1000E	UD	ESTACIÓN LOCAL TELECONTROL BOMBEO VALLE DE OCON-AUSEJO Estación local de telecontrol tipo S4W MEDIUM 12-2-4 - 1000I - 2MXES - GSM-ETH de Sofrel Lacroix o equivalente, formado por cajetín compacto ampliable con módulos de comunicación y de entradas/salidas. Módem 3G y un puerto Ethernet 100 Mbits/s, así como 2 puertos USB, entradas digitales DI / AI y salidas DO, pilotos de servicio LED, batería de alimentación de 12 Vcc-12Ah de plomo gelificado. Módulo de comunicación RS485, fuente de alimentación 230 CAC/24Vdc 40 W. Antena GSM/GPRS-2/3 banda c dB. Totalmente instalada y probada. Resto de características según ET de proyecto.	
			Mano de obra.....	36,47
			Resto de obra y materiales.....	3.060,54
			TOTAL PARTIDA.....	3.097,01
0870	ETCM1000F	UD	SOFTWARE TELEGESTIÓN DE TODOS LOS PUNTOS Software Sofrel PC Win2 o equivalente de puesto de control de telegestión de hasta 50 estaciones remotas (RTU+DL), software SG4000 servidor VPN-50 ER s4/s500, incluso llave de protección de hardware (USB), montado y probado.	
			Resto de obra y materiales.....	6.777,59
			TOTAL PARTIDA.....	6.777,59
0871	ETCM1000G	UD	SUMINISTRO Y MONTAJE DE DETECTOR VOLUMÉTRICO Suministro y montaje de detector volumétrico doble tecnología 37x3 o 61x5. Doble tecnología infrarrojo/microondas. Alcance 61x5m o 37x3m (cortina). Anti-enmascaramiento por infrarrojo activo. Autochequeo. Defensa contra insectos de margen cero, incluso cableado, pequeño material y accesorios. Totalmente instalado, conectado y funcionando.	
			Resto de obra y materiales.....	231,61
			TOTAL PARTIDA.....	231,61
0872	ETI316025	ML	TUBERÍA DE INOXIDABLE AISI 316L DN25 Tubería de acero inoxidable de diámetro DN25 mm. Construcción: Mediante soldadura. Espesor 1,5 mm. Material: Acero inoxidable AISI -316 L. Material accesorios acero inoxidable AISI - 316L. Acabado: Decapado. Incluso p.p. de uniones, piezas especiales, bridas, codos, tes, injertos para otras tuberías y p.p. de estructuras y elementos de anclajes a solera y/o muros. Montada y probada.	
			Mano de obra.....	3,16
			Maquinaria.....	1,42
			Resto de obra y materiales.....	23,91
			TOTAL PARTIDA.....	28,49
0873	ETI316050	ML	TUBERÍA DE INOXIDABLE AISI 316L DN 50 Tubería de acero inoxidable de diámetro DN 50 mm. Construcción: Mediante soldadura. Espesor 2 mm. Material: Acero inoxidable AISI -316 L. Material accesorios acero inoxidable AISI - 316L. Acabado: Decapado. Incluso p.p. de uniones, piezas especiales, bridas, codos, tes, injertos para otras tuberías y p.p. de estructuras y elementos de anclajes a solera y/o muros. Montada y probada.	
			Mano de obra.....	3,16
			Maquinaria.....	1,42
			Resto de obra y materiales.....	29,69
			TOTAL PARTIDA.....	34,27

CUADRO DE PRECIOS 2

ABASTECIMIENTO A VARIOS MUNICIPIOS DE LA RIOJA. SISTEMA CIDACOS

Nº	CÓDIGO	UD	DESCRIPCIÓN	IMPORTE
0874	ETI316065	ML	TUBERÍA DE INOXIDABLE AISI 316L DN 65 Tubería de acero inoxidable de diámetro DN 65 mm. Construcción: Mediante soldadura. Espesor 2 mm. Material: Acero inoxidable AISI -316 L. Material accesorios acero inoxidable AISI - 316L. Acabado: Decapado. Incluso p.p. de uniones, piezas especiales, bridas, codos, tes, injertos para otras tuberías y p.p. de estructuras y elementos de anclajes a solera y/o muros. Montada y probada.	
			Mano de obra.....	3,16
			Maquinaria.....	1,42
			Resto de obra y materiales.....	34,66
			TOTAL PARTIDA.....	39,24
0875	ETI316080	ML	TUBERÍA DE INOXIDABLE AISI 316L DN 80 Tubería de acero inoxidable de diámetro DN 80 mm. Construcción: Mediante soldadura. Espesor 2 mm. Material: Acero inoxidable AISI -316 L. Material accesorios acero inoxidable AISI - 316L. Acabado: Decapado. Incluso p.p. de uniones, piezas especiales, bridas, codos, tes, injertos para otras tuberías y p.p. de estructuras y elementos de anclajes a solera y/o muros. Montada y probada.	
			Mano de obra.....	3,16
			Maquinaria.....	1,42
			Resto de obra y materiales.....	37,96
			TOTAL PARTIDA.....	42,54
0876	ETI316100	ML	TUBERÍA DE INOXIDABLE AISI 316L DN 100 Tubería de acero inoxidable de diámetro DN 100 mm. Construcción: Mediante soldadura. Espesor 1,5 mm. Material: Acero inoxidable AISI -316 L. Material accesorios acero inoxidable AISI - 316L. Acabado: Decapado. Incluso p.p. de uniones, piezas especiales, bridas, codos, tes, injertos para otras tuberías y p.p. de estructuras y elementos de anclajes a solera y/o muros. Montada y probada.	
			Mano de obra.....	3,16
			Maquinaria.....	1,42
			Resto de obra y materiales.....	38,78
			TOTAL PARTIDA.....	43,36
0877	ETI316125	ML	TUBERÍA DE INOXIDABLE AISI 316L DN 125 Tubería de acero inoxidable de diámetro DN 125 mm. Construcción: Mediante soldadura. Espesor 2 mm. Material: Acero inoxidable AISI -316 L. Material accesorios acero inoxidable AISI - 316L. Acabado: Decapado. Incluso p.p. de uniones, piezas especiales, bridas, codos, tes, injertos para otras tuberías y p.p. de estructuras y elementos de anclajes a solera y/o muros. Montada y probada.	
			Mano de obra.....	3,16
			Maquinaria.....	1,42
			Resto de obra y materiales.....	47,55
			TOTAL PARTIDA.....	52,13
0878	ETI316150	ML	TUBERÍA DE INOXIDABLE AISI 316L DN 150 Tubería de acero inoxidable de diámetro DN 150 mm. Construcción: Mediante soldadura. Espesor 2 mm. Material: Acero inoxidable AISI -316 L. Material accesorios acero inoxidable AISI - 316L. Acabado: Decapado. Incluso p.p. de uniones, piezas especiales, bridas, codos, tes, injertos para otras tuberías y p.p. de estructuras y elementos de anclajes a solera y/o muros. Montada y probada.	
			Mano de obra.....	3,16
			Maquinaria.....	1,42
			Resto de obra y materiales.....	59,45
			TOTAL PARTIDA.....	64,03

CUADRO DE PRECIOS 2

ABASTECIMIENTO A VARIOS MUNICIPIOS DE LA RIOJA. SISTEMA CIDACOS

Nº	CÓDIGO	UD	DESCRIPCIÓN	IMPORTE
0879	ETI316200	ML	TUBERÍA DE INOXIDABLE AISI 316L DN 200 Tubería de acero inoxidable de diámetro DN 200 mm. Construcción: Mediante soldadura. Espesor 2 mm. Material: Acero inoxidable AISI -316 L. Material accesorios acero inoxidable AISI - 316L. Acabado: Decapado. Incluso p.p. de uniones, piezas especiales, bridas, codos, tes, injertos para otras tuberías y p.p. de estructuras y elementos de anclajes a solera y/o muros. Montada y probada.	
			Mano de obra.....	3,16
			Maquinaria.....	1,42
			Resto de obra y materiales.....	56,97
			TOTAL PARTIDA.....	61,55
0880	ETI316250	ML	TUBERÍA DE INOXIDABLE AISI 316L DN 250 Tubería de acero inoxidable de diámetro DN 250 mm. Construcción: Mediante soldadura. Espesor 2 mm. Material: Acero inoxidable AISI -316 L. Material accesorios acero inoxidable AISI - 316L. Acabado: Decapado. Incluso p.p. de uniones, piezas especiales, bridas, codos, tes, injertos para otras tuberías y p.p. de estructuras y elementos de anclajes a solera y/o muros. Montada y probada.	
			Mano de obra.....	3,16
			Maquinaria.....	1,42
			Resto de obra y materiales.....	99,96
			TOTAL PARTIDA.....	104,54
0881	ETI316300	ML	TUBERÍA DE INOXIDABLE AISI 316L DN 300 Tubería de acero inoxidable de diámetro DN 300 mm. Construcción: Mediante soldadura. Espesor 2 mm. Material: Acero inoxidable AISI -316 L. Material accesorios acero inoxidable AISI - 316L. Acabado: Decapado. Incluso p.p. de uniones, piezas especiales, bridas, codos, tes, injertos para otras tuberías y p.p. de estructuras y elementos de anclajes a solera y/o muros. Montada y probada.	
			Mano de obra.....	3,16
			Maquinaria.....	1,42
			Resto de obra y materiales.....	124,76
			TOTAL PARTIDA.....	129,34
0882	ETI316400	ML	TUBERÍA DE INOXIDABLE AISI 316L DN 400 Tubería de acero inoxidable de diámetro DN 400 mm. Construcción: Mediante soldadura. Espesor 2 mm. Material: Acero inoxidable AISI -316 L. Material accesorios acero inoxidable AISI - 316L. Acabado: Decapado. Incluso p.p. de uniones, piezas especiales, bridas, codos, tes, injertos para otras tuberías y p.p. de estructuras y elementos de anclajes a solera y/o muros. Montada y probada.	
			Mano de obra.....	3,16
			Maquinaria.....	1,42
			Resto de obra y materiales.....	190,88
			TOTAL PARTIDA.....	195,46
0883	ETI316500	ML	TUBERÍA DE INOXIDABLE AISI 316L DN 500 Tubería de acero inoxidable de diámetro DN 500 mm. Construcción: Mediante soldadura. Espesor 2 mm. Material: Acero inoxidable AISI -316 L. Material accesorios acero inoxidable AISI - 316L. Acabado: Decapado. Incluso p.p. de uniones, piezas especiales, bridas, codos, tes, injertos para otras tuberías y p.p. de estructuras y elementos de anclajes a solera y/o muros. Montada y probada.	
			Mano de obra.....	3,16
			Maquinaria.....	1,42
			Resto de obra y materiales.....	215,69
			TOTAL PARTIDA.....	220,27

CUADRO DE PRECIOS 2

ABASTECIMIENTO A VARIOS MUNICIPIOS DE LA RIOJA. SISTEMA CIDACOS

Nº	CÓDIGO	UD	DESCRIPCIÓN	IMPORTE
0884	ETI316900	ML	TUBERÍA DE INOXIDABLE AISI 316L DN 900 Tubería de acero inoxidable de diámetro DN 900 mm. Construcción: Mediante soldadura. Espesor 8 mm. Material: Acero inoxidable AISI -316 L. Material accesorios acero inoxidable AISI - 316L. Acabado: Decapado. Incluso p.p. de uniones, piezas especiales, bridas, codos, tes, injertos para otras tuberías y p.p. de estructuras y elementos de anclajes a solera y/o muros. Montada y probada.	
			Mano de obra.....	3,16
			Maquinaria.....	1,42
			Resto de obra y materiales.....	703,43
			TOTAL PARTIDA.....	708,01
0885	ETTFD01	UD	TORNILLO TRANSPORTADOR DE FANGOS DESHIDRATADOS 5,0 m3/h Tornillo transportador para fangos deshidratados. Capacidad: 5,0 m³/h. Diámetro: 260 mm. Material: acero inoxidable AISI-316L. Longitud: 5,0 m. Potencia motor eléctrico: 0,75 kW. Posición de trabajo horizontal. Espiral en acero F1515 o EN10025-S355. Canal y tapas en acero inoxidable AISI-316 L. Zona de compactación en acero inoxidable AISI-316 L. Dos tolvas para acople de las centrifugas, y soportes standard en acero inoxidable AISI-316 L. Sistema de lavado automático con agua. Incluso transporte, montaje, conexione eléctricas y pruebas de funcionamiento. Resto de características según E.T.	
			Mano de obra.....	54,41
			Maquinaria.....	16,53
			Resto de obra y materiales.....	7.603,03
			TOTAL PARTIDA.....	7.673,97
0886	ETTFD02	UD	TORNILLO TRANSPORTADOR PARA REJAS DE GRUESOS 3,0 m3/h Tornillo transportador para residuos de la reja de gruesos. Capacidad: 3,0 m³/h. Diámetro: 273 mm. Material: acero inoxidable AISI-304L. Longitud: 4,20 m. Potencia motor eléctrico: 0,75 kW. Posición de trabajo inclinado a 25ºhorizontal. Espiral en AISI-304L. Canal y tapas en acero inoxidable AISI-304 L. Zona de compactación en acero inoxidable AISI-304 L. Dos tolvas para acople de las rejadas, y soportes standard en acero inoxidable AISI-304 L. Sistema de lavado automático con agua. Incluso transporte, montaje, conexione eléctricas y pruebas de funcionamiento. Resto de características según E.T.	
			Mano de obra.....	106,82
			Maquinaria.....	16,53
			Resto de obra y materiales.....	11.667,60
			TOTAL PARTIDA.....	11.790,95

CUADRO DE PRECIOS 2

ABASTECIMIENTO A VARIOS MUNICIPIOS DE LA RIOJA. SISTEMA CIDACOS

Nº	CÓDIGO	UD	DESCRIPCIÓN	IMPORTE
0887	ETTFD03	UD	TORNILLO TRANSPORTADOR PARA TAMICES 3,0 m³/h Tornillo transportador para residuos de la tamices. Capacidad: 3,0 m³/h. Diámetro: 273 mm. Material: acero inoxidable AISI-304L. Longitud: 6,20 m. Potencia motor eléctrico: 0,75 kW. Posición de trabajo inclinado a 15°. Espiral en AISI-304L. Canal y tapas en acero inoxidable AISI-304 L. Zona de compactación en acero inoxidable AISI-304 L. Dos tolvas para acople de las rejillas, y soportes standard en acero inoxidable AISI-304 L. Sistema de lavado automático con agua. Incluso transporte, montaje, conexiones eléctricas y pruebas de funcionamiento. Resto de características según E.T.	
			Mano de obra.....	106,82
			Maquinaria.....	33,05
			Resto de obra y materiales.....	10.150,69
			TOTAL PARTIDA.....	10.290,56
0888	EVBI0032	UD	VÁLVULA BOLA INOX DN=32 mm. / 16 atm. Válvula de bola de 32 mm. de diámetro nominal y 16 At. de P.N., de acero inoxidable, tornillería de acero inoxidable, totalmente colocada.	
			Mano de obra.....	7,69
			Resto de obra y materiales.....	24,92
			TOTAL PARTIDA.....	32,61
0889	EVCMT06516	UD	VÁLVULA DE COMPUERTA MANUAL DN65 PN16 Válvula de compuerta de cierre elástico de 65 mm. de diámetro nominal y 16 At. de P.N., de accionamiento manual por volante, de cuerpo de fundición nodular GGG-50, con eje de acero inoxidable al 13 % Cr. con roscas conformadas por laminación en frío, cierre en fundición nodular, tornillería de acero inoxidable, protegida contra la corrosión mediante aplicación de doble capa de pintura epoxy, totalmente colocada y probada. Resto de características según ET.	
			Mano de obra.....	20,24
			Resto de obra y materiales.....	78,09
			TOTAL PARTIDA.....	98,33
0890	EVCMT080	UD	VÁLVULA DE COMPUERTA MANUAL DN80 PN16 Válvula de compuerta de cierre elástico de 80 mm. de diámetro nominal y 16 At. de P.N., de accionamiento manual por volante, de cuerpo de fundición nodular GGG-50, con eje de acero inoxidable al 13 % Cr. con roscas conformadas por laminación en frío, cierre en fundición nodular, tornillería de acero inoxidable, protegida contra la corrosión mediante aplicación de doble capa de pintura epoxy, totalmente colocada y probada. Resto de características según ET.	
			Mano de obra.....	20,24
			Resto de obra y materiales.....	90,23
			TOTAL PARTIDA.....	110,47
0891	EVCMT12516	UD	VÁLVULA DE COMPUERTA MANUAL DN125 PN16 Válvula de compuerta de cierre elástico de 125 mm. de diámetro nominal y 16 At. de P.N., de accionamiento manual por volante, de cuerpo de fundición nodular GGG-50, con eje de acero inoxidable al 13 % Cr. con roscas conformadas por laminación en frío, cierre en fundición nodular, tornillería de acero inoxidable, protegida contra la corrosión mediante aplicación de doble capa de pintura epoxy, totalmente colocada y probada. Resto de características según ET.	
			Mano de obra.....	20,24
			Resto de obra y materiales.....	182,08
			TOTAL PARTIDA.....	202,32

CUADRO DE PRECIOS 2

ABASTECIMIENTO A VARIOS MUNICIPIOS DE LA RIOJA. SISTEMA CIDACOS

Nº	CÓDIGO	UD	DESCRIPCIÓN	IMPORTE
0892	EVCMT12525	UD	VÁLVULA DE COMPUERTA MANUAL DN125 PN25 Válvula de compuerta de cierre elástico de 125 mm. de diámetro nominal y 25 At. de P.N., de accionamiento manual por volante, de cuerpo de fundición nodular GGG-50, con eje de acero inoxidable al 13 % Cr. con roscas conformadas por laminación en frío, cierre en fundición nodular, tornillería de acero inoxidable, protegida contra la corrosión mediante aplicación de doble capa de pintura epoxy, totalmente colocada y probada. Resto de características según ET.	
			Mano de obra.....	20,24
			Resto de obra y materiales.....	328,58
			TOTAL PARTIDA.....	348,82
0893	EVCMT12516	UD	VÁLVULA DE COMPUERTA MOTORIZADA DN125 PN16 Válvula de compuerta de cierre elástico de 125 mm. de diámetro nominal y 16 At. de P.N., de accionamiento motorizado, de cuerpo de fundición nodular GGG-50, con eje de acero inoxidable al 13 % Cr. con roscas conformadas por laminación en frío, cierre en fundición nodular, tornillería de acero inoxidable, protegida contra la corrosión mediante aplicación de doble capa de pintura epoxy, totalmente colocada y probada. Resto de características según ET.	
			Mano de obra.....	33,18
			Resto de obra y materiales.....	1.795,98
			TOTAL PARTIDA.....	1.829,16
0894	EVCMT15025	UD	VÁLVULA DE COMPUERTA MOTORIZADA DN150 PN25 Válvula de compuerta de cierre elástico de 150 mm. de diámetro nominal y 25 At. de P.N., de accionamiento motorizado, de cuerpo de fundición nodular GGG-50, con eje de acero inoxidable al 13 % Cr. con roscas conformadas por laminación en frío, cierre en fundición nodular, tornillería de acero inoxidable, protegida contra la corrosión mediante aplicación de doble capa de pintura epoxy, totalmente colocada y probada. Resto de características según ET.	
			Mano de obra.....	33,18
			Resto de obra y materiales.....	2.006,95
			TOTAL PARTIDA.....	2.040,13
0895	EVCMT250.1	UD	VÁLVULA DE COMPUERTA MANUAL DN250 PN40 Válvula de compuerta de cierre elástico de 250 mm. de diámetro nominal y 40 At. de P.N., de accionamiento manual, de cuerpo de fundición nodular GGG-50, con eje de acero inoxidable al 13 % Cr. con roscas conformadas por laminación en frío, cierre en fundición nodular, tornillería de acero inoxidable, protegida contra la corrosión mediante aplicación de doble capa de pintura epoxy, totalmente colocada y probada. Resto de características según ET.	
			Mano de obra.....	33,18
			Resto de obra y materiales.....	913,19
			TOTAL PARTIDA.....	946,37
0896	EVCMT300	UD	VÁLVULA DE COMPUERTA MOTORIZADA DN300 PN16 Válvula de compuerta de cierre elástico de 300 mm. de diámetro nominal y 16 At. de P.N., de accionamiento motorizado, de cuerpo de fundición nodular GGG-50, con eje de acero inoxidable al 13 % Cr. con roscas conformadas por laminación en frío, cierre en fundición nodular, tornillería de acero inoxidable, protegida contra la corrosión mediante aplicación de doble capa de pintura epoxy, totalmente colocada y probada. Resto de características según ET.	
			Mano de obra.....	33,18
			Resto de obra y materiales.....	3.282,16
			TOTAL PARTIDA.....	3.315,34

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ABASTECIMIENTO A VARIOS MUNICIPIOS DE LA RIOJA. SISTEMA CIDACOS

Nº	CÓDIGO	UD	DESCRIPCIÓN	IMPORTE
0897	EVENT01	UD	<p>VENTILADOR HELICOIDAL:Q=3.650M3/H</p> <p>Ventilador extractor helicoidal mural marca: SODECA o equivalente. Caudal: 3.650 m3/h. Velocidad: 2.780 rpm. Nivel sonoro: 72 dB(A) . Materiales:marco soporte en chapa de acero, Helice: poliamida 6 reforzada con fibra de vidrio, Accionamiento: motor electrico. Potencia: 0,18 KW. Accesorios: Rejilla de proteccion. Realización de hueco en muro de bloque, ayudas de albañilería, colocado y funcionando.Totalmente instalado.</p>	
			Mano de obra.....	54,41
			Resto de obra y materiales.....	345,41
			TOTAL PARTIDA.....	399,82
0898	EVMM0450	UD	<p>VÁLVULA DE MARIPOSA DOBLE EXCENTRICIDAD DN 450 mm PN16 MANUAL</p> <p>Válvula de mariposa de doble excentricidad de 450 mm de diámetro y PN16, de accionamiento manual por reductor, incluso mecanismo de accionamiento, maniobra y control, transporte, montaje, juntas, tornillería y pintura totalmente instalada y probada. Resto de caracterisitcas según ET de proyecto.</p>	
			Mano de obra.....	82,06
			Maquinaria.....	33,05
			Resto de obra y materiales.....	2.813,55
			TOTAL PARTIDA.....	2.928,66
0899	EVMM0450.1	UD	<p>VÁLVULA DE MARIPOSA DOBLE EXCENTRICID. DN 450 mm PN16 MOTORIZADA</p> <p>Válvula de mariposa de doble excentricidad de 450 mm de diámetro y PN16, de accionamiento motorizado, incluso mecanismo de accionamiento, maniobra y control, transporte, montaje, juntas, tornillería y pintura totalmente instalada y probada. Resto de caracterisitcas según ET de proyecto.</p>	
			Mano de obra.....	82,06
			Maquinaria.....	33,05
			Resto de obra y materiales.....	3.369,18
			TOTAL PARTIDA.....	3.484,29
0900	EVMM0500	UD	<p>VÁLVULA DE MARIPOSA DOBLE EXCENTRICIDAD DN 500 mm PN16 MANUAL</p> <p>Válvula de mariposa de doble excentricidad de 500 mm de diámetro y PN16, de accionamiento manual por reductor, incluso mecanismo de accionamiento, maniobra y control, transporte, montaje, juntas, tornillería y pintura totalmente instalada y probada. Resto de caracterisitcas según ET de proyecto.</p>	
			Mano de obra.....	82,06
			Maquinaria.....	33,05
			Resto de obra y materiales.....	3.351,71
			TOTAL PARTIDA.....	3.466,82
0901	EVMM0500.1	UD	<p>VÁLVULA DE MARIPOSA DOBLE EXCENTRICIDAD DN 500 mm PN25 MANUAL</p> <p>Válvula de mariposa de doble excentricidad de 500 mm de diámetro y PN25, de accionamiento manual por reductor, incluso mecanismo de accionamiento, maniobra y control, transporte, montaje, juntas, tornillería y pintura totalmente instalada y probada. Resto de caracterisitcas según ET de proyecto.</p>	
			Mano de obra.....	82,06
			Maquinaria.....	33,05
			Resto de obra y materiales.....	4.566,19
			TOTAL PARTIDA.....	4.681,30

CUADRO DE PRECIOS 2

ABASTECIMIENTO A VARIOS MUNICIPIOS DE LA RIOJA. SISTEMA CIDACOS

Nº	CÓDIGO	UD	DESCRIPCIÓN	IMPORTE
0902	EVMM0900	UD	<p>VÁLVULA DE MARIPOSA DOBLE EXCENTRICIDAD DN 900 mm PN16 MANUAL</p> <p>Válvula de mariposa de doble excentricidad de 900 mm de diámetro y PN16, de accionamiento manual por reductor, incluso mecanismo de accionamiento, maniobra y control, transporte, montaje, juntas, tornillería y pintura totalmente instalada y probada. Resto de caracterisitcas según ET de proyecto.</p>	
			Mano de obra.....	82,06
			Maquinaria.....	33,05
			Resto de obra y materiales.....	9.985,58
			TOTAL PARTIDA.....	10.100,69
0903	EVMM1000	UD	<p>VÁLVULA DE MARIPOSA DOBLE EXCENTRICIDAD DN 1000 mm PN16 MANUAL</p> <p>Válvula de mariposa de doble excentricidad de 1000 mm de diámetro y PN16, de accionamiento manual por reductor, incluso mecanismo de accionamiento, maniobra y control, transporte, montaje, juntas, tornillería y pintura totalmente instalada y probada. Resto de caracterisitcas según ET de proyecto.</p>	
			Mano de obra.....	82,06
			Maquinaria.....	33,05
			Resto de obra y materiales.....	10.474,41
			TOTAL PARTIDA.....	10.589,52
0904	EVMM150	UD	<p>VÁLVULA DE MARIPOSA DN150 N16 MANUAL</p> <p>Válvula de mariposa de 150 mm de diámetro y PN16, de accionamiento manual por reductor, incluso mecanismo de accionamiento, maniobra y control, transporte, montaje, juntas, tornillería y pintura totalmente instalada y probada. Resto de caracterisitcas según ET de proyecto.</p>	
			Mano de obra.....	82,06
			Maquinaria.....	33,05
			Resto de obra y materiales.....	145,18
			TOTAL PARTIDA.....	260,29
0905	EVMM400	UD	<p>VÁLVULA DE MARIPOSA DOBLE EXCENTRICIDAD DN 400 mm PN16 MANUAL</p> <p>Válvula de mariposa de doble excentricidad de 400 mm de diámetro y PN16, de accionamiento manual por reductor, incluso mecanismo de accionamiento, maniobra y control, transporte, montaje, juntas, tornillería y pintura totalmente instalada y probada. Resto de caracterisitcas según ET de proyecto.</p>	
			Mano de obra.....	82,06
			Maquinaria.....	33,05
			Resto de obra y materiales.....	2.166,85
			TOTAL PARTIDA.....	2.281,96
0906	EVMM400.1	UD	<p>VÁLVULA DE MARIPOSA DOBLE EXCENTRICIDAD DN 400 mm PN25 MANUAL</p> <p>Válvula de mariposa de doble excentricidad de 400 mm de diámetro y PN25, de accionamiento manual por reductor, incluso mecanismo de accionamiento, maniobra y control, transporte, montaje, juntas, tornillería y pintura totalmente instalada y probada. Resto de caracterisitcas según ET de proyecto.</p>	
			Mano de obra.....	82,06
			Maquinaria.....	33,05
			Resto de obra y materiales.....	2.479,59
			TOTAL PARTIDA.....	2.594,70

CUADRO DE PRECIOS 2

ABASTECIMIENTO A VARIOS MUNICIPIOS DE LA RIOJA. SISTEMA CIDACOS

Nº	CÓDIGO	UD	DESCRIPCIÓN	IMPORTE
0907	EVMM800P	UD	VÁLVULA DE MARIPOSA DOBLE EXCENTRICIDAD DN 800 mm PN25 MANUAL Válvula de mariposa de doble excentricidad de 800 mm de diámetro y PN25, de accionamiento manual por reductor, incluso mecanismo de accionamiento, maniobra y control, transporte, montaje, juntas, tornillería y pintura totalmente instalada y probada. Resto de características según ET de proyecto.	
			Mano de obra.....	82,06
			Maquinaria.....	33,05
			Resto de obra y materiales.....	9.594,84
			TOTAL PARTIDA.....	9.709,95
0908	EVMMT050	UD	VÁLVULA DE MARIPOSA DN=50 mm PN16 MOTORIZADA Válvula de mariposa de 50 mm de diámetro y PN16, motorizada, incluso carrete, mecanismo de accionamiento, maniobra y control, transporte, montaje, juntas, tornillería y pintura totalmente instalada y probada.	
			Mano de obra.....	63,82
			Maquinaria.....	33,05
			Resto de obra y materiales.....	1.111,23
			TOTAL PARTIDA.....	1.208,10
0909	EVMMT250	UD	VÁLVULA DE MARIPOSA DN250 PN16 MOTORIZADA Válvula de mariposa de 250 mm de diámetro y PN16, de accionamiento motorizado, incluso mecanismo de accionamiento, maniobra y control, transporte, montaje, juntas, tornillería y pintura totalmente instalada y probada. Resto de características según ET de proyecto.	
			Mano de obra.....	54,41
			Resto de obra y materiales.....	1.761,03
			TOTAL PARTIDA.....	1.815,44
0910	EVMMT900	UD	VÁLVULA DE MARIPOSA DOBLE EXCENTRICID. DN 900 mm PN16 MOTORIZADA Válvula de mariposa de doble excentricidad de 900 mm de diámetro y PN16, de accionamiento motorizado, incluso mecanismo de accionamiento, maniobra y control, transporte, montaje, juntas, tornillería y pintura totalmente instalada y probada. Resto de características según ET de proyecto.	
			Mano de obra.....	82,06
			Maquinaria.....	33,05
			Resto de obra y materiales.....	13.435,60
			TOTAL PARTIDA.....	13.550,71
0911	EVMNE250	UD	VÁLVULA DE MARIPOSA DN250 PN16 NEUMÁTICA Válvula de mariposa de 250 mm de diámetro y PN16, de accionamiento neumático, incluso mecanismo de accionamiento, maniobra y control, transporte, montaje, juntas, tornillería y pintura totalmente instalada y probada. Resto de características según ET de proyecto.	
			Mano de obra.....	54,41
			Resto de obra y materiales.....	713,54
			TOTAL PARTIDA.....	767,95
0912	EVMNE300	UD	VÁLVULA DE MARIPOSA DN300 PN16 NEUMÁTICA Válvula de mariposa de 300 mm de diámetro y PN16, de accionamiento neumático, incluso mecanismo de accionamiento, maniobra y control, transporte, montaje, juntas, tornillería y pintura totalmente instalada y probada. Resto de características según ET de proyecto.	
			Mano de obra.....	54,41
			Resto de obra y materiales.....	1.389,09
			TOTAL PARTIDA.....	1.443,50

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ABASTECIMIENTO A VARIOS MUNICIPIOS DE LA RIOJA. SISTEMA CIDACOS

Nº	CÓDIGO	UD	DESCRIPCIÓN	IMPORTE
0913	EVMNE400	UD	VÁLVULA DE MARIPOSA DOBLE EXCENTRICIDAD DN 400 mm PN16 NEUMÁTICA Válvula de mariposa de doble excentricidad de 400 mm de diámetro y PN16, de accionamiento neumático, incluso mecanismo de accionamiento, maniobra y control, transporte, montaje, juntas, tornillería y pintura totalmente instalada y probada. Resto de características según ET de proyecto.	
			Mano de obra.....	54,41
			Resto de obra y materiales.....	3.647,26
			TOTAL PARTIDA.....	3.701,67
0914	EVRB065	UD	VÁLVULA DE RETENCIÓN DE BOLA DN65 Válvula de retención de bola DN 65 PN16. Cuerpo y tapa: Fundición nodular GGG-40. Bola de aluminio/fundición+Resina fenólica. Tornillería de acero inoxidable AISI 316. Junta de tapa: Nitrilo. Acabados con recubrimiento anticorrosivo interior y exterior con polvo de poliamida Epoxy aplicado electrostáticamente (RAL 5015 Epoxi azul). Instalada y probada. Resto de características según ET.	
			Mano de obra.....	110,16
			Resto de obra y materiales.....	83,67
			TOTAL PARTIDA.....	193,83
0915	EVRB080	UD	VÁLVULA DE RETENCIÓN DE BOLA DN80 Válvula de retención de bola DN 80 PN16. Cuerpo y tapa: Fundición nodular GGG-40. Bola de aluminio/fundición+Resina fenólica. Tornillería de acero inoxidable AISI 316. Junta de tapa: Nitrilo. Acabados con recubrimiento anticorrosivo interior y exterior con polvo de poliamida Epoxy aplicado electrostáticamente (RAL 5015 Epoxi azul). Instalada y probada. Resto de características según ET.	
			Mano de obra.....	110,16
			Resto de obra y materiales.....	98,85
			TOTAL PARTIDA.....	209,01
0916	EVRB100	UD	VÁLVULA DE RETENCIÓN DE BOLA DN100 Válvula de retención de bola DN 100 PN16. Cuerpo y tapa: Fundición nodular GGG-40. Bola de aluminio/fundición+Resina fenólica. Tornillería de acero inoxidable AISI 316. Junta de tapa: Nitrilo. Acabados con recubrimiento anticorrosivo interior y exterior con polvo de poliamida Epoxy aplicado electrostáticamente (RAL 5015 Epoxi azul). Instalada y probada. Resto de características según ET.	
			Mano de obra.....	110,16
			Resto de obra y materiales.....	136,06
			TOTAL PARTIDA.....	246,22
0917	EVRB125	UD	VÁLVULA DE RETENCIÓN DE BOLA DN125 Válvula de retención de clapetas tipo Wafer, PN 16 y DN-250, con racores de bridas. Instalada y probada. Resto de características según ET.	
			Mano de obra.....	110,16
			Resto de obra y materiales.....	190,78
			TOTAL PARTIDA.....	300,94
0918	EVR050.1	UD	VÁLVULA DE RETENCIÓN DE DISCO PARTIDO DN50 PN25 Válvula de retención de disco partido PN 25 y DN-50, con racores de bridas, totalmente instalada. Resto de características según E.T de Proyecto.	
			Mano de obra.....	110,16
			Resto de obra y materiales.....	72,30
			TOTAL PARTIDA.....	182,46

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ABASTECIMIENTO A VARIOS MUNICIPIOS DE LA RIOJA. SISTEMA CIDACOS

Nº	CÓDIGO	UD	DESCRIPCIÓN	IMPORTE
0919	EVR065	UD	VÁLVULA DE RETENCIÓN DE CLAPETAS DN65 PN16 Válvula de retención de clapeta tipo Wafer, PN 16 y DN-65, con racores de bridas, totalmente instalada. Resto de características según E.T de Proyecto.	
			Mano de obra.....	110,16
			Resto de obra y materiales.....	103,43
			TOTAL PARTIDA.....	213,59
0920	EVR0100	UD	VÁLVULA DE RETENCIÓN DE DISCOS CONCENTRICOS DN100 PN16/25 Suministro y colocación de válvula de retención de discos concéntricos DN-100, PN-16/25, modelo CLASAR de BELGICAST o equivalente. Cuerpo y tapa en fundición nodular GGG-40, obturador en poliuretano, resortes en acero inoxidable, junta de cierre cuerpo-tapa en nitrilo; colocada mediante unión wafer. Resto características según ET de Proyecto. Totalmente equipada, instalada y funcionando.	
			Mano de obra.....	110,16
			Resto de obra y materiales.....	394,89
			TOTAL PARTIDA.....	505,05
0921	EVR0150	UD	VÁLVULA DE RETENCIÓN DE CLAPETAS DN150 PN16 Válvula de retención de clapeta tipo Wafer, PN 16 y DN-150, con racores de bridas, totalmente instalada. Resto de características según E.T de Proyecto.	
			Mano de obra.....	110,16
			Resto de obra y materiales.....	273,43
			TOTAL PARTIDA.....	383,59
0922	EVR0100	UD	VALVULA DE RETENCIÓN DE DISCO PARTIDO DN100 PN16 Válvula de retención de disco partido tipo Wafer, PN 16 y DN-100, con racores de bridas. Instalada y probada. Resto de características según ET.	
			Mano de obra.....	110,16
			Resto de obra y materiales.....	104,93
			TOTAL PARTIDA.....	215,09
0923	EVR0250	UD	VALVULA DE RETENCIÓN DE DISCO PARTIDO DN250 PN16 Válvula de retención de disco partido tipo Wafer, PN 16 y DN-250, con racores de bridas. Instalada y probada. Resto de características según ET.	
			Mano de obra.....	110,16
			Resto de obra y materiales.....	356,93
			TOTAL PARTIDA.....	467,09
0924	EX0002A	M3	EXCAVACION EN ZANJA O POZO Excavación en zanjas o pozos en terrenos de cualquier clase, por medios mecánicos con máquina retroexcavadora, incluso carga y transporte de productos sobrantes a vertedero a una distancia máxima de 50 km y parte proporcional de medios auxiliares para la realización de los trabajos.	
			Mano de obra.....	2,60
			Maquinaria.....	2,58
			Resto de obra y materiales.....	0,05
			TOTAL PARTIDA.....	5,23

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Nº	CÓDIGO	UD	DESCRIPCIÓN	IMPORTE
0925	EXTABC	UD	EXTINT. POLVO ABC 6 Kg. EF 21A-113B Ud. Eextintor de polvo ABC con eficacia 21A-113B para extinción de fuego de materias sólidas, líquidas, productos gaseosos e incendios de equipos eléctricos, de 6 Kg. de agente extintor con soporte, manómetro y boquilla con difusor según norma UNE-23110, totalmente instalado según CTE/DB-SI 4. Certificado por AENOR.	
			Mano de obra.....	1,95
			Resto de obra y materiales.....	25,27
			TOTAL PARTIDA.....	27,22
0926	GR001	M3	GESTIÓN DE RESIDUOS DE TIERRAS Y PIEDRAS (17 05 04) Canon de gestión de residuos de tierras y tierras (17 05 04).	
			Resto de obra y materiales.....	1,75
			TOTAL PARTIDA.....	1,75
0927	GR005	M3	GESTIÓN DE RESIDUOS NATURALEZA PÉTREA Canon de gestión de residuos de naturaleza pétreo (17 01 01, 17 01 02, 17 01 03, 17 01 07, 17 09 04).	
			Resto de obra y materiales.....	3,02
			TOTAL PARTIDA.....	3,02
0928	GR010	M3	GESTIÓN DE RESIDUOS NATURALEZA NO PÉTREA Canon de gestión de residuos de naturaleza no pétreo (17 03 02, 17 02 01, 17 04 05, 17 02 03, 17 02 02, 17 08 02).	
			Resto de obra y materiales.....	6,77
			TOTAL PARTIDA.....	6,77
0929	GR029	M3	GESTIÓN DE RESIDUOS PELIGROSOS Transporte y gestión de residuos peligrosos en Gestor Autorizado.	
			Resto de obra y materiales.....	33,08
			TOTAL PARTIDA.....	33,08
0930	GR030	UD	BALSAS DE LAVADO DE CUBAS DE HORMIGÓN Construcción de balsas de lavado de cubas de hormigón, incluso p/p. de retira y Gestión a Gestor autorizado.	
			Mano de obra.....	70,92
			Maquinaria.....	65,50
			Resto de obra y materiales.....	28,01
			TOTAL PARTIDA.....	164,43
0931	GR031	UD	PUNTO LIMPIO PARA RPs Montaje y desmontaje de punto limpio para residuos peligrosos.	
			Resto de obra y materiales.....	187,87
			TOTAL PARTIDA.....	187,87
0932	KS01	ud	Panel solar fotovoltaico 200Wp 12V, incluido acumulador monobloc Panel solar fotovoltaico 200Wp, 12V, con estructura soporte para 1 módulo fotovoltaico, regulador de carga tecnología PWM 20 Amp, 12V, acumulador monobloc 185Ah C-100, 12V e inversor de onda senoidal pura 500 W, 12Vcc/220Vca, totalmente colocado y probado.	
			Mano de obra.....	0,71
			Resto de obra y materiales.....	1.253,15
			TOTAL PARTIDA.....	1.253,86

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ABASTECIMIENTO A VARIOS MUNICIPIOS DE LA RIOJA. SISTEMA CIDACOS

Nº	CÓDIGO	UD	DESCRIPCIÓN	IMPORTE
0933	PF0335	UD	PANEL FOTOVOLTAICO 335W Suministro e instalación de módulo solar JINKO SOLAR JKM335PP-72 o similar, de células de silicio policristalino, potencia máxima (Wp) 335 W, tensión a máxima potencia (Vmp= 38 V, intensidad a máxima potencia (Imp) 8,82 A, tensión de circuito abierto (Voc) 47,2 V, intensidad de cortocircuito (Isc) 9,18 A, eficiencia 17,26% , 72 células, vidrio exterior templado de 3,2 mm de espesor, capa adhesiva de etilvinilacetato (EVA), marco de aluminio anodizado, temperatura de trabajo -40°C hasta 85°C, dimensiones 1956x992x40 mm, máxima tensión del sistema 1000V, resistencia a la carga del viento 245 kg/m2, resistencia a la carga de nieve 551 kg/m2, peso 0,8 kg, con caja de conexiones IP68 con 3 diodos, cables y conectores. Incluso accesorios de montaje y material de conexionado eléctrico, sin incluir la estructura soporte. Totalmente montado, conexionado y probado.	
			Mano de obra	17,62
			Resto de obra y materiales	90,54
			TOTAL PARTIDA.....	108,16
0934	PRAYO01	ud	PARARRAYOS Sistema de pararrayos colocado sobre cubierta formado por punta captadora de Ingesco o equivalente, mástil, cableado, puesta a tierra, arqueta y puente de comprobación. Nivel de protección III y radio 90 m. Con certificado de empresa suministradora y certificado de empresa instaladora donde se refleje el valor de la resistencia de puesta a tierra.	
			Mano de obra	510,58
			Resto de obra y materiales	2.468,66
			TOTAL PARTIDA.....	2.979,24
0935	SEÑAL01	UD	SEÑAL LUMINISCENTE EXT. INCENDIOS Ud. Señal luminiscente para elementos de extinción de incendios (eextintores, bios, pulsadores...) de 297x210 por una cara en pvc rígido de 2 mm de espesor, totalmente instalada, según norma UNE 23033 y CTE/DB-SI 4.	
			Mano de obra	4,72
			Resto de obra y materiales	2,55
			TOTAL PARTIDA.....	7,27
			Logroño, junio de 2020	
			VºBº: El Director del Proyecto:	
			Fdo: Ángel Castillo González Consortio de Aguas y Residuos de La Rioja	
			Fdo: Oscar F. González Vega Ingeniero de Caminos, Canales y Puertos Colegiado Nº 10.755	



4. PRESUPUESTOS PARCIALES

PRESUPUESTOS PARCIALES.

ABASTECIMIENTO A VARIOS MUNICIPIOS DE LA RIOJA. SISTEMA CIDACOS

CÓDIGO	RESUMEN	CANTIDAD	PRECIO	IMPORTE
CAPÍTULO 01 CAPTACIÓN (AZUD) Y CONDUCCIÓN A ETAP				
SUBCAPÍTULO 01.01 OBRA CIVIL CAPTACIÓN				
APARTADO 01.01.01 AZUD				
001	M3 EXCAVACIÓN A CIELO ABIERTO Excavación a cielo abierto en todo tipo de terrenos incluido terrenos en roca, incluso agotamiento y transporte a lugar de empleo o vertedero.	15.737,30	3,62	56.969,03
028	M3 HORMIGÓN DE LIMPIEZA HL-150 Hormigón de limpieza HL-150, de consistencia plástica, árido de tamaño máximo 40 mm y cemento CEM-II-D/42,5/SR, para saneos y encachados, incluyendo fabricación y transporte totalmente colocado.	5,61	44,76	251,10
030	M3 HORMIGÓN HNE-20/B/40 Hormigón HNE-20/B/40, con cemento CEM III/A-D/42,5/SR (UNE 80303:96), en masa o ligeramente armado, colocado en cualquier tipo de obra, incluso fabricación, carga y transporte, totalmente colocado.	2.536,76	50,38	127.801,97
031	M3 HORMIGÓN HA-25/B/20/IIa Hormigón HA-25/B/20/IIa, con cemento CEM III/A-D/42,5/SR, incluyendo fabricación, transporte, puesta en obra y vibrado, totalmente ejecutado, incluso curado y juntas.	63,71	53,39	3.401,48
023	KG ACERO CORRUGADO B-500-S Acero redondo corrugado para armar tipo B-500-S elaborado y colocado.	5.532,45	0,96	5.311,15
025	M2 ENCOFRADO RECTO EN PARAMENTOS OCULTOS Encofrado recto en paramentos ocultos, incluso colocación, fijación y desencofrado.	211,32	17,65	3.729,80
026	M2 ENCOFRADO RECTO EN PARAMENTOS VISTOS 1C Encofrado recto en paramentos vistos a una cara, incluso colocación, fijación y desencofrado.	664,88	21,18	14.082,16
027	M2 ENCOFRADO CURVO EN PARAMENTOS VISTOS Encofrado curvo en paramentos vistos, incluso colocación, fijación y desencofrado.	675,05	25,12	16.957,26
052	ML JUNTAS DE ESTANQUEIDAD DE PVC 32 CM Junta de trabajo interior de policloruro de vinilo (PVC) 100% virgen, con una fuerza máxima de dilatación > 250 %, de 32 cm de ancho, MASTERFLEX 2000 TI-24 de BASF o equivalente, colocada simétricamente en el eje de la losa o muro, incluso solapes y piezas especiales para cruces o ángulos. Medida la longitud ejecutada.	83,40	7,31	609,65
015	M3 ESCOLLERA D50 = 0,65 m Escollera caliza media de D50 = 0,65 m colocada en protección de cauces, incluido suministro y preparación de la superficie de apoyo, perfectamente rasanteada y terminada.	1.122,50	37,30	41.869,25
020	KG ACERO S 275 J PERFILES LAMINADOS Acero S 275 J en perfiles laminados elaborado y colocado.	4.450,38	1,95	8.678,24
365	ML CERRAMIENTO METÁLICO 2 m ALTURA Cerramiento metálico con malla plastificada S.T 50/17 de 2,00 m de altura, incluida p.p. de cimentación, postes intermedios, esquinas, tornapuntas, tripodes, alambres guías y tensores, puertas de acceso y elementos especiales, totalmente colocada.	161,00	27,58	4.440,38
TOTAL APARTADO 01.01.01 AZUD				284.101,47

PRESUPUESTOS PARCIALES.

ABASTECIMIENTO A VARIOS MUNICIPIOS DE LA RIOJA. SISTEMA CIDACOS

CÓDIGO	RESUMEN	CANTIDAD	PRECIO	IMPORTE
APARTADO 01.01.02 ESCALA DE PECES				
028	M3 HORMIGÓN DE LIMPIEZA HL-150 Hormigón de limpieza HL-150, de consistencia plástica, árido de tamaño máximo 40 mm y cemento CEM-II-D/42,5/SR, para saneos y encachados, incluyendo fabricación y transporte totalmente colocado.	3,46	44,76	154,87
030	M3 HORMIGÓN HNE-20/B/40 Hormigón HNE-20/B/40, con cemento CEM III/A-D/42,5/SR (UNE 80303:96), en masa o ligeramente armado, colocado en cualquier tipo de obra, incluso fabricación, carga y transporte, totalmente colocado.	36,92	50,38	1.860,03
031	M3 HORMIGÓN HA-25/B/20/IIa Hormigón HA-25/B/20/IIa, con cemento CEM III/A-D/42,5/SR, incluyendo fabricación, transporte, puesta en obra y vibrado, totalmente ejecutado, incluso curado y juntas.	86,60	53,39	4.623,57
023	KG ACERO CORRUGADO B-500-S Acero redondo corrugado para armar tipo B-500-S elaborado y colocado.	5.951,21	0,96	5.713,16
025	M2 ENCOFRADO RECTO EN PARAMENTOS OCULTOS Encofrado recto en paramentos ocultos, incluso colocación, fijación y desencofrado.	23,48	17,65	414,42
026	M2 ENCOFRADO RECTO EN PARAMENTOS VISTOS 1C Encofrado recto en paramentos vistos a una cara, incluso colocación, fijación y desencofrado.	352,56	21,18	7.467,22
TOTAL APARTADO 01.01.02 ESCALA DE PECES				20.233,27
APARTADO 01.01.03 CANAL				
003	M3 EXCAVACIÓN EN ZANJAS CON AGOTAMIENTO Excavación en zanjas y zonas localizadas, en todo tipo de terrenos incluido terrenos en roca con medios mecánicos, incluso rasanteo, nivelación de la superficie de apoyo, agotamiento y transporte a lugar de empleo o vertedero.	760,79	3,84	2.921,43
010	M3 RELLENO ZANJAS, CIMIENTOS Y TRASDOSES DE MATERIAL SELECCIONADO Relleno con material seleccionado en zanjas, cimientos, trasdós de muros, estribos y otras estructuras procedente de la excavación o préstamos incluso carga, transporte y compactación.	477,16	3,32	1.584,17
028	M3 HORMIGÓN DE LIMPIEZA HL-150 Hormigón de limpieza HL-150, de consistencia plástica, árido de tamaño máximo 40 mm y cemento CEM-II-D/42,5/SR, para saneos y encachados, incluyendo fabricación y transporte totalmente colocado.	18,69	44,76	836,56
031	M3 HORMIGÓN HA-25/B/20/IIa Hormigón HA-25/B/20/IIa, con cemento CEM III/A-D/42,5/SR, incluyendo fabricación, transporte, puesta en obra y vibrado, totalmente ejecutado, incluso curado y juntas.	120,09	53,39	6.411,61
023	KG ACERO CORRUGADO B-500-S Acero redondo corrugado para armar tipo B-500-S elaborado y colocado.	10.247,40	0,96	9.837,50
025	M2 ENCOFRADO RECTO EN PARAMENTOS OCULTOS Encofrado recto en paramentos ocultos, incluso colocación, fijación y desencofrado.	61,62	17,65	1.087,59
026	M2 ENCOFRADO RECTO EN PARAMENTOS VISTOS 1C Encofrado recto en paramentos vistos a una cara, incluso colocación, fijación y desencofrado.	118,80	21,18	2.516,18

PRESUPUESTOS PARCIALES.

ABASTECIMIENTO A VARIOS MUNICIPIOS DE LA RIOJA. SISTEMA CIDACOS

CÓDIGO	RESUMEN	CANTIDAD	PRECIO	IMPORTE
027	M2 ENCOFRADO CURVO EN PARAMENTOS VISTOS Encofrado curvo en paramentos vistos, incluso colocación, fijación y desencofrado.	9,24	25,12	232,11
015	M3 ESCOLLERA D50 = 0,65 m Escollera caliza media de D50 = 0,65 m colocada en protección de cauces, incluido suministro y preparación de la superficie de apoyo, perfectamente rasanteada y terminada.	413,82	37,30	15.435,49
TOTAL APARTADO 01.01.03 CANAL.....				40.862,64
APARTADO 01.01.04 CANALES TAMIZADO Y DESBASTE				
001	M3 EXCAVACIÓN A CIELO ABIERTO Excavación a cielo abierto en todo tipo de terrenos incluido terrenos en roca, incluso agotamiento y transporte a lugar de empleo o vertedero.	429,50	3,62	1.554,79
010	M3 RELLENO ZANJAS, CIMIENTOS Y TRASDOSES DE MATERIAL SELECCIONADO Relleno con material seleccionado en zanjas, cimientos, trasdós de muros, estribos y otras estructuras procedente de la excavación o préstamos incluso carga, transporte y compactación.	191,93	3,32	637,21
028	M3 HORMIGÓN DE LIMPEZA HL-150 Hormigón de limpieza HL-150, de consistencia plástica, árido de tamaño máximo 40 mm y cemento CEM-II-D/42,5/SR, para saneos y encachados, incluyendo fabricación y transporte totalmente colocado.	10,18	44,76	455,66
030	M3 HORMIGÓN HNE-20/B/40 Hormigón HNE-20/B/40, con cemento CEM II/A-D/42,5/SR (UNE 80303:96), en masa o ligeramente armado, colocado en cualquier tipo de obra, incluso fabricación, carga y transporte, totalmente colocado.	15,08	50,38	759,73
031	M3 HORMIGÓN HA-25/B/20/IIa Hormigón HA-25/B/20/IIa, con cemento CEM II/A-D/42,5/SR, incluyendo fabricación, transporte, puesta en obra y vibrado, totalmente ejecutado, incluso curado y juntas.	83,48	53,39	4.457,00
023	KG ACERO CORRUGADO B-500-S Acero redondo corrugado para armar tipo B-500-S elaborado y colocado.	7.104,73	0,96	6.820,54
025	M2 ENCOFRADO RECTO EN PARAMENTOS OCULTOS Encofrado recto en paramentos ocultos, incluso colocación, fijación y desencofrado.	20,16	17,65	355,82
026	M2 ENCOFRADO RECTO EN PARAMENTOS VISTOS 1C Encofrado recto en paramentos vistos a una cara, incluso colocación, fijación y desencofrado.	284,93	21,18	6.034,82
E0A060	UD TRAMEX. ENTRAMADO METÁLICO 30X30X3 Entramado metálico 30x30x3 tipo tramex o equivalente, incluso estructura auxiliar y suministro con parte proporcional de cerco también galvanizado, montaje, recibido y pintado.	22,57	28,50	643,25
E0104CH91	ML BARANDILLA METÁLICA ACERO INOXIDABLE AISI-316L Barandilla metálica en acero inoxidable AISI-316L, de 90 cm. de altura, formada por perfilera de tubo hueco de 30 mm y 3 mm de espesor, incluso rodapié de seguridad, elementos de anclaje, colocada.	26,00	69,91	1.817,66
TOTAL APARTADO 01.01.04 CANALES TAMIZADO Y DESBASTE.....				23.536,48

PRESUPUESTOS PARCIALES.

ABASTECIMIENTO A VARIOS MUNICIPIOS DE LA RIOJA. SISTEMA CIDACOS

CÓDIGO	RESUMEN	CANTIDAD	PRECIO	IMPORTE
APARTADO 01.01.05 ACCESOS Y EXPLANADAS				
001	M3 EXCAVACIÓN A CIELO ABIERTO Excavación a cielo abierto en todo tipo de terrenos incluido terrenos en roca, incluso agotamiento y transporte a lugar de empleo o vertedero.	6.772,92	3,62	24.517,97
012	M3 TERRAPLÉN O PEDRAPLÉN Terraplén o pedraplén procedente de las excavaciones o préstamos para carreteras, caminos y obras accesorias, incluso carga, transporte, extendido, humectación y compactación.	4.473,80	2,62	11.721,36
056	M3 ZAHORRA ARTIFICIAL Zahorra artificial compactada.	378,85	16,98	6.432,87
054	T PAVIMENTO DE MBC AC16 surf S Pavimento de mezcla bituminosa en caliente en capa de rodadura tipo AC 16 surf S de 5 cm de espesor, que incluye riego de imprimación con dotación de 1 Kg/m2, con betún B60/70 en dotación de 70 Kg/Tm, puesto en obra y terminado.	172,68	36,70	6.337,36
015	M3 ESCOLLERA D50 = 0,65 m Escollera caliza media de D50 = 0,65 m colocada en protección de cauces, incluido suministro y preparación de la superficie de apoyo, perfectamente rasanteada y terminada.	118,30	37,30	4.412,59
399	ML CUNETAS SIN REVESTIR EN DESMONTE Ejecución de cuneta sin revestir en desmonte de carretera, incluyendo perfilado, totalmente terminada.	248,00	1,07	265,36
377	UD SEÑAL DE TRÁFICO NORMALIZADA Señal de tráfico normalizada con soporte, incluso adquisición, transporte y colocación en su lugar de emplazamiento.	1,00	93,20	93,20
378.1	M2 SUPERFICIE REALMENTE PINTADA Pintura reflexiva blanca, en señalización de isletas, cebreados, etc, incluso premarcaje, totalmente terminada.	3,20	11,65	37,28
TOTAL APARTADO 01.01.05 ACCESOS Y EXPLANADAS.....				53.817,99
APARTADO 01.01.06 EDIFICIO DE PERMANGANATO Y GRUPO PRESIÓN				
002	M3 EXCAVACIÓN EN ZANJAS Excavación en zanjas y zonas localizadas, en todo tipo de terrenos incluido terrenos en roca con medios mecánicos, incluso rasanteo, nivelación de la superficie de apoyo y transporte a lugar de empleo o vertedero.	25,31	3,74	94,66
364B	M3 GRAVA CANTO RODADO 20 mm Suministro de grava de canto rodado de granulometría 20 mm y coeficiente de uniformidad 1,2, libre de arcilla, polvo y materia orgánica.	10,85	11,43	124,02
028	M3 HORMIGÓN DE LIMPEZA HL-150 Hormigón de limpieza HL-150, de consistencia plástica, árido de tamaño máximo 40 mm y cemento CEM-II-D/42,5/SR, para saneos y encachados, incluyendo fabricación y transporte totalmente colocado.	3,62	44,76	162,03
031	M3 HORMIGÓN HA-25/B/20/IIa Hormigón HA-25/B/20/IIa, con cemento CEM II/A-D/42,5/SR, incluyendo fabricación, transporte, puesta en obra y vibrado, totalmente ejecutado, incluso curado y juntas.	13,81	53,39	737,32

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ABASTECIMIENTO A VARIOS MUNICIPIOS DE LA RIOJA. SISTEMA CIDACOS

CÓDIGO	RESUMEN	CANTIDAD	PRECIO	IMPORTE
023	KG ACERO CORRUGADO B-500-S Acero redondo corrugado para armar tipo B-500-S elaborado y colocado.	1.189,39	0,96	1.141,81
025	M2 ENCOFRADO RECTO EN PARAMENTOS OCULTOS Encofrado recto en paramentos ocultos, incluso colocación, fijación y desencofrado.	8,06	17,65	142,26
026.2	M2 ENCOFRADO RECTO EN PILARES VISTOS Encofrado recto en pilares vistos, incluso colocación, fijación y desencofrado.	20,25	27,68	560,52
026.3	M2 ENCOFRADO RECTO EN VIGAS VISTOS Encofrado recto en vigas vistos, incluso colocación, fijación, apuntalamiento o cimbras, y desencofrado.	20,25	29,84	604,26
462	M2 FÁBRICA BLOQUES 40x20x20 cm TIPO SPLIT COLOR Fábrica de bloques de hormigón tipo Split, de medidas 40x20x20 cm color i/relleno de hormigón y colocación de armaduras s/normativa y recibido con mortero de cemento y arena de río 1/6 i/p.p. de piezas especiales para dinteles y materialización de jambas, roturas, nivelados, aplomados, llagueados y limpieza, todo ello según normativa.	92,61	31,80	2.945,00
464cf	M2 CARPINTERÍA FIJA ALUMINIO m². Carpintería fija con junquillos para la fijación del vidrio, de aluminio modelo con rotura de puente térmico, Alfil A54RPT de SAPAGROUP con un ancho de marco de 54 mm y con un ancho de hoja de 61 mm, medida del frente de 96,3 mm, con sistema de cámara europea, con espesor de perfil de 1,5 mm, con sistema de cierre por junta central de estanqueidad en EPDM, coplanar exteriormente y con resalte de hoja sobre el marco al interior, para un acristalamiento con altura de galce de 22 mm y anchura hasta 44 mm en marcos y 51 mm en hojas, lacado (entre 60-100 micras) en color estándar (RAL estándar: blanco, gris...), herrajes de colgar, p.p. de cerradura Tesa o similar y costes indirectos. Homologada con Clase 4 en el ensayo de permeabilidad al aire según norma UNE-EN 1026:2000. La transmitancia máxima del marco es de 2,90 W/m² K, y cumple en las zonas A, B, C, D y E, según el CTE/DB-HE 1.	0,96	144,71	138,92
464V3	M2 VIDRIO SEGURIDAD STADIP 44.1 INCOLORO (2B2) m². Acristalamiento de vidrio laminar de seguridad Stadip compuesto por dos vidrios de 4 mm de espesor unidos mediante lámina de butiral de polivinilo incolora de 0,38 mm, clasificado 2B2 según UNE-EN 12600, fijado sobre carpintería con acuíñado mediante calzos de apoyo perimetrales y laterales y sellado en frío con silicona neutra, incluso colocación de junquillos, según UNE 8522:1985.	0,96	37,05	35,57
520	M2 CUBIERTA PANEL SANDWICH (E=50 mm.) Cubierta con panel tipo sandwich espesor 50 cm., con doble chapa prelacada de 0,4 mm de espesor, y aislamiento térmico de poliuretano, fijada con gancho de acero galvanizado, incluso p.p de piezas de remate, totalmente colocada.	29,25	27,03	790,63
521	M2 CELOSIA FIJA VENTILACIÓN Celosía metálica fija para ventilación, formada por cerco con empanelado de lamas de acero de 60 mm, con abertura mínima de 1 cm entre lamas, malla de 2 mm para evitar entrada de insectos, garras de sujeción a soporte de 10 cm, elaborada en taller y montada en obra, totalmente colocada.	0,96	73,80	70,85
465.1	M2 PUERTA DOBLE CHAPA ACERO CON LAMAS Puerta de paso hojas abatibles de doble chapa lisa de acero de 1 mm de espesor, con aislamiento interno de fibre de vidrio, engatillada, realizada en dos bandejas, con rigidizadores de tubo rectangular, i/manillas de acero inoxidable y cerradura, con dos o cuatro rejillas de ventilación con malla anti insectos interior, patillas para recibir en fábricas, herrajes de colgar y de seguridad, imprimación antióxido y pintura al esmalte, totalmente colocada incluyendo el recibido de fábricas.	6,60	75,01	495,07

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CÓDIGO	RESUMEN	CANTIDAD	PRECIO	IMPORTE
519	ML REMATE DE CHAPA PRELACADA CUBIERTA Remate de chapa prelacada en color, para cubrir parte superior de bloque o panel, hasta el panel sandwich de la cubierta por el interior del peto, fijado mediante tacos y/o ganchos anclado a muro y o cubierta, dispuesto según planos.	15,96	22,47	358,62
020	KG ACERO S 275 J PERFILES LAMINADOS Acero S 275 J en perfiles laminados elaborado y colocado.	348,30	1,95	679,19
474.1	ML CANALON CHAPA PRELACADA 50cm Canalón de chapa prelacada en color, de 50 cm. de desarrollo fijado mediante ganchos ocultos con tornillo autoroscante 40 cm., incluso p.p. de embocadura de bajante, codos y piezas especiales.	9,00	11,85	106,65
463RCH	M2 REVESTIMIENTO PETO CUBIERTA M2. Revestimiento de peto interior de cubierta entre coronación y solape con impermeabilizante de cubierta, realizado con chapa lacada 0,5 mm con p.p. elementos de fijación, totalmente terminada.	14,76	8,25	121,77
453AZ	UD ACOMETIDA ABASTECIMIENTO ZONA AZUD Ud. Acometida desde canal formada por tubería de polietileno de 1 1/2" y 10 Atm. para uso alimentario, brida de conexión, machón rosca, manguitos, llaves de paso tipo globo, válvula anti-retorno de 1 1/2", tapa de registro exterior, grifo de pruebas de latón de 1/2", incluso contador, según CTE/DB-HS 4 suministro de agua.	1,00	141,21	141,21
453AZD	UD INSTALACIÓN DE FONTANERÍA EDIFICIO AZUD ud. Instalación de fontanería completa para para el edificio del azud, realizada con tuberías de polietileno reticulado (método Engel) utilizando el sistema Quick&Easy de derivaciones por tes para las redes de agua fría, totalmente terminada según CTE/DB-HS, para suministro de lavajos, grupo de presión, preparador de reactivos, toma de agua, incluso rejillas de sumideros interiores de PVC, con tuberías de saneamiento de salida de PVC SN8 DN 160-DN200 hasta al punto de vertido, y con p.p. de redes interiores de ascendentes y bajantes.	1,00	300,64	300,64
EDLAV001	UD DUCHA LAVAJOS Estructura construida en caño de acero galvanizado revestido con pintura epoxi color amarillo. Campana de ducha de diámetro 220 mm construida en acero inoxidable tipo diluvio, con baffle aliviador que produce una campana de agua de diámetro 500 mm. Lavajos construido con bacha de acero inoxidable de diámetro 250 mm con tapa plástica rebatible automáticamente y rociadores de bronce cromados que producen espuma con efecto de lavajos y lavacara posee paso calibrado regulador de presión y caudal y capuchones automáticos antipolvo. Accionamiento de la ducha por palanca manual de acero inoxidable con indicador e instructivo de alto impacto y válvula esférica de bronce. Accionamiento del lavajos por pedal de plástico y palanca manual de acero inoxidable con instructivo e indicador y válvula esférica de bronce. Acometida de agua potable, sumidero de vaciado y conexión a la red de escurridos. Totalmente instalada.	1,00	704,94	704,94
TOTAL APARTADO 01.01.06 EDIFICIO DE PERMANGANATO Y GRUPO PRESIÓN.....				10.455,94
TOTAL SUBCAPÍTULO 01.01 OBRA CIVIL CAPTACIÓN.....				433.007,79
SUBCAPÍTULO 01.02 EQUIPOS ELECTROMECAÑICOS CAPTACIÓN				
APARTADO 01.02.01 DOSIFICACIÓN DE PERMANGANATO POTÁSICO				
EBSM05	UD SKID PARA 2 BOMBAS DOSIFICADORAS Qu=210 L/HY 3 BAR Sistema de dosificación para permanganato potásico, de MILTON ROY, o equivalente, formado por 2 bombas de 210 l/h – 3 bar cada una. Equipo MRE de la serie DOSAPACK PD®. Modelo: PD-D3A1.B2/E3.B2.E1.BC.1.E1.E1.A1.C2.A1.P1.A1. 2 Bombas dosificadoras GM240 (1+1). Instalación con colectores de aspiración e impulsión, estructura metálica de acero, con soporte para todos los elementos, válvulas, amortiguadores, manómetros, etc, según características definidas en las E.T. de proyecto. Instalado y probado.	1,00	5.603,28	5.603,28

PRESUPUESTOS PARCIALES.

ABASTECIMIENTO A VARIOS MUNICIPIOS DE LA RIOJA. SISTEMA CIDACOS

CÓDIGO	RESUMEN	CANTIDAD	PRECIO	IMPORTE
EQ70000	Ud CONEXIÓN PARA LIMPIEZA DE CONDUCCIONES Conexión para limpieza de conducciones y baldeos, compuesta por válvulas de bola manual DN-25 y conexión rápida mediante racor.	1,00	145,06	145,06
E3256	UD CONJUNTO TUBERÍAS PARA AGUA INDUST. Y POTABLE. PVC Y/O PE Conjunto de tuberías y válvulas para distribución de agua industrial y potable. Material: PVC y/o PE. Diámetro nominal: según planos mm. Presión nominal: 10 Atm. Incluso p.p. de válvulas, soportes y accesorios.	1,00	122,87	122,87
E3257	Ud CONJUNTO TUBERÍAS DISTRIBUCIÓN REACTIVOS PVC Y/O PP Conjunto de tuberías y válvulas para distribución de reactivos. Material: PVC y/o PP. Diámetro nominal: según planos mm. Presión nominal: 10 Atm. Incluso p.p. de válvulas, soportes y accesorios.	1,00	118,61	118,61
EPPPOL03	UD EQUIPO PREPARACIÓN PERMANGANATO 600 L/H Equipo de preparación de permanganato. Marca: POLITECH o equivalente. Modelo: POLIBASIC AP 8 PPH PERMANGANATO. Tipo: unidad compacta. Capacidad de preparación (l/h): 600. Dosisificador de permanganato: tornillo+motorreductor de 0,18 kW. Tolva de alimentación de capacidad 60 litros. Depósito con tres compartimentos y tapas, de 1.000 l. de capacidad útil. Dos electroagitadores de eje vertical y amarre por brida. Potencia electroagitador (kW): 0,37. Sonda de nivel ultrasónico. Armario de control. Materiales: Cuba en PPH, electroagitadores y tobera: AISI 316. Dosisificador volumétrico: PPH. Cuadro eléctrico. Incluso transporte, montaje, conexiones eléctricas y de control, pruebas de funcionamiento. Resto de características según E.T.	1,00	5.597,98	5.597,98
TOTAL APARTADO 01.02.01 DOSIFICACIÓN DE PERMANGANATO POTÁSICO.....				11.587,80
APARTADO 01.02.02 DESBASTE Y TAMIZADO				
ETTFD02	UD TORNILLO TRANSPORTADOR PARA REJAS DE GRUESOS 3,0 m3/h Tornillo transportador para residuos de la reja de gruesos. Capacidad: 3,0 m³/h. Diámetro: 273 mm. Material: acero inoxidable AISI-304L. Longitud: 4,20 m. Potencia motor eléctrico: 0,75 kW. Posición de trabajo inclinado a 25°horizontal. Espiral en AISI-304L. Canal y tapas en acero inoxidable AISI-304 L. Zona de compactación en acero inoxidable AISI-304 L. Dos tolvas para acople de las rejas, y soportes standard en acero inoxidable AISI-304 L. Sistema de lavado automático con agua. Incluso transporte, montaje, conexiones eléctricas y pruebas de funcionamiento. Resto de características según E.T.	1,00	11.790,95	11.790,95
ETTFD03	UD TORNILLO TRANSPORTADOR PARA TAMICES 3,0 m3/h Tornillo transportador para residuos de la tamices. Capacidad: 3,0 m³/h. Diámetro: 273 mm. Material: acero inoxidable AISI-304L. Longitud: 6,20 m. Potencia motor eléctrico: 0,75 kW. Posición de trabajo inclinado a 15°. Espiral en AISI-304L. Canal y tapas en acero inoxidable AISI-304 L. Zona de compactación en acero inoxidable AISI-304 L. Dos tolvas para acople de las rejas, y soportes standard en acero inoxidable AISI-304 L. Sistema de lavado automático con agua. Incluso transporte, montaje, conexiones eléctricas y pruebas de funcionamiento. Resto de características según E.T.	1,00	10.290,56	10.290,56
EREG01	UD REJA DE GRUESOS DE 472,22 L/S. PASO 40 MM. AISI-304L Reja de gruesos en la captación del azud. Capacidad: 472,22 l/s. Luz de paso de 40 mm. Material: acero inoxidable AISI-304L. Ángulo de inclinación 70°. Potencia 0,25 kW. Cuadro eléctrico y de control, así como 2 medidores de diferencia de nivel tipo radar. Incluso transporte, montaje, conexiones eléctricas y pruebas de funcionamiento. Resto de características según E.T.	2,00	36.459,61	72.919,22

PRESUPUESTOS PARCIALES.

ABASTECIMIENTO A VARIOS MUNICIPIOS DE LA RIOJA. SISTEMA CIDACOS

CÓDIGO	RESUMEN	CANTIDAD	PRECIO	IMPORTE
ETAMI01	UD TAMIZ DE CHAPA PERFORADA DE 472,22 L/S. PASO 3 MM. AISI-304L Tamiz de chapa perforada para la captación del azud. Capacidad: 472,22 l/s. Chapa perforada de 3 mm.de paso. Material: acero inoxidable AISI-304L. Potencia 0,25 kW. Cuadro eléctrico y de control, así como 2 medidores de diferencia de nivel tipo radar. Lavado automático de prensado. Incluso transporte, montaje, conexiones eléctricas y pruebas de funcionamiento. Resto de características según E.T.	2,00	88.861,20	177.722,40
ECONT01	UD CONTENEDOR METAL 5 m³ Contenedor metálico de 5 m³ de capacidad para transporte sobre camión normalizado, de chapa de acero protegida contra la corrosión.	2,00	503,82	1.007,64
EREJ01	UD REJA GRUESOS LIMPIEZA MANUAL IZABLE LUZ 40 mm Reja de desbaste de gruesos manual izable de 40 mm de paso, de acero inoxidable AISI-304L. Incluido rastrillo de limpieza, cestillo y guías y gancho para extracción. Incluso transporte, montaje y pruebas de funcionamiento.	1,00	2.023,71	2.023,71
ECCMA01	UD COMPUERTA CANAL MANUAL DE 800x1000 MM. INOX316L Compuerta canal manual de 0,80 m de ancho y 1,0 m de altura de tablero, con husillo y volante de altura variable. Altura máxima agua según planos. Número de cierres 3. Espesor de chapa de 5 mm (mínimo). Número de husillos 1. Accionamiento manual con volante, con rodamiento para absorber el esfuerzo axial. Materiales: Guías, marco, tablero y husillo de acero inoxidable AISI-316L. Incluso transporte, montaje y pruebas de funcionamiento. Resto de características según E.T.	6,00	2.466,48	14.798,88
TOTAL APARTADO 01.02.02 DESBASTE Y TAMIZADO.....				290.553,36
TOTAL SUBCAPÍTULO 01.02 EQUIPOS ELECTROMECÁNICOS CAPTACIÓN.....				302.141,16
SUBCAPÍTULO 01.03 EJE 1: CONDUCCIÓN GRAVEDAD DE CAPTACIÓN - ETAP				
APARTADO 01.03.01 MOVIMIENTO DE TIERRAS				
010	M3 RELLENO ZANJAS, CIMIENTOS Y TRASDOSES DE MATERIAL SELECCIONADO Relleno con material seleccionado en zanjas, cimientos, trasdós de muros, estribos y otras estructuras procedente de la excavación o préstamos incluso carga, transporte y compactación.	32.907,10	3,32	109.251,57
011	M3 RELLENO DE ARENA Arena para apoyo y protección de tuberías incluso carga, transporte, colocación, compactación y nivelación.	18.161,19	12,09	219.568,79
019	M2 DEMOLICIÓN DE FIRMES Demolición de firmes de cualquier tipo, incluso precorte, carga y transporte a vertedero, posterior perfilado y compactación del terreno.	6.082,00	2,50	15.205,00
007	M2 ENTIBACIÓN MÓDULOS METÁLICOS Entibación a dos caras mediante módulos metálicos y articulados, en zonas de protección de zanja, medida la superficie efectiva.	7.245,00	8,69	62.959,05
003	M3 EXCAVACIÓN EN ZANJAS CON AGOTAMIENTO Excavación en zanjas y zonas localizadas, en todo tipo de terrenos incluido terrenos en roca con medios mecánicos, incluso rasanteo, nivelación de la superficie de apoyo, agotamiento y transporte a lugar de empleo o vertedero.	59.302,40	3,84	227.721,22
012	M3 TERRAPLÉN O PEDRAPLÉN Terraplén o pedraplén procedente de las excavaciones o préstamos para carreteras, caminos y obras accesorias, incluso carga, transporte, extendido, humectación y compactación.	65,10	2,62	170,56

PRESUPUESTOS PARCIALES.

ABASTECIMIENTO A VARIOS MUNICIPIOS DE LA RIOJA. SISTEMA CIDACOS

CÓDIGO	RESUMEN	CANTIDAD	PRECIO	IMPORTE
008	M2 DESPEJE Y DESBROCE Despeje y desbroce de capa de tierra vegetal con un espesor medio de 50 cm, incluso corte de árboles, extracción de tocones, nivelación de zona adyacente para el paso de maquinaria, transporte a lugar de acopio independiente para posterior reposición de tierra vegetal tras las obras y despedregado de las parcelas, así como transporte a vertedero de tierras sobrantes.	30.636,50	0,57	17.462,81
030	M3 HORMIGÓN HNE-20/B/40 Hormigón HNE-20/B/40, con cemento CEM II/A-D/42,5/SR (UNE 80303:96), en masa o ligeramente armado, colocado en cualquier tipo de obra, incluso fabricación, carga y transporte, totalmente colocado.	2.522,31	50,38	127.073,98
013	M3 ESCOLLERA D50 =1,30 m Escollera caliza muy pesada de D50 = 1,30 m colocada en protección de cauces, incluido suministro y preparación de la superficie de apoyo, perfectamente rasanteada y terminada.	113,96	28,68	3.268,37
015	M3 ESCOLLERA D50 = 0,65 m Escollera caliza media de D50 = 0,65 m colocada en protección de cauces, incluido suministro y preparación de la superficie de apoyo, perfectamente rasanteada y terminada.	7.562,80	37,30	282.092,44
TOTAL APARTADO 01.03.01 MOVIMIENTO DE TIERRAS.....				1.064.773,79
APARTADO 01.03.02 OBRA CIVIL				
030	M3 HORMIGÓN HNE-20/B/40 Hormigón HNE-20/B/40, con cemento CEM II/A-D/42,5/SR (UNE 80303:96), en masa o ligeramente armado, colocado en cualquier tipo de obra, incluso fabricación, carga y transporte, totalmente colocado.	1.682,85	50,38	84.781,98
023	KG ACERO CORRUGADO B-500-S Acero redondo corrugado para armar tipo B-500-S elaborado y colocado.	31.584,94	0,96	30.321,54
034.1	UD ARQUETA HORMIGÓN DE 3,0x3,0 M Y HASTA 2,50 m DE PROFUNDIDAD Arqueta de hormigón armado HA-25/P/40/IIa para alojamiento de válvulas de tuberías de dimensiones interiores 3,0x3,0 m y una altura de hasta 2,50 m, con solera de 30 cm de canto, muros de 25 cm de espesor y tapa de 25 cm de canto, armado con parrilla de 20x20 cm con redondos de 12 mm, incluso excavación, relleno posterior, encofrado, ganchos de elevación de tapa, totalmente terminada.	1,00	3.122,67	3.122,67
373	UD POZO DE REGISTRO DE AROS DE HORMIGÓN DN1200 Pozo de registro de abastecimiento para válvulas de control de cualquier altura de diámetro interior D=1200 mm, incluso base de hormigón HNE-20, aros de hormigón, con prefabricado de hormigón, pates y tapa de fundición, totalmente terminado.	26,00	357,84	9.303,84
TOTAL APARTADO 01.03.02 OBRA CIVIL.....				127.530,03
APARTADO 01.03.03 TUBERÍAS				
058B	ML TUBERÍA FD 1000 mm Tubería de fundición dúctil de diámetro interior 1000 mm y PFA de 32 bar, revestida interiormente con mortero de cemento y exteriormente con una capa de cinc y otra bituminosa, i/p.p. de junta automática flexible, banda de señalización y medios auxiliares, totalmente colocada y probada.	6.939,00	374,95	2.601.778,05
068B	UD CODO FD 1/32 1000 mm Codo de fundición dúctil de 1/32 de diámetro interior 1000 mm y PFA 25 bar, con revestimiento interior y exterior epoxi, incluso p.p. de juntas y medios auxiliares, totalmente colocado y probado.	69,00	2.038,15	140.632,35

PRESUPUESTOS PARCIALES.

ABASTECIMIENTO A VARIOS MUNICIPIOS DE LA RIOJA. SISTEMA CIDACOS

CÓDIGO	RESUMEN	CANTIDAD	PRECIO	IMPORTE
069B	UD CODO FD 1/16 1000 mm Codo de fundición dúctil de 1/16 de diámetro interior 1000 mm y PFA 25 bar, con revestimiento interior y exterior epoxi, incluso p.p. de juntas y medios auxiliares, totalmente colocado y probado.	41,00	2.414,18	98.981,38
070B	UD CODO FD 1/8 1000 mm Codo de fundición dúctil de 1/8 de diámetro interior 1000 mm y PFA 25 bar, con revestimiento interior y exterior epoxi, incluso p.p. de juntas y medios auxiliares, totalmente colocado y probado.	9,00	2.662,19	23.959,71
070RB	UD CODO FD 1/4 1000 mm Codo de fundición dúctil de 1/4 de diámetro interior 1000 mm y PFA 25 bar, con revestimiento interior y exterior epoxi, incluso p.p. de juntas y medios auxiliares, totalmente colocado y probado.	4,00	2.720,06	10.880,24
196	ML TUBERÍA DE PVC 200 mm Tubería de PVC con junta elástica de 200 mm de diámetro exterior, y PN=6 bar, incluso banda de señalización, totalmente colocada en zanja.	205,00	18,67	3.827,35
TOTAL APARTADO 01.03.03 TUBERÍAS.....				2.880.059,08
APARTADO 01.03.04 VÁLVULAS Y ACCESORIOS				
244.1	UD VENTOSA DN=100 (4") mm PN16 Válvula ventosa de tres funciones de DN=100 mm y PN 16 bar incluido transporte, juntas, válvula de corte DN=100 mm y PN 16 bar y piezas especiales, totalmente colocada y probada.	13,00	903,50	11.745,50
243.1	UD VENTOSA DN=200 mm PN16 Válvula ventosa de tres funciones de DN=200 mm y PN 16 bar incluido transporte, juntas, válvula de corte DN=200 mm y PN 16 bar y piezas especiales, totalmente colocada y probada.	2,00	1.596,89	3.193,78
109	UD REDUCCIÓN FD 200 A 150/100 mm PN16 Reducción en fundición dúctil de 200 mm a 150-125-100 mm con dos bridas PN 16 bar, con un revestimiento interior y exterior epoxi, i/p.p. de junta de unión y medios auxiliares, totalmente colocada y probada.	13,00	91,37	1.187,81
116B	UD TE FD EEB DN1000 mm PN16 SALIDA HASTA DN200 "T" de fundición dúctil de PFA 16 bar, con dos enchufes y derivación con brida para tubería de 1000 mm con salida comprendida entre 1000 y 200 mm, con un revestimiento interior y exterior epoxi, i/p.p. de junta de unión y medios auxiliares, totalmente colocada y probada.	26,00	5.731,65	149.022,90
232	UD VÁLVULA DE COMPUERTA MANUAL DN200 PN16 Válvula de compuerta de cierre elástico de 200 mm. de diámetro nominal y 16 At. de P.N., de accionamiento manual por volante, de cuerpo de fundición nodular GGG-50, con eje de acero inoxidable al 13 % Cr. con roscas conformadas por laminación en frío, cierre en fundición nodular, tornillería de acero inoxidable, protegida contra la corrosión mediante aplicación de doble capa de pintura epoxy, totalmente colocada y probada. Resto de características según ET.	11,00	514,52	5.659,72
EVMM1000	UD VÁLVULA DE MARIPOSA DOBLE EXCENRICIDAD DN 1000 mm PN16 MANUAL Válvula de mariposa de doble excentricidad de 1000 mm de diámetro y PN16, de accionamiento manual por reductor, incluso mecanismo de accionamiento, maniobra y control, transporte, montaje, juntas, tornillería y pintura totalmente instalada y probada. Resto de características según ET de proyecto.	1,00	10.589,52	10.589,52
ECD01000	UD CARRETE DE DESMONTAJE DN=1000 mm PN16 Carrete telescópico de desmontaje DN1000 PN 16, bridas de acero al carbono, virolas de acero inoxidable, protección epoxi, tornillos y tuercas en acero F-114, cincado y posterior baño de cromo-níquel, incluido p.p. de brida enchufe, totalmente instalado y probado en obra.	1,00	2.493,26	2.493,26

PRESUPUESTOS PARCIALES.

ABASTECIMIENTO A VARIOS MUNICIPIOS DE LA RIOJA. SISTEMA CIDACOS

CÓDIGO	RESUMEN	CANTIDAD	PRECIO	IMPORTE
116.1	UD BRIDA ENCHUFE FD 1000 mm PN16 Brida enchufe de fundición dúctil de PFA 16 bar para tubería de 1000 mm, con un revestimiento interior y exterior epoxi, i/p.p. de junta de unión y medios auxiliares, totalmente colocada y probada.	2,00	2.830,83	5.661,66
	TOTAL APARTADO 01.03.04 VÁLVULAS Y ACCESORIOS.....			189.554,15
	APARTADO 01.03.05 OBRAS ACCESORIAS Y REPOSICIONES DE SERVICIOS			
030	M3 HORMIGÓN HNE-20/B/40 Hormigón HNE-20/B/40, con cemento CEM II/A-D/42,5/SR (UNE 80303:96), en masa o ligeramente armado, colocado en cualquier tipo de obra, incluso fabricación, carga y transporte, totalmente colocado.	2,50	50,38	125,95
055	M2 PAVIMENTO DOBLE TRATAMIENTO SUPERFICIAL Pavimento doble tratamiento superficial formado por árido 13/7 y 6/3, y ligante emulsión C60B3 ADH con dotación 4 kg/m2, incluso riego de imprimación previo con ligante emulsión C60BF4 IMP en dotación 1 kg/m2, puesto en obra y terminado.	2.322,00	2,52	5.851,44
389	ML REPOSICIÓN DE ACEQUIA Reposición de acequia con tubo de hormigón hasta 1 m de diámetro.	10,00	13,55	135,50
381	M2 REPOSICIÓN DE FIRME DE AGLOMERADO Reposición de firme de aglomerado en caliente en zonas afectadas por las obras.	1.245,00	4,14	5.154,30
383	ML REPOSICIÓN DE CERRAMIENTO EXISTENTE Reposición de cerramiento existente hasta 2,00 m de altura.	10,00	9,37	93,70
380	M2 REPOSICIÓN DE PAVIMENTO DE HORMIGÓN Reposición de pavimento de hormigón HM-20/B/40/IIa+Qa de 15 cm de espesor, totalmente terminado.	632,00	17,84	11.274,88
382	ML REPOSICIÓN DE MURO DE HORMIGÓN EXISTENTE Reposición de muro de hormigón existente hasta 2,00 m de altura.	45,00	42,70	1.921,50
387	ML REPOSICIÓN OBRA DE DRENAJE HASTA DN 1,00 m Reposición de obra de drenaje hasta 1,00 de diámetro, p.p. de boquilla de entrada y salida, excavación, hormigón de recubrimiento y relleno compactado, totalmente terminada.	70,00	174,54	12.217,80
390	ML REPOSICIÓN DE ACEQUIA HASTA 3 m ANCHURA Reposición de acequia de hormigón de 1,00 a 3,00 m de anchura.	5,00	201,26	1.006,30
392	UD REPOSICIÓN DE ARQUETA Reposición de arqueta prefabricada de hormigón de 0,60 x 0,60 m para canalización eléctrica, incluso marco y tapa de registro, totalmente colocada.	13,00	40,44	525,72
050	M2 RESTITUCIÓN DE FORMAS EN PARAMENTOS DE ESTRIBOS Restitución de formas en paramentos de estribos, incluso armadura adicional y mortero de reparación.	1,72	157,59	271,05
017	M2 CHAPADO DE PIEDRA CALIZA Chapado de piedra caliza, incluso preparación de paramento, hormigón o mortero de agarre y elementos auxiliares de amarre con acero de sujeción, malla, etc.	13,50	83,49	1.127,12

PRESUPUESTOS PARCIALES.

ABASTECIMIENTO A VARIOS MUNICIPIOS DE LA RIOJA. SISTEMA CIDACOS

CÓDIGO	RESUMEN	CANTIDAD	PRECIO	IMPORTE
051	KG RESINA EPOXI SELLADO HORMIGÓN Resina epoxi en sellado de unión de refuerzos de cabeza de fuste de hormigón, incluso inyección y pequeño material.	8,79	31,16	273,90
208	ML TUBERÍA PRFV DN 1200 mm Tubería de poliéster reforzado con fibra de vidrio de diámetro nominal DN=1200 mm y PN 6 bar, incluso juntas y banda de señalización, totalmente colocada.	6,00	171,93	1.031,58
033	M3 HORMIGÓN HA-35/P/40/IIa+Qa Hormigón HA-35/P/40/IIa+Qa, con cemento CEM II/A-D/42,5/SR (UNE 80303:96), incluyendo fabricación, transporte, puesta en obra y vibrado, totalmente ejecutado, incluso curado y juntas.	17,51	65,74	1.151,11
018	M3 DEMOLICIÓN DE HORMIGÓN Demolición de hormigón en masa o armado en estructuras, pozos y arquetas, con máquina retroexcavadora con martillo, incluso carga y transporte a vertedero.	52,41	19,36	1.014,66
004	M3 EXCAVACIÓN EN ZANJAS MANUAL Excavación en zanjas y zonas localizadas, en todo tipo de terrenos por medios manuales, incluso transporte a lugar de empleo o vertedero.	12,54	21,49	269,48
010	M3 RELLENO ZANJAS, CIMIENTOS Y TRASDOSES DE MATERIAL SELECCIONADO Relleno con material seleccionado en zanjas, cimientos, trasdós de muros, estribos y otras estructuras procedente de la excavación o préstamos incluso carga, transporte y compactación.	12,72	3,32	42,23
020	KG ACERO S 275 J PERFILES LAMINADOS Acero S 275 J en perfiles laminados elaborado y colocado.	1.259,52	1,95	2.456,06
028	M3 HORMIGÓN DE LIMPIEZA HL-150 Hormigón de limpieza HL-150, de consistencia plástica, árido de tamaño máximo 40 mm y cemento CEM-II-D/42,5/SR, para saneos y encachados, incluyendo fabricación y transporte totalmente colocado.	14,61	44,76	653,94
023	KG ACERO CORRUGADO B-500-S Acero redondo corrugado para armar tipo B-500-S elaborado y colocado.	1.301,15	0,96	1.249,10
016	M3 ESCOLLERA D50 = 0,65 m HORMIGONADA	1,25	46,80	58,50
026	M2 ENCOFRADO RECTO EN PARAMENTOS VISTOS 1C Encofrado recto en paramentos vistos a una cara, incluso colocación, fijación y desencofrado.	18,92	21,18	400,73
027	M2 ENCOFRADO CURVO EN PARAMENTOS VISTOS Encofrado curvo en paramentos vistos, incluso colocación, fijación y desencofrado.	6,28	25,12	157,75
	TOTAL APARTADO 01.03.05 OBRAS ACCESORIAS Y REPOSICIONES DE SERVICIOS.....			48.464,30
	TOTAL SUBCAPÍTULO 01.03 EJE 1: CONDUCCIÓN GRAVEDAD DE CAPTACIÓN - ETAP.....			4.310.381,35

PRESUPUESTOS PARCIALES.

ABASTECIMIENTO A VARIOS MUNICIPIOS DE LA RIOJA. SISTEMA CIDACOS

CÓDIGO	RESUMEN	CANTIDAD	PRECIO	IMPORTE
SUBCAPÍTULO 01.04 INSTALACIONES ELÉCTRICA BT				
ELE021	ML LINEA GENERAL DE ALIMENTACIÓN DE 4x6mm ² Cu 0,6/1 kV (AS) Línea general de alimentación con cuatro conductores unipolares de 1x6mm ² Cu 0.6/1kV RZ1-K(AS) instalada en canalización subterránea bajo tubo d=160mm.	50,00	22,93	1.146,50
ELA049	ML CANALIZACIÓN ELÉCTRICA 2T PE DP 110 Canalización eléctrica formada por dos tubos PE DP 110 mm corrugado de doble pared con guía. Incluyendo corte de pavimento, excavación de zanja de 0,40 m de anchura y 1,0 m de profundidad, lecho de hormigón y recubierta 10 cm como mínimo del mismo material sobre la generatriz superior del tubo, relleno con material de la propia de excavación hasta la cota de terreno, cinta señalizadora, compactado y acabado superficial de hormigón con una altura mínima de 20 cm.	130,00	14,69	1.909,70
ELE0301	UD CUADRO GENERAL BAJA TENSIÓN Cuadro general con apartamento y envolvente de Schneider, formado por envolvente metálico con puertas montado sobre zócalo y conteniendo interruptor general automático NS 40A regulable, limitador de sobretensiones, analizador de redes, variadores de frecuencia 11 kW, protecciones magneto-térmicas y diferenciales según esquema unifilar, incluso cableado interior, perfiles omega y regletas de conexión. Amario: - Preparado para instalar un interruptor general automático de hasta 250A. - Ampliable por uno de los costados. - Con reserva de espacio de al menos el 50% de la apartamento instalada.	1,00	7.505,74	7.505,74
BT050	ML BANDEJA AISLANTE 60x150 MM Bandeja perforada de PVC, color gris RAL 7035, de 60x150 mm, resistencia al impacto 5 julios, propiedades eléctricas: aislante, no propagador de la llama, estable frente a los rayos UV y con resistencia a la intemperie y a los agentes químicos, con 1 compartimento, con soporte horizontal, de PVC, color gris RAL 7035.	15,00	42,26	633,90
BT060	ML TUBO PVC RIGIDO d=20mm Tubo rígido de PVC d=16mm para canalización de conductores, incluso soportes y anclajes a pared, instalado.	20,00	2,47	49,40
EL362	ML LINEA 5x2.5mm ² Cu 0.6/1kV RZ1-K (AS) Línea eléctrica con conductor multipolar 5x2.5mm ² RZ1-K (AS) en canalización existente, incluso conexionado en inicio y final de línea.	20,00	2,39	47,80
EL380	ML LINEA 3x1.5mm ² Cu 0.6/1kV RZ1-K (AS) Línea eléctrica con conductor multipolares 3x1.5mm ² RZ1-K (AS) en canalización existente, incluso conexionado en inicio y final de línea.	60,00	1,81	108,60
BT131	* ML LINEA 3x4mm ² Cu 0.6/1kV RZ1-K (AS) Línea eléctrica de 3x4mm ² Cu 0.6/kV RZ1-K (AS) en canalización existente, con parte proporcional de cajas de derivación.	1,00	3,74	3,74
BT130	ML LINEA 3x2.5mm ² Cu 0.6/1kV RZ1-K (AS) Línea eléctrica de 3x2.5mm ² Cu 0.6/kV RZ1-K (AS) en canalización existente, con parte proporcional de cajas de derivación.	40,00	3,05	122,00
EL3623	ML LINEA 4x2.5mm ² Cu 0.6/1kV RZ1-K (AS) Línea eléctrica con conductor multipolar 4x2.5mm ² RZ1-K (AS) en canalización existente, incluso conexionado en inicio y final de línea.	343,00	2,05	703,15
EL36231	ML LINEA 4x2.5mm ² Cu 0.6/1kV RZ1KZ1-K (AS) Línea eléctrica con conductor multipolar 4x2.5mm ² RZ1KZ1-K (AS) en canalización existente, incluso conexionado en inicio y final de línea.			

PRESUPUESTOS PARCIALES.

ABASTECIMIENTO A VARIOS MUNICIPIOS DE LA RIOJA. SISTEMA CIDACOS

CÓDIGO	RESUMEN	CANTIDAD	PRECIO	IMPORTE
AL140	m LINEA SUBTERRÁNEA 4x6 mm ² + 1x16 mm ² Línea de alimentación para alumbrado formada por conductor multipolar de cobre de 4x6 mm ² con aislamiento RV 0,6/1 kV y conductor de puesta a tierra 1x16 mm ² 750 V, colocado en tendido subterráneo bajo tubo en canalización existente, instalada, transporte, montaje y conexionado, medida la longitud en funcionamiento.	40,00	2,36	94,40
ELE0118	UD ARQUETA ELÉCTRICA FÁBRICA 100x100 CM Arqueta de paso de líneas construida en fábrica de ladrillo de 12 cm. de espesor y enfoscado en paredes, dimensiones interiores 100 x 100 y 100 cm. de profundidad, incluso marco y tapa de fundición.	130,00	4,57	594,10
AL130	UD ARQUETA PASO DERIVACIÓN 40x40x60 Arqueta prefabricada 40x40x60 cm libres, para paso, derivación o toma de tierra, con marco y tapa cuadrada 40x40 cm en fundición, medida la unidad ejecutada en obra.	14,00	183,87	2.574,18
BT150	UD INTERRUPTOR ALUMBRADO Interruptor de alumbrado con mecanismo completo y p/p de conductor, tubo y cajas de derivación.	5,00	71,62	358,10
BT160	UD TOMA DE CORRIENTE Toma de corriente con mecanismo completo y p/p de conductor, tubo y cajas de derivación.	2,00	20,48	40,96
BT190	UD PANTALLA ESTANCA Pantalla estanca WT120C L1500 1xLED60S/840 de Philips o equivalente, instalada y conexionada.	2,00	22,44	44,88
BT220	UD EMERGENCIA 300 LM Emergencia Basic Led serie L de Luznor o equivalente, modelo LL-300-T de 300 lúmenes, instalada y conexionada.	3,00	52,07	156,21
BT210	UD EMERGENCIA 100 LM Emergencia Basic Led serie L de Luznor o equivalente, modelo LLE-100 de 100 lúmenes, instalada y conexionada.	2,00	39,10	78,20
BT2303	UD PUESTA A TIERRA DE ZONA DE DESBASTE Puesta a tierra de la nave con 50 metros de conductor de cobre desnudo de 50mm ² y 4 picas de acero cobrizado de 2 metros.	2,00	32,12	64,24
BT2302	UD PUESTA A TIERRA DE EDIFICIO Puesta a tierra de la nave con 28 metros de conductor de cobre desnudo de 50mm ² y 4 picas de acero cobrizado de 2 metros.	1,00	328,41	328,41
BT181	UD LUMINARIA EXTERIOR NAVE Campana industrial BGP 307 T25 1xLED99-4S/740 DM11 de Philips o equivalente, instalada y conexionada.	1,00	263,56	263,56
AL040	UD PROYECTOR BVP130 LED260-4S/740 S Instalación de proyector BVP130 LED 260-4S/740 S CLASE II de Philips o equivalente. CON GARANTÍA POR 10 AÑOS EMITIDA POR EL FABRICANTE. Incluyendo nueva caja de derivación para intemperie, caja Clavet con fusible, línea de 3x2,5mm ² Cu 0,6/1kV hasta la luminaria, elemento adaptador de la entrada del proyector a cualquier tipo de columna, báculo o palomilla, totalmente conexionado, unido a soporte y probado. Con protección contra sobretensiones, sobreintensidades y sobretemperatura. Incluso desmontaje y retirada al almacén municipal del proyector existente.	6,00	71,31	427,86
		2,00	370,56	741,12

PRESUPUESTOS PARCIALES.

ABASTECIMIENTO A VARIOS MUNICIPIOS DE LA RIOJA. SISTEMA CIDACOS

CÓDIGO	RESUMEN	CANTIDAD	PRECIO	IMPORTE
AL071	UD COLUMNA h=8m Suministro y colocación de columna metálica de chapa de acero galvanizada en caliente con altura 8 metros con puerta registrable incluso excavación y cimentación.	7,00	537,70	3.763,90
AL100	UD PALOMILLA BANDERA Palomilla bandera de tubo de acero galvanizado en caliente 50x40x4 mm. con dos anclajes a pared separados 50 cm. y vuelo comprendido entre 30 y 90 cm., galvanizado en caliente, tornillería de enlace de acero galvanizado, incluso obras auxiliares de apertura de huecos para anclajes y recibido en paramentos.	1,00	81,63	81,63
AL110	UD BRAZO SOPORTE RECTO/CURVO Brazo de tubo de acero estirado de 50 mm. de diámetro y 2,5 mm. de espesor, recto sin vuelo o con vuelo entre 0 y 1,5 m. y altura comprendida entre 2,00 y 5,00 m., galvanizado en caliente, tornillería de enlace de acero galvanizado, incluso obras auxiliares de adaptación a palomilla bandera existente o nueva.	1,00	38,55	38,55
BT260	Ud OCA Inspección inicial y certificado de Organismo de Control autorizado.	1,00	300,61	300,61
TOTAL SUBCAPÍTULO 01.04 INSTALACIONES ELÉCTRICA BT.....				22.181,44
TOTAL CAPÍTULO 01 CAPTACIÓN (AZUD) Y CONDUCCIÓN A ETAP.....				5.067.711,74
CAPÍTULO 02 ESTACIÓN DE TRATAMIENTO DE AGUA POTABLE (ETAP)				
SUBCAPÍTULO 02.01 OBRA CIVIL ETAP				
APARTADO 02.01.01 MOVIMIENTO DE TIERRAS GENERAL DE LA PARCELA				
008	M2 DESPEJE Y DESBROCE Despeje y desbroce de capa de tierra vegetal con un espesor medio de 50 cm, incluso corte de árboles, extracción de tocones, nivelación de zona adyacente para el paso de maquinaria, transporte a lugar de acopio independiente para posterior reposición de tierra vegetal tras las obras y despedregado de las parcelas, así como transporte a vertedero de tierras sobrantes.	8.264,09	0,57	4.710,53
001	M3 EXCAVACIÓN A CIELO ABIERTO Excavación a cielo abierto en todo tipo de terrenos incluido terrenos en roca, incluso agotamiento y transporte a lugar de empleo o vertedero.	24.015,13	3,62	86.934,77
005	M3 TERRAPLENADO DE MATERIAL ADECUADO Terraplenado con material adecuado procedente de las excavaciones o préstamos, incluso material, carga, transporte, extendido y compactación.	9.488,06	4,30	40.798,66
TOTAL APARTADO 02.01.01 MOVIMIENTO DE TIERRAS GENERAL DE LA PARCELA.....				132.443,96
APARTADO 02.01.02 ARQUETA DE MEDICIÓN DE AGUA BRUTA				
002	M3 EXCAVACIÓN EN ZANJAS Excavación en zanjas y zonas localizadas, en todo tipo de terrenos incluido terrenos en roca con medios mecánicos, incluso rasanteo, nivelación de la superficie de apoyo y transporte a lugar de empleo o vertedero.	200,00	3,74	748,00
010	M3 RELLENO ZANJAS, CIMIENTOS Y TRASDOSES DE MATERIAL SELECCIONADO Relleno con material seleccionado en zanjas, cimientos, trasdós de muros, estribos y otras estructuras procedente de la excavación o préstamos incluso carga, transporte y compactación.	88,40	3,32	293,49
028	M3 HORMIGÓN DE LIMIPEZA HL-150 Hormigón de limpieza HL-150, de consistencia plástica, árido de tamaño máximo 40 mm y cemento CEM-II-D/42,5/SR, para saneos y encachados, incluyendo fabricación y transporte totalmente colocado.	7,70	44,76	344,65

PRESUPUESTOS PARCIALES.

ABASTECIMIENTO A VARIOS MUNICIPIOS DE LA RIOJA. SISTEMA CIDACOS

CÓDIGO	RESUMEN	CANTIDAD	PRECIO	IMPORTE
031	M3 HORMIGÓN HA-25/B/20/IIa Hormigón HA-25/B/20/IIa, con cemento CEM III/A-D/42,5/SR, incluyendo fabricación, transporte, puesta en obra y vibrado, totalmente ejecutado, incluso curado y juntas.	79,25	53,39	4.231,16
025	M2 ENCOFRADO RECTO EN PARAMENTOS OCULTOS Encofrado recto en paramentos ocultos, incluso colocación, fijación y desencofrado.	16,48	17,65	290,87
026	M2 ENCOFRADO RECTO EN PARAMENTOS VISTOS 1C Encofrado recto en paramentos vistos a una cara, incluso colocación, fijación y desencofrado.	135,64	21,18	2.872,86
026.1	M2 ENCOFRADO RECTO EN LOSAS VISTOS Encofrado recto en losas vistos, incluso colocación, fijación y desencofrado.	69,00	27,68	1.909,92
023	KG ACERO CORRUGADO B-500-S Acero redondo corrugado para armar tipo B-500-S elaborado y colocado.	6.587,96	0,96	6.324,44
052	ML JUNTAS DE ESTANQUEIDAD DE PVC 32 CM Junta de trabajo interior de policloruro de vinilo (PVC) 100% virgen, con una fuerza máxima de dilatación > 250 %, de 32 cm de ancho, MASTERFLEX 2000 TI-24 de BASF o equivalente, colocada simétricamente en el eje de la losa o muro, incluso solapes y piezas especiales para cruces o ángulos. Medida la longitud ejecutada.	39,20	7,31	286,55
289B	M2 TAPA DE CHAPA LACRIMADA GALVANIZADA e=4mm Tapa de chapa lacrimada de acero galvanizado de 4 mm de espesor, incluyendo el marco, tiradores, aros para cerradura con candado, anclada, totalmente colocada.	2,88	74,56	214,73
290	UD PATE POLIPROPILENO Pate de polipropileno de dimensiones 30x25 cm, incluyendo fabricación, transporte a obra, perforación de anclajes y relleno con aportación de material de agarre, completamente colocado.	18,00	5,63	101,34
620	UD APOYOS DE TUBERÍA Y VÁLVULAS SOBRE SOLERA Apoyos de tuberías y válvulas en soleras, mediante dado de hormigón HA-25/P/20/IIa, ligeramente armado y anclado a la solera, así como cintas o eslingas de acero con material de protección de tubería para sujeción de las mismas, incluyendo el hormigón, encofrados, acero, eslingas, material de PE de protección, montado.	5,00	63,07	315,35
TOTAL APARTADO 02.01.02 ARQUETA DE MEDICIÓN DE AGUA BRUTA.....				17.933,36
APARTADO 02.01.03 CÁMARA DE PREOZONIZACIÓN				
001	M3 EXCAVACIÓN A CIELO ABIERTO Excavación a cielo abierto en todo tipo de terrenos incluido terrenos en roca, incluso agotamiento y transporte a lugar de empleo o vertedero.	1.035,65	3,62	3.749,05
010	M3 RELLENO ZANJAS, CIMIENTOS Y TRASDOSES DE MATERIAL SELECCIONADO Relleno con material seleccionado en zanjas, cimientos, trasdós de muros, estribos y otras estructuras procedente de la excavación o préstamos incluso carga, transporte y compactación.	400,36	3,32	1.329,20
028	M3 HORMIGÓN DE LIMIPEZA HL-150 Hormigón de limpieza HL-150, de consistencia plástica, árido de tamaño máximo 40 mm y cemento CEM-II-D/42,5/SR, para saneos y encachados, incluyendo fabricación y transporte totalmente colocado.	25,97	44,76	1.162,42

PRESUPUESTOS PARCIALES.

ABASTECIMIENTO A VARIOS MUNICIPIOS DE LA RIOJA. SISTEMA CIDACOS

CÓDIGO	RESUMEN	CANTIDAD	PRECIO	IMPORTE
032.1	M3 HORMIGÓN HA-30/P/30/IV Hormigón armado HA-30/B/30/IV, con una dosificación de hormigón de 325 kg/m3 de cemento, consistencia plástica, elaborado en central para estructuras, incluso bombeado y medios manuales, vibrado y colocado.	419,51	76,99	32.298,07
025	M2 ENCOFRADO RECTO EN PARAMENTOS OCULTOS Encofrado recto en paramentos ocultos, incluso colocación, fijación y desencofrado.	44,75	17,65	789,84
026	M2 ENCOFRADO RECTO EN PARAMENTOS VISTOS 1C Encofrado recto en paramentos vistos a una cara, incluso colocación, fijación y desencofrado.	1.529,49	21,18	32.394,60
023	KG ACERO CORRUGADO B-500-S Acero redondo corrugado para armar tipo B-500-S elaborado y colocado.	34.894,45	0,96	33.498,67
439E	M2 FORJADO PLACA ALVEOLAR 15+10 cm Forjado unidireccional de losas alveolares prefabricadas de 15 cm de espesor y capa de compresión de 10 cm de hormigón HA-30/F/20/IV, incluso armadura de negativos según planos, mallazo de reparto, formación de huecos, y elementos auxiliares.	164,83	45,01	7.419,00
052	ML JUNTAS DE ESTANQUEIDAD DE PVC 32 CM Junta de trabajo interior de policloruro de vinilo (PVC) 100% virgen, con una fuerza máxima de dilatación > 250 % , de 32 cm de ancho, MASTERFLEX 2000 TI-24 de BASF o equivalente, colocada simétricamente en el eje de la losa o muro, incluso solapes y piezas especiales para cruces o ángulos. Medida la longitud ejecutada.	138,20	7,31	1.010,24
472	ML SELLADO INTERIOR DE JUNTAS DE CONSTRUCCIÓN POLIURETANO Sellado de juntas en paramentos horizontales y verticales con un ancho de junta de 20 mm, con una Dureza Shore A aprox. 40 y Alargamiento a Rotura ISO 8339 > 250 % , con masilla de poliuretano monocomponente MASTERFLEX 474 de BASF o equivalente, Apta para Agua Potable según RD 140/2003. Incluso limpieza, imprimación en base poliuretano de los labios de la junta con MASTERFLEX PRIMER P (ELASTOPRIMER 110) de BASF o equivalente, y cordón de fondo de junta MASTERFLEX FJ de BASF o equivalente de 30 mm. de diámetro. Medida la longitud ejecutada.	130,50	4,26	555,93
289B	M2 TAPA DE CHAPA LACRIMADA GALVANIZADA e=4mm Tapa de chapa lacrimada de acero galvanizado de 4 mm de espesor, incluyendo el marco, tiradores, aros para cerradura con candado, anclada, totalmente colocada.	7,09	74,56	528,63
E0A060	UD TRAMEX. ENTRAMADO METÁLICO 30X30X3 Entramado metálico 30x30x3 tipo tramex o equivalente, incluso estructura auxiliar y suministro con parte proporcional de cerco también galvanizado, montaje, recibido y pintado.	8,61	28,50	245,39
E0104CH91	ML BARANDILLA METÁLICA ACERO INOXIDABLE AISI-316L Barandilla metálica en acero inoxidable AISI-316L, de 90 cm. de altura, formada por perfilera de tubo hueco de 30 mm y 3 mm de espesor, incluso rodapié de seguridad, elementos de anclaje, colocada.	56,00	69,91	3.914,96
290A	ML ESCALERA TUBULAR INOXIDABLE CON ELEMENTOS ANTICAIDA Formación de escalera tubular de 50 mm de diámetro, de acero inoxidable AISI-316L, incluso protecciones circulares contra caídas según normativa, anclada a la pared y/o muros, totalmente ejecutada.	48,65	76,09	3.701,78

PRESUPUESTOS PARCIALES.

ABASTECIMIENTO A VARIOS MUNICIPIOS DE LA RIOJA. SISTEMA CIDACOS

CÓDIGO	RESUMEN	CANTIDAD	PRECIO	IMPORTE
290BB	M2 ESCALERA Y PASARELAS DE ACERO GALVANIZADO. BARANDILLAS AISI316L Escalera y pasarelas de acceso de forma según planos, ejecutada en perfiles de acero galvanizado en caliente, incluso barandilla tubular del mismo material, de 90 cm de altura en uno o dos lados, rodapié de seguridad del mismo en uno o dos lados, así como entramado metálico de 30x30x3 en descansillos y peldaños, medida según su proyección en planta. Anclada a los muros y/o solera, instalada.	5,28	112,06	591,68
TOTAL APARTADO 02.01.03 CÁMARA DE PREOZONIZACIÓN.....				123.189,46
APARTADO 02.01.04 COAGULACIÓN-FLOCULACIÓN Y DECANTACIÓN LAMELAR				
002	M3 EXCAVACIÓN EN ZANJAS Excavación en zanjas y zonas localizadas, en todo tipo de terrenos incluido terrenos en roca con medios mecánicos, incluso rasanteo, nivelación de la superficie de apoyo y transporte a lugar de empleo o vertedero.	5.194,28	3,74	19.426,61
010	M3 RELLENO ZANJAS, CIMIENTOS Y TRASDOSES DE MATERIAL SELECCIONADO Relleno con material seleccionado en zanjas, cimientos, trasdós de muros, estribos y otras estructuras procedente de la excavación o préstamos incluso carga, transporte y compactación.	1.376,48	3,32	4.569,91
006	M3 RELLENOS CON MATERIAL DE BOLO Relleno con material seleccionado de bolo, para eviatar asentamientos, en trasdós de muros, estribos y otras estructuras procedente de préstamos incluso carga, transporte y extendido.	188,35	6,14	1.156,47
028	M3 HORMIGÓN DE LIMIPEZA HL-150 Hormigón de limpieza HL-150, de consistencia plástica, árido de tamaño máximo 40 mm y cemento CEM-II-D/42,5/SR, para saneos y encachados, incluyendo fabricación y transporte totalmente colocado.	115,89	44,76	5.187,24
032.1	M3 HORMIGÓN HA-30/P/30/IV Hormigón armado HA-30/B/30/IV, con una dosificación de hormigón de 325 kg/m3 de cemento, consistencia plástica, elaborado en central para estructuras, incluso bombeado y medios manuales, vibrado y colocado.	2.124,58	76,99	163.571,41
025	M2 ENCOFRADO RECTO EN PARAMENTOS OCULTOS Encofrado recto en paramentos ocultos, incluso colocación, fijación y desencofrado.	197,17	17,65	3.480,05
026	M2 ENCOFRADO RECTO EN PARAMENTOS VISTOS 1C Encofrado recto en paramentos vistos a una cara, incluso colocación, fijación y desencofrado.	5.542,01	21,18	117.379,77
026.1	M2 ENCOFRADO RECTO EN LOSAS VISTOS Encofrado recto en losas vistos, incluso colocación, fijación y desencofrado.	365,11	27,68	10.106,24
026.2	M2 ENCOFRADO RECTO EN PILARES VISTOS Encofrado recto en pilares vistos, incluso colocación, fijación y desencofrado.	77,28	27,68	2.139,11
023	KG ACERO CORRUGADO B-500-S Acero redondo corrugado para armar tipo B-500-S elaborado y colocado.	217.459,88	0,96	208.761,48
052	ML JUNTAS DE ESTANQUEIDAD DE PVC 32 CM Junta de trabajo interior de policloruro de vinilo (PVC) 100% virgen, con una fuerza máxima de dilatación > 250 % , de 32 cm de ancho, MASTERFLEX 2000 TI-24 de BASF o equivalente, colocada simétricamente en el eje de la losa o muro, incluso solapes y piezas especiales para cruces o ángulos. Medida la longitud ejecutada.	745,90	7,31	5.452,53

PRESUPUESTOS PARCIALES.

ABASTECIMIENTO A VARIOS MUNICIPIOS DE LA RIOJA. SISTEMA CIDACOS

CÓDIGO	RESUMEN	CANTIDAD	PRECIO	IMPORTE
472	ML SELLADO INTERIOR DE JUNTAS DE CONSTRUCCIÓN POLIURETANO Sellado de juntas en paramentos horizontales y verticales con un ancho de junta de 20 mm, con una Dureza Shore A aprox. 40 y Alargamiento a Rotura ISO 8339 > 250 % , con masilla de poliuretano monocomponente MASTERFLEX 474 de BASF o equivalente, Apta para Agua Potable según RD 140/2003. Incluso limpieza, imprimación en base poliuretano de los labios de la junta con MASTERFLEX PRIMER P (ELASTOPRIMER 110) de BASF o equivalente, y cordón de fondo de junta MASTERFLEX FJ de BASF o equivalente de 30 mm. de diámetro. Medida la longitud ejecutada.	745,90	4,26	3.177,53
E0A060	UD TRAMEX. ENTRAMADO METÁLICO 30X30X3 Entramado metálico 30x30x3 tipo tramex o equivalente, incluso estructura auxiliar y suministro con parte proporcional de cerco también galvanizado, montaje, recibido y pintado.	250,67	28,50	7.144,10
E0104CH91	ML BARANDILLA METÁLICA ACERO INOXIDABLE AISI-316L Barandilla metálica en acero inoxidable AISI-316L, de 90 cm. de altura, formada por perfilera de tubo hueco de 30 mm y 3 mm de espesor, incluso rodapié de seguridad, elementos de anclaje, colocada.	291,10	69,91	20.350,80
290A	ML ESCALERA TUBULAR INOXIDABLE CON ELEMENTOS ANTICAIDA Formación de escalera tubular de 50 mm de diámetro, de acero inoxidable AISI-316L, incluso protecciones circulares contra caídas según normativa, anclada a la pared y/o muros, totalmente ejecutada.	48,65	76,09	3.701,78
290BB	M2 ESCALERA Y PASARELAS DE ACERO GALVANIZADO. BARANDILLAS AISI316L Escalera y pasarelas de acceso de forma segun planos, ejecutada en perfiles de acero galvanizado en caliente, incluso barandilla tubular del mismo material, de 90 cm de altura en uno o dos lados, rodapié de seguridad del mismo en uno o dos lados, así como entramado metálico de 30x30x3 en descansillos y peldaños, medida según su proyección en planta. Anclada a los muros y/o solera, instalada.	4,50	112,06	504,27
289B	M2 TAPA DE CHAPA LACRIMADA GALVANIZADA e=4mm Tapa de chapa lacrimada de acero galvanizado de 4 mm de espesor, incluyendo el marco, tiradores, aros para cerradura con candado, anclada, totalmente colocada.	18,00	74,56	1.342,08
020	KG ACERO S 275 J PERFILES LAMINADOS Acero S 275 J en perfiles laminados elaborado y colocado.	4.444,68	1,95	8.667,13
TOTAL APARTADO 02.01.04 COAGULACIÓN-FLOCULACIÓN Y DECANTACIÓN LAMELAR.....				586.118,51
APARTADO 02.01.05 FILTROS DE ARENA Y DEPÓSITO DE AGUA FILTRADA				
SUBAPARTADO 02.01.05.1 MOVIMIENTO DE TIERRAS				
001	M3 EXCAVACIÓN A CIELO ABIERTO Excavación a cielo abierto en todo tipo de terrenos incluido terrenos en roca, incluso agotamiento y transporte a lugar de empleo o vertedero.	5.787,52	3,62	20.950,82
010	M3 RELLENO ZANJAS, CIMIENTOS Y TRASDOSES DE MATERIAL SELECCIONADO Relleno con material seleccionado en zanjas, cimientos, trasdós de muros, estribos y otras estructuras procedente de la excavación o préstamos incluso carga, transporte y compactación.	695,69	3,32	2.309,69
006	M3 RELLENOS CON MATERIAL DE BOLO Relleno con material seleccionado de bolo, para eviatar asentamientos, en trasdós de muros, estribos y otras estructuras procedente de préstamos incluso carga, transporte y extendido.	545,20	6,14	3.347,53
TOTAL SUBAPARTADO 02.01.05.1 MOVIMIENTO DE TIERRAS.....				26.608,04

PRESUPUESTOS PARCIALES.

ABASTECIMIENTO A VARIOS MUNICIPIOS DE LA RIOJA. SISTEMA CIDACOS

CÓDIGO	RESUMEN	CANTIDAD	PRECIO	IMPORTE
SUBAPARTADO 02.01.05.2 OBRA CIVIL				
028	M3 HORMIGÓN DE LIMIPEZA HL-150 Hormigón de limpieza HL-150, de consistencia plástica, árido de tamaño máximo 40 mm y cemento CEM-II-D/42,5/SR, para saneos y encachados, incluyendo fabricación y transporte totalmente colocado.	126,32	44,76	5.654,08
032.1	M3 HORMIGÓN HA-30/P/30/IV Hormigón armado HA-30/B/30/IV, con una dosificación de hormigón de 325 kg/m3 de cemento, consistencia plástica, elaborado en central para estructuras, incluso bombeado y medios manuales, vibrado y colocado.	1.661,30	76,99	127.903,49
025	M2 ENCOFRADO RECTO EN PARAMENTOS OCULTOS Encofrado recto en paramentos ocultos, incluso colocación, fijación y desencofrado.	87,01	17,65	1.535,73
026	M2 ENCOFRADO RECTO EN PARAMENTOS VISTOS 1C Encofrado recto en paramentos vistos a una cara, incluso colocación, fijación y desencofrado.	5.935,56	21,18	125.715,16
026.1	M2 ENCOFRADO RECTO EN LOSAS VISTOS Encofrado recto en losas vistos, incluso colocación, fijación y desencofrado.	513,20	27,68	14.205,38
023	KG ACERO CORRUGADO B-500-S Acero redondo corrugado para armar tipo B-500-S elaborado y colocado.	148.030,42	0,96	142.109,20
439C	M2 FORJADO PLACA ALVEOLAR 20+5 cm Forjado unidireccional de losas alveolares prefabricadas de 20 cm de espesor y capa de compresión de 5 cm de hormigón HA-25 de 25 N/mm2, incluso armadura de negativos según planos, mallazo de reparto, formación de huecos, y elementos auxiliares.	238,13	44,77	10.661,08
439B	M2 FORJADO PLACA ALVEOLAR 15+5 cm Forjado unidireccional de losas alveolares prefabricadas de 15 cm de espesor y capa de compresión de 5 cm de hormigón HA-25 de 25 N/mm2, incluso armadura de negativos según planos, mallazo de reparto, formación de huecos, y elementos auxiliares.	110,63	40,13	4.439,58
289B	M2 TAPA DE CHAPA LACRIMADA GALVANIZADA e=4mm Tapa de chapa lacrimada de acero galvanizado de 4 mm de espesor, incluyendo el marco, tiradores, aros para cerradura con candado, anclada, totalmente colocada.	5,03	74,56	375,04
TOTAL SUBAPARTADO 02.01.05.2 OBRA CIVIL.....				432.598,74
SUBAPARTADO 02.01.05.3 IMPERMEABILIZACIONES DEPÓSITO				
052	ML JUNTAS DE ESTANQUEIDAD DE PVC 32 CM Junta de trabajo interior de policloruro de vinilo (PVC) 100% virgen, con una fuerza máxima de dilatación > 250 % , de 32 cm de ancho, MASTERFLEX 2000 TI-24 de BASF o equivalente, colocada simétricamente en el eje de la losa o muro, incluso solapes y piezas especiales para cruces o ángulos. Medida la longitud ejecutada.	702,40	7,31	5.134,54
472	ML SELLADO INTERIOR DE JUNTAS DE CONSTRUCCIÓN POLIURETANO Sellado de juntas en paramentos horizontales y verticales con un ancho de junta de 20 mm, con una Dureza Shore A aprox. 40 y Alargamiento a Rotura ISO 8339 > 250 % , con masilla de poliuretano monocomponente MASTERFLEX 474 de BASF o equivalente, Apta para Agua Potable según RD 140/2003. Incluso limpieza, imprimación en base poliuretano de los labios de la junta con MASTERFLEX PRIMER P (ELASTOPRIMER 110) de BASF o equivalente, y cordón de fondo de junta MASTERFLEX FJ de BASF o equivalente de 30 mm. de diámetro. Medida la longitud ejecutada.	702,40	4,26	2.992,22
TOTAL SUBAPARTADO 02.01.05.3 IMPERMEABILIZACIONES DEPÓSITO.....				8.126,76

PRESUPUESTOS PARCIALES.

ABASTECIMIENTO A VARIOS MUNICIPIOS DE LA RIOJA. SISTEMA CIDACOS

CÓDIGO	RESUMEN	CANTIDAD	PRECIO	IMPORTE
SUBAPARTADO 02.01.05.4 TERMINACIONES INTERIORES				
E0A060	UD TRAMEX. ENTRAMADO METÁLICO 30X30X3 Entramado metálico 30x30x3 tipo tramex o equivalente, incluso estructura auxiliar y suministro con parte proporcional de cerco también galvanizado, montaje, recibido y pintado.	88,66	28,50	2.526,81
E0104CH91	ML BARANDILLA METÁLICA ACERO INOXIDABLE AISI-316L Barandilla metálica en acero inoxidable AISI-316L, de 90 cm. de altura, formada por perfilera de tubo hueco de 30 mm y 3 mm de espesor, incluso rodapié de seguridad, elementos de anclaje, colocada.	410,50	69,91	28.698,06
290A	ML ESCALERA TUBULAR INOXIDABLE CON ELEMENTOS ANTICAIDA Formación de escalera tubular de 50 mm de diámetro, de acero inoxidable AISI-316L, incluso protecciones circulares contra caídas según normativa, anclada a la pared y/o muros, totalmente ejecutada.	26,20	76,09	1.993,56
290BB	M2 ESCALERA Y PASARELAS DE ACERO GALVANIZADO. BARANDILLAS AISI316L Escalera y pasarelas de acceso de forma según planos, ejecutada en perfiles de acero galvanizado en caliente, incluso barandilla tubular del mismo material, de 90 cm de altura en uno o dos lados, rodapié de seguridad del mismo en uno o dos lados, así como entramado metálico de 30x30x3 en descansillos y peldaños, medida según su proyección en planta. Anclada a los muros y/o solera, instalada.	10,20	112,06	1.143,01
290	UD PATE POLIPROPILENO Pate de polipropileno de dimensiones 30x25 cm, incluyendo fabricación, transporte a obra, perforación de anclajes y relleno con aportación de material de agarre, completamente colocado.	3,00	5,63	16,89
051pc2	KG REVESTIMIENTO MULTICAPA RESINA EXPOXI m². Suministro y puesta en obra del Sistema Multicapa Epoxi MASTERTOP 1220 Polykit, con un espesor de 2,0 mm, consistente en formación de capa base epoxi sin disolventes coloreada MASTERTOP 1200 o similar (rendimiento 1,6 kg/m²); espolvoreo en fresco de árido de cuarzo MASTERTOP F 5 o similar con una granulometría 0,3-0,8 mm (rendimiento 3,0 kg/m²); sellado con el revestimiento epoxi sin disolventes coloreado MASTERTOP 1200 o similar (rendimiento 0,600 kg/m²), sobre superficies de hormigón o mortero, sin incluir la preparación del soporte. Colores Estándar.	278,63	20,70	5.767,64
TOTAL SUBAPARTADO 02.01.05.4 TERMINACIONES INTERIORES.....				40.145,97
TOTAL APARTADO 02.01.05 FILTROS DE ARENA Y DEPÓSITO DE AGUA FILTRADA.....				507.479,51
APARTADO 02.01.06 EDIFICIO FILTRACIÓN Y DE CONTROL				
SUBAPARTADO 02.01.06.1 MOVIMIENTO DE TIERRAS				
001	M3 EXCAVACIÓN A CIELO ABIERTO Excavación a cielo abierto en todo tipo de terrenos incluido terrenos en roca, incluso agotamiento y transporte a lugar de empleo o vertedero.	69,95	3,62	253,22
002	M3 EXCAVACIÓN EN ZANJAS Excavación en zanjas y zonas localizadas, en todo tipo de terrenos incluido terrenos en roca con medios mecánicos, incluso rasanteo, nivelación de la superficie de apoyo y transporte a lugar de empleo o vertedero.	129,11	3,74	482,87
010	M3 RELLENO ZANJAS, CIMIENTOS Y TRASDOSES DE MATERIAL SELECCIONADO Relleno con material seleccionado en zanjas, cimientos, trasdós de muros, estribos y otras estructuras procedente de la excavación o préstamos incluso carga, transporte y compactación.	89,89	3,32	298,43
TOTAL SUBAPARTADO 02.01.06.1 MOVIMIENTO DE TIERRAS.....				1.034,52

PRESUPUESTOS PARCIALES.

ABASTECIMIENTO A VARIOS MUNICIPIOS DE LA RIOJA. SISTEMA CIDACOS

CÓDIGO	RESUMEN	CANTIDAD	PRECIO	IMPORTE
SUBAPARTADO 02.01.06.2 ESTRUCTURA				
028	M3 HORMIGÓN DE LIMPIEZA HL-150 Hormigón de limpieza HL-150, de consistencia plástica, árido de tamaño máximo 40 mm y cemento CEM-II-D/42,5/SR, para saneos y encachados, incluyendo fabricación y transporte totalmente colocado.	5,10	44,76	228,28
031	M3 HORMIGÓN HA-25/B/20/IIa Hormigón HA-25/B/20/IIa, con cemento CEM II/A-D/42,5/SR, incluyendo fabricación, transporte, puesta en obra y vibrado, totalmente ejecutado, incluso curado y juntas.	100,12	53,39	5.345,41
025	M2 ENCOFRADO RECTO EN PARAMENTOS OCULTOS Encofrado recto en paramentos ocultos, incluso colocación, fijación y desencofrado.	151,76	17,65	2.678,56
026	M2 ENCOFRADO RECTO EN PARAMENTOS VISTOS 1C Encofrado recto en paramentos vistos a una cara, incluso colocación, fijación y desencofrado.	107,21	21,18	2.270,71
026.2	M2 ENCOFRADO RECTO EN PILARES VISTOS Encofrado recto en pilares vistos, incluso colocación, fijación y desencofrado.	225,84	27,68	6.251,25
026.3	M2 ENCOFRADO RECTO EN VIGAS VISTOS Encofrado recto en vigas vistos, incluso colocación, fijación, apuntalamiento o cimbras, y desencofrado.	436,33	29,84	13.020,09
023	KG ACERO CORRUGADO B-500-S Acero redondo corrugado para armar tipo B-500-S elaborado y colocado.	7.165,40	0,96	6.878,78
439C	M2 FORJADO PLACA ALVEOLAR 20+5 cm Forjado unidireccional de losas alveolares prefabricadas de 20 cm de espesor y capa de compresión de 5 cm de hormigón HA-25 de 25 N/mm2, incluso armadura de negativos según planos, mallazo de reparto, formación de huecos, y elementos auxiliares.	735,14	44,77	32.912,22
0092sole	M2 SOLERA ARMADA + ENCACHADO+LAMINA m². Solera pulida de 15 cm de espesor, realizada con hormigón HA-25/P/20/IIa N/mm², tamaño máximo del árido 20 mm elaborado en central, i/vertido, colocación y armado con mallazo electrosoldado #150x150x6 mm, incluso p.p. de juntas, aserrado de las mismas y fratasado. Según EHE-08, sobre lámina impermeabilizante PVC 1,5 mm, encachado de piedra machacada 40/80 de 15 cm de espesor, extendida y compactada.	213,77	25,09	5.363,49
053	M2 GEOTEXTIL 200 gr/m2 Geotextil de polipropileno de 200 gr/m2, totalmente colocado incluso solapes.	643,13	2,46	1.582,10
440aiss	M2 AISLAMIENTO BAJO SOLERA m². Aislamiento térmico mediante placas rígidas de poliestireno extruido de resistencia a compresión no menor de 500 kPa, de 40 mm de espesor, debajo o arriba de solera en contacto con encachado y terreno natural.	338,65	6,75	2.285,89
053imp	M2 IMPERMEABILIZACIÓN DE SOLERA m². Impermeabilización de soleras constituida por 0,3 kg/m² de imprimación asfáltica CURIDAN y lámina de betún modificado con elastómeros SBS de 4 kg/m² de peso medio, de superficie no protegida, con armadura de fieltro de poliéster y acabada con film de polietileno por ambas caras, ESTERDAN 40 P ELAST (Tipo LBM 40 FP), totalmente adherida al soporte con soplete, y geotextil de 200 g/m² como protección; lista para recibir capa de hormigón. Dispone de DIT. "Esterdan pendiente cero". N° 550/10.	252,15	8,84	2.229,01

PRESUPUESTOS PARCIALES.

ABASTECIMIENTO A VARIOS MUNICIPIOS DE LA RIOJA. SISTEMA CIDACOS

CÓDIGO	RESUMEN	CANTIDAD	PRECIO	IMPORTE
0092REC	M2 RECRECIDO DE MORTERO m². Recrecido pegar un pavimento cerámico o similar, de 6 cm de espesor, realizada con mortero de cemento y arena de río 1/3 (M15), i/nivelación, maestreado y fratasado, s/NTE-RSS.	570,77	7,80	4.452,01
053PR	M2 AISLAMIENTO ACÚSTICO FORJADO m². Aislamiento acústico a ruido aéreo y de impacto en forjados con compuesto bicapa TriACUSTIC 35, de 3,6 kg/m². de peso y 7 mm de espesor, formado por una lámina viscoelástica de alta densidad adherida térmicamente a una lámina de polietileno.	144,72	8,98	1.299,59
471jd	ML JUNTA DE DILATACIÓN Formación de junta de dilatación con poliestireno expandido de 15 mm de espesor entre solera y muro y posterior sellado de 15 mm de anchura media con masilla de poliuretano COPSAFLEX 11C, en cartuchos, incluso cordón sellador de poliuretano previamente introducido en la junta. Según CTE/DB-HS 1.	31,00	6,06	187,86
TOTAL SUBPARTADO 02.01.06.2 ESTRUCTURA.....				86.985,25
SUBPARTADO 02.01.06.3 ACABADOS				
4432	M2 ALICATADO AZULEJO Alicatado con azulejo blanco mate con cenefa en color diferenciado según local, formato no inferior a 40x20 cm, recibido con adhesivo, incluso preparación de paramentos, cortes, cantoneras cromadas, rejuntados y limpieza, ejecutado según NTE y especificaciones, medido en superficie real, deduciendo huecos superiores a 0,5 m2.	338,21	20,97	7.092,26
440pyl	M2 FALSO TECHO DE PLACA DE YESO LAMINADO m². Techo formado por una doble estructura de perfiles PLADUR® de chapa de acero galvanizada, instalada a dos niveles. La estructura primaria se compone a base de Perfiles continuos PH-45 en forma de "V" invertida, modulados cada 1100 mm y debidamente suspendidos de cuadradillos por medio de varilla roscada Ø 6 mm y tuerca y contratuerca cada 1100 mm La segunda estructura formada por perfiles T-47 se acopla perpendicularmente a la parte inferior de la estructura primaria cada 500 mm mediante encaje directo en las horquillas dobles troqueladas del perfil PH-45 y apoyados perimetralmente en el Angular L A-30 TC, el cual está fijado mecánicamente en toda su longitud A esta estructura de perfiles, se atornilla a la segunda estructura de perfiles T-47 y perpendicularmente a ella una placa de yeso laminado estandar tipo N de 13 mm de espesor, parte proporcional de anclajes, cuelgues, tornillería, juntas estancas /acústicas de su perímetro, pasta de juntas, etc. totalmente terminado con calidad de terminación Nivel 2 (Q2) para terminaciones estándar de pintura ó calidad de terminación Nivel 3 (Q3) para terminaciones de calidad alta de acabados lisos y de poco espesor. Montaje según Normativa Intersectorial de ATEDY: "Sistemas de techos continuos con estructura metálica. ATEDY 3" y requisitos del CTE-DB HR.	377,59	23,36	8.820,50
440pya	M2 FALSO TECHO FONOABSORBENTE REGISTRABLE m². Techo formado por una doble estructura de perfiles PLADUR® de chapa de acero galvanizada, instalada a dos niveles. La estructura primaria se compone a base de Perfiles continuos PH-45 en forma de "V" invertida, modulados cada 1100 mm y debidamente suspendidos de cuadradillos por medio de varilla roscada Ø 6 mm y tuerca y contratuerca cada 1100 mm La segunda estructura formada por perfiles T-47 se acopla perpendicularmente a la parte inferior de la estructura primaria cada 500 mm mediante encaje directo en las horquillas dobles troqueladas del perfil PH-45 y apoyados perimetralmente en el Angular L A-30 TC, el cual está fijado mecánicamente en toda su longitud A esta estructura de perfiles, se atornilla a la segunda estructura de perfiles T-47 y perpendicularmente a ella una placa perforada para acondicionamiento acústico, tipo Pladur Fon+ C8/18, de 13 mm de espesor con tratamiento imprimación blanca para protección de rayos ultravioleta, pintado en blanco; parte proporcional de anclajes, cuelgues, tornillería, juntas estancas /acústicas de su perímetro, totalmente terminado . Montaje según Normativa Intersectorial de ATEDY y requisitos del CTE-DB HR.	75,48	30,54	2.305,16

PRESUPUESTOS PARCIALES.

ABASTECIMIENTO A VARIOS MUNICIPIOS DE LA RIOJA. SISTEMA CIDACOS

CÓDIGO	RESUMEN	CANTIDAD	PRECIO	IMPORTE
440acus	M2 FALSO TECHO METÁLICO ABSORCIÓN ACÚSTICA m². Techo formado por una doble estructura de perfiles de chapa de acero galvanizada, instalada a dos niveles. La estructura primaria se compone a base de Perfiles continuos PH-45 en forma de "V" invertida, modulados cada 1100 mm y debidamente suspendidos de forjado de placa por medio de varilla roscada Ø 6 mm y tuerca y contratuerca cada 1100 mm dotada de aisladores acústicos para evitar la transmisión a techo. La segunda estructura formada por perfiles T-47 se acopla perpendicularmente a la parte inferior de la estructura primaria cada 500 mm mediante encaje directo en las horquillas dobles troqueladas del perfil PH-45. A esta estructura de perfiles, se atornilla a la segunda estructura de perfiles T-47 y perpendicularmente a ella una falso techo de chapa perforada minionda de 0,6 mm de espesor y 18 mm de canto, galvanizada en caliente, R3T6, parte proporcional de anclajes, cuelgues, tornillería, etc, según requisitos del CTE-DB HR.	133,61	41,32	5.520,77
440pyt	ML TABICA YESO LAMINADO m. Faja o tabica de placa de yeso laminado de 20 a 30 cm de anchura, para falsos techos tanto fijos como desmontables, i/p.p. de perfilera de acero galvanizado de fijación incluso juntas, repaso de las mismas, colocación de andamios y limpieza, y cualquier tipo de medio auxiliar, completamente terminado.	5,00	22,15	110,75
440ais	M2 AISLAMIENTO SOBRE FALSO TECHO m². Lana mineral ISOVER IBR constituido por una manta ligera de lana de vidrio, revestida por una de sus caras con papel kraft que actua como barrera de vapor de 80 mm de espesor cumpliendo la norma UNE EN 13162 Productos Aislantes térmicos para aplicaciones en la edificación con una conductividad térmica de 0,040 W / (m·K), clase de reacción al fuego F y código de designación MW-EN-13162-T2-WS-Z3-AF5, para cubiertas y techos en posición horizontal o inclinada, sin carga.	338,65	3,78	1.280,10
440pacus	M2 PARAMENTOS ABSORCIÓN ACÚSTICA m². Revestimiento de paramentos con penel semirrígido de lana de roca volcánica de 50 kg/m3 de densidad, de 11 cm. de espesor, con hendidura para acople de la bandeja de solape. Instalación de bandejas perforadas de chapa de acero R3T6 totalmente terminado.	93,54	28,78	2.692,08
468	M2 ENFOSCADO MAESTREADO Y FRATASADO Enfoscado maestreado y fratasado de 20 mm de espesor en toda su superficie con mortero de cemento y arena de río 1/4 en paramentos verticales, con maestras cada metro, i/preparación y humedecido de soporte, limpieza, p.p. de medios auxiliares con empleo, en su caso, de andamiaje homologado, así como distribución de material en tajos, s/NTE-RPE-7.	314,95	12,29	3.870,74
442	M2 ENLUCIDO DE YESO BLANCO, TERMINADO Enlucido de yeso blanco, terminado.	47,62	2,44	116,19
051pc2	KG REVESTIMIENTO MULTICAPA RESINA EXPOXI m². Suministro y puesta en obra del Sistema Multicapa Epoxi MASTERTOP 1220 Polykit, con un espesor de 2,0 mm, consistente en formación de capa base epoxi sin disolventes coloreada MASTERTOP 1200 o similar (rendimiento 1,6 kg/m²); espolvoreo en fresco de árido de cuarzo MASTERTOP F 5 o similar con una granulometría 0,3-0,8 mm (rendimiento 3,0 kg/m²); sellado con el revestimiento epoxi sin disolventes coloreado MASTERTOP 1200 o similar (rendimiento 0,600 kg/m²), sobre superficies de hormigón o mortero, sin incluir la preparación del soporte. Colores Estándar.	220,05	20,70	4.555,04
452fp	M2 FELPUDO METÁLICO M2. Suministro y colocación de felpudo de estructura de aluminio, acabado moqueta negro, marca GS-Group ref. Pedimat CS 2050 modelo ebonita, colocado con .p.p. de perfil de acero inox mate de 2 mm. en forma de L, para remate del granito, incluso p.p. de tornillería de fijación.	3,36	160,19	538,24

PRESUPUESTOS PARCIALES.

ABASTECIMIENTO A VARIOS MUNICIPIOS DE LA RIOJA. SISTEMA CIDACOS

CÓDIGO	RESUMEN	CANTIDAD	PRECIO	IMPORTE
452PC	M2 PAVIMENTO CERÁMICO m². Solado de baldosa de gres (precio del material 18 euros/m²), en formato comercial, para interiores (resistencia al deslizamiento Rd s/ UNE-ENV 12633 según planos, recibido con cemento cola Weber.col classic blanco, i/piezas especiales, ejecución de cortes, rejuntado con mortero decorativo Weber.col junta fina (< 3mm) y limpieza, s/ CTE BD SU y NTE-RSB-7.	247,66	35,58	8.811,74
452Pr	M2 RODAPIÉ CERÁMICO m. Rodapie de gres de 7 cm recibido con mortero de cemento y arena de río M5 según UNE-EN 998-2 o adhesivo si es a placa de yeso, i/rejuntado y limpieza, S/ CTE BD SU y NTE-RSP-16.	121,50	5,94	721,71
452PL	M2 PAVIMENTO LAMINADO m². Pavimento laminado AC5/33 con certificación como clase ASF2 (antiestático), con tablero base DPL de alta densidad de medidas 1285x191x11,0 mm dotado de junta de cierre click en los cuatro cantos de la tabla. Compuesto por tres elementos: A, capa de desgaste compuesta de una capa protectora fabricada a partir de resinas melamínicas y papel decorado con acabado de superficie similar a la madera (arce natural, haya, roble...). B, tablero base HDF dotado de sistema anti humedad y unión Click. C, contracapa de papel Kraih para mayor estabilidad del conjunto y sistema de reducción del sonido de la pisada, i/rodapié de 10 cm de MDF laminado en igual color que el pavimento, totalmente terminado..	167,91	25,21	4.233,01
452Pg	M2 PAVIMENTO GRANITO m². Solado de granito nacional con acabado pulido, de 2 cm de espesor para interiores (resistencia al deslizamiento Rd s/ UNE-ENV 12633 para: a) zonas secas, CLASE 1 para pendientes menores al 6% y CLASE 2 para pendientes superiores al 6% y escaleras), recibido con mortero de cemento y arena de miga 1/6 o cemento cola, rejuntado y limpieza, s/ CTE BD SU y NTE-RSP.	41,60	47,84	1.990,14
452Pgr	ML RODAPIÉ GRANITO m. Rodapie de granito nacional de 10x2 cm, con mortero de cemento y arena de río M5 según UNE-EN 998-2 o adhesivo si es a placa de yeso, i/rejuntado y limpieza, S/NTE-RSP-16.	30,00	11,15	334,50
452Pgp	ML PELDAÑO GRANITO m. Peldaño de granito nacional con huella y tabica, de 3 y 2 cm de espesor respectivamente, para interiores o exteriores (resistencia al deslizamiento Rd>45 s/ UNE-ENV 12633 CLASE 3), i/p.p. de zanquín del mismo material de 42x17 cm, recibido todo ello con mortero de cemento y arena de miga 1/6, rejuntado y limpieza, s/ CTE BD SU.	36,00	57,69	2.076,84
469	M2 PINTURA PLÁSTICA BLANCA Pintura plástica picada blanca en paramentos verticales y horizontales, lavable dos manos, i/lijado y emplastecido.	923,24	5,98	5.520,98
449	M2 PINTURA PLÁSTICA LISA MATE COLOR Pintura plástica lisa mate color, en interiores, en paramentos horizontales y verticales, dos manos, incluso lijado, mano de imprimación con plástico diluido, plastecido, lijado y acabado.	852,62	3,18	2.711,33
TOTAL SUBPARTADO 02.01.06.3 ACABADOS.....				63.302,08
SUBPARTADO 02.01.06.4 CARPINTERIA				
444	M2 CARPINTERIA DE MADERA MACIZA Carpintería de madera maciza, de pino Oregón en puertas, incluso herrajes, montada.	39,51	88,40	3.492,68
444V	M2 MARCO VENTANAL DE MADERA MACIZA m². Ventanal fijo para la colocación de vidrio, con cerco de pino Oregón de 9x7 cm para barnizar, con tapajuntas de pino Oregón 7x1,5 cm, por ambas caras y junquillo fijación vidrio. Según CTE/DB-HS 3.			

PRESUPUESTOS PARCIALES.

ABASTECIMIENTO A VARIOS MUNICIPIOS DE LA RIOJA. SISTEMA CIDACOS

CÓDIGO	RESUMEN	CANTIDAD	PRECIO	IMPORTE
465	M2 PUERTA DOBLE CHAPA ACERO Puerta de paso hojas abatibles de doble chapa lisa de acero de 1 mm de espesor, con aislamiento interno de fibra de vidrio, engatillada, realizada en dos bandejas, con rigidizadores de tubo rectangular, i/manillas de acero inoxidable y cerradura, patillas para recibir en fábricas, herrajes de colgar y de seguridad, imprimación antióxido y pintura al esmalte, totalmente colocada incluyendo el recibido de fábricas.	6,28	65,19	409,39
463MTF	M2 MAMPARA TABLERO FENÓLICO m2 Mampara ligera de tablero fenólico compacto de 12 mm., sin vidrio, con puerta, con accesorios de aluminio extruido, incluso parte proporcional de bisagras y cornisas de aluminio lacado, cerraduras exteriores e interiores de acero inoxidable lacado on indicador de señalización libre/ocupado y manilla tipo Glutz 5059/160 mm. o similar, ralsinizada, color a elegir, pequeño material y medios auxiliares de montaje, incluso formación de encimeras lavabos con elementos de fijación de acero inox. Totalmente terminado.	17,49	64,38	1.126,01
464ca	M2 CARPINTERÍA ABATIBLE ALUMINIO EN VENTANAS m². Carpintería de hojas abatibles de aluminio modelo con rotura de puente térmico, Alfil A54RPT de SAPAGROUP con un ancho de marco de 54 mm y con un ancho de hoja de 61 mm, medida del frente de 96,3 mm, con sistema de cámara europea, con espesor de perfil de 1,5 mm, con sistema de cierre por junta central de estanqueidad en EPDM, coplanar exteriormente y con resalte de hoja sobre el marco al interior, para un acristalamiento con altura de galce de 22 mm y anchura hasta 44 mm en marcos y 51 mm en hojas, lacado (entre 60-100 micras) en color estándar (RAL estándar: blanco, gris...), herrajes de colgar, p.p. de cerradura Tesa o similar y costes indirectos. Homologada con Clase 4 en el ensayo de permeabilidad al aire según norma UNE-EN 1026:2000. La transmitancia máxima del marco es de 2,90 W/m² K, y cumple en las zonas A, B, C, D y E, según el CTE/DB-HE 1.	32,40	104,02	3.370,25
464cf	M2 CARPINTERÍA FIJA ALUMINIO m². Carpintería fija con junquillos para la fijación del vidrio, de aluminio modelo con rotura de puente térmico, Alfil A54RPT de SAPAGROUP con un ancho de marco de 54 mm y con un ancho de hoja de 61 mm, medida del frente de 96,3 mm, con sistema de cámara europea, con espesor de perfil de 1,5 mm, con sistema de cierre por junta central de estanqueidad en EPDM, coplanar exteriormente y con resalte de hoja sobre el marco al interior, para un acristalamiento con altura de galce de 22 mm y anchura hasta 44 mm en marcos y 51 mm en hojas, lacado (entre 60-100 micras) en color estándar (RAL estándar: blanco, gris...), herrajes de colgar, p.p. de cerradura Tesa o similar y costes indirectos. Homologada con Clase 4 en el ensayo de permeabilidad al aire según norma UNE-EN 1026:2000. La transmitancia máxima del marco es de 2,90 W/m² K, y cumple en las zonas A, B, C, D y E, según el CTE/DB-HE 1.	25,61	235,74	6.037,30
464caP	M2 CARPINTERÍA ABATIBLE ALUMINIO EN PUERTAS m². Carpintería de hojas abatibles de aluminio modelo con rotura de puente térmico, Alfil A65RPT de SAPAGROUP con un ancho de marco de 65 mm y con un ancho de hoja de 721 mm, medida del frente de 96,3 mm, con sistema de cámara europea, con espesor de perfil de 1,5 mm, con sistema de cierre por junta central de estanqueidad en EPDM, coplanar exteriormente y con resalte de hoja sobre el marco al interior, para un acristalamiento con altura de galce de 22 mm y anchura hasta 65 mm en marcos y 72 mm en hojas, lacado (entre 60-100 micras) en color estándar (RAL estándar: blanco, gris...), herrajes de colgar, p.p. de cerradura Tesa, manilla y barra inox y costes indirectos. Homologada con Clase 4 en el ensayo de permeabilidad al aire según norma UNE-EN 1026:2000. La transmitancia máxima del marco es de 2,90 W/m² K, y cumple en las zonas A, B, C, D y E, según el CTE/DB-HE 1.	39,79	144,71	5.758,01
464V1	M2 VIDRIO 6/16/6 BAJO EMISIVO Y CÁMARA CON ARGÓN m². Doble acristalamiento CLIMALIT PLUS, formado por un vidrio bajo emisivo Planitherm XN incoloro de 6 mm y una luna float Planiclear incolora de 6 mm (impreso en vestuarios y aseos), cámara de aire CON Argón de 16 mm con perfil separador de aluminio y doble sellado perimetral, fijado sobre carpintería con acuñado mediante calzos de apoyo perimetrales y laterales y sellado en frío con silicona neutra, incluso cortes de vidrio y colocación de junquillos, según UNE 85222:1985.	5,84	269,54	1.574,11
		62,94	58,85	3.704,02

PRESUPUESTOS PARCIALES.

ABASTECIMIENTO A VARIOS MUNICIPIOS DE LA RIOJA. SISTEMA CIDACOS

CÓDIGO	RESUMEN	CANTIDAD	PRECIO	IMPORTE
464V2	M2 VIDRIO AISLANTE Y DE SEGURIDAD 4+4/16/4+4 m². Doble acristalamiento CLIMALIT PLUS y espesor total 32 mm, formado por doble vidrio laminado acústico y de seguridad Stadip Silence 8 mm de espesor (4+4) y cámara de aire deshidratado de 16 mm con perfil separador de aluminio y doble sellado perimetral, fijado sobre carpintería con acuífado mediante calzos de apoyo perimetrales y laterales y sellado en frío con silicona neutra, incluso colocación de junquillos, según UNE 85222:1985. Nivel de seguridad de uso según UNE EN 12600: NPD/1B1.	8,30	107,43	891,67
464V3	M2 VIDRIO SEGURIDAD STADIP 44.1 INCOLORO (2B2) m². Acristalamiento de vidrio laminar de seguridad Stadip compuesto por dos vidrios de 4 mm de espesor unidos mediante lámina de butiral de polivinilo incolora de 0,38 mm, clasificado 2B2 según UNE-EN 12600, fijado sobre carpintería con acuífado mediante calzos de apoyo perimetrales y laterales y sellado en frío con silicona neutra, incluso colocación de junquillos, según UNE 85222:1985.	12,02	37,05	445,34
446M2	UD PUERTA CORTAFUEGOS EI2/60/C5 2h 1800 mm ud. Puerta resistente al fuego a partir de los datos obtenidos de los ensayos de resistencia al fuego con clasificación EI2/60/C5 según UNE EN-13501-2 (Integridad E: no transmisión de una cara a otra por llama o gases caliente; Aislamiento I: no transmisión de una cara a otra por transferencia de calor, con sufijo 2: para medición de distancias y temperaturas a tener en cuenta (100 mm/180°/100 mm); Tiempo t= 60 minutos o valor mínimo que debe cumplir tanto la integridad E como el aislamiento I; Capacidad de cierre automático C5; para uso s/ CTE (tabla 1.2 y 2.1 del DB-SI-1.1 y 1.2) siguiente: a) en paredes que delimitan sectores de incendios, con resistencia t de la puerta mitad del requerido a la pared en la que se encuentre, o bien la cuarta parte en caso de utilizar vestíbulos de independencia; b) puertas de locales de riesgo especial (bajo, medio o alto) en comunicación con el resto del edificio; con marcado CE y certificado y declaración CE de conformidad; de dos hojas abatibles de 1800x2150 mm con doble chapa de acero, i/p.p. de aislamiento de fibra mineral, cerco tipo "Z" electrosoldado de 3 mm de espesor, mecanismo de cierre automático y herrajes de colgar y de seguridad, juntas, etc... según CTE/DB-SI	1,00	363,58	363,58
464B1	ML BARANDILLA VIDRIO RECTA m. Sistema de barandilla modular GlassFit SV-1401 Top "COMENZA", sin pasamanos, con perfil de montaje de aluminio anodizado, con sistema de nivelación interior Lev el In, capaz de soportar una fuerza horizontal uniformemente repartida de 0,8 kN/m aplicada en el borde superior del vidrio según CTE DB SE-AE, de altura máxima 110 cm, para vidrio laminar de seguridad, compuesto por dos lunas de 10 mm de espesor unidas mediante dos láminas incoloras de butiral de polivinilo, de 0,38 mm de espesor cada una; fijado sobre hormigón mediante anclaje químico con varilla roscada de acero zincado, montada	3,30	226,93	748,87
464Be	ML BARANDILLA VIDRIO ESCALERA CON PASAMANOS m. Sistema de barandilla modular GlassFit CC-775 con pasamanos RP-1400"COMENZA", con material de montaje de acero inox AISI 316, capaz de soportar una fuerza horizontal uniformemente repartida de 0,8 kN/m aplicada en el borde superior del vidrio según CTE DB SE-AE, de altura máxima 110 cm, para vidrio laminar de seguridad, compuesto por dos lunas de 10 mm de espesor unidas mediante dos láminas incoloras de butiral de polivinilo, de 0,38 mm de espesor cada una, rematado con pasamanos de acero inox; fijado sobre hormigón mediante anclaje químico con varilla roscada de acero zincado, montada en borde de escalera.	4,75	309,92	1.472,12

PRESUPUESTOS PARCIALES.

ABASTECIMIENTO A VARIOS MUNICIPIOS DE LA RIOJA. SISTEMA CIDACOS

CÓDIGO	RESUMEN	CANTIDAD	PRECIO	IMPORTE
464BP	ML PASAMANOS ACERO INOX m. Pasamanos de tubo 40x1,5 y anclajes a paramento en L redondo liso macizo de 12 mm, todo ello de acero inox AISI 316, incluso codos y remate en curva a paramento en arranques, capaz de soportar una fuerza horizontal uniformemente repartida de 0,8 kN/m, montado	14,40	84,49	1.216,66
469b	M2 BARNIZADO CARPINTERÍA DE MADERA m². Barnizado de carpintería de madera interior con Procobar filtro 10 o similar, lijado y relijado dos manos y una mano de imprimación.	69,40	10,14	703,72
TOTAL SUBAPARTADO 02.01.06.4 CARPINTERIA.....				31.313,73
SUBAPARTADO 02.01.06.5 INSTALACIONES FONTANERIA				
002	M3 EXCAVACIÓN EN ZANJAS Excavación en zanjas y zonas localizadas, en todo tipo de terrenos incluido terrenos en roca con medios mecánicos, incluso rasanteo, nivelación de la superficie de apoyo y transporte a lugar de empleo o vertedero.	12,24	3,74	45,78
010	M3 RELLENO ZANJAS, CIMIENTOS Y TRASDOSES DE MATERIAL SELECCIONADO Relleno con material seleccionado en zanjas, cimientos, trasdós de muros, estribos y otras estructuras procedente de la excavación o préstamos incluso carga, transporte y compactación.	9,00	3,32	29,88
198110	ML TUBERÍA DE PVC 110 mm Sn4 Tubería de PVC con junta elástica de 110 mm de diámetro exterior, Sn-4, fabricados según UNE EN 1401-1, colocada en zanja recubierta con arena.	25,50	8,67	221,09
198112	ML TUBERÍA DE PVC 125 mm Sn4 Tubería de PVC con junta elástica de 125 mm de diámetro exterior, Sn-4, fabricados según UNE EN 1401-1, colocada en zanja recubierta con arena.	20,00	9,13	182,60
198116	ML TUBERÍA DE PVC 160 mm Sn4 Tubería de PVC con junta elástica de 160 mm de diámetro exterior, Sn-4, fabricados según UNE EN 1401-1, colocada en zanja recubierta con arena.	6,00	11,29	67,74
198110b	ML TUBERÍA DE PVC 110 mm serie B m. Tubería de PVC sanitaria serie B, de 110 mm de diámetro y 3,2 mm de espesor, unión por adhesivo, color gris, colocada en bajantes y red de saneamiento horizontal colgada, con una pendiente mínima del 1%, i/ p.p. de piezas especiales según UNE EN 1329 y CTE/DB-HS 5.	58,50	11,00	643,50
460s	UD ARQUETA RED DE SNT0. DE 40x40x40 TAPA FUNDICIÓN Arqueta de red de saneamiento de 40x40x40, de hormigón HM-20 dotada de cerco y tapa de fundición hidráulica de 40x40 cm C-250	1,00	126,52	126,52
4602sR	UD ARQUETA RED DE SNT0. DE 50x50x80 TAPA RELLENABLE Arqueta de red de saneamiento de 50x50 y 80 cm de altura media, de hormigón HM-20 dotada de cerco y tapa HERMÉTICA de aluminio rellenable, paso 50x50 cm	5,00	190,31	951,55
460s2	UD ARQUETA RED DE SNT0. DE 50x50x80 TAPA FUNDICIÓN Arqueta de red de saneamiento de 50x50 y 80 cm de altura media, de hormigón HM-20 dotada de cerco y tapa de fundición hidráulica de 50x50 cm C-250	2,00	160,25	320,50

PRESUPUESTOS PARCIALES.

ABASTECIMIENTO A VARIOS MUNICIPIOS DE LA RIOJA. SISTEMA CIDACOS

CÓDIGO	RESUMEN	CANTIDAD	PRECIO	IMPORTE
460sum	UD SUMIDERO SIFÓNICO DE FUNDICIÓN 14,5x14,5 ud. Sumidero sifónico de fundición de 14,5x14,5 cm, salida d=50 mm, enlazado a arqueta mediante tubería de PVC de diámetro exterior 50 mm x 3 mm de espesor Serie B, totalmente instalado, según CTE/DB-HS 5.	4,00	41,50	166,00
460sumi	UD SUMIDERO SIFÓNICO ACERO INOX ud. Sumidero sifónico de acero inoxidable cm para instalación en suelos de vestuarios, totalmente instalado i/ p.p. de material de agarre, enlazado a arqueta mediante tubería de PVC de diámetro exterior 50 mm x 3 mm de espesor Serie B, totalmente instalado, según CTE/DB-HS 5..	4,00	91,17	364,68
453AC	UD ACOMETIDA ABASTECIMIENTO A EDIFICIO DE CONTROL Ud. Acometida a la red general, formada por tubería de polietileno de 1 1/2" y 10 Atm. para uso alimentario, brida de conexión, machón rosca, manguitos, llaves de paso tipo globo, válvula anti-retorno de 1 1/2", tapa de registro exterior, grifo de pruebas de latón de 1/2", incluso contador, según CTE/ DB-HS 4 suministro de agua.	1,00	271,65	271,65
453L	UD INSTALACIÓN DE FONTANERÍA Y EVACUACIÓN LABORATORIO ud. Instalación del laboratorio y dependencias enexas, de fontanería completa en TABIQUERÍA SECA, realizada con tuberías de polietileno reticulado (método Engel) utilizando el sistema Quick&Easy de derivaciones por tes para las redes de agua fría y caliente y con tuberías de PVC serie C para la red de desagüe con los diámetros necesarios para cada punto de consumo, totalmente terminada según CTE/ DB-HS 4 suministro de agua, sin incluir los aparatos sanitarios ni griferías, y con p.p. de redes interiores de ascendentes y bajantes.	1,00	226,91	226,91
453A	UD INSTALACIÓN DE FONTANERÍA Y EVACUACIÓN ASEOS PL.1 ud. Instalación de aseos y cuarto de limpieza de planta primera, de fontanería completa en TABIQUERÍA SECA, realizada con tuberías de polietileno reticulado (método Engel) utilizando el sistema Quick&Easy de derivaciones por tes para las redes de agua fría y caliente y con tuberías de PVC serie C para la red de desagüe con los diámetros necesarios para cada punto de consumo, totalmente terminada según CTE/ DB-HS 4 suministro de agua, sin incluir los aparatos sanitarios ni griferías, y con p.p. de redes interiores de ascendentes y bajantes.	1,00	505,87	505,87
453T	UD INSTALACIÓN DE FONTANERÍA TALLER ud. Instalación de fontanería completa para el taller, realizada con tuberías de polietileno reticulado (método Engel) utilizando el sistema Quick&Easy de derivaciones por tes para las redes de agua fría, totalmente terminada según CTE/ DB-HS 4 suministro de agua, sin incluir los aparatos sanitarios ni griferías, y con p.p. de redes interiores de ascendentes y bajantes.	1,00	79,60	79,60
453ACE	UD INSTALACIÓN DE FONTANERÍA Y EVACUACIÓN ALMACÉN ud. Instalación del almacén y cuarto de equipos, de fontanería completa, realizada con tuberías de polietileno reticulado (método Engel) utilizando el sistema Quick&Easy de derivaciones por tes para las redes de agua fría y caliente y con tuberías de PVC serie C para la red de desagüe con los diámetros necesarios para cada punto de consumo, totalmente terminada según CTE/ DB-HS 4 suministro de agua, sin incluir los aparatos sanitarios ni griferías, y con p.p. de redes interiores de ascendentes y bajantes.	1,00	167,89	167,89
453v	UD INSTALACIÓN DE FONTANERÍA Y EVACUACIÓN VESTUARIOS ud. Instalación de vestuarios, de fontanería completa en TABIQUERÍA SECA, realizada con tuberías de polietileno reticulado (método Engel) utilizando el sistema Quick&Easy de derivaciones por tes para las redes de agua fría y caliente y con tuberías de PVC serie C para la red de desagüe con los diámetros necesarios para cada punto de consumo, totalmente terminada según CTE/ DB-HS 4 suministro de agua, sin incluir los aparatos sanitarios ni griferías, y con p.p. de redes interiores de ascendentes y bajantes.	1,00	472,29	472,29

PRESUPUESTOS PARCIALES.

ABASTECIMIENTO A VARIOS MUNICIPIOS DE LA RIOJA. SISTEMA CIDACOS

CÓDIGO	RESUMEN	CANTIDAD	PRECIO	IMPORTE
45332	ML TUBERÍA POLIETILENO RETICULADO 32x2,9 m. Tubería de polietileno reticulado por el método Engel (Peróxido), según norma UNE-EN ISO 15875, de 32x2,9 mm de diámetro, colocada en instalaciones interiores de para agua fría y caliente, sin protección superficial, con p.p. de accesorios Quick&Easy de PPSU, instalada y funcionando según CTE/ DB-HS 4 suministro de agua.	28,00	5,58	156,24
45325	ML TUBERÍA POLIETILENO RETICULADO 25x2,3 m. Tubería de polietileno reticulado por el método Engel (Peróxido), según norma UNE-EN ISO 15875, de 25x2,3 mm de diámetro, colocada en instalaciones interiores para agua fría y caliente, sin protección superficial, con p.p. de accesorios Quick&Easy de PPSU, instalada y funcionando según CTE/ DB-HS 4 suministro de agua.	9,00	5,58	50,22
453br	UD RECIRCULACIÓN ACS Ud. Instalación de recirculación de a.c.s. con circulador de bronce SB 4Y, tubería de polietileno de d=20 con p.p. de accesorios y aislamiento armaflex, 2 llaves de esfera de 3/4" H-H con bola de acero inox., 1 válvula de retención de 3/4", totalmente intalado.	1,00	216,21	216,21
45316C	ML AISLAM. COQUILLA D=16 MM iINT, E= 9 MM m. Aislamiento térmico con coquilla flexible autoadhesiva, elastómero extruido de célula cerrada, clase M1, de 9 mm de grueso, diámetro interior 16 mm, para utilizar con tubería de fontanería, con un coeficiente de conductividad térmica de 0,0,33 a 0,0037 W/m°C, en instalaciones de fontanería (Temperatura de trabajo entre -40°C y +110°C).	73,00	1,30	94,90
45320C	ML AISLAM. COQUILLA D=20 MM iINT, E= 9 MM m. Aislamiento térmico con coquilla flexible autoadhesiva, elastómero extruido de célula cerrada, clase M1, de 9 mm de grueso, diámetro interior 20 mm, para utilizar con tubería de fontanería, con un coeficiente de conductividad térmica de 0,0,33 a 0,0037 W/m°C, en instalaciones de fontanería (Temperatura de trabajo entre -40°C y +110°C).	42,00	1,39	58,38
45325C	ML AISLAM. COQUILLA D=25 MM iINT, E= 9 MM m. Aislamiento térmico con coquilla flexible autoadhesiva, elastómero extruido de célula cerrada, clase M1, de 9 mm de grueso, diámetro interior 25 mm, para utilizar con tubería de fontanería, con un coeficiente de conductividad térmica de 0,0,33 a 0,0037 W/m°C, en instalaciones de fontanería (Temperatura de trabajo entre -40°C y +110°C).	5,00	1,57	7,85
45332C	ML AISLAM. COQUILLA D=32 MM iINT, E= 9 MM m. Aislamiento térmico con coquilla flexible autoadhesiva, elastómero extruido de célula cerrada, clase M1, de 9 mm de grueso, diámetro interior 32 mm, para utilizar con tubería de fontanería, con un coeficiente de conductividad térmica de 0,0,33 a 0,0037 W/m°C, en instalaciones de fontanería (Temperatura de trabajo entre -40°C y +110°C).	14,00	2,22	31,08
452BF	ud BARRA APOYO FIJA Ud. Barra de apoyo MEDICLINIC Ref. BR0600CS acero inox AISI 304, o modelo equivalente, instalada con p.p. de elementos de anclaje de acero inox.	1,00	46,70	46,70
452BA	ud BARRA APOYO ABATIBLE Ud. Barra de apoyo MEDICLINIC Ref. BG0800C acero inox AISI 304, o modelo equivalente, instalada con p.p. de elementos de anclaje de acero inox.	1,00	102,86	102,86
452DJ	ud DOSIFICADOR DE JABÓN ud. Dosificador de jabón MEDICLINICS DJ0111C o equivalente, acero inoxidable, instalado.	5,00	41,95	209,75
452PR	ud DISPENSADOR PAPEL ROLLO ud. Dispensador de papel higiénico industrial circular, modelo MEDICLINICS PR0783CS o modelo equivalente, instalado.	6,00	40,96	245,76

PRESUPUESTOS PARCIALES.

ABASTECIMIENTO A VARIOS MUNICIPIOS DE LA RIOJA. SISTEMA CIDACOS

CÓDIGO	RESUMEN	CANTIDAD	PRECIO	IMPORTE
452PT	ud DISPENSADOR PAPEL TOALLA ud. Dispensador de papel toalla modelo MEDICLINICS DT2106CS o modelo equivalente, instalado.	5,00	49,53	247,65
452LP	ud LAVABO SOBRE PEDESTAL ud. Lavabo de Roca o similar, modelo Victoria de 52x41 cm con pedestal en blanco, con grifería temporizada de 1/2" marca Presto 605 o similar, válvula de desagüe de 32 mm, llave de escuadra de 1/2" cromada y sifón individual PVC 40 mm y latiguillo flexible 20 cm, totalmente instalada.	4,00	139,88	559,52
452LV	ud LAVABO MURAL ACCESIBLE Ud. Lavabo mural de Roca modelo Hall de 450x380 mm. en blanco, con mezclador de lavabo monomando adaptado, válvula de desagüe de 32 mm., llaves de escuadra de 1/2" cromadas y sifón individual y tuberías de enlace a paramento y sanitario cromado 40 mm. y latiguillo flexible 20 cm., totalmente instalado.	1,00	173,97	173,97
452Lm	ud LAVABO MURAL Ud. Lavabo mural de Roca modelo Hall de 450x380 mm. en blanco, con mezclador de lavabo monomando, válvula de desagüe de 32 mm., llaves de escuadra de 1/2" cromadas y sifón individual y tuberías de enlace a paramento y sanitario cromado 40 mm. y latiguillo flexible 20 cm., totalmente instalado.	4,00	159,54	638,16
452IN	ud INODORO TANQUE BAJO Ud. Inodoro de Roca modelo Victoria de tanque bajo en blanco, con asiento pintado en blanco y mecanismos, llave de escuadra 1/2" cromada, latiguillo flexible de 20 cm., empalme simple PVC de 110 mm., totalmente instalado.	5,00	146,64	733,20
452IA	ud INODORO TANQUE BAJO ACCESIBLE Ud. Inodoro de Roca modelo Access de tanque bajo en blanco de 480 mm. de altura (sin asiento), con asiento y tapa con bisagras de acero inox., mecanismos, llave de escuadra 1/2" cromada, latiguillo flexible de 20 cm., empalme hasta bajante o tubería de evacuación de PVC de 110 mm., totalmente instalado.	1,00	194,20	194,20
452UR	ud URINARIO MURAL Ud. Urinario de Roca modelo Site, o equivalente, con grifo temporizado Presto 27 1/2" y enlace a urinario y sifón incorporado, totalmente instalado.	1,00	221,55	221,55
452VT	ud VERTEDERO ud. Vertedero modelo Garda completo con mezclador exterior de caño giratorio modelo Victoria Plus de Roca o similar, rejilla, desagüe, enchufe de unión y fijación instalada.	1,00	173,39	173,39
452gd	ud GRIFERÍA DUCHAS Ud. Mezclador temporizado para ducha con pulsador de regulación de temperatura integrado, tipo Presto Alfa 80, y tubería de de enlace y rociador antivandálico, cromados para instalación vista, tipo Nofer 07072, o equivalente, i/p.p. de piezas especiales de enlace y fijación, totalmente instalado.	2,00	179,92	359,84
452TER	ud TERMO ELÉCTRICO 80 L JUNKERS ud. Termo eléctrico vertical/horizontal para el servicio de a.c.s acumulada, JUNKERS modelo HS 80-3B, con una capacidad útil de 80 litros. Potencia 2,0 kW. Ajuste de temperatura en intervalos de 10°C y tensión de alimentación a 230 V. Tiempo de calentamiento 140 minutos. Testigo luminoso de funcionamiento y display con indicación de temperatura. Depósito de acero vitrificado. Aislamiento de espuma de poliuretano sin CFC y ánodo de sacrificio de magnesio. Presión máxima admisible de 8 bar. Dimensiones 948 mm de alto y 452 mm de diámetro.	1,00	252,61	252,61

PRESUPUESTOS PARCIALES.

ABASTECIMIENTO A VARIOS MUNICIPIOS DE LA RIOJA. SISTEMA CIDACOS

CÓDIGO	RESUMEN	CANTIDAD	PRECIO	IMPORTE
452dep	ud ACUMULACIÓN A.C.S. Ud. Depósito para acumulación ACV, Mod. SMART SL de 160 litros de capacidad, fabricado en acero inoxidable, aislado térmicamente, válvula de seguridad de 1", válvula de retención de 1", 2 llaves de esfera de 1", vaciado, vaseo de expansión de 8 l., accesorios y pequeño material, completamente montado, probado y funcionando	1,00	1.038,52	1.038,52
452BAT	ud BATER. 6 PANELES PLANOS FKC-1 W JUNKERS 13,50 M2 Ud. Batería de 6 captadores solares planos FKC-1 W de alto rendimiento, con tratamiento selectivo en cromo negro, para montaje en horizontal. Permite conexión en paralelo hasta 10 captadores. Circuito hidráulico de parrilla de tubos. Aislamiento de lana mineral de 55 mm de espesor. Estructura en forma de caja, realizada en fibra de vidrio. Superficie de apertura: 2,25 m2. Uniones mediante manguitos flexibles con abrazaderas de ajuste rápido. Instalado sobre cubierta plana mediante una estructura de soporte de aluminio con elementos de conexión incluyendo racores, válvulas de corte, purgador, etc. Incluso transporte, montaje, conexionado, pruebas de funcionamiento y puesta en marcha. Conexión hidráulica entre captadores y sujeción física a estructura.	1,00	3.103,35	3.103,35
452cis	ud CIRCUITOS INSTALACIÓN SOLAR Ud. Ejecución de circuitos primario y secundario con tubería cobre rígido, incluso puesta a punto de soldadura dura o blanda según corresponda, codos, tes, manguitos y demás accesorios y pequeño material, aislada con coquilla de Armaflex, de espesor nominal de 30 mm, recubierta de pintura protectora exterior del aislante, vaso de expansión para sistemas cerrados, de 12 litros de capacidad, 4 bar y 120°C de presión y temperatura máximas de trabajo, 1.5 bar de presión inicial, homologado según directiva 97/23/CE de aparatos a presión, conexión roscada R 3/4", incluso válvula de seguridad de 3 kg/cm.2, llaves, de cierre, circulador Grundfos para instalación con presión y temperatura máxima de 10 bar y 110°C respectivamente, constituido por motor de rotor encapsulado, selector de 3 velocidades, manómetros, separador de aire, sonda de temperatura, purgador y demás accesorios y pequeño material, completamente montado, probado y funcionando.	1,00	765,38	765,38
452ce	ud C. ELÉCT./CON. SYSTEMTRONIC ACS 2 Ud. Cuadro eléctrico y de control formado por caja estanca e interruptores de protección. Incluso cableado y bombas de conexión. Control diferencial, marca SYSTEMTRONIC, modelo PTC 2001/rd, con dos sondas de inmersión para actuación de bomba del primario (P<250W) mediante termostato diferencial, termostato mínima en paneles y termostato de máxima en acumulación, mediante actuación directa. Incluso accesorios y pequeño material, completamente montado, probado y funcionando.	1,00	362,00	362,00
452cen	ud CENTRALITA CONTROL JUNKERS TDS 050 Ud. Centralita solar JUNKERS modelo TDS 050 de regulación para una aplicación. Regulador por temperatura diferencial. Dos entradas tipo NTC (Temperatura panel y temperatura parte inferior del depósito). Display LCD con esquema de instalación en movimiento. Indicación de temperaturas, códigos de error, modo de funcionamiento y estado de la bomba. Una salida de tensión de 230V de corriente alterna para el circulador. Posibilidad de ajuste de diferencia de temperatura de conexión. Posibilidad de aplicación para recirculación entre depósitos. Posibilidad de ajuste de temperatura máxima en acumulador. Dimensiones: 134 x 137 x 38 mm.	1,00	163,54	163,54
452leg	ud LEGALIZACIÓN INSTALACIÓN A.C.S. Ud. Legalización instalación de energía solar térmica de potencia inferior a 21 kW, comprende tasas administrativas y tramitación por parte de un Organismo de Control Autorizado.	1,00	161,12	161,12
TOTAL SUBPARTADO 02.01.06.5 INSTALACIONES FONTANERIA.....				15.212,00

PRESUPUESTOS PARCIALES.

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CÓDIGO	RESUMEN	CANTIDAD	PRECIO	IMPORTE
SUBAPARTADO 02.01.06.6 CERRAMIENTOS Y CUBIERTA				
463p	M2 PANEL PREFABRICADO DE HORMIGÓN 16 cm M2. Panel de cerramiento con acabado gris natural, de 16 cm. de espesor para colocación horizontal, con modulación según proyecto, tratamiento anticarbonatación, ambas caras lisas, i/elementos de fijación de acero galvanizado en caliente y sellado de juntas interior y exterior con SILCOSELL o equivalente, colocado, (medido deduciendo huecos mayores de 10 m2.)	761,49	32,61	24.832,19
463RC	M2 REVESTIMIENTO EXTERIOR DE CHAPA ONDULADA M2. Revestimiento de chapa ondulada de aluminio tipo tipo alubel ond-all 33 acabado lacado estandar a elegir, con p.p. elementos de fijación y remates inferior, a huecos, esquinas, coronación, etc, totalmente terminada.	483,64	18,26	8.831,27
463CI	M2 CUBIERTA PLANA NO TRANSITABLE m². Cubierta invertida completa, no transitable, constituida por: capa de hormigón aligerado de 10 cm de espesor medio, para formación de pendientes, con tendido de mortero de cemento M5 de 2 cm de espesor para regularizar la superficie; lámina geotextil de 200 g/m²; lámina asfáltica de oxiasfalto, GLASDAN 40 P OXI, en posición flotante respecto al soporte, salvo en perímetros y puntos singulares; lámina asfáltica de oxiasfalto, ESTERDAN 40 P ELAST, totalmente adherida a la anterior con soplete; cazoleta con conexión a bajante d110 mm con paragravillas; aislamiento térmico con planchas de poliestireno extruido de 50 mm de espesor, DANOPREN 50; lámina geotextil; capa de grava de canto rodado de 5 cm de espesor. Solución según membrana PN-6 de la norma UNE 104-402/96. Cumple los requisitos del C.T.E.	384,15	36,42	13.990,74
463RCH	M2 REVESTIMIENTO PETO CUBIERTA M2. Revestimiento de peto interior de cubierta entre coronación y solape con impermeabilizante de cubierta, realizado con chapa lacada 0,5 mm con p.p. elementos de fijación, totalmente terminada.	80,28	8,25	662,31
463	M2 FÁBRICA BLOQUES 40x20x20 cm GRIS Fábrica de bloques de hormigón color gris de medidas 40x20x20 cm, para terminación posterior en peanas de ventilaciones, i/relleno de hormigón HM-20 y armadura en zona según normativa y recibido con mortero de cemento y arena de río 1/6, i/p.p. de piezas especiales, roturas, aplomados, nivelados y limpieza todo ello según NTE-FFB-6.	243,82	30,71	7.487,71
463TB	M2 TABIQUE AUTOPORTANTE 2x15N+70+2x15N m². Tabique formado por una estructura de perfiles de chapa de acero galvanizada de 70 mm de ancho, a base de Montantes (elementos verticales) separados 400 mm entre ellos y canales (elementos horizontales), En cada cara se atomillan dos placas de yeso laminado, estandar tipo N de 15 mm de espesor, dando un ancho total terminado de 130 mm. Parte proporcional de tornillería, juntas estancas /acústicas de su perímetro, cintas y pasta de juntas, piezas de arriostamiento, anclajes mecánicos, etc. totalmente terminado con calidad de terminación Nivel 1 (Q1) para terminaciones de calidad de terminación Nivel 2 (Q2) para terminaciones estándar de pintura. Alma con Lana Mineral tipo Arena PR de 65 mm de espesor. Montaje según Norma UNE 102.041 IN y requisitos del CTE-DB HR. Montaje según Norma UNE 102.041 IN y requisitos del CTE-DB HR.	224,34	35,28	7.914,72
463TBh	M2 TABIQUE AUTOPORTANTE 2x15N+70+1x15H m². Tabique formado por una estructura de perfiles de chapa de acero galvanizada de 70 mm de ancho, a base de Montantes (elementos verticales) separados 400 mm entre ellos y canales (elementos horizontales), En una cara se atomillan dos placas de yeso laminado, estandar tipo N de 15 mm de espesor y en la otra una placa de yeso laminado hidrofugada tipo H1, de 15 mm, dando un ancho total terminado de 115 mm. Parte proporcional de tornillería, juntas estancas /acústicas de su perímetro, cintas y pasta de juntas, piezas de arriostamiento, anclajes mecánicos, etc. totalmente terminado con calidad de terminación Nivel 1 (Q1) para terminación de alicatado en lado placa hidrofugada, y calidad de terminación Nivel 2 (Q2) para terminaciones estándar de pintura en lado Alma con Lana Mineral tipo Arena PR de 65 mm de espesor. Montaje según Norma UNE 102.041 IN y requisitos del CTE-DB HR. Montaje según Norma UNE 102.041 IN y requisitos del CTE-DB HR.	151,74	31,88	4.837,47

PRESUPUESTOS PARCIALES.

ABASTECIMIENTO A VARIOS MUNICIPIOS DE LA RIOJA. SISTEMA CIDACOS

CÓDIGO	RESUMEN	CANTIDAD	PRECIO	IMPORTE
463TB2h	M2 TABIQUE AUTOPORTANTE 1X15H+70+1x15H m². Tabique formado por una estructura de perfiles de chapa de acero galvanizada de 70 mm de ancho, a base de Montantes (elementos verticales) separados 400 mm entre ellos y canales (elementos horizontales), En cada cara se atomillan una placa de yeso laminado hidrofugada tipo H1, de 15 mm, dando un ancho total terminado de 115 mm. Parte proporcional de tornillería, juntas estancas /acústicas de su perímetro, cintas y pasta de juntas, piezas de arriostamiento, anclajes mecánicos, etc. totalmente terminado con calidad de terminación Nivel 1 (Q1) para terminaciones de alicatado. Alma con Lana Mineral tipo Arena PR de 65 mm de espesor. Montaje según Norma UNE 102.041 IN y requisitos del CTE-DB HR. Montaje según Norma UNE 102.041 IN y requisitos del CTE-DB HR.	104,93	29,23	3.067,10
463TR	M2 TRASDOSADO AUTOPORTANTE 70+2x15N m². Trasdoso autoportante formado por una estructura de perfiles de chapa de acero galvanizada de 70 mm de ancho, a base de Montantes (elementos verticales) colocados dobles en H, separados 400 mm entre ellos y canales (elementos horizontales). A éstos se atomillan dos placas de yeso laminado, estandar tipo N de 15 mm de espesor, dando un ancho total terminado de 100 mm. Parte proporcional de tornillería, juntas estancas /acústicas de su perímetro, cintas y pasta de juntas, piezas de arriostamiento, anclajes mecánicos, etc. totalmente terminado con calidad de terminación Nivel 2 (Q2) para terminaciones estándar de pintura. Alma con Lana Mineral tipo Arena PR de 65 mm de espesor. Montaje según Norma UNE 102.041 IN y requisitos del CTE-DB HR. Montaje según Norma UNE 102.041 IN y requisitos del CTE-DB HR.	287,03	26,72	7.669,44
463TRh	M2 TRASDOSADO AUTOPORTANTE 70+1x15H m². Trasdoso autoportante formado por una estructura de perfiles de chapa de acero galvanizada de 70 mm de ancho, a base de Montantes (elementos verticales) colocados dobles en H, separados 400 mm entre ellos y canales (elementos horizontales). A éstos se atomilla una placa de yeso laminado, hidrofugada de 15 mm de espesor, dando un ancho total terminado de 85 mm. Parte proporcional de tornillería, juntas estancas /acústicas de su perímetro, cintas y pasta de juntas, piezas de arriostamiento, anclajes mecánicos, etc. totalmente terminado con calidad de terminación Nivel 1 (Q1) para terminaciones de alicatado. Alma con Lana Mineral tipo Arena PR de 65 mm de espesor. Montaje según Norma UNE 102.041 IN y requisitos del CTE-DB HR. Montaje según Norma UNE 102.041 IN y requisitos del CTE-DB HR.	178,11	23,99	4.272,86
461	M2 TABICÓN DE LADRILLO HUECO DOBLE Tabicón de ladrillo hueco doble tomado con mortero de cemento y arena de río 1:6, construido según normas y especificaciones, medido en superficie, ejecutado deduciendo huecos superiores a 1 m2.	5,93	26,99	160,05
TOTAL SUBAPARTADO 02.01.06.6 CERRAMIENTOS Y CUBIERTA.....				83.725,86
SUBAPARTADO 02.01.06.7 INSTALACIONES DE CLIMATIZACIÓN EDIFICIO DE CONTROL				
ELEMENTO 02.01.07.7.1 GENERACIÓN DE CALOR				
2473CL0101	ud BOMBA DE CALOR FERROLI NEPTUNO 60R Bomba de calor condensada por aire FERROLI NEPTUNO 60R con potencia frigorífica 59,6 kW y potencia calorífica 68,25 kW diseñada para producir agua caliente hasta 65°C con temperaturas exteriores de -10°C. Version alta eficiencia, limites operativos de -20°C trabajando en modo calefaccion y +48°C en modo refrigeracion. Refrigerante R410A. Con ventiladores axiales control de condensacion con capacidad continua de regulacion incorporado en bomba de calor, compresor scroll encapsulados y ekepada superficie de intercambio para un comportamiento silencioso, 2 circuitos frigoríficos independientes, con grupo hidráulico y bomba de impulsión tipo 3 y kit antivibratorios VT15. Totalmente montado e instalado incluso pp de pequeño material y conexión eléctrica.	1,00	18.106,00	18.106,00
TOTAL ELEMENTO 02.01.07.7.1 GENERACIÓN DE CALOR.....				18.106,00
ELEMENTO 02.01.07.7.2 FAN COIL				
2473CL0201	ud FANCOIL CASSETTE DE TECHO Cassete de techo diseñado para emision sonora reducida. Grupo moto-ventilador con 3/4 velocidades. Estructura de sustentacion reforzada con faja lateral de acero galvanizado. Filtro de aire precargado electrostaticamente de facil extraccion y limpieza. Posibilidad de introduccion directa de aire exterior. Bandeja de condensados con grado de auto extincion VO. Incluido Plafon para cassete GLF10			

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CÓDIGO	RESUMEN	CANTIDAD	PRECIO	IMPORTE
		18,00	450,27	8.104,86
	TOTAL ELEMENTO 02.01.07.7.2 FAN COIL.....			8.104,86
	ELEMENTO 02.01.07.7.3 EQUIPOS DE VENTILACIÓN			
2473CL0301	<p>Ud RECUPERADOR DE CALOR</p> <p>Unidad de recuperacion de calor Equipada con recuperador de placas de aluminio a contracorriente de elevada eficiencia para lograr rendimientos secos superiores al 80% , ventiladores plug EC. Construida con perfiles de aluminio y paneles sandwich de 25mm de espesor fijados mediante compresion mecanica por perfil perimetral de aluminio que confiere el cerramiento gran resistencia mecanica.</p> <p>La unidad de recuperacion incluye:</p> <ul style="list-style-type: none"> -Ejecucion en horizontal -Montaje con orejetas para instalacion interior en falso techo -Filtros F6+F8 -Compuertas para free cooling -Vnetiladores con motor EC -Bateria de agua a 2 tubos -Display remoto hasta 30m -Cuadro de control y fuerza -Control de equipo a caudal constante -Comunicacion MODBUS 			
2473CL0302	<p>Ud VENTILADOR HELICONCENTRIFUGO</p> <p>Ventilador helicocentrífugo in-line de bajo perfil, extremadamente silencioso, fabricado en material de plástico, con elementos acusticos, cuerpo-motor desmontable sin necesidad de tocar los conductos, juntas de goma en impulsión y descarga para absorber las vibraciones, caja de bornes externa orientable 360°.</p>	1,00	4.628,88	4.628,88
		4,00	99,89	399,56
	TOTAL ELEMENTO 02.01.07.7.3 EQUIPOS DE VENTILACIÓN.....			5.028,44
	ELEMENTO 02.01.07.7.4 TRATAMIENTO DE AIRE Y VENTILACIÓN			
2473CL0401	<p>m. CONDUCTO CHAPA 0,8 mm. con aislamiento URSA AIR M2021</p> <p>Canalización de aire realizada con chapa de acero galvanizada de 0,8 mm. de espesor, con aislamiento exterior URSA AIR M2021 o equivalente, para canalización de aire en zonas exteriores, i/embocaduras, derivaciones, elementos de fijación y piezas especiales, sellado de juntas, homologado, instalado, según normas UNE y NTE-ICI-23. Totalmente instalado y comprobado.</p>	204,38	96,97	19.818,73
2473CL0403	<p>Ud Rejilla de intemperie TROX WG-AL-WG 400x330 mm</p> <p>Rejilla de intemperie de aluminio de la marca TROX serie WG-AG-WG 400x330mm o equivalente, para toma de aire exterior de los equipos de climatización de medidas según indicaciones de planos adjuntos, con lamas fijas horizontales antilluvia y malla metálica posterior de protección anti-pájaros y anti-insectos para toma de aire o salida de aire de condensación, instalada sobre muro exterior con revestimiento hidrófugo pintado en color RAL según indicaciones de la dirección facultativa, s/NTE-ICI-27, totalmente instalada y comprobada.</p>	1,00	62,14	62,14
2473CL0405	<p>Ud Rejilla de extracción TROX AH-AF 325x225 mm</p> <p>Rejillas lineales de extracción de la instalación marca TROX modelo AH-AF 325x225mm o equivalente, compuesta por marco frontal, con lamas deflectoras horizontales y orientables en la cara frontal, montaje roscado (SM) y con compuerta corredera de regulación. Marco y lamas fabricadas en chapa de acero lacado y termoesmaltada en RAL 9010 (blanco) o en chapa de acero electrogalvanizado. Piezas adosadas en chapa de acero electrogalvanizado, totalmente instalado y comprobado.</p>	13,00	47,57	618,41
2473CL0406	<p>Ud Rejilla de extracción TROX AH-AF 225x165 mm</p> <p>Rejillas lineales de extracción de la instalación marca TROX modelo AH-AF 225x165mm o equivalente, compuesta por marco frontal, con lamas deflectoras horizontales y orientables en la cara frontal, montaje roscado (SM) y con compuerta corredera de regulación. Marco y lamas fabricadas en chapa de acero lacado y termoesmaltada en RAL 9010 (blanco) o en chapa de acero electrogalvanizado. Piezas adosadas en chapa de acero electrogalvanizado, totalmente instalado y comprobado.</p>	1,00	36,89	36,89

PRESUPUESTOS PARCIALES.

ABASTECIMIENTO A VARIOS MUNICIPIOS DE LA RIOJA. SISTEMA CIDACOS

CÓDIGO	RESUMEN	CANTIDAD	PRECIO	IMPORTE
2473CL0408	<p>Ud Rejilla de extracción TROX AH-AF 425x325 mm</p> <p>Rejillas lineales de extracción de la instalación marca TROX modelo AH-AF 425x325mm o equivalente, compuesta por marco frontal, con lamas deflectoras horizontales y orientables en la cara frontal, montaje roscado (SM) y con compuerta corredera de regulación. Marco y lamas fabricadas en chapa de acero lacado y termoesmaltada en RAL 9010 (blanco) o en chapa de acero electrogalvanizado. Piezas adosadas en chapa de acero electrogalvanizado, totalmente instalado y comprobado.</p>	6,00	66,99	401,94
2473CL04081	<p>Ud Difusor rotacional TROX ADLR D= 244 mm</p> <p>Difusor rotacional de diámetro 244 mm marca TROX modelo ADLR de deflectores fijos con placa frontal circular, con plenum de conexión horizontal de chapa de acero galvanizado, pintado en color RAL 9010, para instalar en alturas de hasta 4 m. Incluso accesorios de montaje y elementos de fijación.</p>	3,00	86,99	260,97
2473CL0409	<p>Ud Boca de extracción SCHAKO TVB -100</p> <p>Boca de extracción Schako TVB-100 o similar, para aseos, complementan la instalación de los extractores de la serie TD, dedicados a la instalación en conductos circulares. Totalmente instalado y probado, i/p.p. de ayudas de albañilería, medios y elementos auxiliares necesarios.</p>	5,00	42,98	214,90
2473CL0410	<p>Ud Regulador de Caudal Constante marca SCHAKO modelo VRM-200</p> <p>Caja de caudal constante circular marca Schako modelo VRM-200 o similar, adecuada para regulación continua de caudal constante hasta máx. 1000 Pa de diferencia de presión, incertidumbre de medida mas menos el 5% , equipada con bridas metu y clavetas de regulación de flujo. Carcasa fabricada en acero galvanizado, apropiado para tubos y conductos rectangulares según DIN 24145, totalmente instalado y comprobado.</p>	18,00	127,35	2.292,30
	TOTAL ELEMENTO 02.01.07.7.4 TRATAMIENTO DE AIRE Y VENTILACIÓN.....			23.706,28
	ELEMENTO 02.01.07.7.5 INSTALACIÓN ELECTRICA			
2473CL0503	<p>PA Conexionado y cableado de control</p> <p>Suministro, montaje, acabado, puesta a punto y pruebas de las unidades y equipos de acuerdo a planos y especificaciones. Suministro e instalación de cableados formados por conductores tipo RVK 0,6/1Kv de distintas secciones y números de polos, desde panel de control a los puntos existentes según listado de funciones, incluso parte proporcional de canalizaciones mediante tubo de PVC flexible, en tramos ocultos, rígidos en tramos vistos y acero en el exterior.</p>	1,00	514,56	514,56
	TOTAL ELEMENTO 02.01.07.7.5 INSTALACIÓN ELECTRICA.....			514,56
	ELEMENTO 02.01.07.7.6 LEGALIZACIÓN Y CONTROL DE CALIDAD			
2473CL0601	<p>Ud Tramitación Expediente y Certificados Instalador</p> <p>Tramitación del expediente administrativo ante la delegación de Industria de la Comunidad Autónoma y las Compañías Suministradoras, lo cual incluye la presentación y recogida de la documentación ante estos organimos, quedando a su cargo el abono de las correspondientes tasas de legalización.</p> <p>Así mismo, la empresa instaladora deberá de realizar y entregar ante estos organismos la siguiente documentación:</p> <ul style="list-style-type: none"> - Certificado de instalación térmica visado ante colegio oficial competente de instalación, realizado por el instalador autorizado. - Boletín de la instalación. <p>Dicha documentación ha de ser entregada en copia una vez tramitada por la Delegación de Industria a la Propiedad y a la Dirección Facultativa de Instalaciones.</p>	1,00	450,00	450,00
	TOTAL ELEMENTO 02.01.07.7.6 LEGALIZACIÓN Y CONTROL DE CALIDAD.....			450,00
	TOTAL SUBPARTADO 02.01.06.7 INSTALACIONES DE CLIMATIZACIÓN EDIFICIO DE CONTROL.....			55.910,14

PRESUPUESTOS PARCIALES.

ABASTECIMIENTO A VARIOS MUNICIPIOS DE LA RIOJA. SISTEMA CIDACOS

CÓDIGO	RESUMEN	CANTIDAD	PRECIO	IMPORTE
SUBAPARTADO 02.01.06.8 INSTALACIÓN CONTRAINCENDIOS				
EXTABC	UD EXTINT. POLVO ABC 6 Kg. EF 21A-113B Ud. Extinguidor de polvo ABC con eficacia 21A-113B para extinción de fuego de materias sólidas, líquidas, productos gaseosos e incendios de equipos eléctricos, de 6 Kg. de agente extinguidor con soporte, manómetro y boquilla con difusor según norma UNE-23110, totalmente instalado según CTE/DB-SI 4. Certificado por AENOR.	6,00	27,22	163,32
C04.04.01.03	UD EXTINTOR DE CO2 EFICACIA 89B Ud. Extinguidor de CO2 (Nieve Carbónica) de 5 kg. de capacidad, eficacia 89B, equipado de manguera con difusor y homologado e instalado.	1,00	69,70	69,70
SEÑAL01	UD SEÑAL LUMINISCENTE EXT. INCENDIOS Ud. Señal luminiscente para elementos de extinción de incendios (extintores, bies, pulsadores....) de 297x210 por una cara en pvc rígido de 2 mm de espesor, totalmente instalada, según norma UNE 23033 y CTE/DB-SI 4.	22,00	7,27	159,94
C04.04.07.01	UD CENTRAL ANAL. 2 LAZOS 198 DETEC. Ud. Central de detección de incendios Analógica con 2 lazos compacta (no ampliable) de 198 detectores + 198 módulos analógicos, con 5 salidas de relé, pantalla LCD de 128x64 píxeles retroiluminada, 2 salidas serie RS-232, fuente de alimentación y d baterías de 12V / 7 Ah, totalmente instalada, conexionada, programada y probada, según CTE/DB-SI 4. Incluye 9 módulos de entrada-salida programable para maniobra y estado de equipos no analógicos, y 5 módulos de entrada analógicos para identificar señales de equipos no analógicos. Incluye dos fuentes de alimentación de 24 V 5 A, instaladas.	1,00	1.896,86	1.896,86
C04.04.07.04	UD PULSADOR DE ALARMA REARMABLE Ud. Pulsador de alarma tipo rearmable, con tapa de plástico basculante totalmente instalado, i/p.p. de tubos y cableado, conexionado y probado, según CTE/DB-SI 4.	8,00	48,77	390,16
C04.04.07.05	UD SIRENA ELECTRÓNICA BITONAL 24 V. Ud. Sirena de alarma de incendios bitonal, para montaje interior con señal óptica y acústica a 24v, totalmente instalada, i/p.p. tubo y cableado, conexionado y probado, según CTE/DB-SI 4.	6,00	33,21	199,26
C04.04.07.06	UD SIRENA ELECTRÓNICA BITONAL PARA EXTERIOR Ud. Sirena de alarma de incendios bitonal, para montaje exterior, con señal óptica y acústica a 24v, totalmente instalada, i/p.p. tubo y cableado, conexionado y probado, según CTE/DB-SI 4.	2,00	67,84	135,68
C04.04.07.07	UD INST. ELÉCTRICA TUBO PVC Instalación eléctrica bajo tubo de PVC rígido o flexible según casos, libre de halógenos, con p.p. de manguera apantallada no propagador de llamas de 2X1,5 mm2 de sección, cajas de derivación, bridas de fijación, bornas de conexión, etc. incluso mano de obra para instalación, programación y pruebas.	1,00	2.182,26	2.182,26
TOTAL SUBAPARTADO 02.01.06.8 INSTALACIÓN CONTRAINCENDIOS				5.197,18
TOTAL APARTADO 02.01.06 EDIFICIO FILTRACIÓN Y DE CONTROL				342.680,76
APARTADO 02.01.07 DEPÓSITO DE AGUA TRATADA				
SUBAPARTADO 02.01.07.1 ARQUETA DE REPARTO ENTRADA A DEPÓSITO				
002	M3 EXCAVACIÓN EN ZANJAS Excavación en zanjas y zonas localizadas, en todo tipo de terrenos incluido terrenos en roca con medios mecánicos, incluso rasanteo, nivelación de la superficie de apoyo y transporte a lugar de empleo o vertedero.	200,00	3,74	748,00
010	M3 RELLENO ZANJAS, CIMIENTOS Y TRASDOSES DE MATERIAL SELECCIONADO Relleno con material seleccionado en zanjas, cimientos, trasdós de muros, estribos y otras estructuras procedente de la excavación o préstamos incluso carga, transporte y compactación.			

PRESUPUESTOS PARCIALES.

ABASTECIMIENTO A VARIOS MUNICIPIOS DE LA RIOJA. SISTEMA CIDACOS

CÓDIGO	RESUMEN	CANTIDAD	PRECIO	IMPORTE
		88,40	3,32	293,49
028	M3 HORMIGÓN DE LIMPIEZA HL-150 Hormigón de limpieza HL-150, de consistencia plástica, árido de tamaño máximo 40 mm y cemento CEM-II-D/42,5/SR, para saneos y encachados, incluyendo fabricación y transporte totalmente colocado.	7,70	44,76	344,65
031	M3 HORMIGÓN HA-25/B/20/IIa Hormigón HA-25/B/20/IIa, con cemento CEM III/A-D/42,5/SR, incluyendo fabricación, transporte, puesta en obra y vibrado, totalmente ejecutado, incluso curado y juntas.	79,25	53,39	4.231,16
025	M2 ENCOFRADO RECTO EN PARAMENTOS OCULTOS Encofrado recto en paramentos ocultos, incluso colocación, fijación y desencofrado.	16,48	17,65	290,87
026	M2 ENCOFRADO RECTO EN PARAMENTOS VISTOS 1C Encofrado recto en paramentos vistos a una cara, incluso colocación, fijación y desencofrado.	135,64	21,18	2.872,86
026.1	M2 ENCOFRADO RECTO EN LOSAS VISTOS Encofrado recto en losas vistos, incluso colocación, fijación y desencofrado.	69,00	27,68	1.909,92
023	KG ACERO CORRUGADO B-500-S Acero redondo corrugado para armar tipo B-500-S elaborado y colocado.	6.587,96	0,96	6.324,44
052	ML JUNTAS DE ESTANQUEIDAD DE PVC 32 CM Junta de trabajo interior de policloruro de vinilo (PVC) 100% virgen, con una fuerza máxima de dilatación > 250 % , de 32 cm de ancho, MASTERFLEX 2000 TI-24 de BASF o equivalente, colocada simétricamente en el eje de la losa o muro, incluso solapes y piezas especiales para cruces o ángulos. Medida la longitud ejecutada.	39,20	7,31	286,55
289B	M2 TAPA DE CHAPA LACRIMADA GALVANIZADA e=4mm Tapa de chapa lacrimada de acero galvanizado de 4 mm de espesor, incluyendo el marco, tiradores, aros para cerradura con candado, anclada, totalmente colocada.	2,88	74,56	214,73
290	UD PATE POLIPROPILENO Pate de polipropileno de dimensiones 30x25 cm, incluyendo fabricación, transporte a obra, perforación de anclajes y relleno con aportación de material de agarre, completamente colocado.	18,00	5,63	101,34
620	UD APOYOS DE TUBERÍA Y VÁLVULAS SOBRE SOLERA Apoyos de tuberías y válvulas en soleras, mediante dado de hormigón HA-25/P/20/IIa, ligeramente armado y anclado a la solera, así como cintas o eslingas de acero con material de protección de tubería para sujeción de las mismas, incluyendo el hormigón, encofrados, acero, eslingas, material de PE de protección, montado.	5,00	63,07	315,35
TOTAL SUBAPARTADO 02.01.07.1 ARQUETA DE REPARTO ENTRADA A DEPÓSITO				17.933,36
SUBAPARTADO 02.01.07.2 DEPÓSITO AGUA TRATADA Y CASETA DE VÁLVULAS				
ELEMENTO 02.01.07.2.1 MOVIMIENTO DE TIERRAS				
001	M3 EXCAVACIÓN A CIELO ABIERTO Excavación a cielo abierto en todo tipo de terrenos incluido terrenos en roca, incluso agotamiento y transporte a lugar de empleo o vertedero.	26.168,97	3,62	94.731,67
010	M3 RELLENO ZANJAS, CIMIENTOS Y TRASDOSES DE MATERIAL SELECCIONADO Relleno con material seleccionado en zanjas, cimientos, trasdós de muros, estribos y otras estructuras procedente de la excavación o préstamos incluso carga, transporte y compactación.	3.653,95	3,32	12.131,11

PRESUPUESTOS PARCIALES.

ABASTECIMIENTO A VARIOS MUNICIPIOS DE LA RIOJA. SISTEMA CIDACOS

CÓDIGO	RESUMEN	CANTIDAD	PRECIO	IMPORTE
	TOTAL ELEMENTO 02.01.07.2.1 MOVIMIENTO DE TIERRAS.....			106.862,78
	ELEMENTO 02.01.07.2.2 OBRA CIVIL			
028	M3 HORMIGÓN DE LIMPIEZA HL-150 Hormigón de limpieza HL-150, de consistencia plástica, árido de tamaño máximo 40 mm y cemento CEM-II-D/42,5/SR, para saneos y encachados, incluyendo fabricación y transporte totalmente colocado.	670,02	44,76	29.990,10
032.1	M3 HORMIGÓN HA-30/P/30/IV Hormigón armado HA-30/B/30/IV, con una dosificación de hormigón de 325 kg/m3 de cemento, consistencia plástica, elaborado en central para estructuras, incluso bombeado y medios manuales, vibrado y colocado.	4.525,54	76,99	348.421,32
025	M2 ENCOFRADO RECTO EN PARAMENTOS OCULTOS Encofrado recto en paramentos ocultos, incluso colocación, fijación y desencofrado.	274,65	17,65	4.847,57
026	M2 ENCOFRADO RECTO EN PARAMENTOS VISTOS 1C Encofrado recto en paramentos vistos a una cara, incluso colocación, fijación y desencofrado.	5.595,88	21,18	118.520,74
023	KG ACERO CORRUGADO B-500-S Acero redondo corrugado para armar tipo B-500-S elaborado y colocado.	458.140,83	0,96	439.815,20
463F	M2 PANEL PREFABRICADO DE HORMIGÓN 12 cm SIN SELLAR M2. Panel de cerramiento con acabado gris natural, de 12 cm. de espesor para colocación horizontal, con modulación según proyecto, tratamiento anticarbonatación, ambas caras lisas, i/elementos de fijación de acero galvanizado en caliente, colocado, con p.p. de apoyos en la parte inferior para dejar hueco.	1.200,60	21,15	25.392,69
463G	ML VIGA PREFABRICADA DE HORMIGÓN ARMADO B 50 CM X H 60CM Viga prefabricada de hormigón armado de 50 cm de ancho x 60 de canto total preparada para apoyo de forjado de placa alveolar de 25+5 cm de canto. Incluido suministro, montaje y p.p. de anclajes según planos.	516,00	114,34	58.999,44
463H	ML PILAR PREFABRICADA DE HORMIGÓN ARMADO DE 60 X 60CM Pilar prefabricado de hormigón armado de 60x60 cm, preparado para apoyo de vigas prefabricadas. Incluido suministro, montaje y p.p. de placas de anclaje, vainas y pernos de anclajes según planos.	321,42	136,90	44.002,40
439D	M2 FORJADO PLACA ALVEOLAR 25+5 cm Forjado unidireccional de losas alveolares prefabricadas de 25 cm de espesor y capa de compresión de 5 cm de hormigón HA-25 de 25 N/mm2, incluso armadura de negativos según planos, mallazo de reparto y elementos auxiliares.	6.467,37	50,20	324.661,97
467	ML NEOPRENO ZUNCHADO 150x20 mm Neopreno zunchado de 150x20 mm para apoyo de cubierta, totalmente colocado incluso mortero.	1.570,40	10,08	15.829,63
463CI	M2 CUBIERTA PLANA NO TRANSITABLE m². Cubierta invertida completa, no transitable, constituida por: capa de hormigón aligerado de 10 cm de espesor medio, para formación de pendientes, con tendido de mortero de cemento M5 de 2 cm de espesor para regularizar la superficie; lámina geotextil de 200 g/m²; lámina asfáltica de oxiasfalto, GLASDAN 40 P OXI, en posición flotante respecto al soporte, salvo en perímetros y puntos singulares; lámina asfáltica de oxiasfalto, ESTERDAN 40 P ELAST, totalmente adherida a la anterior con soplete; cazoleta con conexión a bajante d110 mm con paragravillas; aislamiento térmico con planchas de poliestireno extruido de 50 mm de espesor, DANOPREN 50; lámina geotextil; capa de grava de canto rodado de 5 cm de espesor. Solución según membrana PN-6 de la norma UNE 104-402/96. Cumple los requisitos del C.T.E.			

PRESUPUESTOS PARCIALES.

ABASTECIMIENTO A VARIOS MUNICIPIOS DE LA RIOJA. SISTEMA CIDACOS

CÓDIGO	RESUMEN	CANTIDAD	PRECIO	IMPORTE
		6.467,37	36,42	235.541,62
463RCH	M2 REVESTIMIENTO PETO CUBIERTA M2. Revestimiento de peto interior de cubierta entre coronación y solape con impermeabilizante de cubierta, realizado con chapa lacada 0,5 mm con p.p. elementos de fijación, totalmente terminada.	435,13	8,25	3.589,82
463	M2 FÁBRICA BLOQUES 40x20x20 cm GRIS Fábrica de bloques de hormigón color gris de medidas 40x20x20 cm, para terminación posterior en peanas de ventilaciones, i/relleno de hormigón HM-20 y armadura en zona según normativa y recibido con mortero de cemento y arena de río 1/6, i/p.p. de piezas especiales, roturas, aplomados, nivelados y limpieza todo ello según NTE-FFB-6.	34,56	30,71	1.061,34
335	m2 CERRAMIENTO TRASLÚCIDO Cerramiento translúcido con moldeados de vidrio de 200x200x80 mm. con mortero de cemento y redondos de acero corrugado B-500-S, según especificaciones NTE-FFV, completamente terminado, incluso replanteo, nivelación y aplomado, preparación, corte y colocación de las armaduras, p.p. de mermas, solapes, roturas, rellenos elásticos, cartón alquitranado, sellado y rejuntado, medida la superficie ejecutada.	22,68	131,13	2.974,03
465.1	M2 PUERTA DOBLE CHAPA ACERO CON LAMAS Puerta de paso hojas abatibles de doble chapa lisa de acero de 1 mm de espesor, con aislamiento interno de fibra de vidrio, engatillada, realizada en dos bandejas, con rigidizadores de tubo rectangular, i/manillas de acero inoxidable y cerradura, con dos o cuatro rejillas de ventilación con malla anti insectos interior, patillas para recibir en fábricas, herrajes de colgar y de seguridad, imprimación antióxido y pintura al esmalte, totalmente colocada incluyendo el recibido de fábricas.	5,00	75,01	375,05
020	KG ACERO S 275 J PERFILES LAMINADOS Acero S 275 J en perfiles laminados elaborado y colocado.	1.083,00	1,95	2.111,85
473	UD RESPIRADERO DE CHAPA Suministro y colocación de capucha respiradero de chapa en huecos de ventilación de depósitos, realizado con estructura de tubo 70x70x3, convenientemente arriostrado, lamas de acero anti-lluvia de espesor 3 mm y cubierta de chapa del mismo espesor realizada a cuatro aguas, de dimensiones y forma detallada en planos, i/garras de anclaje a fábrica de bloques, recibido de las mismas, miniado y pintado al esmalte, totalmente colocadas.	8,00	418,42	3.347,36
289B	M2 TAPA DE CHAPA LACRIMADA GALVANIZADA e=4mm Tapa de chapa lacrimada de acero galvanizado de 4 mm de espesor, incluyendo el marco, tiradores, aros para cerradura con candado, anclada, totalmente colocada.	40,56	74,56	3.024,15
290	UD PATE POLIPROPILENO Pate de polipropileno de dimensiones 30x25 cm, incluyendo fabricación, transporte a obra, perforación de anclajes y relleno con aportación de material de agarre, completamente colocado.	6,00	5,63	33,78
521	M2 CELOSIA FIJA VENTILACIÓN Celosía metálica fija para ventilación, formada por cerco con empanelado de lamas de acero de 60 mm, con abertura mínima de 1 cm entre lamas, malla de 2 mm para evitar entrada de insectos, garras de sujeción a soporte de 10 cm, elaborada en taller y montada en obra, totalmente colocada.	7,04	73,80	519,55
290C	ML GÁRGOLA DE ACERO GALVANIZADO DE 100 x100 mm. e=2 mm. Gárgola de acero galvanizado de 100 x 100 mm. espesor e=2mm, de 45 cm de longitud, incluso relleno de hueco y sellado a la lámina de cubierta, colocada.	18,00	38,55	693,90
	TOTAL ELEMENTO 02.01.07.2.2 OBRA CIVIL.....			1.663.753,51
	ELEMENTO 02.01.07.2.3 IMPERMEABILIZACIONES DEPÓSITO			

PRESUPUESTOS PARCIALES.

ABASTECIMIENTO A VARIOS MUNICIPIOS DE LA RIOJA. SISTEMA CIDACOS

CÓDIGO	RESUMEN	CANTIDAD	PRECIO	IMPORTE
052	ML JUNTAS DE ESTANQUEIDAD DE PVC 32 CM Junta de trabajo interior de policloruro de vinilo (PVC) 100% virgen, con una fuerza máxima de dilatación > 250 % , de 32 cm de ancho, MASTERFLEX 2000 TI-24 de BASF o equivalente, colocada simétricamente en el eje de la losa o muro, incluso solapes y piezas especiales para cruces o ángulos. Medida la longitud ejecutada.	801,65	7,31	5.860,06
472	ML SELLADO INTERIOR DE JUNTAS DE CONSTRUCCIÓN POLIURETANO Sellado de juntas en paramentos horizontales y verticales con un ancho de junta de 20 mm, con una Dureza Shore A aprox. 40 y Alargamiento a Rotura ISO 8339 > 250 % , con masilla de poliuretano monocomponente MASTERFLEX 474 de BASF o equivalente, Apta para Agua Potable según RD 140/2003. Incluso limpieza, imprimación en base poliuretano de los labios de la junta con MASTERFLEX PRIMER P (ELASTOPRIMER 110) de BASF o equivalente, y cordón de fondo de junta MASTERFLEX FJ de BASF o equivalente de 30 mm. de diámetro. Medida la longitud ejecutada.	801,65	4,26	3.415,03
052A	ML MEDIA CAÑA DE IMPERMEABILIZACIÓN JUNTAS DE ESQUINA Suministro y puesta en obra de realización de medias cañas con el mortero de reparación estructural Clase R4, según Normativa Vigente UNE EN 1504, consistente en una capa de imprimación con la resina epoxi EMACO EPOXIPRIMER BP o equivalente (rendimiento 0,08 kg/m); realización de media caña con el mortero cementoso EMACO S-88 TIXOTRÓPICO o equivalente (rendimiento 4,0 kg/m). Incluso preparación de superficie. Medida la longitud ejecutada. Terminada.	158,40	9,13	1.446,19
052B	ML SELLADO DE JUNTAS Y ESQUINAS CON BANDA ELÁSTICA E=1 mm Sellado de juntas con banda de elastómero termoplástico (TPE) de 1 mm de espesor y 20 cm de ancho, con un alargamiento a la rotura del 600 % según DIN 53504 S2 y una dureza Shore A de aprox. 80 según ISO 868, Apta para Agua Potable según RD 140/2003, adherida al soporte al menos en 6 cm a cada lado de la junta mediante resina epoxi sin disolventes, MASTERFLEX 3000 ADHESIVO de BASF o equivalente, incluso limpieza del soporte y p.p. de solapes. Medida la longitud real ejecutada.	801,65	25,66	20.570,34
470	M2 IMPERMEABILIZACIÓN EXTERIOR DE MUROS Impermeabilización de paramentos con mortero cementoso impermeable, sulfuresistente, MASTERSEAL 531 de BASF o equivalente en dos manos cruzadas, con un consumo mínimo de 3 kg/m2 y un espesor de 2 mm. Incluso limpieza previa del paramento; según NBE-QB-90 y UNE-104. Posterior suministro y colocación de geocompuesto drenante compuesto por lámina de PEAD con geotextil incorporado en una de sus caras, DELTA NP DRAIN, de BASF o equivalente. Medida la superficie ejecutada.	929,78	12,72	11.826,80
TOTAL ELEMENTO 02.01.07.2.3 IMPERMEABILIZACIONES DEPÓSITO.....				43.118,42
ELEMENTO 02.01.07.2.4 DRENAJE				
002	M3 EXCAVACIÓN EN ZANJAS Excavación en zanjas y zonas localizadas, en todo tipo de terrenos incluido terrenos en roca con medios mecánicos, incluso rasanteo, nivelación de la superficie de apoyo y transporte a lugar de empleo o vertedero.	1.018,70	3,74	3.809,94
010	M3 RELLENO ZANJAS, CIMIENTOS Y TRASDOSES DE MATERIAL SELECCIONADO Relleno con material seleccionado en zanjas, cimientos, trasdós de muros, estribos y otras estructuras procedente de la excavación o préstamos incluso carga, transporte y compactación.	701,55	3,32	2.329,15
011	M3 RELLENO DE ARENA Arena para apoyo y protección de tuberías incluso carga, transporte, colocación, compactación y nivelación.	83,58	12,09	1.010,48
196A	ML TUBERIA PVC DP Ø 200 mm DRENAJE CAMA CERRADA Tubería ranurada de PVC de doble pared de 200 mm de diámetro nominal, con ranuras en arco de 220º y cama sin ranurar, con una rigidez de SN 4KN/m2, unión por junta elástica, incluso parte proporcional de uniones y accesorios. Totalmente colocada	558,00	9,40	5.245,20

PRESUPUESTOS PARCIALES.

ABASTECIMIENTO A VARIOS MUNICIPIOS DE LA RIOJA. SISTEMA CIDACOS

CÓDIGO	RESUMEN	CANTIDAD	PRECIO	IMPORTE
196B	ML TUBERIA DE PVC DP SN-8, PARA SANEAMIENTO DE 315 MM Tubería de PVC de doble pared SN8 para saneamiento de 315 mm de diámetro exterior, con junta elástica, totalmente colocada en zanja.	199,00	26,54	5.281,46
460R	UD ARQUETA ESTANCA DRENAJE DE 80x60x50 TAPA HORMIGÓN Arqueta estanca para red de drenaje de 80x60x50, de hormigón HNE-20 con tapa de hormigón para drenajes.	8,00	103,57	828,56
373A	UD POZO DE REGISTRO DE AROS DE HORMIGÓN DN1000 Pozo de registro de abastecimiento o saneamiento de cualquier altura de diámetro interior D=1000 mm, incluso base de hormigón HNE-20, aros de hormigón, cono prefabricado de hormigón, pates y tapa de fundición, totalmente terminado.	6,00	320,73	1.924,38
053	M2 GEOTEXTIL 200 gr/m2 Geotextil de polipropileno de 200 gr/m2, totalmente colocado incluso solapes.	1.478,70	2,46	3.637,60
364	M3 GRAVA SILÍCEA 3/5 mm Suministro de grava silícea de granulometría 3/5 mm y coeficiente de uniformidad 1,2, libre de arcilla, polvo y materia orgánica.	217,62	17,64	3.838,82
TOTAL ELEMENTO 02.01.07.2.4 DRENAJE.....				27.905,59
ELEMENTO 02.01.07.2.5 TERMINACIONES INTERIORES				
290A	ML ESCALERA TUBULAR INOXIDABLE CON ELEMENTOS ANTICAIDA Formación de escalera tubular de 50 mm de diámetro, de acero inoxidable AISI-316L, incluso protecciones circulares contra caídas según normativa, anclada a la pared y/o muros, totalmente ejecutada.	38,10	76,09	2.899,03
TOTAL ELEMENTO 02.01.07.2.5 TERMINACIONES INTERIORES.....				2.899,03
ELEMENTO 02.01.07.2.6 INSTALACIÓN CONTRAINCENDIOS				
EXTABC	UD EXTINT. POLVO ABC 6 Kg. EF 21A-113B Ud. Extintor de polvo ABC con eficacia 21A-113B para extinción de fuego de materias sólidas, líquidas, productos gaseosos e incendios de equipos eléctricos, de 6 Kg. de agente extintor con soporte, manómetro y boquilla con difusor según norma UNE-23110, totalmente instalado según CTE/DB-SI 4. Certificado por AENOR.	1,00	27,22	27,22
C04.04.01.03	UD EXTINTOR DE CO2 EFICACIA 89B Ud. Extintor de CO2 (Nieve Carbónica) de 5 kg. de capacidad, eficacia 89B, equipado de manguera con difusor y homologado e instalado.	1,00	69,70	69,70
SEÑAL01	UD SEÑAL LUMINISCENTE EXT. INCENDIOS Ud. Señal luminiscente para elementos de extinción de incendios (extintores, bies, pulsadores....) de 297x210 por una cara en pvc rígido de 2 mm de espesor, totalmente instalada, según norma UNE 23033 y CTE/DB-SI 4.	4,00	7,27	29,08
C04.04.07.01	UD CENTRAL ANAL. 2 LAZOS 198 DETEC. Ud. Central de detección de incendios Analógica con 2 lazos compacta (no ampliable) de 198 detectores + 198 módulos analógicos, con 5 salidas de relé, pantalla LCD de 128x64 pixeles retroiluminada, 2 salidas serie RS-232, fuente de alimentación y 4 baterías de 12V / 7 Ah, totalmente instalada, conexionada, programada y probada, según CTE/DB-SI 4. Incluye 9 módulos de entrada-salida programable para maniobra y estado de equipos no analógicos, y 5 módulos de entrada analógicos para identificar señales de equipos no analógicos. Incluye dos fuentes de alimentación de 24 V 5 A, instaladas.	1,00	1.896,86	1.896,86

PRESUPUESTOS PARCIALES.

ABASTECIMIENTO A VARIOS MUNICIPIOS DE LA RIOJA. SISTEMA CIDACOS

CÓDIGO	RESUMEN	CANTIDAD	PRECIO	IMPORTE
C04.04.07.04	UD PULSADOR DE ALARMA REARMABLE Ud. Pulsador de alarma tipo rearmable, con tapa de plástico basculante totalmente instalado, i/p.p. de tubos y cableado, conexionado y probado, según CTE/DB-SI 4.	1,00	48,77	48,77
C04.04.07.05	UD SIRENA ELECTRÓNICA BITONAL 24 V. Ud. Sirena de alarma de incendios bitonal, para montaje interior con señal óptica y acústica a 24v, totalmente instalada, i/p.p. tubo y cableado, conexionado y probado, según CTE/DB-SI 4.	1,00	33,21	33,21
C04.04.07.06	UD SIRENA ELECTRÓNICA BITONAL PARA EXTERIOR Ud. Sirena de alarma de incendios bitonal, para montaje exterior, con señal óptica y acústica a 24v, totalmente instalada, i/p.p. tubo y cableado, conexionado y probado, según CTE/DB-SI 4.	1,00	67,84	67,84
C04.04.07.072	UD INST. ELÉCTRICA TUBO PVC Instalación eléctrica bajo tubo de PVC rígido o flexible según casos, libre de halógenos, con p.p. de manguera apantallada no propagador de llamas de 2X1,5 mm2 de sección, cajas de derivación, bridas de fijación, bornas de conexión, etc. incluso mano de obra para instalación, programación y pruebas.	1,00	241,59	241,59
TOTAL ELEMENTO 02.01.07.2.6 INSTALACIÓN CONTRA INCENDIOS.....				2.414,27
TOTAL SUBPARTADO 02.01.07.2 DEPÓSITO AGUA TRATADA Y CASETA DE VÁLVULAS.....				1.846.953,60
TOTAL APARTADO 02.01.07 DEPÓSITO DE AGUA TRATADA.....				1.864.886,96
APARTADO 02.01.08 EDIFICIO DE DESHIDRATACIÓN Y REACTIVOS				
SUBPARTADO 02.01.08.1 MOVIMIENTO DE TIERRAS				
001	M3 EXCAVACIÓN A CIELO ABIERTO Excavación a cielo abierto en todo tipo de terrenos incluido terrenos en roca, incluso agotamiento y transporte a lugar de empleo o vertedero.	135,80	3,62	491,60
010	M3 RELLENO ZANJAS, CIMIENTOS Y TRASDOSES DE MATERIAL SELECCIONADO Relleno con material seleccionado en zanjas, cimientos, trasdós de muros, estribos y otras estructuras procedente de la excavación o préstamos incluso carga, transporte y compactación.	76,10	3,32	252,65
TOTAL SUBPARTADO 02.01.08.1 MOVIMIENTO DE TIERRAS.....				744,25
SUBPARTADO 02.01.08.2 ESTRUCTURA				
028	M3 HORMIGÓN DE LIMPIEZA HL-150 Hormigón de limpieza HL-150, de consistencia plástica, árido de tamaño máximo 40 mm y cemento CEM-II-D/42,5/SR, para saneos y encachados, incluyendo fabricación y transporte totalmente colocado.	8,93	44,76	399,71
031	M3 HORMIGÓN HA-25/B/20/IIa Hormigón HA-25/B/20/IIa, con cemento CEM II/A-D/42,5/SR, incluyendo fabricación, transporte, puesta en obra y vibrado, totalmente ejecutado, incluso curado y juntas.	29,13	53,39	1.555,25
032.1	M3 HORMIGÓN HA-30/P/30/IV Hormigón armado HA-30/B/30/IV, con una dosificación de hormigón de 325 kg/m3 de cemento, consistencia plástica, elaborado en central para estructuras, incluso bombeado y medios manuales, vibrado y colocado.	57,70	76,99	4.442,32
025	M2 ENCOFRADO RECTO EN PARAMENTOS OCULTOS Encofrado recto en paramentos ocultos, incluso colocación, fijación y desencofrado.	230,96	17,65	4.076,44
026	M2 ENCOFRADO RECTO EN PARAMENTOS VISTOS 1C Encofrado recto en paramentos vistos a una cara, incluso colocación, fijación y desencofrado.			

PRESUPUESTOS PARCIALES.

ABASTECIMIENTO A VARIOS MUNICIPIOS DE LA RIOJA. SISTEMA CIDACOS

CÓDIGO	RESUMEN	CANTIDAD	PRECIO	IMPORTE
023	KG ACERO CORRUGADO B-500-S Acero redondo corrugado para armar tipo B-500-S elaborado y colocado.	118,92	21,18	2.518,73
439C	M2 FORJADO PLACA ALVEOLAR 20+5 cm Forjado unidireccional de losas alveolares prefabricadas de 20 cm de espesor y capa de compresión de 5 cm de hormigón HA-25 de 25 N/mm2, incluso armadura de negativos según planos, mallazo de reparto, formación de huecos, y elementos auxiliares.	3.005,52	0,96	2.885,30
0092sole	M2 SOLERA ARMADA + ENCACHADO+LAMINA m². Solera pulida de 15 cm de espesor, realizada con hormigón HA-25/P/20/IIa N/mm², tamaño máximo del árido 20 mm elaborado en central, i/v vertido, colocación y armado con mallazo electrosoldado #150x150x6 mm, incluso p.p. de juntas, aserrado de las mismas y fratasado. Según EHE-08, sobre lámina impermeabilizante PVC 1,5 mm, encachado de piedra machacada 40/80 de 15 cm de espesor, extendida y compactada.	333,01	44,77	14.908,86
020	KG ACERO S 275 J PERFILES LAMINADOS Acero S 275 J en perfiles laminados elaborado y colocado.	553,24	25,09	13.880,79
439F	ML VIGAS PREFABRICADAS DE 40X75 CM Vigas prefabricadas de hormigón de 40 cm de ancho y 75 cm de canto, montadas.	2.996,11	1,95	5.842,41
439G	ML VIGAS PREFABRICADAS DE 25X60 CM Vigas prefabricadas de hormigón de 25 cm de ancho y 60 cm de canto, montadas.	33,00	82,13	2.710,29
439H	ML VIGAS PREFABRICADAS DE 25X50 CM Vigas prefabricadas de hormigón de 25 cm de ancho y 60 cm de canto, montadas.	19,90	62,68	1.247,33
439I	ML PILAR PREFABRICADAS DE 40X50 CM Pilar prefabricado de hormigón de 40 cm de ancho y 50 cm de canto, con p.p. de ménsulas de apoyo según planos, montados.	94,86	57,56	5.460,14
439J	ML PILAR PREFABRICADAS DE 30X40 CM Pilar prefabricado de hormigón de 30 cm de ancho y 40 cm de canto, con p.p. de ménsulas de apoyo según planos, montados.	72,40	95,43	6.909,13
439K	ML CORREAS TUBULARES PREFABRICADAS DE 25 CM Correas tubulares de 25 cm, montadas.	35,00	92,37	3.232,95
439L	ML VIGA PORTACANALÓN PREFABRICADA Viga portacanalón prefabricada, montadas.	120,25	39,43	4.741,46
TOTAL SUBPARTADO 02.01.08.2 ESTRUCTURA.....				1.896,58
SUBPARTADO 02.01.08.3 CERRAMIENTOS Y CUBIERTA				76.707,69
463p	M2 PANEL PREFABRICADO DE HORMIGÓN 16 cm M2. Panel de cerramiento con acabado gris natural, de 16 cm. de espesor para colocación horizontal, con modulación según proyecto, tratamiento anticarbonatación, ambas caras lisas, i/elementos de fijación de acero galvanizado en caliente y sellado de juntas interior y exterior con SILCOSELL o equivalente, colocado, (medido deduciendo huecos mayores de 10 m2.)	765,92	32,61	24.976,65

PRESUPUESTOS PARCIALES.

ABASTECIMIENTO A VARIOS MUNICIPIOS DE LA RIOJA. SISTEMA CIDACOS

CÓDIGO	RESUMEN	CANTIDAD	PRECIO	IMPORTE
463RC	M2 REVESTIMIENTO EXTERIOR DE CHAPA ONDULADA M2. Revestimiento de chapa ondulada de aluminio tipo tipo alubel ond-all 33 acabado lacado estandar a elegir, con p.p. elementos de fijación y remates inferior, a huecos, esquinas, coronación, etc, totalmente terminada.	504,90	18,26	9.219,47
463CI	M2 CUBIERTA PLANA NO TRANSITABLE m². Cubierta invertida completa, no transitable, constituida por: capa de hormigón aligerado de 10 cm de espesor medio, para formación de pendientes, con tendido de mortero de cemento M5 de 2 cm de espesor para regularizar la superficie; lámina geotextil de 200 g/m²; lámina asfáltica de oxiasfalto, GLASDAN 40 P OXI, en posición flotante respecto al soporte, salvo en perímetros y puntos singulares; lámina asfáltica de oxiasfalto, ESTERDAN 40 P ELAST, totalmente adherida a la anterior con soplete; cazoleta con conexión a bajante d110 mm con paragravillas; aislamiento térmico con planchas de poliestireno extruido de 50 mm de espesor, DANOPREN 50; lámina geotextil; capa de grava de canto rodado de 5 cm de espesor. Solución según membrana PN-6 de la norma UNE 104-402/96. Cumple los requisitos del C.T.E.	327,56	36,42	11.929,74
463RCH	M2 REVESTIMIENTO PETO CUBIERTA M2. Revestimiento de peto interior de cubierta entre coronación y solape con impermeabilizante de cubierta, realizado con chapa lacada 0,5 mm con p.p. elementos de fijación, totalmente terminada.	137,03	8,25	1.130,50
463	M2 FÁBRICA BLOQUES 40x20x20 cm GRIS Fábrica de bloques de hormigón color gris de medidas 40x20x20 cm, para terminación posterior en peanas de ventilaciones, i/relleno de hormigón HM-20 y armadura en zona según normativa y recibido con mortero de cemento y arena de río 1/6, i/p.p. de piezas especiales, roturas, aplomados, nivelados y limpieza todo ello según NTE-FFB-6.	333,22	30,71	10.233,19
520	M2 CUBIERTA PANEL SANDWICH (E=50 mm.) Cubierta con panel tipo sandwich espesor 50 cm., con doble chapa prelacada de 0,4 mm de espesor, y aislamiento térmico de poliuretano, fijada con gancho de acero galvanizado, incluso p.p de piezas de remate, totalmente colocada.	220,19	27,03	5.951,74
519	ML REMATE DE CHAPA PRELACADA CUBIERTA Remate de chapa prelacada en color, para cubrir parte superior de bloque o panel, hasta el panel sandwich de la cubierta por el interior del peto, fijado mediante tacos y/o ganchos anclado a muro y o cubierta, dispuesto según planos.	137,03	22,47	3.079,06
474.1	ML CANALON CHAPA PRELACADA 50cm Canalón de chapa prelacada en color, de 50 cm. de desarrollo fijado mediante ganchos ocultos con tornillo autoroscante 40 cm., incluso p.p. de embocadura de bajante, codos y piezas especiales.	24,05	11,85	284,99
TOTAL SUBAPARTADO 02.01.08.3 CERRAMIENTOS Y CUBIERTA.....				66.805,34
SUBAPARTADO 02.01.08.4 CARPINTERIA				
465	M2 PUERTA DOBLE CHAPA ACERO Puerta de paso hojas abatibles de doble chapa lisa de acero de 1 mm de espesor, con aislamiento interno de fibre de vidrio, engatillada, realizada en dos bandejas, con rigidizadores de tubo rectangular, i/manillas de acero inoxidable y cerradura, patillas para recibir en fábricas, herrajes de colgar y de seguridad, imprimación antióxido y pintura al esmalte, totalmente colocada incluyendo el recibido de fábricas.	8,40	64,38	540,79
465.1	M2 PUERTA DOBLE CHAPA ACERO CON LAMAS Puerta de paso hojas abatibles de doble chapa lisa de acero de 1 mm de espesor, con aislamiento interno de fibre de vidrio, engatillada, realizada en dos bandejas, con rigidizadores de tubo rectangular, i/manillas de acero inoxidable y cerradura, con dos o cuatro rejillas de ventilación con malla anti insectos interior, patillas para recibir en fábricas, herrajes de colgar y de seguridad, imprimación antióxido y pintura al esmalte, totalmente colocada incluyendo el recibido de fábricas.	39,10	75,01	2.932,89

PRESUPUESTOS PARCIALES.

ABASTECIMIENTO A VARIOS MUNICIPIOS DE LA RIOJA. SISTEMA CIDACOS

CÓDIGO	RESUMEN	CANTIDAD	PRECIO	IMPORTE
464PC	M2 SISTEMA MODULAR DE POLICARBONATO CELULAR EN VENTANAS m². Sistema modular de policarbonato celular con encastre machiembreado y protección UV para paramentos verticales, con zonas abatibles según planos. Espesor de 40 mm. Estructura de 9 paredes con perfilera y tapetas de aluminio anodizado. Herrejes de sujeción, monado.	84,33	264,79	22.329,74
465.2	M2 PUERTA INDUSTRIAL SECCIONABLE AUTOMÁTICA Puerta seccional métrica industrial de Horman SPU-F42 o equivalente, acabado estuco color a elegir, fabricada con panel sandwich de 42 mm de espesor, con protección contra los dedos, protección de superficie con imprimación, cerco angular perfilado de acero galvanizado. Automatismo de apertura y cierre de eje WA 300S4 con desbloqueo de emergencia. Panel acristalado doble de seguridad. Pestillo interior. Apertura y cierre automático. Cuadro de maniobra. Totalmente colocada incluyendo el recibido de fábricas y conexiones eléctricas.	32,00	177,15	5.668,80
TOTAL SUBAPARTADO 02.01.08.4 CARPINTERIA.....				31.472,22
SUBAPARTADO 02.01.08.5 ACABADOS				
4432A	M2 ALICATADO AZULEJO ANTIÁCIDO Alicatado con azulejo blanco mate antiácido, formato no inferior a 40x20 cm, recibido con adhesivo, incluso preparación de paramentos, cortes, cantoneras cromadas, rejuntados y limpieza, ejecutado según NTE y especificaciones, medido en superficie real, deduciendo huecos superiores a 0,5 m2.	63,16	22,79	1.439,42
440acus	M2 FALSO TECHO METÁLICO ABSORCIÓN ACÚSTICA m². Techo formado por una doble estructura de perfiles de chapa de acero galvanizada, instalada a dos niveles. La estructura primaria se compone a base de Perfiles continuos PH-45 en forma de "V" invertida, modulados cada 1100 mm y debidamente suspendidos de forjado de placa por medio de varilla roscada Ø 6 mm y tuerca y contratuerca cada 1100 mm dotada de aisladores acústicos para evitar la transmisión a techo. La segunda estructura formada por perfiles T-47 se acopla perpendicularmente a la parte inferior de la estructura primaria cada 500 mm mediante encaje directo en las horquillas dobles troqueladas del perfil PH-45. A esta estructura de perfiles, se atornilla a la segunda estructura de perfiles T-47 y perpendicularmente a ella una falso techo de chapa perforada minionda de 0,6 mm de espesor y 18 mm de canto, galvanizada en caliente, R3T6, parte proporcional de anclajes, cuelgues, tornillería, etc, según requisitos del CTE-DB HR.	53,05	41,32	2.192,03
468	M2 ENFOSCADO MAESTRADO Y FRATASADO Enfoscado maestreado y fratasado de 20 mm de espesor en toda su superficie con mortero de cemento y arena de río 1/4 en paramentos verticales, con maestras cada metro, i/preparación y humedecido de soporte, limpieza, p.p. de medios auxiliares con empleo, en su caso, de andamiaje homologado, así como distribución de material en tajos, s/NTE-RPE-7.	782,34	12,29	9.614,96
051pc2	KG REVESTIMIENTO MULTICAPA RESINA EXPOXI m². Suministro y puesta en obra del Sistema Multicapa Epoxi MASTERTOP 1220 Polykit, con un espesor de 2,0 mm, consistente en formación de capa base epoxi sin disolventes coloreada MASTERTOP 1200 o similar (rendimiento 1,6 kg/m²); espolvoreo en fresco de cuarzo MASTERTOP F 5 o similar con una granulometría 0,3-0,8 mm (rendimiento 3,0 kg/m²); sellado con el revestimiento epoxi sin disolventes coloreado MASTERTOP 1200 o similar (rendimiento 0,600 kg/m²), sobre superficies de hormigón o mortero, sin incluir la preparación del soporte. Colores Estándar.	81,71	20,70	1.691,40
449	M2 PINTURA PLÁSTICA LISA MATE COLOR Pintura plástica lisa mate color, en interiores, en paramentos horizontales y verticales, dos manos, incluso lijado, mano de imprimación con plástico diluido, plastecido, lijado y acabado.	1.146,29	3,18	3.645,20
289B	M2 TAPA DE CHAPA LACRIMADA GALVANIZADA e=4mm Tapa de chapa lacrimada de acero galvanizado de 4 mm de espesor, incluyendo el marco, tiradores, aros para cerradura con candado, anclada, totalmente colocada.	1,28	74,56	95,44
E0A060	UD TRAMEX. ENTRAMADO METÁLICO 30X30X3 Entramado metálico 30x30x3 tipo tramex o equivalente, incluso estructura auxiliar y suministro con parte proporcional de cerco también galvanizado, montaje, recibido y pintado.			

PRESUPUESTOS PARCIALES.

ABASTECIMIENTO A VARIOS MUNICIPIOS DE LA RIOJA. SISTEMA CIDACOS

CÓDIGO	RESUMEN	CANTIDAD	PRECIO	IMPORTE
		26,62	28,50	758,67
	TOTAL SUBAPARTADO 02.01.08.5 ACABADOS.....			19.437,12
	SUBAPARTADO 02.01.08.6 INSTALACIONES FONTANERIA			
453R	UD INSTALACIÓN DE FONTANERÍA Y EVACUACIÓN REACTIVOS ud. Instalación del laboratorio y dependencias enexas, de fontanería completa en TABIQUERÍA SE-CA, realizada con tuberías de polietileno reticulado (método Engel) utilizando el sistema Quick&Easy de derivaciones por tes para las redes de agua fría y caliente y con tuberías de PVC serie C para la red de desagüe con los diámetros necesarios para cada punto de consumo, totalmente terminada según CTE/DB-HS 4 suministro de agua, sin incluir los aparatos sanitarios ni griferías, y con p.p. de redes interiores de ascendentes y bajantes.	2,00	358,46	716,92
	TOTAL SUBAPARTADO 02.01.08.6 INSTALACIONES FONTANERIA.....			716,92
	SUBAPARTADO 02.01.08.7 INSTALACIÓN CONTRAINCENDIOS			
EXTABC	UD EXTINT. POLVO ABC 6 Kg. EF 21A-113B Ud. Eextintor de polvo ABC con eficacia 21A-113B para extinción de fuego de materias sólidas, líquidas, productos gaseosos e incendios de equipos eléctricos, de 6 Kg. de agente extintor con soporte, manómetro y boquilla con difusor según norma UNE-23110, totalmente instalado según CTE/DB-SI 4. Certificado por AENOR.	5,00	27,22	136,10
C04.04.01.03	UD EXTINTOR DE CO2 EFICACIA 89B Ud. Extintor de CO2 (Nieve Carbónica) de 5 kg. de capacidad, eficacia 89B, equipado de manguera con difusor y homologado e instalado.	2,00	69,70	139,40
SEÑAL01	UD SEÑAL LUMINISCENTE EXT. INCENDIOS Ud. Señal luminiscente para elementos de extinción de incendios (eextintores, bies, pulsadores....) de 297x210 por una cara en pvc rígido de 2 mm de espesor, totalmente instalada, según norma UNE 23033 y CTE/DB-SI 4.	23,00	7,27	167,21
C04.04.07.01	UD CENTRAL ANAL. 2 LAZOS 198 DETEC. Ud. Central de detección de incendios Analógica con 2 lazos compacta (no ampliable) de 198 detectores + 198 módulos analógicos, con 5 salidas de relé, pantalla LCD de 128x64 píxeles retroiluminada, 2 salidas serie RS-232, fuente de alimentación y d baterías de 12V / 7 Ah, totalmente instalada, conexionada, programada y probada, según CTE/DB-SI 4. Incluye 9 módulos de entrada-salida programable para maniobra y estado de equipos no analógicos, y 5 módulos de entrada analógicos para identificar señales de equipos no analógicos. Incluye dos fuentes de alimentación de 24 V 5 A, instaladas.	1,00	1.896,86	1.896,86
C04.04.07.04	UD PULSADOR DE ALARMA REARMABLE Ud. Pulsador de alarma tipo rearmable, con tapa de plástico basculante totalmente instalado, i/p.p. de tubos y cableado, conexionado y probado, según CTE/DB-SI 4.	8,00	48,77	390,16
C04.04.07.05	UD SIRENA ELECTRÓNICA BITONAL 24 V. Ud. Sirena de alarma de incendios bitonal, para montaje interior con señal óptica y acústica a 24v, totalmente instalada, i/p.p. tubo y cableado, conexionado y probado, según CTE/DB-SI 4.	7,00	33,21	232,47
C04.04.07.06	UD SIRENA ELECTRÓNICA BITONAL PARA EXTERIOR Ud. Sirena de alarma de incendios bitonal, para montaje exterior, con señal óptica y acústica a 24v, totalmente instalada, i/p.p. tubo y cableado, conexionado y probado, según CTE/DB-SI 4.	1,00	67,84	67,84
C04.04.07.071	UD INSTALACIÓN ELÉCTRICA TUBO PVC Instalación eléctrica bajo tubo de PVC rígido o flexible según casos, libre de halógenos, con p.p. de manguera apantallada no propagador de llamas de 2X1,5 mm2 de sección, cajas de derivación, bridas de fijación, bornas de conexión, etc. incluso mano de obra para instalación, programación y pruebas.	1,00	943,40	943,40

PRESUPUESTOS PARCIALES.

ABASTECIMIENTO A VARIOS MUNICIPIOS DE LA RIOJA. SISTEMA CIDACOS

CÓDIGO	RESUMEN	CANTIDAD	PRECIO	IMPORTE
	TOTAL SUBAPARTADO 02.01.08.7 INSTALACIÓN CONTRAINCENDIOS.....			3.973,44
	TOTAL APARTADO 02.01.08 EDIFICIO DE DESHIDRATACIÓN Y REACTIVOS.....			199.856,98
	APARTADO 02.01.09 ESPESADOR DE FANGOS			
002	M3 EXCAVACIÓN EN ZANJAS Excavación en zanjas y zonas localizadas, en todo tipo de terrenos incluido terrenos en roca con medios mecánicos, incluso rasanteo, nivelación de la superficie de apoyo y transporte a lugar de empleo o vertedero.	62,73	3,74	234,61
010	M3 RELLENO ZANJAS, CIMIENTOS Y TRASDOSES DE MATERIAL SELECCIONADO Relleno con material seleccionado en zanjas, cimientos, trasdós de muros, estribos y otras estructuras procedente de la excavación o préstamos incluso carga, transporte y compactación.	3,42	3,32	11,35
028	M3 HORMIGÓN DE LIMIPEZA HL-150 Hormigón de limpieza HL-150, de consistencia plástica, árido de tamaño máximo 40 mm y cemento CEM-II-D/42,5/SR, para saneos y encachados, incluyendo fabricación y transporte totalmente colocado.	8,32	44,76	372,40
032.1	M3 HORMIGÓN HA-30/P/30/IV Hormigón armado HA-30/B/30/IV, con una dosificación de hormigón de 325 kg/m3 de cemento, consistencia plástica, elaborado en central para estructuras, incluso bombeado y medios manuales, vibrado y colocado.	67,33	76,99	5.183,74
026	M2 ENCOFRADO RECTO EN PARAMENTOS VISTOS 1C Encofrado recto en paramentos vistos a una cara, incluso colocación, fijación y desencofrado.	29,01	21,18	614,43
027	M2 ENCOFRADO CURVO EN PARAMENTOS VISTOS Encofrado curvo en paramentos vistos, incluso colocación, fijación y desencofrado.	214,90	25,12	5.398,29
027.1	M2 ENCOFRADO CURVO EN PARAMENTOS OCULTOS Encofrado curvo en paramentos ocultos, incluso colocación, fijación y desencofrado.	15,01	21,96	329,62
026.1	M2 ENCOFRADO RECTO EN LOSAS VISTOS Encofrado recto en losas vistos, incluso colocación, fijación y desencofrado.	28,29	27,68	783,07
023	KG ACERO CORRUGADO B-500-S Acero redondo corrugado para armar tipo B-500-S elaborado y colocado.	5.748,30	0,96	5.518,37
052	ML JUNTAS DE ESTANQUEIDAD DE PVC 32 CM Junta de trabajo interior de policloruro de vinilo (PVC) 100% virgen, con una fuerza máxima de dilatación > 250 %, de 32 cm de ancho, MASTERFLEX 2000 TI-24 de BASF o equivalente, colocada simétricamente en el eje de la losa o muro, incluso solapes y piezas especiales para cruces o ángulos. Medida la longitud ejecutada.	33,00	7,31	241,23
289B	M2 TAPA DE CHAPA LACRIMADA GALVANIZADA e=4mm Tapa de chapa lacrimada de acero galvanizado de 4 mm de espesor, incluyendo el marco, tiradores, aros para cerradura con candado, anclada, totalmente colocada.	0,30	74,56	22,37

PRESUPUESTOS PARCIALES.

ABASTECIMIENTO A VARIOS MUNICIPIOS DE LA RIOJA. SISTEMA CIDACOS

CÓDIGO	RESUMEN	CANTIDAD	PRECIO	IMPORTE
290BB	M2 ESCALERA Y PASARELAS DE ACERO GALVANIZADO. BARANDILLAS AISI316L Escalera y pasarelas de acceso de forma según planos, ejecutada en perfiles de acero galvanizado en caliente, incluso barandilla tubular del mismo material, de 90 cm de altura en uno o dos lados, rodapié de seguridad del mismo en uno o dos lados, así como entramado metálico de 30x30x3 en descansillos y peldaños, medida según su proyección en planta. Anclada a los muros y/o solera, instalada.	4,60	112,06	515,48
	TOTAL APARTADO 02.01.09 ESPESADOR DE FANGOS			19.224,96
	APARTADO 02.01.10 DEPÓSITO FANGOS ESPESADOS			
002	M3 EXCAVACIÓN EN ZANJAS Excavación en zanjas y zonas localizadas, en todo tipo de terrenos incluido terrenos en roca con medios mecánicos, incluso rasanteo, nivelación de la superficie de apoyo y transporte a lugar de empleo o vertedero.	1.056,14	3,74	3.949,96
010	M3 RELLENO ZANJAS, CIMIENTOS Y TRASDOSES DE MATERIAL SELECCIONADO Relleno con material seleccionado en zanjas, cimientos, trasdós de muros, estribos y otras estructuras procedente de la excavación o préstamos incluso carga, transporte y compactación.	264,91	3,32	879,50
006	M3 RELLENOS CON MATERIAL DE BOLO Relleno con material seleccionado de bolo, para eviatar asentamientos, en trasdós de muros, estribos y otras estructuras procedente de préstamos incluso carga, transporte y extendido.	399,61	6,14	2.453,61
028	M3 HORMIGÓN DE LIMPEZA HL-150 Hormigón de limpieza HL-150, de consistencia plástica, árido de tamaño máximo 40 mm y cemento CEM-II-D/42,5/SR, para saneos y encachados, incluyendo fabricación y transporte totalmente colocado.	48,06	44,76	2.151,17
032.1	M3 HORMIGÓN HA-30/P/30/IV Hormigón armado HA-30/B/30/IV, con una dosificación de hormigón de 325 kg/m3 de cemento, consistencia plástica, elaborado en central para estructuras, incluso bombeado y medios manuales, vibrado y colocado.	91,26	76,99	7.026,11
025	M2 ENCOFRADO RECTO EN PARAMENTOS OCULTOS Encofrado recto en paramentos ocultos, incluso colocación, fijación y desencofrado.	15,84	17,65	279,58
026	M2 ENCOFRADO RECTO EN PARAMENTOS VISTOS 1C Encofrado recto en paramentos vistos a una cara, incluso colocación, fijación y desencofrado.	273,00	21,18	5.782,14
023	KG ACERO CORRUGADO B-500-S Acero redondo corrugado para armar tipo B-500-S elaborado y colocado.	7.632,00	0,96	7.326,72
052	ML JUNTAS DE ESTANQUEIDAD DE PVC 32 CM Junta de trabajo interior de policloruro de vinilo (PVC) 100% virgen, con una fuerza máxima de dilatación > 250 %, de 32 cm de ancho, MASTERFLEX 2000 TI-24 de BASF o equivalente, colocada simétricamente en el eje de la losa o muro, incluso solapes y piezas especiales para cruces o ángulos. Medida la longitud ejecutada.	35,00	7,31	255,85
289B	M2 TAPA DE CHAPA LACRIMADA GALVANIZADA e=4mm Tapa de chapa lacrimada de acero galvanizado de 4 mm de espesor, incluyendo el marco, tiradores, aros para cerradura con candado, anclada, totalmente colocada.	1,70	74,56	126,75

PRESUPUESTOS PARCIALES.

ABASTECIMIENTO A VARIOS MUNICIPIOS DE LA RIOJA. SISTEMA CIDACOS

CÓDIGO	RESUMEN	CANTIDAD	PRECIO	IMPORTE
290BB	M2 ESCALERA Y PASARELAS DE ACERO GALVANIZADO. BARANDILLAS AISI316L Escalera y pasarelas de acceso de forma según planos, ejecutada en perfiles de acero galvanizado en caliente, incluso barandilla tubular del mismo material, de 90 cm de altura en uno o dos lados, rodapié de seguridad del mismo en uno o dos lados, así como entramado metálico de 30x30x3 en descansillos y peldaños, medida según su proyección en planta. Anclada a los muros y/o solera, instalada.	3,75	112,06	420,23
439C	M2 FORJADO PLACA ALVEOLAR 20+5 cm Forjado unidireccional de losas alveolares prefabricadas de 20 cm de espesor y capa de compresión de 5 cm de hormigón HA-25 de 25 N/mm2, incluso armadura de negativos según planos, mallazo de reparto, formación de huecos, y elementos auxiliares.	81,71	44,77	3.658,16
	TOTAL APARTADO 02.01.10 DEPÓSITO FANGOS ESPESADOS.....			34.309,78
	APARTADO 02.01.11 SILO DE FANGOS DESHIDRATADOS			
002	M3 EXCAVACIÓN EN ZANJAS Excavación en zanjas y zonas localizadas, en todo tipo de terrenos incluido terrenos en roca con medios mecánicos, incluso rasanteo, nivelación de la superficie de apoyo y transporte a lugar de empleo o vertedero.	14,41	3,74	53,89
028	M3 HORMIGÓN DE LIMPEZA HL-150 Hormigón de limpieza HL-150, de consistencia plástica, árido de tamaño máximo 40 mm y cemento CEM-II-D/42,5/SR, para saneos y encachados, incluyendo fabricación y transporte totalmente colocado.	2,40	44,76	107,42
032.1	M3 HORMIGÓN HA-30/P/30/IV Hormigón armado HA-30/B/30/IV, con una dosificación de hormigón de 325 kg/m3 de cemento, consistencia plástica, elaborado en central para estructuras, incluso bombeado y medios manuales, vibrado y colocado.	12,51	76,99	963,14
025	M2 ENCOFRADO RECTO EN PARAMENTOS OCULTOS Encofrado recto en paramentos ocultos, incluso colocación, fijación y desencofrado.	9,80	17,65	172,97
026	M2 ENCOFRADO RECTO EN PARAMENTOS VISTOS 1C Encofrado recto en paramentos vistos a una cara, incluso colocación, fijación y desencofrado.	4,00	21,18	84,72
023	KG ACERO CORRUGADO B-500-S Acero redondo corrugado para armar tipo B-500-S elaborado y colocado.	864,31	0,96	829,74
	TOTAL APARTADO 02.01.11 SILO DE FANGOS DESHIDRATADOS			2.211,88
	APARTADO 02.01.12 PARQUE DE OXÍGENO			
002	M3 EXCAVACIÓN EN ZANJAS Excavación en zanjas y zonas localizadas, en todo tipo de terrenos incluido terrenos en roca con medios mecánicos, incluso rasanteo, nivelación de la superficie de apoyo y transporte a lugar de empleo o vertedero.	8,44	3,74	31,57
028	M3 HORMIGÓN DE LIMPEZA HL-150 Hormigón de limpieza HL-150, de consistencia plástica, árido de tamaño máximo 40 mm y cemento CEM-II-D/42,5/SR, para saneos y encachados, incluyendo fabricación y transporte totalmente colocado.	2,81	44,76	125,78
031	M3 HORMIGÓN HA-25/B/20/IIa Hormigón HA-25/B/20/IIa, con cemento CEM III/A-D/42,5/SR, incluyendo fabricación, transporte, puesta en obra y vibrado, totalmente ejecutado, incluso curado y juntas.	8,44	53,39	450,61

PRESUPUESTOS PARCIALES.

ABASTECIMIENTO A VARIOS MUNICIPIOS DE LA RIOJA. SISTEMA CIDACOS

CÓDIGO	RESUMEN	CANTIDAD	PRECIO	IMPORTE
023	KG ACERO CORRUGADO B-500-S Acero redondo corrugado para armar tipo B-500-S elaborado y colocado.	150,23	0,96	144,22
452C	ML CERRAMIENTO MALLA GALVANIZADA Y PLASTIFICADA EN VERDE DE 2,00 m Cerramiento de malla metálica galvanizada plastificada en verde de 2,0 m. de altura, incluso p.p. de puerta de entrada peatonal con cerradura, p.p. de postes de acero galvanizado también plastificados en verde, colocados cada 3,0 m sobre cimentación de hormigón (no incluida), incluso p.p. jabalco-nes, esquinas, tensores, anclajes y resto de accesorios. Colocada y totalmente terminada.	21,80	13,25	288,85
EXTABC	UD EXTINT. POLVO ABC 6 Kg. EF 21A-113B Ud. Eextintor de polvo ABC con eficacia 21A-113B para extinción de fuego de materias sólidas, lí- quidas, productos gaseosos e incendios de equipos eléctricos, de 6 Kg. de agente extintor con so- porte, manómetro y boquilla con difusor según norma UNE-23110, totalmente instalado según CTE/DB-SI 4. Certificado por AENOR.	1,00	27,22	27,22
TOTAL APARTADO 02.01.12 PARQUE DE OXÍGENO.....				1.068,25
APARTADO 02.01.13 REDES DE CONDUCCIONES				
SUBAPARTADO 02.01.13.1 LINEA DE AGUA				
002	M3 EXCAVACIÓN EN ZANJAS Excavación en zanjas y zonas localizadas, en todo tipo de terrenos incluido terrenos en roca con medios mecánicos, incluso rasanteo, nivelación de la superficie de apoyo y transporte a lugar de empleo o vertedero.	735,33	3,74	2.750,13
010	M3 RELLENO ZANJAS, CIMIENTOS Y TRASDOSES DE MATERIAL SELECCIONADO Relleno con material seleccionado en zanjas, cimientos, trasdós de muros, estribos y otras estructu- ras procedente de la excavación o préstamos incluso carga, transporte y compactación.	341,46	3,32	1.133,65
011	M3 RELLENO DE ARENA Arena para apoyo y protección de tuberías incluso carga, transporte, colocación, compactación y ni- velación.	272,80	12,09	3.298,15
058B	ML TUBERÍA FD 1000 mm Tubería de fundición dúctil de diámetro interior 1000 mm y PFA de 32 bar, revestida interiormente con mortero de cemento y exteriormente con una capa de cinc y otra bituminosa, i/p.p. de junta automáti- ca flexible, banda de señalización y medios auxiliares, totalmente colocada y probada.	66,40	374,95	24.896,68
058A	ML TUBERÍA FD 900 mm Tubería de fundición dúctil de diámetro interior 900 mm y PFA de 32 bar, revestida interiormente con mortero de cemento y exteriormente con una capa de cinc y otra bituminosa, i/p.p. de junta automáti- ca flexible, banda de señalización y medios auxiliares, totalmente colocada y probada.	90,90	305,83	27.799,95
058C	ML TUBERÍA FD 700 mm Tubería de fundición dúctil de diámetro interior 700 mm y PFA de 34 bar, revestida interiormente con mortero de cemento y exteriormente con una capa de cinc y otra bituminosa, i/p.p. de junta automáti- ca flexible y medios auxiliares, totalmente colocada y probada.	29,00	240,77	6.982,33
TOTAL SUBAPARTADO 02.01.13.1 LINEA DE AGUA.....				66.860,89

PRESUPUESTOS PARCIALES.

ABASTECIMIENTO A VARIOS MUNICIPIOS DE LA RIOJA. SISTEMA CIDACOS

CÓDIGO	RESUMEN	CANTIDAD	PRECIO	IMPORTE
SUBAPARTADO 02.01.13.2 LINEA DE FANGOS				
002	M3 EXCAVACIÓN EN ZANJAS Excavación en zanjas y zonas localizadas, en todo tipo de terrenos incluido terrenos en roca con medios mecánicos, incluso rasanteo, nivelación de la superficie de apoyo y transporte a lugar de empleo o vertedero.	143,88	3,74	538,11
010	M3 RELLENO ZANJAS, CIMIENTOS Y TRASDOSES DE MATERIAL SELECCIONADO Relleno con material seleccionado en zanjas, cimientos, trasdós de muros, estribos y otras estructu- ras procedente de la excavación o préstamos incluso carga, transporte y compactación.	100,82	3,32	334,72
011	M3 RELLENO DE ARENA Arena para apoyo y protección de tuberías incluso carga, transporte, colocación, compactación y ni- velación.	43,06	12,09	520,60
065	ML TUBERÍA FD 150 mm Tubería de fundición dúctil de diámetro interior 150 mm y PFA de 64 bar, revestida interiormente con mortero de cemento y exteriormente con una capa de cinc y otra bituminosa, i/p.p. de junta automáti- ca flexible, banda de señalización y medios auxiliares, totalmente colocada y probada.	14,90	21,42	319,16
171	ML TUBERÍA PEAD DN=160 mm PN 16 Tubería de polietileno de alta densidad de 160 mm de diámetro exterior, y PN=16 bar, colocada en zanja incluso p.p. de junta de unión colocada y medios auxiliares, totalmente colocada.	179,00	31,70	5.674,30
171A	ML TUBERÍA PEAD DN=200 mm PN 16 Tubería de polietileno de alta densidad de 200 mm de diámetro exterior, y PN=16 bar, colocada en zanja incluso p.p. de junta de unión colocada y medios auxiliares, totalmente colocada.	89,00	47,03	4.185,67
TOTAL SUBAPARTADO 02.01.13.2 LINEA DE FANGOS.....				11.572,56
SUBAPARTADO 02.01.13.3 LINEA DE OZONO				
002	M3 EXCAVACIÓN EN ZANJAS Excavación en zanjas y zonas localizadas, en todo tipo de terrenos incluido terrenos en roca con medios mecánicos, incluso rasanteo, nivelación de la superficie de apoyo y transporte a lugar de empleo o vertedero.	60,00	3,74	224,40
010	M3 RELLENO ZANJAS, CIMIENTOS Y TRASDOSES DE MATERIAL SELECCIONADO Relleno con material seleccionado en zanjas, cimientos, trasdós de muros, estribos y otras estructu- ras procedente de la excavación o préstamos incluso carga, transporte y compactación.	35,00	3,32	116,20
011	M3 RELLENO DE ARENA Arena para apoyo y protección de tuberías incluso carga, transporte, colocación, compactación y ni- velación.	25,00	12,09	302,25
ETI316025	ML TUBERÍA DE INOXIDABLE AISI 316L DN25 Tubería de acero inoxidable de diámetro DN25 mm. Construcción: Mediante soldadura. Espesor 1,5 mm. Material: Acero inoxidable AISI -316 L. Material accesorios acero inoxidable AISI - 316L. Aca- bado: Decapado. Incluso p.p. de uniones, piezas especiales, bridas, codos, tes, injertos para otras tuberías y p.p. de estructuras y elementos de anclajes a solera y/o muros. Montada y probada.	100,00	28,49	2.849,00
TOTAL SUBAPARTADO 02.01.13.3 LINEA DE OZONO.....				3.491,85
TOTAL APARTADO 02.01.13 REDES DE CONDUCCIONES.....				81.925,30

PRESUPUESTOS PARCIALES.

ABASTECIMIENTO A VARIOS MUNICIPIOS DE LA RIOJA. SISTEMA CIDACOS

CÓDIGO	RESUMEN	CANTIDAD	PRECIO	IMPORTE
APARTADO 02.01.14 URBANIZACIÓN				
SUBAPARTADO 02.01.14.1 PAVIMENTOS Y VIALES				
056	M3 ZAHORRA ARTIFICIAL Zahorra artificial compactada.	791,45	16,98	13.438,82
054	T PAVIMENTO DE MBC AC16 surf S Pavimento de mezcla bituminosa en caliente en capa de rodadura tipo AC 16 surf S de 5 cm de espesor, que incluye riego de imprimación con dotación de 1 Kg/m2, con betún B60/70 en dotación de 70 Kg/Tm, puesto en obra y terminado.	557,97	36,70	20.477,50
458B	ML BORDILLO PREFABRICADO DE HORMIGÓN 25x15x12 cm. Bordillo prefabricado de hormigón doble capa, tipo T-2 de dimensiones 25X15X12 cm en chafán, colocado sobre solera de hormigón HNE-20, de 15 cm de espesor, incluso excavación necesaria, re-juntado y limpieza.	1.251,00	9,89	12.372,39
452B	M2 ACERA DE BALDOSA HIDRÁULICA EXTERIOR (30x30x4 cm.) Acera de baldosa hidráulica tipo pétreo antideslizante uso exterior de dimensiones 30x30x4 cm., color y dibujo a definir en obra, colocada sobre 3 cm de mortero de agarre M-40 y 12 cm de espesor de hormigón HNE-20, enlechado y limpieza, totalmente terminado.	2.267,00	15,90	36.045,30
452D	M2 PAVIMENTO DE GRAVILLA 10/20 mm + GEOTEXTIL ANTIHERBA 200gr/m2 Pavimento de gravilla 10/20 extendida de 15 cm. de espesor, dispuesto sobre un geotextil antiherba permeable y con protección UV de 200 gr/m2. Incluso maestreado y refino de la superficie. totalmente terminado.	369,00	5,32	1.963,08
TOTAL SUBAPARTADO 02.01.14.1 PAVIMENTOS Y VIALES.....				84.297,09
SUBAPARTADO 02.01.14.2 CERRAMIENTO				
002	M3 EXCAVACIÓN EN ZANJAS Excavación en zanjas y zonas localizadas, en todo tipo de terrenos incluido terrenos en roca con medios mecánicos, incluso rasanteo, nivelación de la superficie de apoyo y transporte a lugar de empleo o vertedero.	120,48	3,74	450,60
028	M3 HORMIGÓN DE LIMPIEZA HL-150 Hormigón de limpieza HL-150, de consistencia plástica, árido de tamaño máximo 40 mm y cemento CEM-II-D/42,5/SR, para saneos y encachados, incluyendo fabricación y transporte totalmente colocado.	30,12	44,76	1.348,17
031	M3 HORMIGÓN HA-25/B/20/IIa Hormigón HA-25/B/20/IIa, con cemento CEM II/A-D/42,5/SR, incluyendo fabricación, transporte, puesta en obra y vibrado, totalmente ejecutado, incluso curado y juntas.	90,36	53,39	4.824,32
023	KG ACERO CORRUGADO B-500-S Acero redondo corrugado para armar tipo B-500-S elaborado y colocado.	3.027,06	0,96	2.905,98
452C	ML CERRAMIENTO MALLA GALVANIZADA Y PLASTIFICADA EN VERDE DE 2,00 m Cerramiento de malla metálica galvanizada plastificada en verde de 2,0 m. de altura, incluso p.p. de puerta de entrada peatonal con cerradura, p.p. de postes de acero galvanizado también plastificados en verde, colocados cada 3,0 m sobre cimentación de hormigón (no incluida), incluso p.p. jabalco-nes, esquinas, tensores, anclajes y resto de accesorios. Colocada y totalmente terminada.	753,00	13,25	9.977,25
452E	UD PUERTA DE ACCESO A ETAP DE 5,0 M Puerta de acceso a planta de 5 m de longitud por 2,0 m de altura de apertura manual, construida en perfilera tubular de acero laminado S-275 JR movimiento longitudinal sobre ruedas de carril, zócalo fijo de chapa de 0,75 m de altura, y puerta peatonal de apertura manual, i/obra civil necesaria. Medi-da la unidad terminada y funcionando.			

PRESUPUESTOS PARCIALES.

ABASTECIMIENTO A VARIOS MUNICIPIOS DE LA RIOJA. SISTEMA CIDACOS

CÓDIGO	RESUMEN	CANTIDAD	PRECIO	IMPORTE
		1,00	674,11	674,11
TOTAL SUBAPARTADO 02.01.14.2 CERRAMIENTO.....				20.180,43
SUBAPARTADO 02.01.14.3 TRATAMIENTO ZONAS VERDES				
400	M2 SEMBRADO DE TALUDES EN ZONAS DE VARIACIÓN DE NIVEL Sembrado de taludes en zonas de variación de nivel y reposición de cubierta vegetal.	3.085,00	1,37	4.226,45
TOTAL SUBAPARTADO 02.01.14.3 TRATAMIENTO ZONAS VERDES.....				4.226,45
SUBAPARTADO 02.01.14.4 REDES DE AGUA DE SERVICIO Y RIEGO				
459.1	UD BOCA DE RIEGO Boca de riego de cierre elástico de 40 mm de diámetro nominal y 10 atm de PN con arqueta cuero y tapa de fundición gris (GG-25), tapa de fundición nodular (GGG-50) y cierre E.P.D.M. y revesti-miento con doble capa de pintura epoxi conexionada a red, totalmente colocada.	15,00	71,52	1.072,80
174	ML TUBERIA PEAD DN=63 mm PN 16 Tubería de polietileno de alta densidad de 63 mm de diámetro exterior y PN=16 bar, colocada en zanja incluso banda de señalización, p.p. de junta de unión colocada, codos, tes, portabridas, así co-mo piezas especiales y medios auxiliares, totalmente colocada.	300,00	9,60	2.880,00
002	M3 EXCAVACIÓN EN ZANJAS Excavación en zanjas y zonas localizadas, en todo tipo de terrenos incluido terrenos en roca con medios mecánicos, incluso rasanteo, nivelación de la superficie de apoyo y transporte a lugar de empleo o vertedero.	270,00	3,74	1.009,80
010	M3 RELLENO ZANJAS, CIMIENTOS Y TRASDOSES DE MATERIAL SELECCIONADO Relleno con material seleccionado en zanjas, cimientos, trasdós de muros, estribos y otras estructu-ras procedente de la excavación o préstamos incluso carga, transporte y compactación.	210,00	3,32	697,20
011	M3 RELLENO DE ARENA Arena para apoyo y protección de tuberías incluso carga, transporte, colocación, compactación y ni-velación.	60,00	12,09	725,40
TOTAL SUBAPARTADO 02.01.14.4 REDES DE AGUA DE SERVICIO Y RIEGO.....				6.385,20
SUBAPARTADO 02.01.14.5 REDES DE SANEAMIENTO Y PLUVILES				
460	UD ARQUETA DE RECOGIDA DE 40x40x40 Arqueta de recogida de 40x40x40, colocada.	19,00	187,05	3.553,95
460B	UD SUMIDERO DE FUNDICIÓN 445X375 MM Sumidero sifónico en calzada, de hormigón prefabricado HNE-20/P/20/IIb, con rejilla de fundición re-forzada de 445x375 cm., sobre solera de hormigón, conexionado a colector mediante tubería de PVC 160 mm de diámetro SN-8 J.E. totalmente colocado.	32,00	153,23	4.903,36
373	UD POZO DE REGISTRO DE AROS DE HORMIGÓN DN1200 Pozo de registro de abastecimiento para válvulas de control de cualquier altura de diámetro interior D=1200 mm, incluso base de hormigón HNE-20, aros de hormigón, cono prefabricado de hormigón, pates y tapa de fundición, totalmente terminado.	14,00	357,84	5.009,76
195	ML TUBERIA DE PVC 250 mm Tubería de PVC con junta elástica de 250 mm de diámetro exterior y PN=6 bar, incluso banda de señalización, totalmente colocada en zanja.	274,00	26,74	7.326,76
196	ML TUBERIA DE PVC 200 mm Tubería de PVC con junta elástica de 200 mm de diámetro exterior, y PN=6 bar, incluso banda de señalización, totalmente colocada en zanja.			

PRESUPUESTOS PARCIALES.

ABASTECIMIENTO A VARIOS MUNICIPIOS DE LA RIOJA. SISTEMA CIDACOS

CÓDIGO	RESUMEN	CANTIDAD	PRECIO	IMPORTE
196B	ML TUBERÍA DE PVC DP SN-8, PARA SANEAMIENTO DE 315 MM Tubería de PVC de doble pared SN8 para saneamiento de 315 mm de diámetro exterior, con junta elástica, totalmente colocada en zanja.	246,00	18,67	4.592,82
196C	ML TUBERÍA DE PVC DP SN-8, PARA SANEAMIENTO DE 400 MM Tubería de PVC de doble pared SN8 para saneamiento de 400 mm de diámetro exterior, con junta elástica, totalmente colocada en zanja.	30,00	26,54	796,20
002	M3 EXCAVACIÓN EN ZANJAS Excavación en zanjas y zonas localizadas, en todo tipo de terrenos incluido terrenos en roca con medios mecánicos, incluso rasanteo, nivelación de la superficie de apoyo y transporte a lugar de empleo o vertedero.	71,00	32,70	2.321,70
010	M3 RELLENO ZANJAS, CIMIENTOS Y TRASDOSES DE MATERIAL SELECCIONADO Relleno con material seleccionado en zanjas, cimientos, trasdós de muros, estribos y otras estructuras procedente de la excavación o préstamos incluso carga, transporte y compactación.	209,70	3,74	784,28
011	M3 RELLENO DE ARENA Arena para apoyo y protección de tuberías incluso carga, transporte, colocación, compactación y nivelación.	163,10	3,32	541,49
460BC	UD CANALETA TIPO ACO-DRAIN Canaleta tipo Aco-drain de hormigón polimérico o equivalente con rejilla de acero galvanizado de 10 cm de ancho, completamente colocada.	46,60	12,09	563,39
	TOTAL SUBPARTADO 02.01.14.5 REDES DE SANEAMIENTO Y PLUVILES.....	15,00	69,05	1.035,75
	TOTAL APARTADO 02.01.14 URBANIZACIÓN.....			31.429,46
	APARTADO 02.01.15 ARQUETA DE REPARTO A FILTROS DE ARENA			146.518,63
002	M3 EXCAVACIÓN EN ZANJAS Excavación en zanjas y zonas localizadas, en todo tipo de terrenos incluido terrenos en roca con medios mecánicos, incluso rasanteo, nivelación de la superficie de apoyo y transporte a lugar de empleo o vertedero.	51,17	3,74	191,38
010	M3 RELLENO ZANJAS, CIMIENTOS Y TRASDOSES DE MATERIAL SELECCIONADO Relleno con material seleccionado en zanjas, cimientos, trasdós de muros, estribos y otras estructuras procedente de la excavación o préstamos incluso carga, transporte y compactación.	19,92	3,32	66,13
028	M3 HORMIGÓN DE LIMPIEZA HL-150 Hormigón de limpieza HL-150, de consistencia plástica, árido de tamaño máximo 40 mm y cemento CEM-II-D/42,5/SR, para saneos y encachados, incluyendo fabricación y transporte totalmente colocado.	1,30	44,76	58,19
032.1	M3 HORMIGÓN HA-30/P/30/IV Hormigón armado HA-30/B/30/IV, con una dosificación de hormigón de 325 kg/m3 de cemento, consistencia plástica, elaborado en central para estructuras, incluso bombeado y medios manuales, vibrado y colocado.	18,44	76,99	1.419,70
025	M2 ENCOFRADO RECTO EN PARAMENTOS OCULTOS Encofrado recto en paramentos ocultos, incluso colocación, fijación y desencofrado.	5,84	17,65	103,08
026	M2 ENCOFRADO RECTO EN PARAMENTOS VISTOS 1C Encofrado recto en paramentos vistos a una cara, incluso colocación, fijación y desencofrado.			

PRESUPUESTOS PARCIALES.

ABASTECIMIENTO A VARIOS MUNICIPIOS DE LA RIOJA. SISTEMA CIDACOS

CÓDIGO	RESUMEN	CANTIDAD	PRECIO	IMPORTE
023	KG ACERO CORRUGADO B-500-S Acero redondo corrugado para armar tipo B-500-S elaborado y colocado.	67,18	21,18	1.422,87
052	ML JUNTAS DE ESTANQUEIDAD DE PVC 32 CM Junta de trabajo interior de policloruro de vinilo (PVC) 100% virgen, con una fuerza máxima de dilatación > 250 %, de 32 cm de ancho, MASTERFLEX 2000 TI-24 de BASF o equivalente, colocada simétricamente en el eje de la losa o muro, incluso solapes y piezas especiales para cruces o ángulos. Medida la longitud ejecutada.	1.660,52	0,96	1.594,10
E0A060	UD TRAMEX. ENTRAMADO METÁLICO 30X30X3 Entramado metálico 30x30x3 tipo tramex o equivalente, incluso estructura auxiliar y suministro con parte proporcional de cerco también galvanizado, montaje, recibido y pintado.	14,60	7,31	106,73
	TOTAL APARTADO 02.01.15 ARQUETA DE REPARTO A FILTROS DE ARENA.....	9,81	28,50	279,59
	APARTADO 02.01.16 MOBILIARIO, LABORATORIO Y TALLER			5.241,77
	SUBPARTADO 02.06.01 MOBILIARIO EDIFICIO CONTROL			
	ELEMENTO 02.06.01.1 SALA DE CONFERENCIAS			
E00345	ud BUTACA TAP.TELA APOYABR.MAD.C/PALA ABAT. Butaca tapizada con interior metálico instalada con pie central, y constituida con apoyabrazos de madera maciza de haya, tablero contrachapado de haya en el respaldo, bloque de asiento en espuma de poliuretano fundido en frío autobextinguible M-4, abatible automático tapizado con tela ignífuga M-1 al igual que el barnizado.	30,00	227,47	6.824,10
E01940	ud PUESTO TRABAJO RECTANGULAR 1800X800 MM Ud. Puesto de trabajo formado por una mesa rectangular de 1800x800, con ala de 100x600. Con cajonera rodante formada por un cajón y archivo de 550h mm. Los sobres fabricados con tablero de partículas tricapa de espesor 19 mm., rematados con cantos rectos de PVC, fresados y redondeados. Estructura doble fabricada con tubo metálico. Los conjuntos permiten la electrificación horizontal y vertical. La cajonera tendrá los mismos acabados que el sobre de la mesa.	1,00	374,77	374,77
E00090	ud ARMARIO BALDAS 800x470 MM Ud. Conjunto de 2 armarios medios de 80x47 mm y 1250 de alto. Dotados de puertas batientes de vitrina y dos baldas en el interior. Fabricados en tablero melaminico con un espesor de 19 mm. Es-tantes regulables en altura.	1,00	515,30	515,30
E02130	ud SILLÓN Ud. Sillón, asiento y respaldo tapizados, con apoyabrazos regulables 3-D. Altura regulable, respaldo regulable en altura. Ajuste sincronizado, regulación dureza del respaldo. Ajuste de la profundidad del asiento.	1,00	423,70	423,70
	TOTAL ELEMENTO 02.06.01.1 SALA DE CONFERENCIAS.....			8.137,87
	ELEMENTO 02.06.01.2 DESPACHOS			
E01940	ud PUESTO TRABAJO RECTANGULAR 1800X800 MM Ud. Puesto de trabajo formado por una mesa rectangular de 1800x800, con ala de 100x600. Con cajonera rodante formada por un cajón y archivo de 550h mm. Los sobres fabricados con tablero de partículas tricapa de espesor 19 mm., rematados con cantos rectos de PVC, fresados y redondeados. Estructura doble fabricada con tubo metálico. Los conjuntos permiten la electrificación horizontal y vertical. La cajonera tendrá los mismos acabados que el sobre de la mesa.	9,00	374,77	3.372,93
E00090	ud ARMARIO BALDAS 800x470 MM Ud. Conjunto de 2 armarios medios de 80x47 mm y 1250 de alto. Dotados de puertas batientes de vitrina y dos baldas en el interior. Fabricados en tablero melaminico con un espesor de 19 mm. Es-tantes regulables en altura.	8,00	515,30	4.122,40

PRESUPUESTOS PARCIALES.

ABASTECIMIENTO A VARIOS MUNICIPIOS DE LA RIOJA. SISTEMA CIDACOS

CÓDIGO	RESUMEN	CANTIDAD	PRECIO	IMPORTE
E02130	ud SILLÓN Ud. Sillón, asiento y respaldo tapizados, con apoyabrazos regulables 3-D. Altura regulable, respaldo regulable en altura. Ajuste sincronizado, regulación dureza del respaldo. Ajuste de la profundidad del asiento.	6,00	423,70	2.542,20
E02125	ud SILLA CONFIDENTE Ud. Silla apilable con o sin brazos, estructura de tubo de acero pulido de 20x2 mm pintado en epoxi-poliéster o cromado, brazos de poliamida-6 reforzada con fibra de vidrio, asiento y respaldo de polipropileno sin tapizar.	30,00	164,64	4.939,20
E01620	ud PAPELERA Ud. Papelera metálica de forma cúbica pintada, con la parte superior y la inferior recubierta de goma.	8,00	16,65	133,20
E01703	ud PERCHERO Ud. Perchero metálico de pie, pintado, con 8 colgadores.	4,00	43,33	173,32
E01625	ud PARAGÜERO METÁLICO D-210 Paragüero metálico forrado en vinilo liso de color negro de 210 mm. de diámetro	6,00	16,88	101,28
E01941	ud MESA REUNIÓN CIRCULAR 900 MM Ud. Mesa de reunión circular de 900 mm de diámetro, fabricada con tablero de partículas tricapa de espesor 19 mm., rematados con cantos rectos de PVC, fresados y redondeados. Estructura doble fabricada con tubo metálico.	9,00	515,30	4.637,70
TOTAL ELEMENTO 02.06.01.2 DESPACHOS.....				20.022,23
ELEMENTO 02.06.01.3 SALAS DE ESPERA				
E01535	ud MESA RINCÓN Ud. Mesas de rincón. Medidas 60x60 cm. Estructura en acero. Tapa de DM rechapado en madera.	2,00	117,22	234,44
E00350	ud BUTACA TELA 720x760x770 NS Butaca de una placa tapizado en tela, nivel superior de acabado, de 720x760x770 mm.	3,00	689,91	2.069,73
E01625	ud PARAGÜERO METÁLICO D-210 Paragüero metálico forrado en vinilo liso de color negro de 210 mm. de diámetro	2,00	16,88	33,76
E02135	ud SOFÁ 2 PLAZAS TELA C/BRAZOS Sofá de dos plazas de diseño anatómico con brazos, armazón de poliuretano flexible inyectado, laterales de aluminio pulido y patas de tubo de acero pintado epoxy tapizado en tela, de 805x1200x700 mm.	1,00	487,49	487,49
TOTAL ELEMENTO 02.06.01.3 SALAS DE ESPERA.....				2.825,42
TOTAL SUBPARTADO 02.06.01 MOBILIARIO EDIFICIO CONTROL.....				30.985,52
SUBPARTADO 02.06.02 LABORATORIO				
ELEMENTO 02.06.02.1 MOBILIARIO				
E00065.1	ML MESA MURAL DE ALTURA 900 Y 750 MM DE PROFUNDIDAD Mesa mural de altura 900 mm y 750 mm de profundidad, para armarios con zócalo, con tablero Trespap Toplab Plus (o de calidad superior) de 20 mm de espesor.	16,00	54,41	870,56
E00065.5	ML MESA MURAL DE ALTURA 900 Y 1200 MM DE PROFUNDIDAD. GRES Metros lineales de mesa mural de altura 900 mm y 750 mm de profundidad, para armarios con zócalo, con tablero de gres sin borde de 20 mm de espesor.	4,00	169,06	676,24

PRESUPUESTOS PARCIALES.

ABASTECIMIENTO A VARIOS MUNICIPIOS DE LA RIOJA. SISTEMA CIDACOS

CÓDIGO	RESUMEN	CANTIDAD	PRECIO	IMPORTE
E00065.2	UD ARMARIO INFERIOR CON ZÓCALO DE 600X550X870 MM Armario inferior con zócalo de 600x550x870 mm con cajón superior y 2 puertas abatibles con balda intermedia.	3,00	270,44	811,32
E00065.3	UD ARMARIO COLGADO DEL SISTEMA DE SERVICIOS DE 600X350X760 MM Armario colgado del sistema de servicios de 600x350x760 mm con 1 puerta abatible parcialmente acristalada.	4,00	310,98	1.243,92
E00065.4	UD TABURETE DE LABORATORIO Taburete de laboratorio.	6,00	138,65	831,90
E00065.6	UD FREGADERO MURAL DE GRES CON 1 SENO Y ESCURRIDOR Fregadero mural de gres con 1 seno y escurridor (fregadero a la derecha) de 1200 mm de longitud y 750 mm de profundidad, con grifo monomando mezclador, lavajos de emergencia. Con armario inferior de 1200mm y capacidad para 2 cubos de 15L para recogida de residuos. Con antisalpicaduras sólo lateral derecho y trasero.	3,00	381,96	1.145,88
E00065.7	UD CERRAMIENTO DE SOBREMESA (CAPOTAJE) DE 1800X900X1450 MM Cerramiento de sobremesa (capotaje) de 1800x900x1450 mm, con estructura metálica. Puertas correderas delanteras con cristal de seguridad ESG. Con extractor de polipropileno y conectado al conducto de extracción existente. Preinstalación en techo del cerramiento para extracción de dos equipos de microondas.	1,00	283,86	283,86
E00065.8	UD VITRINA DE GASES DE 1800X900X2700 MM Vitrina de gases de 1800x900x2700 mm para trabajos con ácidos a altas temperatura según EN-14175/7. Con tablero y revestimiento interior de gres técnico. Con servicios en el frontal inferior.	1,00	390,30	390,30
E00065.9	UD ARMARIO INFERIOR PARA ÁCIDOS Y BASES DE 900X550X640 MM. Armario inferior para ácidos y bases de 900x550x640 mm. Con extractor de polipropileno y conectado al conducto de extracción existente.	3,00	331,27	993,81
E00065.10	UD EXTRACTOR DE POLIPROPILENO Extractor de polipropileno con conexión al conducto de extracción existente.	3,00	138,65	415,95
E00065.11	ML TUBOS DE EXTRACCIÓN DE AUTOMUESTREADORES Y ARMARIOS DE RESIDUOS Tubos de extracción de automuestreadores y armarios de residuos independientes instalada por la parte trasera de la mesa y por debajo del tablero. Conexión en pared.	3,00	271,46	814,38
TOTAL ELEMENTO 02.06.02.1 MOBILIARIO.....				8.478,12
ELEMENTO 02.06.02.2 EQUIPAMIENTO				
E00340	UD BOTIQUÍN PRIMEROS AUXILIOS 460x380x130mm Botiquín de primeros auxilios de pared fabricado en chapa de de acero esmaltado, con llave. Dotación incluida: 1 botella de 250 ml de alcohol, 1 botella de 250 ml de agua oxigenada, 1 paquete de algodón de 25 gr, 2 sobres de gasa estéril de 20x20 cm, 1 tijera de de 13 cm , 1 pinza de plástico de 13 cm, 1 caja de tiritas de 10 unidades en diversas medidas, 1 rollo de espaldrapo de 5m x 1,5cm, 2 guantes de latex, 2 vendas de malla de 5m x 10cm, 1 venda de malla de 5m x 10cm, 1 manual de primeros auxilios, de 460x380x10 cm.	1,00	45,55	45,55

PRESUPUESTOS PARCIALES.

ABASTECIMIENTO A VARIOS MUNICIPIOS DE LA RIOJA. SISTEMA CIDACOS

CÓDIGO	RESUMEN	CANTIDAD	PRECIO	IMPORTE
E00341	UD pH metro/mV metro/termómetro portátil pH metro/mV metro/termómetro portátil de las siguientes características: Instrumento electrónico, digital y portátil. Los caracteres de diseño son: Total impermeabilidad IP-67 hasta 1 m de profundidad. Fabricado en material ABS resistente y ligero. Gran estabilidad en superficies. Como caracteres técnicos destacan: Rango de medición: 0-14 pH/± 399 mV/± 1999 mV/0-100°C. Capacidad de memorización y recuperación de valores de mV y pH. El equipo se presenta con un estuche de transporte que le permite una fácil medición, así como la calibración "in situ". Incluye las siguientes soluciones de calibración: Solución de pH 4,01 (460 cc). Solución de pH 4,01 (25 x 20 ml). Solución de pH 7,01 (460 cc). Solución de pH 10,01 (460 cc). Solución de pH 9,18 (460 cc). Solución de almacenamiento (460 cc). Solución de relleno (4 x 50 ml). Solución electrolito 3,5 M KCl + AgCl). Solución de limpieza para usos generales (460 cc). Solución certificada de pH 4,01 (460 cc). Solución certificada de pH 7,01 (460 cc). Solución certificada de pH 10,01 (460 cc). Solución de pH 7,01 (25 x 20 ml).	1,00	1.107,87	1.107,87
E00342	Ud Oxímetro portátil de las siguientes Medidor de oxígeno disuelto portátil de las siguientes características: Instrumento electrónico y portátil para la medición de la concentración de oxígeno disuelto en agua. Visualización: LCD (Display de cristal líquido) con botón para sobreiluminación. - Medición simultánea de oxígeno (mgr/l. ó % de saturación) y temperatura. - Rango de medición: 0.20 mgr/l. 0-200 % aire saturado. -5 a +45°C. - Resolución: 0,01 mgr/l. 0,1 % . 0,1°C. - Compensación automática de temperatura. - Compensación por presión y salinidad por introducción de los datos. - Cámara de calibración interna para la calibración en campo, transporte y almacenamiento. - Sonda de acero inoxidable. - Cable de 3 metros. de longitud. - Alimentación: 6 pilas tamaño AA para aprox. 100 horas.	1,00	2.040,85	2.040,85
E00343	Ud Estufa de desecación y esterilización Estufa para desecación y esterilización de las siguientes características: Convección natural de aire. Para temperaturas regulables de: 40°C a 250°C. Construidas conforme a normas DIN 12.880. Prueba térmica conforme a normas DIN 50.001. Sistema eléctrico, protección IP-20, según normas DIN 40.050. Homogeneidad de la temperatura: ±1,5% . Estabilidad de la temperatura: ±0,5% . Fabricado según normas comunitarias sobre seguridad. Marcado con el distintivo CE. CARACTERISTICAS: Caja interior y cotrapuerta en acero inox. AISI-304 (DIN 1.4301). Mueble exterior metálico pintado al horno con resina epoxi. Junta elástica de silicona en la puerta. Bandejas perforadas en acero inox. AISI-304, ajustables en altura, con dispositivo que permite retirarlas sin que vuelquen. Puerta exterior metálica pintada al horno. Dispositivo de aireación/salida gases, regulable. Calefacción por resistencias eléctricas de gran superficie, distribuidas alrededor de la caja. PANEL DE MANDOS: Interruptor general. Termostato hidráulico regulador de la temperatura con escala graduada en °C. Termómetro analógico de esfera, lector de la temperatura. Piloto de señalización de calefacción. Capacidad: 42 litros. Medidas interiores en cm: (400 x 350 x 300) (alto x ancho x fondo). Medidas exteriores en cm: (710 x 500 x 460) (alto x ancho x fondo). Potencia: 900 W. Peso: 38 kg. Se suministra con dos bandejas perforadas en acero inoxidable.	1,00	1.690,99	1.690,99
E00344	Ud Horno de mufla Horno de mufla de las siguientes características: Equipo con cámara refractario de baja densidad. Temperatura máxima: 1.200°C. Regulación de temperatura: automática con indicador analógico, o si se solicita bajo demanda, indicador digital. Dimensiones útiles: 160 x 200 x 230) (alto x ancho x fondo) (mm). Dimensiones exteriores: (490 x 430 x 450) (alto x ancho x fondo) (mm). Potencia: 3.800 W. Tensión: 220. Peso: 41 Kg.	1,00	1.895,06	1.895,06
E00346	Ud Balanza diezmilésimal Balanza diezmilésimal de las siguientes características: Capacidad de rango de Tara (g): 220. Tamaño del plato en (mm): 80 DN. Reproductividad (±): 0,0001 g. Linealidad (±): 0,0003 g. Pesa de calibración (g): 200. Equipamiento incluido: Interface Rs-232. Ganchos para pesada inferior. Alimentador. Conector para batería recargable.	1,00	5.109,09	5.109,09

PRESUPUESTOS PARCIALES.

ABASTECIMIENTO A VARIOS MUNICIPIOS DE LA RIOJA. SISTEMA CIDACOS

CÓDIGO	RESUMEN	CANTIDAD	PRECIO	IMPORTE
E00347	Ud Turbidímetro portátil microprocesado Turbidímetro portátil microprocesado de las siguientes características: Medidor portátil, para determinar la turbidez en aguas potables y residuales. Con un rango de 0 a 1000 NTU y dos escalas de medición, de 0.00 a 50.00 NTU y de 50 a 1000 NTU, ha sido diseñado de acuerdo con el Standard Internacional ISO 7027. El equipo selecciona automáticamente el rango apropiado, de acuerdo con la turbidez de la muestra. Su funcionamiento está basado en un rayo de luz infrarrojo que atraviesa la cubeta. El sensor, colocado a 90° con respecto a la dirección de la luz, detecta la cantidad de luz dispersada por las partículas en suspensión de la muestra, la cual es transformada en valores NTU por el microprocesador. Su carcasa pesa menos de 400 gramos, aviso de pila baja, auto-apagado. La duración de la fuente de luz del Diodo de Emisión es indefinida, garantizando así el funcionamiento del equipo. Se suministra con dos cubetas de cristal, una tapa de cubeta para transporte, pila de 9 V. e instrucciones. Rango: 0.00 a 50.000 NTU; 50 a 1.000 NTU. Resolución: 0.01 y 1 NTU. Precisión: ±5% de la lectura (0 a 50 NTU); ±10% de la lectura (50 a 1.000 NTU). Fuente de luz: LED de infrarrojos. Duración de la fuente: Vida del instrumento. Detector de luz: Fotocélula de silicona. Pilas: 4 x 1.5 V. Duración de las pilas: 60 horas ó 3.000 lecturas. Auto apagado: Transcurridos 4 minutos. Condiciones de trabajo: 0 a 50°C/0 a 95% HR. Dimensiones: 220 x 83 x 46 mm. Peso: 350 g.	1,00	1.154,53	1.154,53
E00349	Ud Placa calefactora Placa calefactora de 20 x 40 cm.	1,00	1.003,79	1.003,79
E003410	Ud Floculador de 6 brazos Floculador de 6 brazos con iluminación posterior, de las siguientes características: Equipos diseñado para efectuar pruebas de floculación y ensayos afines. Velocidad de giro de los ejes constante durante todo el ensayo. Iluminación inferior con luz blanca fluorescente. Chasis metálico recubierto de una capa de pintura plástica al horno. Varillas agitadoras de acero inoxidable. Equipo con interruptor, fusible y piloto generales, interruptor y piloto de iluminación, mando regulador de la velocidad, mando de ajuste y velocidad mínima VARI-O-MIM, temporizador regulable de 60 minutos y tacómetro digital. CARACTERISTICAS TECNICAS: Alimentación: 220 V.a.c., 50 Hz. Consumo: 30 W. Regulación velocidad: Electrónica digital. Velocidad de agitación: Desde muy lento a 250 r.p.m. Separación entre ejes: 140 mm. Diámetro pala agitadora: 60 mm. Altura útil: 220 mm. Altura de pala de agitación: 10 mm. Dimensiones: 380 cm alto x 900 cm ancho x 190 cm fondo. Peso: 12 Kg.	1,00	3.556,87	3.556,87
E003411	Ud Material fungible. Material fungible. El lote de MATERIAL FUNGIBLE elaborado para un laboratorio de las dimensiones mencionadas está compuesto por: 3 vasos precipitados PYRES de 1.000 ml. 2 vasos precipitados PYRES de 500 ml. 3 vasos precipitados PYRES de 250 ml. 3 vasos precipitados PYRES de 75 ml. 1 probeta de vidrio de 1.000 ml. 2 probetas de vidrio de 500 ml. 2 probetas de vidrio de 250 ml. 3 probetas de vidrio de 100 ml. 6 matraces Erlenmeyer de 250 ml. 4 buretas de 25 ml. 2 soportes para buretas. 2 pinzas para buretas. 4 pipetas graduadas de 0-1,0 ml. 4 pipetas graduadas de 0-2,0 ml. 4 pipetas graduadas de 0-5,0 ml. 4 pipetas graduadas de 0-10,0 ml. 1 soporte para pipetas. 1 termómetro 0-120°C. 1 cuchara-espátula. 1 reloj avisador. 3 vidrios de reloj. 1 micropipeta. 2 conos Inhoff. 1 soporte para conos Inhoff. 1 pinzas para filtros.	1,00	1.282,81	1.282,81
E003412	Ud Frigorífico: 240 l frigorífico. 65 l congelador Frigorífico: 240 l frigorífico. 65 l congelador.	1,00	675,85	675,85
E003413	Ud Centrífuga ventilada Centrífuga ventilada de las siguientes características: PANEL DE MANDOS compuesto por: Interruptor. Reloj desconector con posibilidad de temporizador hasta 60 min. o para trabajos en continuo. Variador de velocidad. Pulsador indicador de apertura de tapa. Lámpara de señalización de red. Taquímetro eléctrico indicador de velocidad. CARACTERISTICAS TECNICAS: Volumen máximo: 300 ml. Capacidad máx: del tubo: 50 ml. Medidas exteriores: 29 x 39 x 44 (alto x ancho x fondo). Consumo: 190 W. Peso: 19 Kg. Incluye: Cabezal angular para 300 ml de capacidad máxima, mediante 6 tubos 5 de 50 ml cada uno.	1,00	2.215,76	2.215,76

PRESUPUESTOS PARCIALES.

ABASTECIMIENTO A VARIOS MUNICIPIOS DE LA RIOJA. SISTEMA CIDACOS

CÓDIGO	RESUMEN	CANTIDAD	PRECIO	IMPORTE
E003414	Ud Conductivímetro digital Conductivímetro portátil de las siguientes características: Aparato portátil, electrónico para la medición de conductividad en líquidos. Las características principales del mismo son: Rango de medición : 0,0 ÷ 199,9 µS/cm ; 0 ÷ 1999 µS/cm ; 0,00 ÷ 19,99 mS/cm ; 0,0 ÷ 199,9 mS/cm. Calibración: en un punto. Compensación de la temperatura : Automática de +10 a +40°C. Alimentación: Pila de 9 V. Adaptador para suministro de 12 VDC. Se suministra con sonda de conductividad HI 76302 con 1 m de cable y maletín de transporte. Incluyendo las siguientes soluciones de calibración: Solución de conductividad de 1.413 µS (460 cc). Solución de conductividad de 12.880 µS (460 cc). Solución de conductividad de 111.800 µS (460 cc). Solución de conductividad de 80.000 µS (460 cc). Solución de conductividad de 80.000 µS (230 cc). Solución de conductividad de 84 µS (460 cc).	1,00	874,65	874,65
E003415	Ud Microscopio óptico Microscopio óptico.	1,00	1.854,60	1.854,60
E003416	Ud Equipo de filtración por vacío Equipo de filtración por vacío.	1,00	188,84	188,84
E003417	Ud Destilador de agua Destilador de agua.	1,00	784,18	784,18
EDLAV001	UD DUCHA LAVAOJOS Estructura construida en caño de acero galvanizado revestido con pintura epoxi color amarillo. Campana de ducha de diámetro 220 mm construida en acero inoxidable tipo diluvio, con baffle aliviador que produce una campana de agua de diámetro 500 mm. Lavaojos construido con bacha de acero Inoxidable de diámetro 250 mm con tapa plástica rebatible automáticamente y rociadores de bronce cromados que producen espuma con efecto de lavaojos y lavacara posee paso calibrado regulador de presión y caudal y capuchones automáticos antipolvo. Accionamiento de la ducha por palanca manual de acero inoxidable con indicador e instructivo de alto impacto y válvula esférica de bronce. Accionamiento del lavaojos por pedal de plástico y palanca manual de acero inoxidable con instructivo e indicador y válvula esférica de bronce. Acometida de agua potable, sumidero de vaciado y conexión a la red de escurridos. Totalmente instalada.	1,00	704,94	704,94
TOTAL ELEMENTO 02.06.02.2 EQUIPAMIENTO.....				26.186,23
TOTAL SUBPARTADO 02.06.02 LABORATORIO.....				34.664,35
SUBPARTADO 02.06.03 TALLER				
2700100	Ud Conjunto de estanterías Estantería metálica desmontable de baldas regulables de las siguientes características: Dimensiones: 2,50 x 2,00 x 0,60 m.	2,00	291,54	583,08
2700101	Ud Banco de madera Banco de madera de 3.00 x 0.75 m, sujeto con perfiles metálicos.	1,00	231,33	231,33
2700124	Ud Tornillo de banco Tornillo de banco con abertura máxima de 150 mm.	1,00	340,54	340,54
2700103	Ud Taladro portátil Taladro portátil. Capacidad del portabrocas: hasta 12 mm. Con juego de brocas de 1 a 13 mm en acero al carbono.	1,00	320,72	320,72

PRESUPUESTOS PARCIALES.

ABASTECIMIENTO A VARIOS MUNICIPIOS DE LA RIOJA. SISTEMA CIDACOS

CÓDIGO	RESUMEN	CANTIDAD	PRECIO	IMPORTE
2700105	Ud Caja herramientas mecánica Caja de herramientas mecánicas tipo arquilla. Marca: HECO-103. Incluyendo: 1 juego de llaves planas fijas (6/7 ÷ 20/22), 4 llaves inglesas de 18", 12", 15" y 6", 1 juego de llaves boca - estrella acodadas (6/7 ÷ 20/22), 1 destornillador 8/200, 1 destornillador 4/100, 1 destornillador punta plana 6/175, 1 destornillador punta plana 5/150, 1 arco de sierra con 5 hojas de recambio, 1 lima plana de 12" grano basto, 1 lima plana de 8" entrefina, 1 lima de media caña de 10" grano basto, 1 lima triangular de 6" grano basto, 1 lima redonda con mango de 8 mm, 1 martillo de bola de 320 gr, 1 martillo de peña de 320 gr, 1 martillo de plástico de 34 mm, 2 granetes de 115 mm, 1 botador de punta de 4 mm, 1 compás de semicírculo hasta 500 mm, 1 tijera para cortar chapa, 1 cinta métrica de 2 m, 1 alicate universal de 8", 1 alicate punta plana de 160 mm, 1 alicate de punta redonda de 65 mm, 1 corta alambre oblicuo de 20 cm, 1 lima redonda de 10", 1 cortafrios de 250 mm, 1 juego de llaves ALLEN de 2 ÷ 12 mm, 1 tenaza de carpintería de 250 mm, 1 nivel metálico de 300 mm, 1 escuadra metálica lisa de 250 mm, 1 llave pico largo a presión extensible de 8 x 10" y 1 juego de sacabocados de 6, 8, 10, 12 y 14 mm.	1,00	1.341,11	1.341,11
2700102	Ud Panel portaherramientas. Panel portaherramientas.	1,00	932,95	932,95
2700106	Ud Caja de herramientas eléctricas Caja de herramientas eléctricas tipo arquilla. Marca HECO-103. Incluyendo : 1 destornillador buscapolos, 1 destornillador punta plana 8 x 200, 1 destornillador punta plana 4 x 100, 1 estuche destornilladores, 1 corta alambres oblicuo de 8", 1 juego de llaves fijas de 6 x 22, 1 juego de llaves ALLEN de 2 ÷ 12 mm, 1 llave inglesa de 6", 1 navaja de electricista, 1 pelacables de electricista, 2 rollos de cinta aislante, 1 alicate universal de 8", 1 multítester Steinel y 1 pinza amperimétrica.	1,00	1.224,49	1.224,49
2700107	Ud Extractor de 3 garras Extractor universal de acero forjado de 3 garras. Capacidad: 305 mm	3,00	87,48	262,44
2700110	Ud Elevador Tráctel Elevador Tráctel. Capacidad de elevación: 1.500 Kg. Capacidad de tracción: 2.500 Kg. Con 20 m de cable, gancho y palanca.	1,00	466,47	466,47
2700112	Ud Bomba de achique Bomba de achique portátil de las siguientes características. Marca: ABS o similar. Ejecución: sumergible. Caudal: 50 m3/h. Altura manométrica: 10 m.c.a. Potencia motor: 1,5 Kw.	1,00	643,74	643,74
2700114	Ud. Amoladora portátil Amoladora portátil. Potencia motor: 250 w.	1,00	734,71	734,71
2700117	Ud Taladro fijo Taladro fijo de las siguientes características. Capacidad: hasta brocas de 20 mm. Tensión: 220 V.	1,00	320,72	320,72
2700118	Ud Piedra de esmeril doble Piedra de esmeril doble, gruesa y fina, sobre un soporte de pie. Potencia motor: 0,55 Kw.	1,00	711,38	711,38
2700119	Ud Cizalladora manual Cizalladora manual de palanca para cortar chapa de hasta 5 mm.	1,00	250,75	250,75
2700128	Ud Gato hidráulico. Gato hidráulico. 10 Ton. Recorrido: 150 mm.	2,00	198,26	396,52
2700122	Ud Llave dinámetrica. Llave dinámetrica.	1,00	524,81	524,81

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ABASTECIMIENTO A VARIOS MUNICIPIOS DE LA RIOJA. SISTEMA CIDACOS

CÓDIGO	RESUMEN	CANTIDAD	PRECIO	IMPORTE
2700121	Ud Radial Radial	2,00	204,08	408,16
2700125	Ud. Multímetro digital Multímetro digital, incluso pila, juego de fusibles, clavija y estuche.	1,00	142,26	142,26
2700134	Ud Manguera Manguera	1,00	373,19	373,19
2700135	Ud Pinza amperimétrica Pinza amperimétrica	1,00	339,36	339,36
2700136	Ud Telurómetro Telurómetro	1,00	932,95	932,95
TOTAL SUBPARTADO 02.06.03 TALLER.....				11.481,68
TOTAL APARTADO 02.01.16 MOBILIARIO, LABORATORIO Y TALLER.....				77.131,55
TOTAL SUBCAPÍTULO 02.01 OBRA CIVIL ETAP.....				4.142.221,62
SUBCAPÍTULO 02.02 EQUIPOS ELECTROMECÁNICOS ETAP				
APARTADO 02.02.01 MEDICIÓN AGUA ENTRADA Y BY-PASS				
ETI316900	ML TUBERÍA DE INOXIDABLE AISI 316L DN 900 Tubería de acero inoxidable de diámetro DN 900 mm. Construcción: Mediante soldadura. Espesor 8 mm. Material: Acero inoxidable AISI -316 L. Material accesorios acero inoxidable AISI - 316L. Acabado: Decapado. Incluso p.p. de uniones, piezas especiales, bridas, codos, tes, injertos para otras tuberías y p.p. de estructuras y elementos de anclajes a solera y/o muros. Montada y probada.	25,75	708,01	18.231,26
EVMM0900	UD VÁLVULA DE MARIPOSA DOBLE EXCENRICIDAD DN 900 mm PN16 MANUAL Válvula de mariposa de doble excentricidad de 900 mm de diámetro y PN16, de accionamiento manual por reductor, incluso mecanismo de accionamiento, maniobra y control, transporte, montaje, juntas, tornillería y pintura totalmente instalada y probada. Resto de características según ET de proyecto.	1,00	10.100,69	10.100,69
ECD0900	UD CARRETE DE DESMONTAJE DN=900 mm PN16 Carrete telescópico de desmontaje DN900 PN 16, bridas de acero al carbono, virolas de acero inoxidable, protección epoxi, tornillos y tuercas en acero F-114, cincado y posterior baño de cromo-níquel, incluido p.p. de brida enchufe, totalmente instalado y probado en obra.	3,00	2.189,63	6.568,89
EVMMT900	UD VÁLVULA DE MARIPOSA DOBLE EXCENRICIDAD. DN 900 mm PN16 MOTORIZADA Válvula de mariposa de doble excentricidad de 900 mm de diámetro y PN16, de accionamiento motorizado, incluso mecanismo de accionamiento, maniobra y control, transporte, montaje, juntas, tornillería y pintura totalmente instalada y probada. Resto de características según ET de proyecto.	2,00	13.550,71	27.101,42
TOTAL APARTADO 02.02.01 MEDICIÓN AGUA ENTRADA Y BY-PASS.....				62.002,26
APARTADO 02.02.02 OZONIZACIÓN				
SUBPARTADO 02.02.02.1 GENERACIÓN Y DESTRUCCIÓN DE OZONO				

PRESUPUESTOS PARCIALES.

ABASTECIMIENTO A VARIOS MUNICIPIOS DE LA RIOJA. SISTEMA CIDACOS

CÓDIGO	RESUMEN	CANTIDAD	PRECIO	IMPORTE
EGEOZ01	UD GENERADOR DE OZONO DE 3,0 KG O2/H Equipo de ozonización con sistema de generación de ozono a partir de oxígeno, unidad de generación de ozono SMOevoplus 560 LOX de WEDECO -XYLEM o equivalente, para un caudal de entrada de 3.400 m3/h, y una producción de 3,0 kg O2/h de capacidad máxima, válvula reductora de presión, en acero inoxidable AISI-316TI en cámara de ozonización. Sensor fugas O3 Atmosférico (Seguridad). Cuadro local de control y mando. Pequeño material, manómetros, grifos, etc. Incluido transporte, montaje, conexiones eléctricas y de control, y pruebas de funcionamiento. Resto de características, según ET.	2,00	82.257,46	164.514,92
EGEOZ02	UD ANALIZADOR OZONO, CONTROL Y COMUNICACIONES Unidad para análisis, formada por 2 analizadores Ozono GAS-DC control HC-400 (1 por generador), 3 controles automático de caudal de O3 a PRE (1 por cámara), 6 controles manuales de caudal de O3 a PRE (2 por cámara), comunicación Profibus// Ethernet para todos, así como el sistema de telecontrol. Incluido transporte, montaje, conexiones eléctricas y de control, y pruebas de funcionamiento. Resto de características, según ET.	1,00	57.941,76	57.941,76
EGEOZ03	UD REFRIGERADOR CERRADO AGUA-AGUA Equipo de refrigeración cerrado de agua-agua. Presión de entrada 1-3,5 bar. pérdida de carga de 0,15 bar. pH: 6-8. Cloruros menos de 100 mg/l, turbidez 0 NTU. Incluido transporte, montaje, conexiones eléctricas y de control, y pruebas de funcionamiento. Resto de características, según ET.	2,00	14.921,37	29.842,74
EGEOZ04	UD SISTEMA MAIN PLC Sistema MAIN PLC. Control para la coordinación de todos los elementos adyacentes a los generadores de O3. Incluido transporte, montaje, conexiones eléctricas y de control, y pruebas de funcionamiento. Resto de características, según ET.	1,00	25.760,74	25.760,74
EGEOZ05	UD PROGRACIÓN, INGENIERIA DE DETALLE Y PUESTA EN MARCHA Ingeniería de detalle, programación de equipos de ozono, así como la puesta en marcha.	1,00	14.998,69	14.998,69
EGEOZ06	UD EQUIPAMIENTO DE ALARMA Equipamiento de alarma, formado por FH, siema, flash y display. Incluido transporte, montaje, conexiones eléctricas y de control, y pruebas de funcionamiento. Resto de características, según ET.	1,00	1.328,89	1.328,89
EGEOZ07	UD COMPRESOR DE GAS. 1,35 L/S. 10 BAR, P=0,55 Kw Compresor de aire para dopado de ozonización con secador de aire, modelo LFX 0,7 de ATLAS COPCO o equivalente, de 1,02 l/s. Potencia de 0,55 Kw. Tanque de 90 l. Incluso purga automática de compresor, parte proporcional de válvulas y manguitos de unión a líneas. Incluido transporte, montaje, conexiones eléctricas y de control, y pruebas de funcionamiento. Resto de características, según ET.	1,00	4.094,12	4.094,12
EGEOZ08	UD SENSOR TEMPERATURA AIRE Sensor de temperatura en sala. Incluido transporte, montaje, conexiones eléctricas y de control, y pruebas de funcionamiento. Resto de características, según ET.	1,00	223,53	223,53
EDOZO01	UD DESTRUCTOR DE OZONO PRE_OZONIZACIÓN 30 Nm3/h Equipo destructor de ozono en pre_ozonización serie COD de WEDECO o equivalente, con un flujo de gas máximo de 30 Nm3/h, montada sobre bancada. Demistor de ozono y embalaje. Conexiones. Incluido transporte, montaje, conexiones eléctricas y de control, y pruebas de funcionamiento. Resto de características, según ET.	3,00	15.087,34	45.262,02

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CÓDIGO	RESUMEN	CANTIDAD	PRECIO	IMPORTE
EDIFOZ01	UD DIFUSORES OZONO CERÁMICOS 120 MM SOBRE PARRILLAS AISI-3616L Difusores de ozono tipo 120 KT o equivalente, de 120 mm de diámetro, con disco cerámico y parte proporcional de parrilla de acero inoxidable 316 L, caudal de 0,20 a 2,0 Nm3/h, totalmente montados, incluso ayuda de albañilería. Incluido transporte, montaje, conexiones de control, y pruebas de funcionamiento. Resto de características, según ET	33,00	2.466,12	81.381,96
EVENT01	UD VENTILADOR HELICOIDAL:Q=3.650M3/H Ventilador extractor helicoidal mural marca: SODECA o equivalente. Caudal: 3.650 m3/h. Velocidad: 2.780 rpm. Nivel sonoro: 72 dB(A). Materiales:marco soporte en chapa de acero, Helice: poliámmida 6 reforzada con fibra de vidrio, Accionamiento: motor electrico. Potencia: 0,18 KW. Accesorios: Rejilla de proteccion. Realización de hueco en muro de bloque, ayudas de albañilería, colocado y funcionando.Totalmente instalado.	1,00	399,82	399,82
TOTAL SUBAPARTADO 02.02.02.1 GENERACIÓN Y DESTRUCCIÓN DE OZONO.....				425.749,19
SUBAPARTADO 02.02.02.2 CAMARA DE PREOZONIZACIÓN				
ECPSM900	UD PASAMUROS INOX AISI-316-L DN-900 mm Carrete pasamuros de acero inoxidable, con brida loca en un extremo y placa de estanqueidad, DN 900, longitud: 500 mm. Materiales:Carrete y placa de estanqueidad: AISI 316 L, brida: aluminio, totalmente instalado y probado en obra. Resto de características según ET.	2,00	854,88	1.709,76
TOTAL SUBAPARTADO 02.02.02.2 CAMARA DE PREOZONIZACIÓN.....				1.709,76
TOTAL APARTADO 02.02.02 OZONIZACIÓN.....				427.458,95
APARTADO 02.02.03 COAGULACIÓN-FLOCULACIÓN Y DECANTACIÓN LAMELAR				
SUBAPARTADO 02.02.03.1 CÁMARAS DE COAGULACIÓN Y FLOCULACIÓN				
EAGCO01	UD AGITADOR DE MEZCLA RÁPIDA. COAGULACIÓN P=1,5 KW. L=1.700 MM Agitador de mezcla rápida. Marca: MILTON ROY O o equivalente. Modelo: HR6A-080/200/E1,5/A. Potencia motor: 1,5 kW. Velocidad salida: 108 rpm. Diámetro de hélice: 800 mm. Longitud del eje: 1.700 mm. Material eje y hélice: acero AISI-316L. Incluido placa de anclaje, transporte, montaje, conexiones eléctricas y de control, y pruebas de funcionamiento. Resto de características, según ET.	3,00	1.685,11	5.055,33
EAGFL01	UD AGITADOR DE MEZCLA LENTA. FLOCULACIÓN. P=0,55 KW. L=2.000 MM Agitador de mezcla lenta. Marca: MILTON ROY O o equivalente. Modelo: HR5A-200/350/E0,55/. Potencia motor: 0,55 kW. Velocidad salida: 16 rpm. Diámetro de hélice: 2.000 mm. Longitud del eje: 2.000 mm. Material eje y hélice: acero AISI-316L. Incluido placa de anclaje, transporte, montaje, conexiones eléctricas y de control, y pruebas de funcionamiento. Resto de características, según ET.	3,00	2.846,45	8.539,35
ECPSM900	UD PASAMUROS INOX AISI-316-L DN-900 mm Carrete pasamuros de acero inoxidable, con brida loca en un extremo y placa de estanqueidad, DN 900, longitud: 500 mm. Materiales:Carrete y placa de estanqueidad: AISI 316 L, brida: aluminio, totalmente instalado y probado en obra. Resto de características según ET.	1,00	854,88	854,88
ECMMT01	UD COMPUERTA MURAL MOTORIZADA DE 500x500 MM. DE HUECO INOX316L Compuerta mural motorizada para hueco de 0,50 m de ancho y 0,50m de altura, con husillo de altura variable. Altura máxima agua según planos. Número de cierres 4 . Espesor de chapa de 5 mm (mínimo). Número de husillos 1. Accionamiento motorizado, con rodamiento para absorber el esfuerzo axial. Materiales: Guías, marco, tablero y husillo de acero inoxidable AISI-316L. Incluso transporte, montaje, conexiones eléctricas y pruebas de funcionamiento. Resto de características según E.T.	4,00	3.979,26	15.917,04
TOTAL SUBAPARTADO 02.02.03.1 CÁMARAS DE COAGULACIÓN Y FLOCULACIÓN.....				30.366,60

PRESUPUESTOS PARCIALES.

ABASTECIMIENTO A VARIOS MUNICIPIOS DE LA RIOJA. SISTEMA CIDACOS

CÓDIGO	RESUMEN	CANTIDAD	PRECIO	IMPORTE
SUBAPARTADO 02.02.03.2 DECANTACIÓN LAMELAR				
EMDLAM01	UD MECANISMO DECANTADOR LAMELAR CENTRAL DIÁMETRO 11 M. AISI 316L Mecanismo decantador de tracción central, a instalar en tanque de hormigón, de diámetro interior del tanque de hormigón de 12x12 m, bancada del motorreductor en acero al carbono S275 JR EN 10025., semimangón de acoplamiento en acero al carbono F-114. Eje central AISI-316, brazos inferiores soportarrasquetas y rasquetas de fangos en acero inoxidable AISI-316. Láminas barredoras en EPDM. Accionamiento directo mediante motorreductor eléctrico de 0,12 Kw. Incluye limitador de par electrónico. Incluido transporte, montaje, conexiones eléctricas y pruebas de funcionamiento y de control. Resto de características, según ET.	3,00	16.790,46	50.371,38
EMLAM01	M2 LAMELAS DE PP. 60° Y 1.000 MM Lamelas para decantacion montadas en bloques, de TECNO CONVERTING o equivalente, modelo H-60. Altura de los bloques: 1.000 mm. Separación entre lamelas: 62 mm. Inclinación: 60°. Peso: 70 Kg/m3. Material: Polipropileno alimentario (PPTV). Incluso vigas y perfiles en PRFV pultrusionado,, mesulas de soportación y tornillería en AISI-316, sistema antilflotación. Anclajes y tornillería en AISI-316. Totalmente montada y probada. Resto de características según ET.	432,00	345,34	149.186,88
ECTTH01	M CANALETAS RECOGIDA AGUA TIPO THOMSON 30 CM AISI-316 Canal vertedero tipo Thomson para recogida de agua decantada de 30 cm. de ancho, fabricado en chapa de acero inoxidable AISI 316-L, e= 2 mm, incluso chapa de acometida a entrada a filtros y estructura soporte. Totalmente montada y probada. Resto de características según ET.	360,00	174,47	62.809,20
ECPSM900	UD PASAMUROS INOX AISI-316-L DN-900 mm Carrete pasamuros de acero inoxidable, con brida loca en un extremo y placa de estanqueidad, DN 900, longitud: 500 mm. Materiales:Carrete y placa de estanqueidad: AISI 316 L, brida: aluminio, totalmente instalado y probado en obra. Resto de características según ET.	3,00	854,88	2.564,64
ECMMT01	UD COMPUERTA MURAL MOTORIZADA DE 500x500 MM. DE HUECO INOX316L Compuerta mural motorizada para hueco de 0,50 m de ancho y 0,50m de altura, con husillo de altura variable. Altura máxima agua según planos. Número de cierres 4 . Espesor de chapa de 5 mm (mínimo). Número de husillos 1. Accionamiento motorizado, con rodamiento para absorber el esfuerzo axial. Materiales: Guías, marco, tablero y husillo de acero inoxidable AISI-316L. Incluso transporte, montaje, conexiones eléctricas y pruebas de funcionamiento. Resto de características según E.T.	3,00	3.979,26	11.937,78
ECCMT01	UD COMPUERTA CANAL MOTORIZADA DE 500x1000 MM. DE HUECO INOX316L Compuerta canal motorizada para hueco de 0,50 m de ancho y 1,0m de altura, con husillo de altura variable. Altura máxima agua según planos. Número de cierres 3 . Espesor de chapa de 5 mm (mínimo). Número de husillos 1. Accionamiento motorizado, con rodamiento para absorber el esfuerzo axial. Materiales: Guías, marco, tablero y husillo de acero inoxidable AISI-316L. Incluso transporte, montaje, conexiones eléctricas y pruebas de funcionamiento. Resto de características según E.T.	4,00	4.060,47	16.241,88
ECMMT02	UD COMPUERTA MURAL MOTORIZADA DE 900x900 MM. DE HUECO INOX316L Compuerta mural motorizada para hueco de 0,90 m de ancho y 0,90m de altura, con husillo de altura variable. Altura máxima agua según planos. Número de cierres 4 . Espesor de chapa de 5 mm (mínimo). Número de husillos 1. Accionamiento motorizado, con rodamiento para absorber el esfuerzo axial. Materiales: Guías, marco, tablero y husillo de acero inoxidable AISI-316L. Incluso transporte, montaje, conexiones eléctricas y pruebas de funcionamiento. Resto de características según E.T.	2,00	4.925,79	9.851,58
ECCMT02	UD COMPUERTA CANAL MOTORIZADA DE 1000x1400 MM. DE HUECO INOX316L Compuerta canal motorizada para hueco de 1,0m de ancho y 1,4 m de altura, con husillo de altura variable. Altura máxima agua según planos. Número de cierres 3 . Espesor de chapa de 5 mm (mínimo). Número de husillos 1. Accionamiento motorizado, con rodamiento para absorber el esfuerzo axial. Materiales: Guías, marco, tablero y husillo de acero inoxidable AISI-316L. Incluso transporte, montaje, conexiones eléctricas y pruebas de funcionamiento. Resto de características según E.T.	1,00	5.362,98	5.362,98
TOTAL SUBAPARTADO 02.02.03.2 DECANTACIÓN LAMELAR.....				308.326,32

PRESUPUESTOS PARCIALES.

ABASTECIMIENTO A VARIOS MUNICIPIOS DE LA RIOJA. SISTEMA CIDACOS

CÓDIGO	RESUMEN	CANTIDAD	PRECIO	IMPORTE
SUBAPARTADO 02.02.03.3 BOMBEO DE FANGOS DECANTADOS				
EBHFP01	UD BOMBA TORNILLO PURGA DE FANGOS PRIMARIOS 65,0 m3/h y 12 mca Bomba helicoidal, para bombeo de fangos decantados. Marca: MONO o equivalente. Modelo: Z38KC11RMA. Velocidad de trabajo (rpm): 80-307. Caudal a la velocidad de trabajo (m3/h): 17-65. Presión en las condiciones de trabajo (bar): 1,2. - Paso de sólidos duros/deformables (mm): 16 / 53. Detector funcionamiento en vacío. Dimensiones aspiración (mm): DN125. Dimensiones impulsión (mm): DN125. Accionamiento: eléctrico mediante motorreductor. Potencia instalada (kW): 9,2. Velocidad motor (rpm): 1.450. Tensión (V): 400. Frecuencia (Hz): 50. Bancada metálica. Incluso transporte, montaje, conexiones eléctricas y de control, pruebas de funcionamiento. Resto de características según E.T.	6,00	4.410,86	26.465,16
ETI316125	ML TUBERÍA DE INOXIDABLE AISI 316L DN 125 Tubería de acero inoxidable de diámetro DN 125 mm. Construcción: Mediante soldadura. Espesor 2 mm. Material: Acero inoxidable AISI -316 L. Material accesorios acero inoxidable AISI - 316L. Acabado: Decapado. Incluso p.p. de uniones, piezas especiales, bridas, codos, tes, injertos para otras tuberías y p.p. de estructuras y elementos de anclajes a solera y/o muros. Montada y probada.	40,00	52,13	2.085,20
EVCM12516	UD VÁLVULA DE COMPUERTA MANUAL DN125 PN16 Válvula de compuerta de cierre elástico de 125 mm. de diámetro nominal y 16 At. de P.N., de accionamiento manual por volante, de cuerpo de fundición nodular GGG-50, con eje de acero inoxidable al 13 % Cr. con roscas conformadas por laminación en frío, cierre en fundición nodular, tornillería de acero inoxidable, protegida contra la corrosión mediante aplicación de doble capa de pintura epoxy, totalmente colocada y probada. Resto de características según ET.	19,00	202,32	3.844,08
EVRB125	UD VÁLVULA DE RETENCIÓN DE BOLA DN125 Válvula de retención de clapetas tipo Wafer, PN 16 y DN-250, con racores de bridas. Instalada y probada. Resto de características según ET.	6,00	300,94	1.805,64
EPICJ01	UD PICAJE TUBERÍA CON VÁLVULA ESFERA 1/2" Picaje en tubería para toma de muestra y/o entrada de agua, incluso picaje, válvula de aislamiento de 1/2", instalación y pruebas.	12,00	27,80	333,60
EVCM12516	UD VÁLVULA DE COMPUERTA MOTORIZADA DN125 PN16 Válvula de compuerta de cierre elástico de 125 mm. de diámetro nominal y 16 At. de P.N., de accionamiento motorizado, de cuerpo de fundición nodular GGG-50, con eje de acero inoxidable al 13 % Cr. con roscas conformadas por laminación en frío, cierre en fundición nodular, tornillería de acero inoxidable, protegida contra la corrosión mediante aplicación de doble capa de pintura epoxy, totalmente colocada y probada. Resto de características según ET.	6,00	1.829,16	10.974,96
EPOLE1000	UD POLIPASTO ELÉCTRICO DE 1.000 KG Polipasto. Servicio: Izado de equipos. Características:- Marca: VINCA, VICINAY o equivalente. Capacidad (kg): 1.000. Tipo de carro: monocarril. Cota mínima del gancho a la viga (mm): 880. Potencia motor elevación (KW): 1,85. Incluye limitador de carga, motor-freno en el carro de traslación. Incluso transporte, montaje, conexiones eléctricas y de control, pruebas de funcionamiento. Resto de características según E.T.	3,00	2.244,00	6.732,00
TOTAL SUBAPARTADO 02.02.03.3 BOMBEO DE FANGOS DECANTADOS.....				52.240,64
TOTAL APARTADO 02.02.03 COAGULACIÓN-FLOCULACIÓN Y DECANTACIÓN LAMELAR.....				390.933,56

PRESUPUESTOS PARCIALES.

ABASTECIMIENTO A VARIOS MUNICIPIOS DE LA RIOJA. SISTEMA CIDACOS

CÓDIGO	RESUMEN	CANTIDAD	PRECIO	IMPORTE
APARTADO 02.02.04 FILTRACIÓN DE ARENA				
SUBAPARTADO 02.02.04.1 FILTROS DE ARENA				
EFFFA01	M2 FALSOS FONDOS FILTRACIÓN Falsos fondos de filtración tipo LP Block de Apliclor o equivalente, incluyendo placas soporte tipo S o equivalente, de 450 micras, construídos en polietileno de alta densidad, sellado perimetral, anclajes, dentro del recinto del filtro, montado y probado. Cubiertas en extremos de filas en PE. Juntas tóricas para la interconexión de los bloques. Sellante Sikaflex para la unión "in situ" de los bloques y de las cubiertas en extremos. Cubiertas de papel autoadhesivo para usar como protección durante el proceso de montaje. Herramienta de montaje/ensamblaje de bloques en filas. Placas de orificio para la alimentación de las filas de bloques des del canal central (en AISI 304). Incluye asesoramiento en el dimensionamiento y diseño, y asistencia técnica de montaje y puesta en marcha, así como ingeniería de detalle de la instalación del sistema. Transporte de los materiales a obra, montaje, pruebas, limpieza y puesta en marcha. Resto de características según ET.	375,00	465,91	174.716,25
EFAA01	M2 ARENA SILICEA PARA FILTRO Arena silicea segun la especificación de la norma AWWA B100-80 (Revisión de la B100-72), con coeficiente de uniformidad: < 1,6, granulometría: 0,90-1,80 mm, densidad aparente: 1,58 t/m3, silice contenida: > 98% , exenta de mica y materia organica, solubilidad al acido: inferior al 5% . Obtención de la arena: cantera, lavada y clasificada. Incluso transporte a obra, y colocación y extendido en los filtros por medios mecánicos y manuales.	375,00	66,93	25.098,75
EVMNE300	UD VÁLVULA DE MARIPOSA DN300 PN16 NEUMÁTICA Válvula de mariposa de 300 mm de diámetro y PN16, de accionameinto neumático, incluso mecanismo de accionamiento, maniobra y control, transporte, montaje, juntas, tornillería y pintura totalmente instalada y probada. Resto de caracterisitcas según ET de proyecto.	13,00	1.443,50	18.765,50
ECD0300	UD CARRETE DE DESMONTAJE DN=300 mm PN16 Carrete telescópico de desmontaje DN300 PN16, bridas de acero al carbono, virolas de acero inoxidable, protección epoxy, tornillos y tuercas en acero F-114, cincado y posterior baño de cromo-niquel, incluido p.p. de brida enchufe, totalmente instalado y probado en obra.	22,00	440,43	9.689,46
ECPSM300	UD PASAMUROS INOX AISI-316-L DN-300 mm Carrete pasamuros de acero inoxidable, con brida loca en un extremo y placa de estanqueidad, DN 300, longitud: 500 mm. Materiales:Carrete y placa de estanqueidad: AISI 316 L, brida: aluminio, totalmente instalado y probado en obra. Resto de características según ET.	32,00	232,47	7.439,04
ETI316300	ML TUBERÍA DE INOXIDABLE AISI 316L DN 300 Tubería de acero inoxidable de diámetro DN 300 mm. Construcción: Mediante soldadura. Espesor 2 mm. Material: Acero inoxidable AISI -316 L. Material accesorios acero inoxidable AISI - 316L. Acabado: Decapado. Incluso p.p. de uniones, piezas especiales, bridas, codos, tes, injertos para otras tuberías y p.p. de estructuras y elementos de anclajes a solera y/o muros. Montada y probada.	30,00	129,34	3.880,20
ETI316900	ML TUBERÍA DE INOXIDABLE AISI 316L DN 900 Tubería de acero inoxidable de diámetro DN 900 mm. Construcción: Mediante soldadura. Espesor 8 mm. Material: Acero inoxidable AISI -316 L. Material accesorios acero inoxidable AISI - 316L. Acabado: Decapado. Incluso p.p. de uniones, piezas especiales, bridas, codos, tes, injertos para otras tuberías y p.p. de estructuras y elementos de anclajes a solera y/o muros. Montada y probada.	32,00	708,01	22.656,32
ECPSM900	UD PASAMUROS INOX AISI-316-L DN-900 mm Carrete pasamuros de acero inoxidable, con brida loca en un extremo y placa de estanqueidad, DN 900, longitud: 500 mm. Materiales:Carrete y placa de estanqueidad: AISI 316 L, brida: aluminio, totalmente instalado y probado en obra. Resto de características según ET.	2,00	854,88	1.709,76
ECPSM700	UD PASAMUROS INOX AISI-316-L DN-700 mm Carrete pasamuros de acero inoxidable, con brida loca en un extremo y placa de estanqueidad, DN 700, longitud: 500 mm. Materiales:Carrete y placa de estanqueidad: AISI 316 L, brida: aluminio, totalmente instalado y probado en obra. Resto de características según ET.			

PRESUPUESTOS PARCIALES.

ABASTECIMIENTO A VARIOS MUNICIPIOS DE LA RIOJA. SISTEMA CIDACOS

CÓDIGO	RESUMEN	CANTIDAD	PRECIO	IMPORTE
		2,00	596,81	1.193,62
	TOTAL SUBAPARTADO 02.02.04.1 FILTROS DE ARENA.....			265.148,90
	SUBAPARTADO 02.02.04.2 BOMBEO E IMPULSIÓN DE AGUA DE LAVADO DE FILTROS			
EBLF01	M2 BOMBA EJE VERTICAL Q=470 M3/H. H=10 MCA. P=22 KW Bomba centrífuga de eje vertical, marca CAPRARI o equivalente, modelo P16C/10/35/1H, capaz de elevar un caudal unitario de 470 m3/h a 10 m.c.a. Impulsor DN-250 mm. Potencia de la bomba 22 kW. Incluido el colador, la línea de transmisión, grupo de mando. Transporte de los materiales a obra, montaje, pruebas, limpieza y puesta en marcha. Resto de características según ET.			
		3,00	11.355,39	34.066,17
ECD25016	UD CARRETE DE DESMONTAJE DN=250 mm PN16 Carrete telescópico de desmontaje DN250 PN16, bridas de acero al carbono, virolas de acero inoxidable, protección epoxi, tornillos y tuercas en acero F-114, cincado y posterior baño de cromo-niquel, incluido p.p. de brida enchufe, totalmente instalado y probado en obra.			
		3,00	398,69	1.196,07
EVMMT250	UD VÁLVULA DE MARIPOSA DN250 PN16 MOTORIZADA Válvula de mariposa de 250 mm de diámetro y PN16, de accionamiento motorizado, incluso mecanismo de accionamiento, maniobra y control, transporte, montaje, juntas, tornillería y pintura totalmente instalada y probada. Resto de características según ET de proyecto.			
		3,00	1.815,44	5.446,32
EVRW250	UD VALVULA DE RETENCIÓN DE DISCO PARTIDO DN250 PN16 Válvula de retención de disco partido tipo Wafer, PN 16 y DN-250, con racores de bridas. Instalada y probada. Resto de características según ET.			
		3,00	467,09	1.401,27
ETI316250	ML TUBERÍA DE INOXIDABLE AISI 316L DN 250 Tubería de acero inoxidable de diámetro DN 250 mm. Construcción: Mediante soldadura. Espesor 2 mm. Material: Acero inoxidable AISI -316 L. Material accesorios acero inoxidable AISI - 316L. Acabado: Decapado. Incluso p.p. de uniones, piezas especiales, bridas, codos, tes, injertos para otras tuberías y p.p. de estructuras y elementos de anclajes a solera y/o muros. Montada y probada.			
		3,00	104,54	313,62
ETI316400	ML TUBERÍA DE INOXIDABLE AISI 316L DN 400 Tubería de acero inoxidable de diámetro DN 400 mm. Construcción: Mediante soldadura. Espesor 2 mm. Material: Acero inoxidable AISI -316 L. Material accesorios acero inoxidable AISI - 316L. Acabado: Decapado. Incluso p.p. de uniones, piezas especiales, bridas, codos, tes, injertos para otras tuberías y p.p. de estructuras y elementos de anclajes a solera y/o muros. Montada y probada.			
		180,30	195,46	35.241,44
ECPSM400	UD PASAMUROS INOX AISI-316-L DN-400 mm Carrete pasamuros de acero inoxidable, con brida loca en un extremo y placa de estanqueidad, DN 400, longitud: 500 mm. Materiales:Carrete y placa de estanqueidad: AISI 316 L, brida: aluminio, totalmente instalado y probado en obra. Resto de características según ET.			
		26,00	285,59	7.425,34
ECD0400	UD CARRETE DE DESMONTAJE DN=400 mm PN16 Carrete telescópico de desmontaje DN400 PN16, bridas de acero al carbono, virolas de acero inoxidable, protección epoxi, tornillos y tuercas en acero F-114, cincado y posterior baño de cromo-niquel, incluido p.p. de brida enchufe, totalmente instalado y probado en obra.			
		21,00	703,07	14.764,47
EVMMNE400	UD VÁLVULA DE MARIPOSA DOBLE EXCENRICIDAD DN 400 mm PN16 NEUMÁTICA Válvula de mariposa de doble excentricidad de 400 mm de diámetro y PN16, de accionamiento neumático, incluso mecanismo de accionamiento, maniobra y control, transporte, montaje, juntas, tornillería y pintura totalmente instalada y probada. Resto de características según ET de proyecto.			
		20,00	3.701,67	74.033,40
EVMM400	UD VÁLVULA DE MARIPOSA DOBLE EXCENRICIDAD DN 400 mm PN16 MANUAL Válvula de mariposa de doble excentricidad de 400 mm de diámetro y PN16, de accionamiento manual por reductor, incluso mecanismo de accionamiento, maniobra y control, transporte, montaje, juntas, tornillería y pintura totalmente instalada y probada. Resto de características según ET de proyecto.			

PRESUPUESTOS PARCIALES.

ABASTECIMIENTO A VARIOS MUNICIPIOS DE LA RIOJA. SISTEMA CIDACOS

CÓDIGO	RESUMEN	CANTIDAD	PRECIO	IMPORTE
		2,00	2.281,96	4.563,92
EPOLE1000	UD POLIPASTO ELÉCTRICO DE 1.000 KG Polipasto. Servicio: Izado de equipos. Características:- Marca: VINCA, VICINAY o equivalente. Capacidad (kg): 1.000. Tipo de carro: monocarril. Cota mínima del gancho a la viga (mm): 880. Potencia motor elevación (KW): 1,85. Incluye limitador de carga, motor-freno en el carro de traslación. Incluso transporte, montaje, conexiones eléctricas y de control, pruebas de funcionamiento. Resto de características según E.T.			
		1,00	2.244,00	2.244,00
	TOTAL SUBAPARTADO 02.02.04.2 BOMBEO E IMPULSIÓN DE AGUA DE LAVADO DE FILTROS			180.696,02
	SUBAPARTADO 02.02.04.3 BOMBEO DE RECUPERACIÓN DE AGUA DE LAVADO A CABECERA			
EAGF01	UD AGITADOR DEPÓSITO LAVADO DE FILTROS P=5,6 KW Agitador sumergible de hélice. Marca: SULZER o equivalente. Modelo: RW4031-A40/8-EC-D05*10BC.. Número de álabes: 3. Diámetro de la hélice (mm): 400. Potencia de agitación: 2,6 kW. Protección térmica con sensores térmicos en el bobinado. Protección de estanqueidad por sistema DI. Incluye sistema de elevación y giro. Accionamiento: eléctrico. Potencia nominal en eje (kW): 4,0. Potencia nominal en eje (kW): 5,6. Tensión (V): 400. El agitador dispone de protección térmica por TCS con sensores térmicos en el bobinado, protección de estanqueidad por Sistema DI, con sonda en la cámara de aceite y sistema de refrigeración por sumergencia, módulo para supervisión de electrodos de temperatura y humedad. Incluso transporte, montaje, conexiones eléctricas y de control, pruebas de funcionamiento. Resto de características según E.T.			
		1,00	5.785,49	5.785,49
EBSLF01	UD BOMBA SUMERGIBLE Q= 130 m³/h a 6 m.c.a. P=3 kW Bomba sumergible para bombeo de aguas, de SULZER o equivalente modelo XFP100E-CB1.2-PE90/4-D05*10. Caudal: 130 m³/h. Altura manométrica: 6 m.c.a. Potencia nominal en eje: 3,0 kW. Ø Imp: 100 mm. Incluido módulo para supervisión de electrodos de temperatura y humedad, pedestal, anclajes, guía y cadena para izado. Incluso transporte, montaje, conexiones eléctricas y de control, pruebas de funcionamiento. Resto de características según E.T.			
		2,00	2.860,25	5.720,50
ECD010016	UD CARRETE DE DESMONTAJE DN=100 mm PN16 Carrete telescópico de desmontaje DN100 PN16, bridas de acero al carbono, virolas de acero inoxidable, protección epoxi, tornillos y tuercas en acero F-114, cincado y posterior baño de cromo-niquel, incluido p.p. de brida enchufe, totalmente instalado y probado en obra.			
		2,00	167,93	335,86
237	UD VÁLVULA DE COMPUERTA MANUAL DN100 PN25 Válvula de compuerta de cierre elástico de 100 mm. de diámetro nominal y 25 At. de P.N., de accionamiento manual por volante, de cuerpo de fundición nodular GGG-50, con eje de acero inoxidable al 13 % Cr. con roscas conformadas por laminación en frío, cierre en fundición nodular, tornillería de acero inoxidable, protegida contra la corrosión mediante aplicación de doble capa de pintura epoxy, totalmente colocada y probada. Resto de características según ET.			
		2,00	361,59	723,18
EVRW100	UD VALVULA DE RETENCIÓN DE DISCO PARTIDO DN100 PN16 Válvula de retención de disco partido tipo Wafer, PN 16 y DN-100, con racores de bridas. Instalada y probada. Resto de características según ET.			
		2,00	215,09	430,18
ETI316100	ML TUBERÍA DE INOXIDABLE AISI 316L DN 100 Tubería de acero inoxidable de diámetro DN 100 mm. Construcción: Mediante soldadura. Espesor 1,5 mm. Material: Acero inoxidable AISI -316 L. Material accesorios acero inoxidable AISI - 316L. Acabado: Decapado. Incluso p.p. de uniones, piezas especiales, bridas, codos, tes, injertos para otras tuberías y p.p. de estructuras y elementos de anclajes a solera y/o muros. Montada y probada.			
		10,00	43,36	433,60
	TOTAL SUBAPARTADO 02.02.04.3 BOMBEO DE RECUPERACIÓN DE AGUA DE LAVADO A CABECERA.....			13.428,81

PRESUPUESTOS PARCIALES.

ABASTECIMIENTO A VARIOS MUNICIPIOS DE LA RIOJA. SISTEMA CIDACOS

CÓDIGO	RESUMEN	CANTIDAD	PRECIO	IMPORTE
SUBAPARTADO 02.02.04.4 SOPLANTES Y COLECTORES AIRE PARA FILTROS DE ARENA				
ESER01	UD SOPLANTE EMBOLOS Q= 2.100 Nm ³ /h. Pres.: 0,4 bar. Soplante de eje libre con embolos rotativos de Mapner o equivalente, modelo SEM.15 TRG.GCA, para un caudal de 2.100 Nm ³ /h. Presión diferencial: 0,4 bar. Ø impulsión: 150 mm. Potencia motor: 45 kW. Bancada - Filtro de aspiración - Válvula de presión - Válvula de retención - Transmisión por correas - Manguito elástico - Soportes antivibratorios, válvula coriolis de arranque sin carga DN80, cabina insonorizante con paneles, ventilación forzada, manómetro y detector de colmatación. Incluido, transporte, conexiones eléctricas y de control, así como el montaje y pruebas de funcionamiento. Resto de características según ET.	2,00	8.228,18	16.456,36
EVM150	UD VÁLVULA DE MARIPOSA DN150 N16 MANUAL Válvula de mariposa de 150 mm de diámetro y PN16, de accionamiento manual por reductor, incluso mecanismo de accionamiento, maniobra y control, transporte, montaje, juntas, tornillería y pintura totalmente instalada y probada. Resto de características según ET de proyecto.	2,00	260,29	520,58
ECD15016	UD CARRETE DE DESMONTAJE DN=150 mm PN16 Carrete telescópico de desmontaje DN150 PN16, bridas de acero al carbono, virolas de acero inoxidable, protección epoxi, tornillos y tuercas en acero F-114, cincado y posterior baño de cromo-niquel, incluido p.p. de brida enchufe, totalmente instalado y probado en obra.	2,00	200,47	400,94
ETI316250	ML TUBERÍA DE INOXIDABLE AISI 316L DN 250 Tubería de acero inoxidable de diámetro DN 250 mm. Construcción: Mediante soldadura. Espesor 2 mm. Material: Acero inoxidable AISI -316 L. Material accesorios acero inoxidable AISI - 316L. Acabado: Decapado. Incluso p.p. de uniones, piezas especiales, bridas, codos, tes, injertos para otras tuberías y p.p. de estructuras y elementos de anclajes a solera y/o muros. Montada y probada.	109,30	104,54	11.426,22
ETI316150	ML TUBERÍA DE INOXIDABLE AISI 316L DN 150 Tubería de acero inoxidable de diámetro DN 150 mm. Construcción: Mediante soldadura. Espesor 2 mm. Material: Acero inoxidable AISI -316 L. Material accesorios acero inoxidable AISI - 316L. Acabado: Decapado. Incluso p.p. de uniones, piezas especiales, bridas, codos, tes, injertos para otras tuberías y p.p. de estructuras y elementos de anclajes a solera y/o muros. Montada y probada.	4,00	64,03	256,12
EVMNE250	UD VÁLVULA DE MARIPOSA DN250 PN16 NEUMÁTICA Válvula de mariposa de 250 mm de diámetro y PN16, de accionamiento neumático, incluso mecanismo de accionamiento, maniobra y control, transporte, montaje, juntas, tornillería y pintura totalmente instalada y probada. Resto de características según ET de proyecto.	1,00	767,95	767,95
ECD25016	UD CARRETE DE DESMONTAJE DN=250 mm PN16 Carrete telescópico de desmontaje DN250 PN16, bridas de acero al carbono, virolas de acero inoxidable, protección epoxi, tornillos y tuercas en acero F-114, cincado y posterior baño de cromo-niquel, incluido p.p. de brida enchufe, totalmente instalado y probado en obra.	10,00	398,69	3.986,90
ECPSM250	UD PASAMUROS INOX AISI-316-L DN-250 mm Carrete pasamuros de acero inoxidable, con brida loca en un extremo y placa de estanqueidad, DN 250, longitud: 500 mm. Materiales:Carrete y placa de estanqueidad: AISI 316 L, brida: aluminio, totalmente instalado y probado en obra. Resto de características según ET.	12,00	190,71	2.288,52
EPOLE1000	UD POLIPASTO ELÉCTRICO DE 1.000 KG Polipasto. Servicio: Izado de equipos. Características:- Marca: VINCA, VICINAY o equivalente. Capacidad (kg): 1.000. Tipo de carro: monocarril. Cota mínima del gancho a la viga (mm): 880. Potencia motor elevación (KW): 1,85. Incluye limitador de carga, motor-freno en el carro de traslación. Incluso transporte, montaje, conexiones eléctricas y de control, pruebas de funcionamiento. Resto de características según E.T.	1,00	2.244,00	2.244,00
TOTAL SUBAPARTADO 02.02.04.4 SOPLANTES Y COLECTORES AIRE PARA FILTROS DE ARENA.....				38.347,59

PRESUPUESTOS PARCIALES.

ABASTECIMIENTO A VARIOS MUNICIPIOS DE LA RIOJA. SISTEMA CIDACOS

CÓDIGO	RESUMEN	CANTIDAD	PRECIO	IMPORTE
SUBAPARTADO 02.02.04.5 NEUMÁTICA PARA FILTROS DE ARENA				
ECVNE01	UD CUADRO DE MANDO 6 ELECTROVALVULAS Armario para alojamiento de electroválvulas y elementos de mando neumático, 1 válvula de bola para aislamiento de 1/2". Grupo de tratamiento de aire, comprendiendo filtro, regulador y lubricador. 6 válvulas de bola 1/4" para aislamiento de electroválvulas. 6 electroválvulas 5V/3P 1/4". 3 silenciosos de escape. Conexión interior de tuberías. Elementos eléctricos de mando. Montado y probado.	5,00	2.084,97	10.424,85
ECVNE02	UD CUADRO DE MANDO 4 ELECTROVALVULAS Armario para alojamiento de electroválvulas y elementos de mando neumático, 1 válvula de bola para aislamiento de 1/2". Grupo de tratamiento de aire, comprendiendo filtro, regulador y lubricador. 2 válvulas de bola 1/4" para aislamiento de electroválvulas. 2 electroválvulas 5V/3P 1/4". 2 silenciosos de escape. Conexión interior de tuberías. Elementos eléctricos de mando. Montado y probado.	5,00	1.388,91	6.944,55
ECVNRE01	UD RED DE AIRE Red de aire a presión desde cuadro de EV a actuadores neumáticos de válvulas, ejecutada en poliuretano. Instalada.	1,00	362,69	362,69
TOTAL SUBAPARTADO 02.02.04.5 NEUMÁTICA PARA FILTROS DE ARENA.....				17.732,09
SUBAPARTADO 02.02.04.6 ARQUETA DE REPARTO A FILTROS				
ECPSM900	UD PASAMUROS INOX AISI-316-L DN-900 mm Carrete pasamuros de acero inoxidable, con brida loca en un extremo y placa de estanqueidad, DN 900, longitud: 500 mm. Materiales:Carrete y placa de estanqueidad: AISI 316 L, brida: aluminio, totalmente instalado y probado en obra. Resto de características según ET.	1,00	854,88	854,88
ECPSM700	UD PASAMUROS INOX AISI-316-L DN-700 mm Carrete pasamuros de acero inoxidable, con brida loca en un extremo y placa de estanqueidad, DN 700, longitud: 500 mm. Materiales:Carrete y placa de estanqueidad: AISI 316 L, brida: aluminio, totalmente instalado y probado en obra. Resto de características según ET.	2,00	596,81	1.193,62
TOTAL SUBAPARTADO 02.02.04.6 ARQUETA DE REPARTO A FILTROS.....				2.048,50
TOTAL APARTADO 02.02.04 FILTRACIÓN DE ARENA.....				517.401,91
APARTADO 02.02.05 DEPÓSITO DE AGUA TRATADA				
SUBAPARTADO 02.02.05.1 ARQUETA DE REPARTO DE ENTRADA A DEPÓSITO				
ECD0900	UD CARRETE DE DESMONTAJE DN=900 mm PN16 Carrete telescópico de desmontaje DN900 PN 16, bridas de acero al carbono, virolas de acero inoxidable, protección epoxi, tornillos y tuercas en acero F-114, cincado y posterior baño de cromo-niquel, incluido p.p. de brida enchufe, totalmente instalado y probado en obra.	2,00	2.189,63	4.379,26
EVMMT900	UD VÁLVULA DE MARIPOSA DOBLE EXCENTRICID. DN 900 mm PN16 MOTORIZADA Válvula de mariposa de doble excentricidad de 900 mm de diámetro y PN16, de accionamiento motorizado, incluso mecanismo de accionamiento, maniobra y control, transporte, montaje, juntas, tornillería y pintura totalmente instalada y probada. Resto de características según ET de proyecto.	2,00	13.550,71	27.101,42
ECPSM900	UD PASAMUROS INOX AISI-316-L DN-900 mm Carrete pasamuros de acero inoxidable, con brida loca en un extremo y placa de estanqueidad, DN 900, longitud: 500 mm. Materiales:Carrete y placa de estanqueidad: AISI 316 L, brida: aluminio, totalmente instalado y probado en obra. Resto de características según ET.	2,00	854,88	1.709,76
TOTAL SUBAPARTADO 02.02.05.1 ARQUETA DE REPARTO DE ENTRADA A DEPÓSITO.....				33.190,44

PRESUPUESTOS PARCIALES.

ABASTECIMIENTO A VARIOS MUNICIPIOS DE LA RIOJA. SISTEMA CIDACOS

CÓDIGO	RESUMEN	CANTIDAD	PRECIO	IMPORTE
SUBAPARTADO 02.02.05.2 CALDERERÍA Y VÁLVULERÍA SALIDA, ALIVIO Y VACIADOS DEPÓSITO				
ECPSM900	UD PASAMUROS INOX AISI-316-L DN-900 mm Carrete pasamuros de acero inoxidable, con brida loca en un extremo y placa de estanqueidad, DN 900, longitud: 500 mm. Materiales:Carrete y placa de estanqueidad: AISI 316 L, brida: aluminio, totalmente instalado y probado en obra. Resto de características según ET.	4,00	854,88	3.419,52
ECPSM500	UD PASAMUROS INOX AISI-316-L DN-500 mm Carrete pasamuros de acero inoxidable, con brida loca en un extremo y placa de estanqueidad, DN 500, longitud: 500 mm. Materiales:Carrete y placa de estanqueidad: AISI 316 L, brida: aluminio, totalmente instalado y probado en obra. Resto de características según ET.	2,00	437,41	874,82
ECD0900	UD CARRETE DE DESMONTAJE DN=900 mm PN16 Carrete telescópico de desmontaje DN900 PN 16, bridas de acero al carbono, virolas de acero inoxidable, protección epoxi, tornillos y tuercas en acero F-114, cincado y posterior baño de cromo-niquel, incluido p.p. de brida enchufé, totalmente instalado y probado en obra.	3,00	2.189,63	6.568,89
ECD0500	UD CARRETE DE DESMONTAJE DN=500 mm PN16 Carrete telescópico de desmontaje DN500 PN 16, bridas de acero al carbono, virolas de acero inoxidable, protección epoxi, tornillos y tuercas en acero F-114, cincado y posterior baño de cromo-niquel, incluido p.p. de brida enchufé, totalmente instalado y probado en obra.	2,00	1.095,18	2.190,36
143	UD CARRETE DE DESMONTAJE DN=200 mm PN16 Carrete telescópico de desmontaje DN200 PN 16, bridas de acero al carbono, virolas de acero inoxidable, protección epoxi, tornillos y tuercas en acero F-114, cincado y posterior baño de cromo-niquel, incluido p.p. de brida enchufé, totalmente instalado y probado en obra.	1,00	276,45	276,45
EVMMT900	UD VÁLVULA DE MARIPOSA DOBLE EXCENRICID. DN 900 mm PN16 MOTORIZADA Válvula de mariposa de doble excentricidad de 900 mm de diámetro y PN16, de accionamiento motorizado, incluso mecanismo de accionamiento, maniobra y control, transporte, montaje, juntas, tornillería y pintura totalmente instalada y probada. Resto de características según ET de proyecto.	3,00	13.550,71	40.652,13
EVMM0500	UD VÁLVULA DE MARIPOSA DOBLE EXCENRICIDAD DN 500 mm PN16 MANUAL Válvula de mariposa de doble excentricidad de 500 mm de diámetro y PN16, de accionamiento manual por reductor, incluso mecanismo de accionamiento, maniobra y control, transporte, montaje, juntas, tornillería y pintura totalmente instalada y probada. Resto de características según ET de proyecto.	2,00	3.466,82	6.933,64
232	UD VÁLVULA DE COMPUERTA MANUAL DN200 PN16 Válvula de compuerta de cierre elástico de 200 mm. de diámetro nominal y 16 At. de P.N., de accionamiento manual por volante, de cuerpo de fundición nodular GGG-50, con eje de acero inoxidable al 13 % Cr. con roscas conformadas por laminación en frío, cierre en fundición nodular, tornillería de acero inoxidable, protegida contra la corrosión mediante aplicación de doble capa de pintura epoxy, totalmente colocada y probada. Resto de características según ET.	1,00	514,52	514,52
EGTM01	UD GRIFO TOMAMUESTRAS PN16/25 Grifo tomamuestras de 3/4" colocado en tubería de acero inoxidable por picaje, incluida la válvula PN16/25, montada y probada.	1,00	24,82	24,82
243.1	UD VENTOSA DN=200 mm PN16 Válvula ventosa de tres funciones de DN=200 mm y PN 16 bar incluido transporte, juntas, válvula de corte DN=200 mm y PN 16 bar y piezas especiales, totalmente colocada y probada.	2,00	1.596,89	3.193,78

PRESUPUESTOS PARCIALES.

ABASTECIMIENTO A VARIOS MUNICIPIOS DE LA RIOJA. SISTEMA CIDACOS

CÓDIGO	RESUMEN	CANTIDAD	PRECIO	IMPORTE
ETI316900	ML TUBERÍA DE INOXIDABLE AISI 316L DN 900 Tubería de acero inoxidable de diámetro DN 900 mm. Construcción: Mediante soldadura. Espesor 8 mm. Material: Acero inoxidable AISI -316 L. Material accesorios acero inoxidable AISI - 316L. Acabado: Decapado. Incluso p.p. de uniones, piezas especiales, bridas, codos, tes, injertos para otras tuberías y p.p. de estructuras y elementos de anclajes a solera y/o muros. Montada y probada.	32,55	708,01	23.045,73
ETI316200	ML TUBERÍA DE INOXIDABLE AISI 316L DN 200 Tubería de acero inoxidable de diámetro DN 200 mm. Construcción: Mediante soldadura. Espesor 2 mm. Material: Acero inoxidable AISI -316 L. Material accesorios acero inoxidable AISI - 316L. Acabado: Decapado. Incluso p.p. de uniones, piezas especiales, bridas, codos, tes, injertos para otras tuberías y p.p. de estructuras y elementos de anclajes a solera y/o muros. Montada y probada.	1,85	61,55	113,87
ETI316500	ML TUBERÍA DE INOXIDABLE AISI 316L DN 500 Tubería de acero inoxidable de diámetro DN 500 mm. Construcción: Mediante soldadura. Espesor 2 mm. Material: Acero inoxidable AISI -316 L. Material accesorios acero inoxidable AISI - 316L. Acabado: Decapado. Incluso p.p. de uniones, piezas especiales, bridas, codos, tes, injertos para otras tuberías y p.p. de estructuras y elementos de anclajes a solera y/o muros. Montada y probada.	2,80	220,27	616,76
EPOLE1000	UD POLIPASTO ELÉCTRICO DE 1.000 KG Polipasto. Servicio: Izado de equipos. Características:- Marca: VINCA, VICINAY o equivalente. Capacidad (kg): 1.000. Tipo de carro: monocarril. Cota mínima del gancho a la viga (mm): 880. Potencia motor elevación (KW): 1,85. Incluye limitador de carga, motor-freno en el carro de traslación. Incluso transporte, montaje, conexiones eléctricas y de control, pruebas de funcionamiento. Resto de características según E.T.	1,00	2.244,00	2.244,00
TOTAL SUBAPARTADO 02.02.05.2 CALDERERÍA Y VÁLVULERÍA SALIDA, ALIVIO Y VACIADOS DEPÓSITO..				90.669,29
TOTAL APARTADO 02.02.05 DEPÓSITO DE AGUA TRATADA.....				123.859,73
APARTADO 02.02.06 ESPESADOR DE FANGOS, FANGOS ESPESADOS Y DOSIFICACIÓN DE CAL				
SUBAPARTADO 02.02.06.1 ESPESADOR DE FANGOS				
EPRFAN01	UD PUENTE RASQUETAS ESPESADOR DE FANGOS Ø 7,5 m Y CAMPANA Mecanismo de puente de rasquetas del espesador de fangos, de 7.500 mm de diámetro, de acero inoxidable AISI-316L. Velocidad del racador 0,15-0,20 rpm., bancada del motorreductor en acero al carbono galvanizado, mangón de acoplamiento en acero al carbono cincado. Eje central AISI-316, campana deflectora AISI-316L, brazos inferiores soporta rasquetas y rasquetas de fangos en acero inoxidable AISI-316L. Rascadores de goma en EPDM. Accionamiento directo mediante motorreductor eléctrico de 0,18 Kw. Incluye campana deflectora AISI-316L. limitador de par electrónico. Incluido transporte, montaje, conexiones eléctricas y pruebas de funcionamiento y de control. Resto de características, según ET.	1,00	10.869,89	10.869,89
ECUFAN01	UD CAMPANA CUBIERTA ESPESADOR PRFV DE 7.500 MM DE DIÁMETRO Cubierta de PRFV para espesor de fangos de 7,5 m de diámetro de cuba, formada por dos zonas. Pasarela de 1,2 m de anchura. Incluido transporte y montaje. Resto de características, según ET.	1,00	6.023,42	6.023,42
EVCM12516	UD VÁLVULA DE COMPUERTA MANUAL DN125 PN16 Válvula de compuerta de cierre elástico de 125 mm. de diámetro nominal y 16 At. de P.N., de accionamiento manual por volante, de cuerpo de fundición nodular GGG-50, con eje de acero inoxidable al 13 % Cr. con roscas conformadas por laminación en frío, cierre en fundición nodular, tornillería de acero inoxidable, protegida contra la corrosión mediante aplicación de doble capa de pintura epoxy, totalmente colocada y probada. Resto de características según ET.	2,00	202,32	404,64
ECPSM150	UD PASAMUROS INOX AISI-316-L DN-150 mm Carrete pasamuros de acero inoxidable, con brida loca en un extremo y placa de estanqueidad, DN 150, longitud: 500 mm. Materiales:Carrete y placa de estanqueidad: AISI 316 L, brida: aluminio, totalmente instalado y probado en obra. Resto de características según ET.	1,00	164,14	164,14

PRESUPUESTOS PARCIALES.

ABASTECIMIENTO A VARIOS MUNICIPIOS DE LA RIOJA. SISTEMA CIDACOS

CÓDIGO	RESUMEN	CANTIDAD	PRECIO	IMPORTE
ETI316150	ML TUBERÍA DE INOXIDABLE AISI 316L DN 150 Tubería de acero inoxidable de diámetro DN 150 mm. Construcción: Mediante soldadura. Espesor 2 mm. Material: Acero inoxidable AISI -316 L. Material accesorios acero inoxidable AISI - 316L. Acabado: Decapado. Incluso p.p. de uniones, piezas especiales, bridas, codos, tes, injertos para otras tuberías y p.p. de estructuras y elementos de anclajes a solera y/o muros. Montada y probada.	11,45	64,03	733,14
TOTAL SUBAPARTADO 02.02.06.1 ESPESADOR DE FANGOS.....				18.195,23
SUBAPARTADO 02.02.06.2 DEPÓSITO DE FANGOS ESPESADOS				
EAGF02	UD AGITADOR DEPÓSITO FANGOS ESPESADOS P=3,5 KW Agitador sumergible de hélice. Marca: SULZER o equivalente. Modelo: XRW3032-PA29/6-EC-D01*10BC. Número de álabes: 3. Diámetro de la hélice (mm): 300. Potencia de agitación: 2,1 kW. Protección térmica con sensores térmicos en el bobinado. Protección de estanqueidad por sistema DI. Incluye sistema de elevación y giro. Accionamiento: eléctrico. Potencia nominal en eje (kW): 2,9. Potencia nominal de red (kW): 3,5. Tensión (V): 400. El agitador dispone de protección térmica por TCS con sensores térmicos en el bobinado, protección de estanqueidad por Sistema DI, con sonda en la cámara de aceite y sistema de refrigeración por sumergencia, módulo para supervisión de electrodos de temperatura y humedad. Incluso transporte, montaje, conexiones eléctricas y de control, pruebas de funcionamiento. Resto de características según E.T.	1,00	4.555,85	4.555,85
TOTAL SUBAPARTADO 02.02.06.2 DEPÓSITO DE FANGOS ESPESADOS.....				4.555,85
SUBAPARTADO 02.02.06.3 DOSIFICACIÓN DE CAL				
ESILC01	UD SILO DE CAL DE 42 M3 CON FILTRO DE MANGAS. Silo metálico de cal, de 42 m3 de capacidad, de 2.400 mm de diámetro y 13.55 mm de altura total, dispuesto con filtros de mangas, detector de nivel, sistema de pesaje. Incluso transporte, montaje, conexiones eléctricas y de control, pruebas de funcionamiento. Resto de características según E.T.	2,00	30.257,17	60.514,34
EROMC01	UD ROMPEBÓVEDAS DOSIFICADOR DE 2 M. Rompebóvedas-dosificador de cal, para asegurar una extracción continua, para un caudal de 125 a 250 kg/h. Cuerpo del rompebóvedas DN400, motorreductor de 0,55 kW, 1500 rpm. Dosificador de 2 m de longitud, motorreductor de 0,25 kW 1.500 rpm. Soporte orientable. Material S-275 JR con protección. Válvula de aislamiento. Incluso transporte, montaje, conexiones eléctricas y de control, pruebas de funcionamiento. Resto de características según E.T.	2,00	9.064,86	18.129,72
ECPREC01	UD CUBA DE PREPARACIÓN DE PP DE 2,5 M3 Cuba de preparación de cal de 2,65 m3 de capacidad, realizada en PP, de 1500 mm de diámetro y 1.500 mm de altura total, electroagitador de 1,5 kW. Incluso transporte, montaje, conexiones eléctricas y de control, pruebas de funcionamiento. Resto de características según E.T.	2,00	7.106,13	14.212,26
EBDOSC01	UD BOMBAS DOSIFICADORAS DE CAL DE 8 M3/H Y 20 MCA Bombas dosificadoras de lechada de cal de 8.000 l/h y 20 mca. AISI-3616L. Potencia de 1,1 kW. Incluso transporte, montaje, conexiones eléctricas y de control, pruebas de funcionamiento. Resto de características según E.T.	2,00	5.917,46	11.834,92
ECELEC01	UD CUADRO ELÉCTRICO DOSIFICACIÓN DE CAL Cuadro eléctrico para el funcionamiento de la dosificación de cal, formado por un armario eléctrico metálico con elementos de potencia y maniobra para los equipos ofertados, con PLC y variador de frecuencia para dosificador. Alimentación cuadro de 230/400 VCA, 50 Hz, 3F+tierra. Incluso transporte, montaje, conexiones eléctricas y de control, pruebas de funcionamiento. Resto de características según E.T.	1,00	26.424,23	26.424,23
TOTAL SUBAPARTADO 02.02.06.3 DOSIFICACIÓN DE CAL.....				131.115,47
TOTAL APARTADO 02.02.06 ESPESADOR DE FANGOS, FANGOS ESPESADOS Y DOSIFICACIÓN DE CAL				153.866,55

PRESUPUESTOS PARCIALES.

ABASTECIMIENTO A VARIOS MUNICIPIOS DE LA RIOJA. SISTEMA CIDACOS

CÓDIGO	RESUMEN	CANTIDAD	PRECIO	IMPORTE
APARTADO 02.02.07 DESHIDRATACIÓN DE FANGOS				
SUBAPARTADO 02.02.07.1 BOMBEO DE FANGOS A DESHIDRATACIÓN				
EBHFP04	UD BOMBA TORNILLO FANGOS A DESHIDRATACIÓN 16,0 m3/h y 15 mca Bomba helicoidal, para bombeo de fangos decantados. Marca: MONO o equivalente. Modelo: Z35KC11RMA. Velocidad de trabajo (rpm): 80-310. Caudal a la velocidad de trabajo (m3/h): 4,0-16,0. Presión en las condiciones de trabajo (bar): 1,5. - Paso de sólidos duros/deformables (mm): 10 / 35. Detector funcionamiento en vacío. Dimensiones aspiración (mm): DN80. Dimensiones impulsión (mm): DN80. Accionamiento: eléctrico mediante motorreductor. Potencia instalada (kW): 4,0. Velocidad motor (rpm): 1.450. Tensión (V): 400. Frecuencia (Hz): 50. Bancada metálica. Incluso transporte, montaje, conexiones eléctricas y de control, pruebas de funcionamiento. Resto de características según E.T.	2,00	2.106,39	4.212,78
EVC080	UD VÁLVULA DE COMPUERTA MANUAL DN80 PN16 Válvula de compuerta de cierre elástico de 80 mm. de diámetro nominal y 16 At. de P.N., de accionamiento manual por volante, de cuerpo de fundición nodular GGG-50, con eje de acero inoxidable al 13 % Cr. con roscas conformadas por laminación en frío, cierre en fundición nodular, tornillería de acero inoxidable, protegida contra la corrosión mediante aplicación de doble capa de pintura epoxy, totalmente colocada y probada. Resto de características según ET.	6,00	110,47	662,82
EVRB080	UD VÁLVULA DE RETENCIÓN DE BOLA DN80 Válvula de retención de bola DN 80 PN16. Cuerpo y tapa: Fundición nodular GGG-40. Bola de aluminio/fundición+Resina fenólica. Tornillería de acero inoxidable AISI 316. Junta de tapa: Nitrilo. Acabados con recubrimiento anticorrosivo interior y exterior con polvo de poliamida Epoxy aplicado electrostáticamente (RAL 5015 Epoxi azul). Instalada y probada. Resto de características según ET.	2,00	209,01	418,02
EPICJ01	UD PICAJE TUBERÍA CON VÁLVULA ESFERA 1/2" Picaje en tubería para toma de muestra y/o entrada de agua, incluso picaje, válvula de aislamiento de 1/2", instalación y pruebas.	4,00	27,80	111,20
TOTAL SUBAPARTADO 02.02.07.1 BOMBEO DE FANGOS A DESHIDRATACIÓN.....				5.404,82
SUBAPARTADO 02.02.07.2 DESHIDRATACIÓN DE FANGOS				
EDCENT01	UD DECANTADOR CENTRÍFUGO 16,0 m3/h Extractor centrífugo para deshidratación de fangos. Marca: ALFA LAVAL o equivalente. Modelo: AL-DEC 45 AT. Capacidad nominal hidráulica: 16,0 m³/h. Potencia motor accionamiento principal: 22 kW. Caja reductora con variador de frecuencia para ambos motores. Potencia motor trasero: 5,5 kW. Incluye cuadro eléctrico con controlador programable, 2 variadores de frecuencia, incluyendo BUS de DC, cuadro eléctrico para integrar VF y aparellaje eléctrico. Material: acero inoxidable AISI-316. Incluso transporte, montaje, conexiones eléctricas y de control, puesta en marcha y pruebas de funcionamiento. Resto de características según E.T.	2,00	52.486,23	104.972,46
EDCENT02	UD TOLVAS EN ACERO INOXIDABLE AISI 316L SALIDA FANGOS Y LÍQUIDOS Tolvas de acero inoxidable AISI 316L de 2 mm de espesor, con p.p. de piezas especiales, totalmente colocadas, una para la salida de fangos deshidratados a tornillo, y otra para salida de agua de deshidratación hasta arqueta de vaciados. Montada.	2,00	242,94	485,88
ETI316200	ML TUBERÍA DE INOXIDABLE AISI 316L DN 200 Tubería de acero inoxidable de diámetro DN 200 mm. Construcción: Mediante soldadura. Espesor 2 mm. Material: Acero inoxidable AISI -316 L. Material accesorios acero inoxidable AISI - 316L. Acabado: Decapado. Incluso p.p. de uniones, piezas especiales, bridas, codos, tes, injertos para otras tuberías y p.p. de estructuras y elementos de anclajes a solera y/o muros. Montada y probada.	2,00	61,55	123,10
E3256	UD CONJUNTO TUBERÍAS PARA AGUA INDUST. Y POTABLE. PVC Y/O PE Conjunto de tuberías y válvulas para distribución de agua industrial y potable. Material: PVC y/o PE. Diámetro nominal: según planos mm. Presión nominal: 10 Atm. Incluso p.p. de válvulas, soportes y accesorios.			

PRESUPUESTOS PARCIALES.

ABASTECIMIENTO A VARIOS MUNICIPIOS DE LA RIOJA. SISTEMA CIDACOS

CÓDIGO	RESUMEN	CANTIDAD	PRECIO	IMPORTE
		1,00	122,87	122,87
232	UD VÁLVULA DE COMPUERTA MANUAL DN200 PN16 Válvula de compuerta de cierre elástico de 200 mm. de diámetro nominal y 16 At. de P.N., de accionamiento manual por volante, de cuerpo de fundición nodular GGG-50, con eje de acero inoxidable al 13 % Cr. con roscas conformadas por laminación en frío, cierre en fundición nodular, tornillería de acero inoxidable, protegida contra la corrosión mediante aplicación de doble capa de pintura epoxy, totalmente colocada y probada. Resto de características según ET.	2,00	514,52	1.029,04
TOTAL SUBAPARTADO 02.02.07.2 DESHIDRATACIÓN DE FANGOS.....				106.733,35
SUBAPARTADO 02.02.07.3 BOMBEO Y ALMACENAMIENTO DE FANGOS DESHIDRATADOS				
ETTFD01	UD TORNILLO TRANSPORTADOR DE FANGOS DESHIDRATADOS 5,0 m3/h Tornillo transportador para fangos deshidratados. Capacidad: 5,0 m³/h. Diámetro: 260 mm. Material: acero inoxidable AISI-316L. Longitud: 5,0 m. Potencia motor eléctrico: 0,75 kW. Posición de trabajo horizontal. Espiral en acero F1515 o EN 10025-S355. Canal y tapas en acero inoxidable AISI-316 L. Zona de compactación en acero inoxidable AISI-316 L. Dos tolvas para acople de las centrifugas, y soportes standard en acero inoxidable AISI-316 L. Sistema de lavado automático con agua. Incluso transporte, montaje, conexiones eléctricas y pruebas de funcionamiento. Resto de características según E.T.	1,00	7.673,97	7.673,97
EBHFP05	UD BOMBA TORNILLO FANGOS DESHIDRATADOS 2,5 m3/h y 9 BAR Bomba helicoidal con alimentación forzada, para bombeo de fangos deshidratados. Marca: MONO o equivalente. Modelo: CW62AL2R1/G412. Velocidad de trabajo (rpm): 35-78. Caudal a la velocidad de trabajo (m3/h): 1,0-2,5. Presión en las condiciones de trabajo (bar): 9,0. - Paso de sólidos duros/deformables (mm): 12 / 40. Detector funcionamiento en vacío. Dimensiones aspiración (mm): 1.000X360. Dimensiones impulsión (mm): DN100. Accionamiento: eléctrico mediante motorreductor. Potencia instalada (kW): 7,5. Velocidad motor (rpm): 1.450. Tensión (V): 400. Frecuencia (Hz): 50. Bancada metálica. Incluso sistema de protección ETI y protección contra sobrepresiones, transporte, montaje, conexiones eléctricas y de control, pruebas de funcionamiento. Resto de características según E.T.	1,00	5.242,76	5.242,76
237	UD VÁLVULA DE COMPUERTA MANUAL DN100 PN25 Válvula de compuerta de cierre elástico de 100 mm. de diámetro nominal y 25 At. de P.N., de accionamiento manual por volante, de cuerpo de fundición nodular GGG-50, con eje de acero inoxidable al 13 % Cr. con roscas conformadas por laminación en frío, cierre en fundición nodular, tornillería de acero inoxidable, protegida contra la corrosión mediante aplicación de doble capa de pintura epoxy, totalmente colocada y probada. Resto de características según ET.	1,00	361,59	361,59
EVRB100	UD VÁLVULA DE RETENCIÓN DE BOLA DN100 Válvula de retención de bola DN 100 PN16. Cuerpo y tapa: Fundición nodular GGG-40. Bola de aluminio/fundición+Resina fenólica. Tornillería de acero inoxidable AISI 316. Junta de tapa: Nitrilo. Acabados con recubrimiento anticorrosivo interior y exterior con polvo de poliamida Epoxy aplicado electrostáticamente (RAL 5015 Epoxi azul). Instalada y probada. Resto de características según ET.	1,00	246,22	246,22
EPICJ01	UD PICAJE TUBERÍA CON VÁLVULA ESFERA 1/2" Picaje en tubería para toma de muestra y/o entrada de agua, incluso picaje, válvula de aislamiento de 1/2", instalación y pruebas.	1,00	27,80	27,80
ESLF01	UD SILO ALMACENAMIENTO DE FANGOS PRFV 35M3 Tolva para almacenamiento de fango deshidratado de PRFV. Capacidad: 35 m³, incluido vibrador y compuerta tajadera para extracción colocada en la boca de descarga de 400x400 mm y accionamiento eléctrico. Diámetro: 3,0 m. Altura paso de camiones: 3,70 m. Altura total: 11,0 m. Incluso transporte, montaje, conexiones eléctricas y de control, y pruebas de funcionamiento. Resto de características según E.T.			

PRESUPUESTOS PARCIALES.

ABASTECIMIENTO A VARIOS MUNICIPIOS DE LA RIOJA. SISTEMA CIDACOS

CÓDIGO	RESUMEN	CANTIDAD	PRECIO	IMPORTE
		1,00	17.288,20	17.288,20
TOTAL SUBAPARTADO 02.02.07.3 BOMBEO Y ALMACENAMIENTO DE FANGOS DESHIDRATADOS.....				30.840,54
SUBAPARTADO 02.02.07.4 VARIOS				
EPOLE2500	UD POLIPASTO ELÉCTRICO DE 2.500 KG Polipasto. Servicio: Izado de equipos. Marca: VINCA, VICINAY o equivalente. Capacidad (kg): 2.500. Tipo de carro: monocarril. Cota mínima del gancho a la viga (mm): 880. Potencia motor elevación (KW): 1,85. Incluye limitador de carga y motor-freno en el carro de traslación. Incluso transporte, montaje, conexiones eléctricas y de control, pruebas de funcionamiento. Resto de características según E.T.	1,00	2.946,67	2.946,67
TOTAL SUBAPARTADO 02.02.07.4 VARIOS.....				2.946,67
TOTAL APARTADO 02.02.07 DESHIDRATACIÓN DE FANGOS.....				145.925,38
APARTADO 02.02.08 SALA DE REACTIVOS				
SUBAPARTADO 02.02.08.1 DOSIFICACIÓN DE COAGULANTE. SULFATO DE ALÚMINA				
EBSM01	UD SKID PARA 4 BOMBAS DOSIFICADORAS Qu=235 L/HY 3 BAR Sistema de dosificación para sulfato de alúmina, de MILTON ROY, o equivalente, formado por 4 bombas de 235 l/h – 3 bar cada una. Equipo MRE de la serie DOSAPACK PD®. Modelo: PD-D7A1.D2/E3.B2.E1.BC.1.E1.E3.A1.C4.A1.P1.A1. 4 Bombas dosificadoras GM240 (3+1). Instalación con colectores de aspiración e impulsión, estructura metálica de acero, con soporte para todos los elementos, válvulas, amortiguadores, manómetros, etc, según características definidas en las E.T. de proyecto. Instalado y probado.	1,00	9.979,13	9.979,13
EDPRFV25	UD DEPÓSITO DE PRFV DP V=25.000 L Depósito vertical de PRFV de doble pared para almacenamiento de reactivos de 25.000 l de capacidad. Diámetro interior de 2.500 mm, altura 5.885 mm. Forma cilíndrica-vertical con fondo plano, válvula de drenaje, sensor e interruptor de nivel de máximo y mínimo, boca de hombre, detector de fugas, incluso preparación de superficie para colocación del mismo. Instalado y probado. Resto de características según E.T.	2,00	8.987,87	17.975,74
EQ70000	Ud CONEXIÓN PARA LIMPIEZA DE CONDUCCIONES Conexión para limpieza de conducciones y baldeos, compuesta por válvulas de bola manual DN-25 y conexión rápida mediante racor.	1,00	145,06	145,06
E3256	UD CONJUNTO TUBERÍAS PARA AGUA INDUST. Y POTABLE. PVC Y/O PE Conjunto de tuberías y válvulas para distribución de agua industrial y potable. Material: PVC y/o PE. Diámetro nominal: según planos mm. Presión nominal: 10 Atm. Incluso p.p. de válvulas, soportes y accesorios.	1,00	122,87	122,87
E3257	Ud CONJUNTO TUBERÍAS DISTRIBUCIÓN REACTIVOS PVC Y/O PP Conjunto de tuberías y válvulas para distribución de reactivos. Material: PVC y/o PP. Diámetro nominal: según planos mm. Presión nominal: 10 Atm. Incluso p.p. de válvulas, soportes y accesorios.	4,00	118,61	474,44
EBSSA01	UD BOMBA TRASIEGO SULFATO ALUMINA. 25M3/H. 15 MCA Grupo motobomba centrífuga horizontal para trasiego de sulfato de alúmina. Marca: STÚBBE o equivalente. Modelo: SHM 50-40L 9VDF/FPM. Caudal: 25 m³/h. Altura manométrica: 15 m.c.a. Potencia motor: 4,0 kW. Velocidad del motor: 2.950 r.p.m. Resto de características según ET. Incluido placa de anclaje, transporte, montaje, conexiones eléctricas y de control, y pruebas de funcionamiento.	1,00	2.059,74	2.059,74
TOTAL SUBAPARTADO 02.02.08.1 DOSIFICACIÓN DE COAGULANTE. SULFATO DE ALÚMINA.....				30.756,98

PRESUPUESTOS PARCIALES.

ABASTECIMIENTO A VARIOS MUNICIPIOS DE LA RIOJA. SISTEMA CIDACOS

CÓDIGO	RESUMEN	CANTIDAD	PRECIO	IMPORTE
SUBAPARTADO 02.02.08.2 DOSIFICACIÓN DE FLOCULANTE. ALMIDON MODIFICADO				
EEPPOL02	UD EQUIPO PREPARACIÓN POLIELECTROLITO 1200 L/H Equipo de preparación de polielectrolito. Marca: POLITECH o equivalente. Modelo: POLIBASIC AP 12 PPH. Tipo: unidad compacta. Capacidad de preparación (l/h): 1200. Dosificador de poli en polvo: tornillo+motorreductor reductor de 0,18 kW. Tolva de alimentación de capacidad 60 litros. Depósito con tres compartimentos y tapas, de 1.350 l. de capacidad útil. Dos electroagitadores de eje vertical y amarre por brida. Potencia electroagitador (kW): 0,55+0,37. Sonda de nivel ultrasónico. Armario de control. Materiales: Cuba en PPH, electroagitadores y tobera: AISI 316. Dosificador volumétrico: PPH. Cuadro eléctrico. Incluso transporte, montaje, conexiones eléctricas y de control, pruebas de funcionamiento. Resto de características según E.T.	1,00	5.370,27	5.370,27
EBHFP03	UD BOMBA TORNILLO DOSIFICACIÓN DE ALMIDON MODIF. 425 L/H y 25 mca Bomba helicoidal, para dosificación de almidón modificado. Marca: MONO o equivalente. Modelo: C22AC80MA. Velocidad de trabajo (rpm): 55-283. Caudal a la velocidad de trabajo (l/h): 80-425. Presión en las condiciones de trabajo (bar): 2,5. - Paso de sólidos duros/deformables (mm): 3,5 / 10. Detector funcionamiento en vacío. Dimensiones aspiración: 1 1/4" rosca BP. Dimensiones impulsión: 1 1/4" rosca BP. Accionamiento: eléctrico mediante motorreductor. Potencia instalada (kW): 0,37. Velocidad motor (rpm): 1.450. Tensión (V): 400. Frecuencia (Hz): 50. Bancada metálica. Incluso transporte, montaje, conexiones eléctricas y de control, pruebas de funcionamiento. Resto de características según E.T.	4,00	956,43	3.825,72
EQ70000	Ud CONEXIÓN PARA LIMPIEZA DE CONDUCCIONES Conexión para limpieza de conducciones y baldeos, compuesta por válvulas de bola manual DN-25 y conexión rápida mediante racor.	1,00	145,06	145,06
E3256	UD CONJUNTO TUBERÍAS PARA AGUA INDUST. Y POTABLE. PVC Y/O PE Conjunto de tuberías y válvulas para distribución de agua industrial y potable. Material: PVC y/o PE. Diámetro nominal: según planos mm. Presión nominal: 10 Atm. Incluso p.p. de válvulas, soportes y accesorios.	1,00	122,87	122,87
E3257	Ud CONJUNTO TUBERÍAS DISTRIBUCIÓN REACTIVOS PVC Y/O PP Conjunto de tuberías y válvulas para distribución de reactivos. Material: PVC y/o PP. Diámetro nominal: según planos mm. Presión nominal: 10 Atm. Incluso p.p. de válvulas, soportes y accesorios.	1,00	118,61	118,61
EROT01	UD ROTÁMETRO PARA MEDIDA DE AGUA DE APORTE. Rotámetro para medida de agua de aporte. Rango de medida: 200 -2000 l/h. Instalación en línea. Material: acero inoxidable AISI-316	1,00	171,22	171,22
EVBI0032	UD VÁLVULA BOLA INOX DN=32 mm. / 16 atm. Válvula de bola de 32 mm. de diámetro nominal y 16 At. de P.N., de acero inoxidable, tornillería de acero inoxidable, totalmente colocada.	8,00	32,61	260,88
TOTAL SUBAPARTADO 02.02.08.2 DOSIFICACIÓN DE FLOCULANTE. ALMIDON MODIFICADO.....				10.014,63
SUBAPARTADO 02.02.08.3 DOSIFICACIÓN DE ÁCIDO CLORHÍDRICO				
EBSM02	UD SKID PARA 2 BOMBAS DOSIFICADORAS Qu=11 L/HY 3 BAR Sistema de dosificación para ácido clorhídrico, de MILTON ROY, o equivalente, formado por 2 bombas de 11 l/h – 3 bar cada una. Equipo MRE de la serie DOSAPACK PD®. Modelo: PD-D3A1.B2/B1.B2.B1.BA.1.B1.B1.A1.C4.A1.P1.A1. 2 Bombas dosificadoras GA25 (1+1). Instalación con colectores de aspiración e impulsión, estructura plástica de PEHD, con soporte para todos los elementos, válvulas, amortiguadores, manómetros, etc, según características definidas en las E.T. de proyecto. Instalado y probado.	1,00	5.914,50	5.914,50

PRESUPUESTOS PARCIALES.

ABASTECIMIENTO A VARIOS MUNICIPIOS DE LA RIOJA. SISTEMA CIDACOS

CÓDIGO	RESUMEN	CANTIDAD	PRECIO	IMPORTE
EDPRFV2.5	UD DEPÓSITO DE PRFV DP V=2.500 L Depósito vertical de PRFV de doble pared para almacenamiento de reactivos de 2.500 l de capacidad. Diámetro interior de 1.380 mm, altura 2.280 mm. Forma cilíndrica-vertical con fondo plano, válvula de drenaje, sensor e interruptor de nivel de máximo y mínimo, boca de hombre, detector de fugas, incluso preparación de superficie para colocación del mismo. Instalado y probado. Resto de características según E.T.	1,00	3.205,48	3.205,48
EQ70000	Ud CONEXIÓN PARA LIMPIEZA DE CONDUCCIONES Conexión para limpieza de conducciones y baldeos, compuesta por válvulas de bola manual DN-25 y conexión rápida mediante racor.	1,00	145,06	145,06
E3256	UD CONJUNTO TUBERÍAS PARA AGUA INDUST. Y POTABLE. PVC Y/O PE Conjunto de tuberías y válvulas para distribución de agua industrial y potable. Material: PVC y/o PE. Diámetro nominal: según planos mm. Presión nominal: 10 Atm. Incluso p.p. de válvulas, soportes y accesorios.	1,00	122,87	122,87
E3257	Ud CONJUNTO TUBERÍAS DISTRIBUCIÓN REACTIVOS PVC Y/O PP Conjunto de tuberías y válvulas para distribución de reactivos. Material: PVC y/o PP. Diámetro nominal: según planos mm. Presión nominal: 10 Atm. Incluso p.p. de válvulas, soportes y accesorios.	3,00	118,61	355,83
EBSSA02	UD BOMBA TRASIEGO ÁCIDO CLORHÍDRICO. 25M3/H. 15 MCA Grupo motobomba centrífuga horizontal para trasiego de ácido clorhídrico. Marca: STÜBBE o equivalente. Modelo: SHM 40-40L PP/EPDM. Caudal: 25 m³/h. Altura manométrica: 15 m.c.a. Potencia motor: 1,1 kW. Velocidad del motor: 2.880 r.p.m. Resto de características según ET. Incluido placa de anclaje, transporte, montaje, conexiones eléctricas y de control, y pruebas de funcionamiento.	1,00	732,06	732,06
TOTAL SUBAPARTADO 02.02.08.3 DOSIFICACIÓN DE ÁCIDO CLORHÍDRICO.....				10.475,80
SUBAPARTADO 02.02.08.4 DOSIFICACIÓN DE HIPOCLORITO SÓDICO				
EDPRFV15	UD DEPÓSITO DE PRFV DP V=15.000 L Depósito vertical de PRFV de doble pared para almacenamiento de reactivos de 15.000 l de capacidad. Diámetro interior de 2.325 mm, altura 4.295 mm. Forma cilíndrica-vertical con fondo plano, válvula de drenaje, sensor e interruptor de nivel de máximo y mínimo, boca de hombre, detector de fugas, incluso preparación de superficie para colocación del mismo. Instalado y probado. Resto de características según E.T.	2,00	7.087,25	14.174,50
EBSM03	UD SKID PARA 4 BOMBAS DOSIFICADORAS Qu=25 L/HY 3 BAR Sistema de dosificación para hipoclorito sódico, de MILTON ROY, o equivalente, formado por 4 bombas de 25 l/h – 3 bar cada una. Equipo MRE de la serie DOSAPACK PD®. Modelo: PD-D7A1.D2/B1.B2.B1.BA.1.B1.B1.A1.C4.A1.P1.A1. 4 Bombas dosificadoras GA25 (3+1). Instalación con colectores de aspiración e impulsión, estructura metálica de acero, con soporte para todos los elementos, válvulas, amortiguadores, manómetros, etc, según características definidas en las E.T. de proyecto. Instalado y probado.	1,00	8.254,49	8.254,49
EBSM04	UD SKID PARA 2 BOMBAS DOSIFICADORAS Qu=40 L/HY 3 BAR Sistema de dosificación para hipoclorito sódico, de MILTON ROY, o equivalente, formado por 2 bombas de 40 l/h – 3 bar cada una. Equipo MRE de la serie DOSAPACK PD®. Modelo: PD-A3A1.B2/B1.B2.B1.BA.1.B1.B1.A1.C2.A1.A1.A1. 2 Bombas dosificadoras GA45 (1+1). Instalación con colectores de aspiración e impulsión, estructura plástica de PEHD, con soporte para todos los elementos, válvulas, amortiguadores, manómetros, etc, según características definidas en las E.T. de proyecto. Instalado y probado.	1,00	3.887,10	3.887,10
EQ70000	Ud CONEXIÓN PARA LIMPIEZA DE CONDUCCIONES Conexión para limpieza de conducciones y baldeos, compuesta por válvulas de bola manual DN-25 y conexión rápida mediante racor.	1,00	145,06	145,06

PRESUPUESTOS PARCIALES.

ABASTECIMIENTO A VARIOS MUNICIPIOS DE LA RIOJA. SISTEMA CIDACOS

CÓDIGO	RESUMEN	CANTIDAD	PRECIO	IMPORTE
E3256	UD CONJUNTO TUBERÍAS PARA AGUA INDUST. Y POTABLE. PVC Y/O PE Conjunto de tuberías y válvulas para distribución de agua industrial y potable. Material: PVC y/o PE. Diámetro nominal: según planos mm. Presión nominal: 10 Atm. Incluso p.p. de válvulas, soportes y accesorios.	1,00	122,87	122,87
E3257	Ud CONJUNTO TUBERÍAS DISTRIBUCIÓN REACTIVOS PVC Y/O PP Conjunto de tuberías y válvulas para distribución de reactivos. Material: PVC y/o PP. Diámetro nominal: según planos mm. Presión nominal: 10 Atm. Incluso p.p. de válvulas, soportes y accesorios.	4,00	118,61	474,44
EBSSA03	UD BOMBA TRASIEGO HIPOCLORITO SÓDICO. 25M3/H. 15 MCA Grupo motobomba centrífuga horizontal para trasiego de hipoclorito sódico. Marca: STÜBBE o equivalente. Modelo: SHM 50-40L PP/EPDM. Caudal: 25 m³/h. Altura manométrica: 15 m.c.a. Potencia motor: 3,0 kW. Velocidad del motor: 2.920 r.p.m. Resto de características según ET. Incluido placa de anclaje, transporte, montaje, conexiones eléctricas y de control, y pruebas de funcionamiento.	1,00	1.182,79	1.182,79
TOTAL SUBAPARTADO 02.02.08.4 DOSIFICACIÓN DE HIPOCLORITO SÓDICO.....				28.241,25
SUBAPARTADO 02.02.08.5 DOSIFICACIÓN DE REACTIVOS DE POLI. DESHIDRATACIÓN.				
EBHFP02	UD BOMBA TORNILLO DOSIFICACIÓN DE POLI 400 L/H y 25 mca Bomba helicoidal, para dosificación de poli. Marca: MONO o equivalente. Modelo: C22AC11RMA. Velocidad de trabajo (rpm): 50-215. Caudal a la velocidad de trabajo (l/h): 80-400. Presión en las condiciones de trabajo (bar): 2,5. - Paso de sólidos duros/deformables (mm): 3,5 / 10. Detector funcionamiento en vacío. Dimensiones aspiración: 1 1/4" rosca BP. Dimensiones impulsión: 1 1/4" rosca BP. Accionamiento: eléctrico mediante motorreductor. Potencia instalada (kW): 0,55. Velocidad motor (rpm): 1.450. Tensión (V): 400. Frecuencia (Hz): 50. Bancada metálica. Incluso transporte, montaje, conexiones eléctricas y de control, pruebas de funcionamiento. Resto de características según E.T.	2,00	979,21	1.958,42
EEPPOL01	UD EQUIPO PREPARACIÓN POLIELECTROLITO 550 L/H Equipo de preparación de polielectrolito. Marca: POLITECH o equivalente. Modelo: POLIBASIC AP 5 PPH. Tipo: unidad compacta. Capacidad de preparación (l/h): 550. Dosificador de poli en polvo: tornillo+motorvariador reductor de 0,18 kW. Tolva de alimentación de capacidad 60 litros. Depósito con dos compartimentos y tapas, de 650 l. de capacidad útil. Dos electroagitadores de eje vertical y amarre por brida. Potencia electroagitador (kW): 0,37+0,37. Sonda de nivel ultrasónico. Armario de control. Materiales: Cuba en PPH, electroagitadores y tobera: AISI 316. Dosificador volumétrico: PPH. Cuadro eléctrico. Incluso transporte, montaje, conexiones eléctricas y de control, pruebas de funcionamiento. Resto de características según E.T.	1,00	4.611,24	4.611,24
EQ70000	Ud CONEXIÓN PARA LIMPIEZA DE CONDUCCIONES Conexión para limpieza de conducciones y baldeos, compuesta por válvulas de bola manual DN-25 y conexión rápida mediante racor.	1,00	145,06	145,06
E3256	UD CONJUNTO TUBERÍAS PARA AGUA INDUST. Y POTABLE. PVC Y/O PE Conjunto de tuberías y válvulas para distribución de agua industrial y potable. Material: PVC y/o PE. Diámetro nominal: según planos mm. Presión nominal: 10 Atm. Incluso p.p. de válvulas, soportes y accesorios.	1,00	122,87	122,87
E3257	Ud CONJUNTO TUBERÍAS DISTRIBUCIÓN REACTIVOS PVC Y/O PP Conjunto de tuberías y válvulas para distribución de reactivos. Material: PVC y/o PP. Diámetro nominal: según planos mm. Presión nominal: 10 Atm. Incluso p.p. de válvulas, soportes y accesorios.	1,00	118,61	118,61
EROT01	UD ROTÁMETRO PARA MEDIDA DE AGUA DE APORTE. Rotámetro para medida de agua de aporte. Rango de medida: 200 -2000 l/h. Instalación en línea. Material: acero inoxidable AISI-316	1,00	171,22	171,22

PRESUPUESTOS PARCIALES.

ABASTECIMIENTO A VARIOS MUNICIPIOS DE LA RIOJA. SISTEMA CIDACOS

CÓDIGO	RESUMEN	CANTIDAD	PRECIO	IMPORTE
EVBI0032	UD VÁLVULA BOLA INOX DN=32 mm. / 16 atm. Válvula de bola de 32 mm. de diámetro nominal y 16 At. de P.N., de acero inoxidable, tornillería de acero inoxidable, totalmente colocada.	6,00	32,61	195,66
TOTAL SUBAPARTADO 02.02.08.5 DOSIFICACIÓN DE REACTIVOS DE POLI. DESHIDRATACIÓN.....				7.323,08
SUBAPARTADO 02.02.08.6 VARIOS				
EDLAV001	UD DUCHA LAVAOJOS Estructura construida en caño de acero galvanizado revestido con pintura epoxi color amarillo. Campana de ducha de diámetro 220 mm construida en acero inoxidable tipo diluvio, con baffle aliviador que produce una campana de agua de diámetro 500 mm. Lavaojos construido con bacha de acero inoxidable de diámetro 250 mm con tapa plástica rebatible automáticamente y rociadores de bronce cromados que producen espuma con efecto de lavaojos y lavacara posee paso calibrado regulador de presión y caudal y capuchones automáticos antipolvo. Accionamiento de la ducha por palanca manual de acero inoxidable con indicador e instructivo de alto impacto y válvula esférica de bronce. Accionamiento del lavaojos por pedal de plástico y palanca manual de acero inoxidable con instructivo e indicador y válvula esférica de bronce. Acometida de agua potable, sumidero de vaciado y conexión a la red de escurridos. Totalmente instalada.	1,00	704,94	704,94
EVENT01	UD VENTILADOR HELICOIDAL:Q=3.650M3/H Ventilador extractor helicoidal mural marca: SODECA o equivalente. Caudal: 3.650 m3/h. Velocidad: 2.780 rpm. Nivel sonoro: 72 dB(A) . Materiales:marco soporte en chapa de acero, Helice: poliámida 6 reforzada con fibra de vidrio, Accionamiento: motor electrico. Potencia: 0,18 KW. Accesorios: Rejilla de proteccion. Realización de hueco en muro de bloque, ayudas de albañilería, colocado y funcionando. Totalmente instalado.	1,00	399,82	399,82
EPOLE1000	UD POLIPASTO ELÉCTRICO DE 1.000 KG Polipasto. Servicio: Izado de equipos. Características:- Marca: VINCA, VICINAY o equivalente. Capacidad (kg): 1.000. Tipo de carro: monocarril. Cota mínima del gancho a la viga (mm): 880. Potencia motor elevación (KW): 1,85. Incluye limitador de carga, motor-freno en el carro de traslación. Incluso transporte, montaje, conexiones eléctricas y de control, pruebas de funcionamiento. Resto de características según E.T.	1,00	2.244,00	2.244,00
EPOLM500	UD POLIPASTO MANUAL DE 500 KG Polipasto. Servicio: Izado de equipos. Características: Marca: VINCA, VICINAY o equivalente. Capacidad (kg): 500. Tipo de carro: monocarril. Cota mínima del gancho a la viga (mm): 880. Incluso transporte, montaje, pruebas de funcionamiento. Resto de características según E.T.	1,00	388,89	388,89
TOTAL SUBAPARTADO 02.02.08.6 VARIOS				3.737,65
TOTAL APARTADO 02.02.08 SALA DE REACTIVOS.....				90.549,39
APARTADO 02.02.09 INSTRUMENTACIÓN				
ECELM900	UD CAUDALÍMETRO ELECTROMAGNÉTICO DN 900 mm Equipo medidor de caudal de DN900 mm. tipo electromagnético y PN=10 atm. con salida 4/20 mA, tensión 220 V y escala 0-240 m3/h, totalmente instalado y probado. Incluido transporte, montaje, conexiones eléctricas y pruebas de funcionamiento. Resto de características, según ET.	2,00	7.211,09	14.422,18
ECELM400	UD CAUDALÍMETRO ELECTROMAGNÉTICO DN 400 mm Equipo medidor de caudal de DN400 mm. tipo electromagnético y PN=10 atm. con salida 4/20 mA, tensión 220 V y escala 0-240 m3/h, totalmente instalado y probado. Incluido transporte, montaje, conexiones eléctricas y pruebas de funcionamiento. Resto de características, según ET.	1,00	2.414,13	2.414,13
ECELM125	UD CAUDALÍMETRO ELECTROMAGNÉTICO DN 125 mm PN10 Equipo medidor de caudal de DN125 mm. tipo electromagnético y PN=10 atm. con salida 4/20 mA, tensión 220 V y escala 0-240 m3/h, totalmente instalado y probado. Incluido transporte, montaje, conexiones eléctricas y pruebas de funcionamiento. Resto de características, según ET.	4,00	1.046,22	4.184,88

PRESUPUESTOS PARCIALES.

ABASTECIMIENTO A VARIOS MUNICIPIOS DE LA RIOJA. SISTEMA CIDACOS

CÓDIGO	RESUMEN	CANTIDAD	PRECIO	IMPORTE
ECELM100	UD CAUDALÍMETRO ELECTROMAGNÉTICO DN 100 mm Equipo medidor de caudal de DN100 mm. tipo electromagnético y PN=10 atm. con salida 4/20 mA, tensión 220 V y escala 0-240 m3/h, totalmente instalado y probado. Incluido transporte, montaje, conexiones eléctricas y pruebas de funcionamiento. Resto de características, según ET.	1,00	951,67	951,67
ECELM080	UD CAUDALÍMETRO ELECTROMAGNÉTICO DN 80 mm PN10 Equipo medidor de caudal de DN80 mm. tipo electromagnético y PN=10 atm. con salida 4/20 mA, tensión 220 V y escala 0-240 m3/h, totalmente instalado y probado. Incluido transporte, montaje, conexiones eléctricas y pruebas de funcionamiento. Resto de características, según ET.	1,00	845,12	845,12
ECELM032	UD CAUDALÍMETRO ELECTROMAGNÉTICO POLI ELECT. DN 32 mm Equipo medidor de caudal de DN32 mm. tipo electromagnético para reactivos, con salida 4/20 mA, tensión 220 V, totalmente instalado y probado. Incluido transporte, montaje, conexiones eléctricas y pruebas de funcionamiento. Resto de características, según ET.	1,00	783,01	783,01
EMANGL01	UD MANÓMETRO DE ESFERA TIPO MUELLE TUBULAR DN100 Manómetro de esfera DN100 tipo muelle tubular con accesorios, sifón, válvula de aislamiento y purga. Incluso instalación y pruebas. Resto de características según E.T de proyecto.	22,00	88,26	1.941,72
EMRAD01	UD MEDIDOR NIVEL DE RADAR Medidor de nivel por radar. Marca: ENDRESS-HAUSER o equivalente. Modelo: Micropilot M FMR231. Antena y longitud inactiva: PPS antiestático 360 mm (14"). Señal de salida (mA): 4..20. Precisión (%): +/- 0,2. Resolución (mm): 1. Sin efecto de la temperatura ambiente sobre el valor medido. Material convertidor: fundición de aluminio con recubrimiento epoxy. Incluso instalación y pruebas. Resto de características según E.T de proyecto.	1,00	872,07	872,07
EMUSO01	UD MEDIDOR DE NIVEL POR ULTRASONIDOS Medidor de nivel por ultrasonidos. Pértiga en PP con brida. Incluso instalación y pruebas. Resto de características según E.T de proyecto.	3,00	885,87	2.657,61
EMUSO02	UD MEDIDOR DE NIVEL POR ULTRASONIDOS TANQUES REACTIVOS Medidor de nivel por ultrasonidos para tanque e reactivos. Medios auxiliares y de sujeción y/o anclaje. Incluso instalación y pruebas. Resto de características según E.T de proyecto.	6,00	977,85	5.867,10
EMFAR01	UD MEDIDOR PERDIDA DE CARGA EN FILTROS DE ARENA Medidor pérdida de carga en filtros de arena, Electronica de medida de nivel, sensor de nivel ultrasónico, tuerca con brida y programador manual. Incluso instalación y pruebas. Resto de características según E.T de proyecto.	12,00	1.462,34	17.548,08
EMNBY01	UD MEDIDOR POR BOYAS DE NIVEL MÁXIMO-MINIMO-SEGURIDAD Conjunto de boyas para el control de máximo, mínimo y seguridad, incluso mecanismos de regulación y control, conexión y cableado desde cuadro a deposito. Medios auxiliares y de sujeción y/o anclaje. Incluso instalación y pruebas. Resto de características según E.T de proyecto.	4,00	132,48	529,92
EMTURB01	UD MEDIDOR DE TURBIDEZ Equipo para medida de turbidez compuesto por: Sistema de turbidez en PVC, rango 0-4000 ppm, por luz dispersada a 90°, temperatura -5° a 60°, presión máxima 6 bares, cable en longitud necesaria, conexión NPT 3/4". Portaelectrodos de PVC, longitud aproximada 1500 mm, fijación V4/A. Transmisor para montaje en pared, protección IP-65, en aluminio y poliéster, indicación digital en NTU, ppm, escala de salida programable, alimentación 220 V, salida 0/4-20 mA, temperatura 0-50°, señal de salida para temperatura, error máximo 0,5% FS, con dos relés de salida, instalado y conectado. Medios auxiliares y de sujeción y/o anclaje. Incluso instalación y pruebas. Resto de características según E.T de proyecto.	4,00	1.665,60	6.662,40

PRESUPUESTOS PARCIALES.

ABASTECIMIENTO A VARIOS MUNICIPIOS DE LA RIOJA. SISTEMA CIDACOS

CÓDIGO	RESUMEN	CANTIDAD	PRECIO	IMPORTE
EMPH01	UD MEDIDOR DE PH Y TEMPERATURA Equipo de medida de pH para montaje en línea con electrónica mural, con display y teclado, según E.T, instalado con soporte de acero AISI 316, totalmente cableado. Medios auxiliares y de sujeción y/o anclaje. Incluso instalación y pruebas. Resto de características según E.T de proyecto.	1,00	538,77	538,77
EMCLL01	UD MEDIDOR CONTROLADOR CLORO Medidor controlador de cloro libre controlado por microprocesador, incluido soporte para toma de muestras, p.p. de piezas de conexión, sujeción y/o anclaje. Incluso instalación y pruebas. Resto de características según E.T de proyecto.	4,00	1.033,95	4.135,80
EMCONT01	UD CONTROLADOR UNIVERSAL 1 CANAL Controlador universal SC200 de HACH o equivalent o equivalente, de 1 o 2 sondas. 2 salidas 4-20 mA, 4 relés de alarma. Alimentación 100-240 Vca. Resto de características según E.T de proyecto. Medios auxiliares y de sujeción y/o anclaje. Incluso instalación y pruebas. Resto de características según E.T de proyecto.	6,00	688,24	4.129,44
EANOZ01	UD ANALIZADOR DE OZONO Analizador de ozono en el agua ATI Q45/64H. Incluso instalación y pruebas. Resto de características según E.T de proyecto.	3,00	2.646,80	7.940,40
EREOZ01	UD REGULADOR DE O2 Regulador de O2, con válvulas, manómetros, reguladores. Incluso instalación y pruebas. Resto de características según E.T de proyecto.	2,00	1.138,97	2.277,94
TOTAL APARTADO 02.02.09 INSTRUMENTACIÓN.....				78.702,24
APARTADO 02.02.10 VARIOS				
SUBAPARTADO 02.02.10.1 AGUA DE SERVICIO				
EGRPR01	UD GRUPO DE PRESIÓN DOS BOMBAS 50,0 m3/h 4 bar. Grupo de Presión de CAPRARI o equivalente de dos (1+1) bombas 50,0 m³/h 3 bar. Fluido a bombear: Agua industrial. Caudal unitario: 50 m3/h. Presión: 4 bar. Formado por 2 Uds. Electrobomba centrífuga vertical multicelular 10 C.V. Cuerpo y rodetes AISI-316L, eje motor AISI-420. Depósito acumulador 500 l, válvula de esfera, manguitos flexibles de conexión. Bancada de chapa de acero plegado. Colector de impulsión para las dos bombas. Válvulas de corte, carretes, válvulas de retención. Cuadro eléctrico, transductor de presión, boya de nivel. Manómetro y presostatos. Incluido, transporte, conexiones eléctricas y de control, así como el montaje y pruebas de funcionamiento. Resto de características según ET.	1,00	5.012,09	5.012,09
EGRPR02	UD RED DE AGUA Red de agua a presión para llenado de depósitos de reactivos, y otros, desde salida de grupo de presión hasta cubas y puntos de consumo, ejecutada en tubería de PE soldado. Instalada.	1,00	539,78	539,78
ETI316100	ML TUBERÍA DE INOXIDABLE AISI 316L DN 100 Tubería de acero inoxidable de diámetro DN 100 mm. Construcción: Mediante soldadura. Espesor 1,5 mm. Material: Acero inoxidable AISI -316 L. Material accesorios acero inoxidable AISI - 316L. Acabado: Decapado. Incluso p.p. de uniones, piezas especiales, bridas, codos, tes, injertos para otras tuberías y p.p. de estructuras y elementos de anclajes a solera y/o muros. Montada y probada.	8,25	43,36	357,72
237	UD VÁLVULA DE COMPUERTA MANUAL DN100 PN25 Válvula de compuerta de cierre elástico de 100 mm. de diámetro nominal y 25 At. de P.N., de accionamiento manual por volante, de cuerpo de fundición nodular GGG-50, con eje de acero inoxidable al 13 % Cr. con rosca conformadas por laminación en frío, cierre en fundición nodular, tomillería de acero inoxidable, protegida contra la corrosión mediante aplicación de doble capa de pintura epoxy, totalmente colocada y probada. Resto de características según ET.	1,00	361,59	361,59

PRESUPUESTOS PARCIALES.

ABASTECIMIENTO A VARIOS MUNICIPIOS DE LA RIOJA. SISTEMA CIDACOS

CÓDIGO	RESUMEN	CANTIDAD	PRECIO	IMPORTE
ECD010016	UD CARRETE DE DESMONTAJE DN=100 mm PN16 Carrete telescópico de desmontaje DN100 PN16, bridas de acero al carbono, virolas de acero inoxidable, protección epoxi, tornillos y tuercas en acero F-114, cincado y posterior baño de cromo-niquel, incluido p.p. de brida enchufe, totalmente instalado y probado en obra.	1,00	167,93	167,93
TOTAL SUBAPARTADO 02.02.10.1 AGUA DE SERVICIO.....				6.439,11
SUBAPARTADO 02.02.10.2 AIRE DE SERVICIO				
ECOMA01	UD COMPRESOR DE AIRE. 1.300 L/MIN 7,5 BAR. P=7,5 Kw Compresor de aire de tornillo lubricado de velocidad fija, modelo L07e de ATLAS COPCO o equivalente, de 1.300 l/min y 7,5 bar, con una potencia de 7,5 Kw. Tanque de 270 l. Incluso parte proporcional de válvulas y manguitos de unión a líneas, manómetro, separador de agua-aceite. Incluido, transporte, conexiones eléctricas y de control, así como el montaje y pruebas de funcionamiento. Resto de características según ET.	2,00	5.067,50	10.135,00
ECOMA02	UD SECADOR DE AIRE. 1.400 L/MIN 7 BAR. Secador frigorífico para aire, modelo F014S de ATLAS COPCO o equivalente, de 1.400 l/min. Incluso parte proporcional de válvulas y manguitos de unión a líneas, prefiltro de 1.800 l/min, postfiltro de 1.800 l/min. Incluido, transporte, conexiones eléctricas y de control, así como el montaje y pruebas de funcionamiento. Resto de características según ET.	1,00	923,62	923,62
ECVNEA01	UD ACOMETIDA AIRE Acometida de aire desde compresor a todos los cuadro de accionamiento de EV. Instalada.	1,00	415,68	415,68
TOTAL SUBAPARTADO 02.02.10.2 AIRE DE SERVICIO.....				11.474,30
TOTAL APARTADO 02.02.10 VARIOS				17.913,41
APARTADO 02.02.11 MEDICIÓN AGUA SALIDA AGUA DEPÓSITO				
ETI316900	ML TUBERÍA DE INOXIDABLE AISI 316L DN 900 Tubería de acero inoxidable de diámetro DN 900 mm. Construcción: Mediante soldadura. Espesor 8 mm. Material: Acero inoxidable AISI -316 L. Material accesorios acero inoxidable AISI - 316L. Acabado: Decapado. Incluso p.p. de uniones, piezas especiales, bridas, codos, tes, injertos para otras tuberías y p.p. de estructuras y elementos de anclajes a solera y/o muros. Montada y probada.	25,75	708,01	18.231,26
EVMM0900	UD VÁLVULA DE MARIPOSA DOBLE EXCENRICIDAD DN 900 mm PN16 MANUAL Válvula de mariposa de doble excentricidad de 900 mm de diámetro y PN16, de accionamiento manual por reductor, incluso mecanismo de accionamiento, maniobra y control, transporte, montaje, juntas, tornillería y pintura totalmente instalada y probada. Resto de caracterisitcas según ET de proyecto.	1,00	10.100,69	10.100,69
ECD0900	UD CARRETE DE DESMONTAJE DN=900 mm PN16 Carrete telescópico de desmontaje DN900 PN 16, bridas de acero al carbono, virolas de acero inoxidable, protección epoxi, tornillos y tuercas en acero F-114, cincado y posterior baño de cromo-niquel, incluido p.p. de brida enchufe, totalmente instalado y probado en obra.	3,00	2.189,63	6.568,89
EVMMT900	UD VÁLVULA DE MARIPOSA DOBLE EXCENRICID. DN 900 mm PN16 MOTORIZADA Válvula de mariposa de doble excentricidad de 900 mm de diámetro y PN16, de accionamiento motorizado, incluso mecanismo de accionamiento, maniobra y control, transporte, montaje, juntas, tornillería y pintura totalmente instalada y probada. Resto de caracterisitcas según ET de proyecto.	2,00	13.550,71	27.101,42
TOTAL APARTADO 02.02.11 MEDICIÓN AGUA SALIDA AGUA DEPÓSITO.....				62.002,26
TOTAL SUBCAPÍTULO 02.02 EQUIPOS ELECTROMECAÑICOS ETAP.....				2.070.615,64

PRESUPUESTOS PARCIALES.

ABASTECIMIENTO A VARIOS MUNICIPIOS DE LA RIOJA. SISTEMA CIDACOS

CÓDIGO	RESUMEN	CANTIDAD	PRECIO	IMPORTE
SUBCAPÍTULO 02.03 INSTALACIONES ELÉCTRICAS ETAP				
APARTADO 02.03.01 CENTRO DE CONTROL DE MOTORES				
CCMLA	UD C.C.M. 1. EDIFICIO DESHIDRATACIÓN Y REACTIVOS Cuadro general con apartament y envolvente de Schneider, compartimentación mínima 3B, formado por envolvente metálico con puertas montado sobre zócalo y conteniendo interruptor general automático NSX 400A regulable, limitador de sobretensiones, analizador de redes, variadores de frecuencia, protecciones magnetotérmicas y diferenciales según esquema unifilar, incluso cableado interior, perfiles omega y regletas de conexión.	1,00	63.500,71	63.500,71
CCMLA2	UD C.C.M. 2. EDIFICIO DE CONTROL Cuadro general con apartament y envolvente de Schneider, compartimentación mínima 3B, formado por envolvente metálico con puertas montado sobre zócalo y conteniendo interruptor general automático NSX 250A regulable, limitador de sobretensiones, analizador de redes, variadores de frecuencia, protecciones magnetotérmicas y diferenciales según esquema unifilar, incluso cableado interior, perfiles omega y regletas de conexión.	1,00	28.896,41	28.896,41
CCMLA3	UD C.C.M. 3. DEPÓSITO DE AGUA TRATADA Cuadro general con apartament y envolvente de Schneider, compartimentación mínima 3B, formado por envolvente metálico con puertas montado sobre zócalo y conteniendo interruptor general automático NSX 100A regulable, limitador de sobretensiones, analizador de redes, variadores de frecuencia, protecciones magnetotérmicas y diferenciales según esquema unifilar, incluso cableado interior, perfiles omega y regletas de conexión.	1,00	11.895,96	11.895,96
TOTAL APARTADO 02.03.01 CENTRO DE CONTROL DE MOTORES.....				104.293,08
APARTADO 02.03.02 CUADROS ELÉCTRICOS, ELECTRIFICACIÓN, CABLEADO				
ELE013525	ML LINEA 3x4mm2 Cu 0.6/1kV RZ1-K (AS) Línea de alimentación con conductores unipolares 3x4 mm2 Cu 0.6/1kV RZ1-K (AS) en canalización existente, incluso conexionado en inicio y final de línea.	151,80	2,28	346,10
EL3623	ML LINEA 4x2.5mm2 Cu 0.6/1kV RZ1-K (AS) Línea eléctrica con conductor multipolar 4x2.5mm2 RZ1-K (AS) en canalización existente, incluso conexionado en inicio y final de línea.	2.525,00	2,05	5.176,25
EL3801	ML LINEA 5x1.5mm2 Cu 0.6/1kV RZ1-K (AS) Línea eléctrica con conductores unipolares 5x1.5mm2 RZ1-K (AS) en canalización existente, incluso conexionado en inicio y final de línea.	5,00	2,51	12,55
EL362	ML LINEA 5x2.5mm2 Cu 0.6/1kV RZ1-K (AS) Línea eléctrica con conductor multipolar 5x2.5mm2 RZ1-K (AS) en canalización existente, incluso conexionado en inicio y final de línea.	287,00	2,39	685,93
EL36232	ML LINEA 5x2.5mm2 Cu 0.6/1kV RZ1KZ1-K (AS) Línea eléctrica con conductores unipolares 4x2.5mm2 RZ1KZ1-K (AS) en canalización existente, incluso conexionado en inicio y final de línea.	1.160,00	2,36	2.737,60
EL362321	ML LINEA 5x2.5mm2 Cu 0.6/1kV RZ1-K (AS+) Línea eléctrica con conductores unipolares 4x2.5mm2 RZ1KZ1-K (AS) en canalización existente, incluso conexionado en inicio y final de línea.	50,00	4,30	215,00
ELE0133211	ML LINEA 5x10mm2 Cu 0.6/1kV RZ1-K (AS) Línea de alimentación con conductores unipolares 5x10 mm2 Cu 0.6/1kV RZ1-K (AS) en canalización existente, incluso conexionado en inicio y final de línea.	62,00	5,02	311,24

PRESUPUESTOS PARCIALES.

ABASTECIMIENTO A VARIOS MUNICIPIOS DE LA RIOJA. SISTEMA CIDACOS

CÓDIGO	RESUMEN	CANTIDAD	PRECIO	IMPORTE
ELE0133212	ML LINEA 5x10mm2 Cu 0.6/1kV RZ1KZ1-K (AS) Línea de alimentación con conductores unipolares 5x10 mm2 Cu 0.6/1kV RZ1KZ1-K (AS) en canalización existente, incluso conexionado en inicio y final de línea.	110,00	5,61	617,10
ELE0133215	ML LINEA 5x16mm2 Cu 0.6/1kV RZ1-K (AS) Línea de alimentación con conductores unipolares 5x16 mm2 Cu 0.6/1kV RZ1-K (AS) en canalización existente, incluso conexionado en inicio y final de línea.	290,00	5,57	1.615,30
ELE01332151	ML LINEA 4x16mm2 Cu 0.6/1kV RZ1KZ1-K (AS) Línea de alimentación con conductores unipolares 5x16 mm2 Cu 0.6/1kV RZ1KZ1-K (AS) en canalización existente, incluso conexionado en inicio y final de línea.	40,00	5,25	210,00
EL380	ML LINEA 3x1.5mm2 Cu 0.6/1kV RZ1-K (AS) Línea eléctrica con conductor multipolares 3x1.5mm2 RZ1-K (AS) en canalización existente, incluso conexionado en inicio y final de línea.	145,00	1,81	262,45
EL3621	ML LINEA 3x2.5mm2 Cu 0.6/1kV RZ1-K (AS) Línea eléctrica con conductores unipolares 3x2.5mm2 RZ1-K (AS) en canalización existente, incluso conexionado en inicio y final de línea.	230,00	1,74	400,20
ELAR69865	ML LINEA 3x35/16 mm2 Cu 0.6/1 kV RZ1-K(AS) Línea eléctrica con conductores unipolares de 4x35/16mm2 RZ1KZ1-K(AS) en canalización existente, incluso conexionado en inicio y final de línea.	50,00	20,63	1.031,50
ELAR698651	ML LINEA 4x35/16 mm2 Cu 0.6/1 kV RZ1-K(AS) Línea eléctrica con conductores unipolares de 4x35/16mm2 RZ1KZ1-K(AS) en canalización existente, incluso conexionado en inicio y final de línea.	25,00	26,24	656,00
ELE013322	ML LINEA 5x6mm2 Cu 0.6/1kV RZ1KZ1-K (AS) Línea eléctrica con conductores unipolares 5x6 mm2 Cu 0.6/1kV RZ1KZ1-K (AS) en canalización existente, incluso conexionado en inicio y final de línea.	90,00	4,70	423,00
ELAR69866	ML LINEA 4x50/25 mm2 Cu 0.6/1 kV RZ1-K(AS) Línea eléctrica con conductores unipolares de 4x50/25mm2 RZ1-K(AS) en canalización existente, incluso conexionado en inicio y final de línea.	200,00	18,73	3.746,00
ELAR698631	ML LINEA 2(4x240/120) mm2 Al 0.6/1 kV RV-AI (AS) Línea eléctrica con conductores unipolares 2(4x240/120)mm2 RV-AI (AS) en canalización existente, incluso conexionado en inicio y final de línea.	70,00	47,95	3.356,50
ELE02141	ML LINEA 3(3x240/120mm2)Al 0,6/1 kV RZ1-AL(AS) Línea general de alimentación con 9 conductores unipolares de 1x240mm2 Al 0.6/1kV RZ1-AL y 3 conductores unipolares de 1x120mm2 AL 0.6/1kV RZ1-AL (AS) instalada en canalización subterránea bajo calzada bajo tubo compuesta por 6 tubos de PEAD de 160mm. Incluido reposición de pavimento existente.	10,00	224,01	2.240,10
ELE02142	ML LINEA 2(4x120/70mm2)Al 0,6/1 kV RZ1-AL(AS) Línea general de alimentación con 8 conductores unipolares de 1x120mm2 Al 0.6/1kV RZ1-AL y 2 conductores unipolares de 1x70mm2 AL 0.6/1kV RZ1-AL (AS) instalada en canalización subterránea bajo calzada bajo tubo compuesta por 6 tubos de PEAD de 160mm. Incluido reposición de pavimento existente.	70,00	139,10	9.737,00

PRESUPUESTOS PARCIALES.

ABASTECIMIENTO A VARIOS MUNICIPIOS DE LA RIOJA. SISTEMA CIDACOS

CÓDIGO	RESUMEN	CANTIDAD	PRECIO	IMPORTE
ELAR698632	ML LINEA 4x240/120 mm2 Al 0.6/1 kV RV-AI (AS) Línea eléctrica con conductores unipolares de 4x240/120 mm2 RV-AI (AS) en canalización existente, incluso conexionado en inicio y final de línea.	70,00	24,36	1.705,20
ELAR698633	ML LINEA 4x70/35 mm2 Al 0.6/1 kV RV-AI (AS) Línea eléctrica con conductores unipolares de 4x70/35 mm2 RV-AI (AS) en canalización existente, incluso conexionado en inicio y final de línea.	220,00	24,15	5.313,00
ELAR698635	ML LINEA 4x150/95 mm2 Al 0.6/1 kV RV-AI (AS) Línea eléctrica con conductores unipolares de 4x120/95 mm2 RV-AI (AS) en canalización existente, incluso conexionado en inicio y final de línea.	200,00	18,50	3.700,00
EL210	ML CANALIZACION ELÉCTRICA 1T PE DP 110 Canalización subterránea para red de baja tensión y constituida por zanja de dimensiones 0.40x1.00 (anchura x profundidad), lecho de hormigón, 1 tubo de PE DP d=110mm, cinta señalizadora y relleno con material procedente de la excavación.	150,00	7,51	1.126,50
EL220	ML CANALIZACION ELÉCTRICA 2T PE DP 110 Canalización subterránea para red de baja tensión y constituida por zanja de dimensiones 0.40x1.00 (anchura x profundidad), lecho de hormigón, 2 tubos de PE DP d=110mm, cinta señalizadora y relleno con material procedente de la excavación.	190,00	9,13	1.734,70
EL2301	ML CANALIZACION ELÉCTRICA 4T PE DP 110 Canalización subterránea para red de baja tensión y constituida por zanja de dimensiones 0.40x1.00 (anchura x profundidad), lecho de hormigón, 4 tubos de PE DP d=110mm, cinta señalizadora y relleno con material procedente de la excavación.	15,00	11,99	179,85
ELA0491	ML CANALIZACIÓN ELÉCTRICA 2T PE DP 160 Canalización subterránea para red de baja tensión y constituida por zanja de dimensiones 0.40x1.00 (anchura x profundidad), lecho de hormigón, 2 tubos de PE DP d=160mm, cinta señalizadora y relleno con material procedente de la excavación.	170,00	12,59	2.140,30
ELA0492	ML CANALIZACIÓN ELÉCTRICA 3T PE DP 160 Canalización subterránea para red de baja tensión y constituida por zanja de dimensiones 0.40x1.00 (anchura x profundidad), lecho de hormigón, 3 tubos de PE DP d=160mm, cinta señalizadora y relleno con material procedente de la excavación.	180,00	15,56	2.800,80
ELA0493	ML CANALIZACIÓN ELÉCTRICA 4T PE DP 160 Canalización subterránea para red de baja tensión y constituida por zanja de dimensiones 0.40x1.00 (anchura x profundidad), lecho de hormigón, 4 tubos de PE DP d=160mm, cinta señalizadora y relleno con material procedente de la excavación.	50,00	18,53	926,50
ELA0494	ML CANALIZACIÓN ELÉCTRICA 6T PE DP 160 Canalización subterránea para red de baja tensión y constituida por zanja de dimensiones 0.40x1.00 (anchura x profundidad), lecho de hormigón, 6 tubos de PE DP d=160mm, cinta señalizadora y relleno con material procedente de la excavación.	10,00	24,47	244,70
ELE0118	UD ARQUETA ELÉCTRICA FÁBRICA 100x100 CM Arqueta de paso de líneas construida en fábrica de ladrillo de 12 cm. de espesor y enfoscado en paredes, dimensiones interiores 100 x 100 y 100 cm. de profundidad, incluso marco y tapa de fundición.	35,00	183,87	6.435,45
BT0505	ML CANALIZACION REJIBAND 100 mm CON PAT Canalización aérea constituida por bandeja tipo Rejiband de 100 mm. Incluso soportes (cada 80 cm como máximo) y puesta a tierra con conductor desnudo de cobre de 35 mm2.			

PRESUPUESTOS PARCIALES.

ABASTECIMIENTO A VARIOS MUNICIPIOS DE LA RIOJA. SISTEMA CIDACOS

CÓDIGO	RESUMEN	CANTIDAD	PRECIO	IMPORTE
		250,00	12,86	3.215,00
	TOTAL APARTADO 02.03.02 CUADROS ELÉCTRICOS, ELECTRIFICACIÓN, CABLEADO.....			63.301,82
	APARTADO 02.03.03 RED DE TIERRAS			
BT23031	UD PUESTA A TIERRA DE EDIFICIO REACTIVOS Puesta a tierra de edificio de reactivos con 130 metros de conductor de cobre desnudo de 50mm2 y 4 picas de acero cobrizado de 2 metros.	1,00	564,24	564,24
BT23032	UD PUESTA A TIERRA DE ZONA ENTRADA DE AGUA BRUTA Puesta a tierra de zona entrada de agua bruta con 80 metros de conductor de cobre desnudo de 50mm2 y 4 picas de acero cobrizado de 2 metros.	1,00	416,85	416,85
BT23033	UD PUESTA A TIERRA DE ZONA DECANTADORES Puesta a tierra de zona decantadores con 160 metros de conductor de cobre desnudo de 50mm2 y 4 picas de acero cobrizado de 2 metros.	1,00	652,67	652,67
BT23034	UD PUESTA A TIERRA DE EDIFICIO DE CONTROL Y ZONA DE FILTRACIÓN Puesta a tierra de edificio de control y zona de filtración con 190 metros de conductor de cobre desnudo de 50mm2 y 4 picas de acero cobrizado de 2 metros.	1,00	741,11	741,11
BT23035	UD PUESTA A TIERRA DE CASETA DE DEPÓSITO DE AGUA TRATADA Puesta a tierra de caseta de depósito de agua tratada con 400 metros de conductor de cobre desnudo de 50mm2 y 8 picas de acero cobrizado de 2 metros.	1,00	1.425,77	1.425,77
	TOTAL APARTADO 02.03.03 RED DE TIERRAS.....			3.800,64
	APARTADO 02.03.04 CENTRO DE TRANSFORMACIÓN			
EE120201	ud Edificio Transformación PFU-4/20 Ud.- Envolvente prefabricada de hormigón tipo PFU-4/20 de Ormazábal o similar, que incluye el edificio y todos sus elementos interiores, incluyendo el transporte, montaje y accesorios. Totalmente instalado.	1,00	4.351,30	4.351,30
EE0201	ud Celda de línea entrada/salida Ud.- Celda de línea, marca Ormazábal o similar, modelo CGM24-CML, de corte y aislamiento en SF6, Vn=24kV., In=400A., con interruptor-seccionador, seccionador de puesta a tierra y aisladores testigo de presencia de tensión. Totalmente instalada.	1,00	1.392,30	1.392,30
EE070120	ud Celda de Medida CGM-CMM Ud.- Celda de Medida con envolvente metálica, formada por un módulo de Vn=24KV., y co medidas 800 mm. de ancho por 1025 mm. de fondo por 1800 mm de alto. Se incluyen en la celda, para la medición de la energía eléctrica consumida dos transformadores de tensión y dos transformadores de intensidad, incluyendo su montaje y conexión.	1,00	3.024,08	3.024,08
EE0202	ud Celda de protección transformador Ud.-Celda de protección de transformador, marca Ormazábal, modelo CGM24-CML, de corte y aislamiento en SF6, Vn=24kV., In=400A., con interruptor seccionador, cartuchos fusibles, bobina de disparo, contactos auxiliares, relé de protección de sobreintensidad de fase y homopolar tipo RPTA, doble seccionador de puesta a tierra y aisladores testigo de presencia de tensión.	1,00	1.933,13	1.933,13
EE070123	ud Interruptor automático Ud.- Interruptor automático de Baja Tensión incluido en envolvente metálica.	1,00	1.975,85	1.975,85
EE0203	ud Interconexión M.T. Borna/Cono Ud.- Interconexión M.T. Borna/Cono (longitud máxima aproximada por fase de 9 metros).	3,00	747,33	2.241,99

PRESUPUESTOS PARCIALES.

ABASTECIMIENTO A VARIOS MUNICIPIOS DE LA RIOJA. SISTEMA CIDACOS

CÓDIGO	RESUMEN	CANTIDAD	PRECIO	IMPORTE
EE120209	ud Puentes de B.T. 380 V-Trafo Ud.- Juego de puentes de cables de Baja Tensión, de sección y material 1 x 240 Al. (Etileno-Propileno) sin armadura, y todos los accesorios para la conexión, formados por un grupo de cables en la cantidad de 2 x fase + 1 x neutro de 3 metros de longitud.	1,00	223,46	223,46
EE120211	ud Tierras exteriores Ud.- Instalación de tierras exteriores formada po tierra de protección de transformación, instalación de puesta a tierra de protección, debidamente montada y conexionada, empleando conductor de cobre desnudo, unido a picas de acero cobreado de 14mm. de diámetro, con las siguientes características, geometría anillo rectangular. Profundidad 0,5 metros. Número de picas seis. Longitud de picas 8 metros. Diámetro rectángulo 4.0 x 3.0 metros. Tierra de servicio o neutro del transformador: Instalación exterior realizada con cobre aislado con el mismo tipo de materiales que las de las tierras de protección.	1,00	1.232,61	1.232,61
EE120212	ud Tierras interiores Ud.- Instalación de tierras interiores formadas por instalación interior de tierra de protección en el edificio de transformación, con el conductor de cobre desnudo grapado en la pared, y conectado a las celdas y demás aparamenta de este edificio, así como a una caja general de tierra de protección según las normas de la Compañía Suministradora. Instalación interior de tierra de servicio en el edificio de transformación, con el conductor de cobre aislado, grapado en la pared, y conectado al neutro de Baja Tensión, así como a una caja general de tierra de servicio, según las normas de la Compañía Suministradora.	1,00	826,84	826,84
EE120213	ud Defensa del Transformador Ud.- Defensa del transformador formada por una rejilla metálica, con una cerradura enclavada con la celda de protección correspondiente.	1,00	221,82	221,82
EE080114	ud Transformador 630 KVA - 13,2/24 KV Ud.- Transformador trifásico en baño de aceite de 630 kVA y relación 13,2/24kV/380-220V., con indicación del nivel de aceite, incluido el puente de conexión, bornas enchufables y la rejilla de protección así como el transporte y la colocación del mismo. Normativa Unesa 5201-D	1,00	8.491,62	8.491,62
EE120214	ud Iluminación C.T. Ud.- Equipo de iluminación del Centro de Transformación formado por un equipo de alumbrado que permita la suficiente visibilidad para ejecutar las maniobras y revisiones necesarias en las celdas de A.T.	1,00	112,32	112,32
EE120215	ud Equipo de maniobra Ud.- Realización de las maniobras con aislamiento suficiente para proteger al personal durante la ejecución de las maniobras y operaciones de mantenimiento, compuesto por Banquillo aislante, par de guantes de amianto y extintor de eficacia 89B.	1,00	147,82	147,82
EE070125	ud Equipo de Medida Ud.- Conjunto de medida de energía en A.T., que incluye el tubo de acero galvanizado y sus fijaciones, el conductor para los circuitos de intensidad y tensión, y el módulo de medida de tarifa triple, con un maxímetro y un contador de reactiva, así como un reloj para la discriminación de las tarifas. Totalmente instalado y funcionando.	1,00	988,74	988,74
ELE0214	ML LÍNEA DE ALIMENTACIÓN DE 4(3x240/120mm2)Al 0,6/1 kV RZ1-AL(AS) Línea general de alimentación con 12 conductores unipolares de 1x240mm2 Al 0.6/1kV RZ1-AL y 4 conductores unipolares de 1x120mm2 AL 0.6/1kV RZ1-AL (AS) instalada en canalización subterránea bajo calzada bajo tubo compuesta por 6 tubos de PEAD de 160mm. Incluido reposición de pavimento existente.	10,00	280,45	2.804,50

PRESUPUESTOS PARCIALES.

ABASTECIMIENTO A VARIOS MUNICIPIOS DE LA RIOJA. SISTEMA CIDACOS

CÓDIGO	RESUMEN	CANTIDAD	PRECIO	IMPORTE
CGBT	UD Cuadro C.G.B.T. EDAR Cuadro general de Baja Tensión de la ETAP con apartamento y envolvente de Schneider, compartimentación mínima 3B, formado por envolvente metálico con puertas montado sobre zócalo y conteniendo interruptor general automático NS 1000A regulable, limitador de sobretensiones, analizador de redes y protecciones magnetotérmicas y diferenciales según esquema unifilar, incluso cableado interior, perfiles omega y regletas de conexión.	1,00	46.370,20	46.370,20
001	M3 EXCAVACIÓN A CIELO ABIERTO Excavación a cielo abierto en todo tipo de terrenos incluido terrenos en roca, incluso agotamiento y transporte a lugar de empleo o vertedero.	12,00	3,62	43,44
010	M3 RELLENO ZANJAS, CIMIENTOS Y TRASDOSES DE MATERIAL SELECCIONADO Relleno con material seleccionado en zanjas, cimientos, trasdós de muros, estribos y otras estructuras procedente de la excavación o préstamos incluso carga, transporte y compactación.	7,20	3,32	23,90
TOTAL APARTADO 02.03.04 CENTRO DE TRANSFORMACIÓN.....				76.405,92
APARTADO 02.03.05 SISTEMA FOTOVOLTAICO				
PF0335	UD PANEL FOTOVOLTAICO 335W Suministro e instalación de módulo solar JINKO SOLAR JKM335PP-72 o similar, de células de silicio policristalino, potencia máxima (Wp) 335 W, tensión a máxima potencia (Vmp= 38 V, intensidad a máxima potencia (Imp) 8,82 A, tensión de circuito abierto (Voc) 47,2 V, intensidad de cortocircuito (Isc) 9,18 A, eficiencia 17,26%, 72 células, vidrio exterior templado de 3,2 mm de espesor, capa adhesiva de etilvinilacetato (EVA), marco de aluminio anodizado, temperatura de trabajo -40°C hasta 85°C, dimensiones 1956x992x40 mm, máxima tensión del sistema 1000V, resistencia a la carga del viento 245 kg/m2, resistencia a la carga de nieve 551 kg/m2, peso 0,8 kg, con caja de conexiones IP68 con 3 diodos, cables y conectores. Incluso accesorios de montaje y material de conexionado eléctrico, sin incluir la estructura soporte. Totalmente montado, conexionado y probado.	74,00	108,16	8.003,84
ESTMF3	UD ESTRUCTURA DE FIJACIÓN MÓDULOS FOTOVOLTAICOS Ud. Soporte inclinado abierto para módulos solares en instalación sobre cubierta plana fabricado en periferia de aluminio y tornillería de acero inoxidable, válido para módulos fotovoltaicos de 2000x1000 mm con resistencia a la carga del viento 245 kg/m2, resistencia a la carga de nieve 551 kg/m2. Incluso fijaciones y tornillería de anclaje a cubierta. Totalmente instalado y conectado.	1,00	2.215,04	2.215,04
ELE0512	ML CANALIZACION BANDEJA PERFORADA CON TAPA (100x60 mm) Bandeja de U23X (PVC-M1 RoHS) serie 66 de Unex o equivalente de color gris, perforada, de 100x60 mm, con separador fuerza-control, con tapa y parte proporcional de accesorios, elementos de acabado y soportes.	40,00	19,25	770,00
CCMFANG12	UD CAJA DE COENXIONES C.C. Caja de conexiones en C.C. con apartamento y envolvente de Schneider, según esquema unifilar. Completamente conexionado y en funcionamiento.	1,00	189,54	189,54
CCMFANG	UD CUADRO INSTALACIÓN FOTOVOLTAICA Cuadro de protección y control de instalación fotovoltaica de Schneider o equivalente formado por: - Envolvente metálico para locales húmedos, modelo Prisma P montado sobre zócalo con accesorios, puertas, placas de montaje, intalado, montado y conexionado. - Compartimentación mínima 2b. - Descargador de sobretensiones tipos I y II. - Poder de corte según las características de la instalación. - Interruptor general de 250 A IV. - Interruptor general de 40 A IV. - Protección diferencial de 40 A y 300 mA - Inversor fotovoltaico 20 kW - Contador de energía fotovoltaica con sistema antivertido. Completamente conexionado y en funcionamiento.	1,00	7.323,77	7.323,77

PRESUPUESTOS PARCIALES.

ABASTECIMIENTO A VARIOS MUNICIPIOS DE LA RIOJA. SISTEMA CIDACOS

CÓDIGO	RESUMEN	CANTIDAD	PRECIO	IMPORTE
ELE01356	ML LINEA 3x4mm2 Cu 0.6/1kV RZ1-K (AS) Línea de alimentación con conductores unipolares 3x4 mm2 Cu 0.6/1kV RZ1-K (AS) en canalización existente, incluso conexionado en inicio y final de línea.	120,00	1,05	126,00
ELE013312	ML LINEA 5x4mm2 Cu 0.6/1kV RZ1-K (AS) Línea de alimentación con conductores unipolares 5x4 mm2 Cu 0.6/1kV RZ1-K (AS) en canalización existente, incluso conexionado en inicio y final de línea.	40,00	3,30	132,00
ELAR852	mI CONDUCTOR 1x25 PARA PAT Conductor de cobre desnudo de 1x25mm2 para puesta a tierra con p/p de conexión entre conductores.	120,00	1,81	217,20
TOTAL APARTADO 02.03.05 SISTEMA FOTOVOLTAICO.....				18.977,39
APARTADO 02.03.06 GRUPO ELECTRÓGENO				
ELEGE250	UD Grupo electrógeno 250 kVA Ud. Grupo electrógeno fijo sobre bancada de funcionamiento automático, trifásico de 230/400 V de tensión, de 250 kVA de potencia, compuesto por alternador sin escobillas de 50 Hz de frecuencia; motor diesel de 1500 r.p.m. refrigerado por agua, con silenciador y depósito de combustible; cuadro eléctrico de control; y cuadro de conmutación con contactores de accionamiento manual calibrados a 500 A.	1,00	19.148,32	19.148,32
TOTAL APARTADO 02.03.06 GRUPO ELECTRÓGENO.....				19.148,32
APARTADO 02.03.07 ALUMBRADO EXTERIOR				
AL140	m LINEA SUBTERRÁNEA 4x6 mm2 + 1x16 mm2 Línea de alimentación para alumbrado formada por conductor multipolar de cobre de 4x6 mm2 con aislamiento RV 0,6/1 kV y conductor de puesta a tierra 1x16 mm2 750 V, colocado en tendido subterráneo bajo tubo en canalización existente, instalada, transporte, montaje y conexionado, medida la longitud en funcionamiento.	550,00	4,57	2.513,50
BT181	UD LUMINARIA EXTERIOR NAVE Campana industrial BGP 307 T25 1xLED99-4S/740 DM11 de Philips o equivalente, instalada y conexiónada.	19,00	71,31	1.354,89
AL071	UD COLUMNA h=8m Suministro y colocación de columna metálica de chapa de acero galvanizada en caliente con altura 8 metros con puerta registrable incluso excavación y cimentación.	19,00	537,70	10.216,30
AL130	UD ARQUETA PASO DERIVACIÓN 40x40x60 Arqueta prefabricada 40x40x60 cm libres, para paso, derivación o toma de tierra, con marco y tapa cuadrada 40x40 cm en fundición, medida la unidad ejecutada en obra.	19,00	71,62	1.360,78
TOTAL APARTADO 02.03.07 ALUMBRADO EXTERIOR.....				15.445,47
APARTADO 02.03.08 INSTALACIÓN ELÉCTRICA EDIFICIO DE CONTROL				
BT030A	UD PUNTO DE LUZ SENCILLO Punto de luz sencillo con parte proporcional de circuito general, bajo tubo corrugado d=16mm, cajas de registro con tapa atornillada, y conductores de cobre para una tensión de 750 V de sección 1.5 mm2, y p/p de mecanismo compuesto por interruptor, caja para empotrar y placa con bastidor, medida la unidad en funcionamiento. Canalización y conductores según ITC-BT-28 para locales de pública concurrencia.	22,00	27,40	602,80

PRESUPUESTOS PARCIALES.

ABASTECIMIENTO A VARIOS MUNICIPIOS DE LA RIOJA. SISTEMA CIDACOS

CÓDIGO	RESUMEN	CANTIDAD	PRECIO	IMPORTE
BT040A	UD PUNTO DE LUZ CONMUTADO Punto de luz conmutado con parte proporcional de circuito general, bajo tubo corrugado d=16mm, cajas de registro con tapa atomillada, y conductores de cobre para una tensión de 750 V de sección 1.5 mm2, y p/p de mecanismo compuesto por interruptor, caja para empotrar y placa con bastidor, medida la unidad en funcionamiento. Canalización y conductores según ITC-BT-28 para locales de pública concurrencia.	8,00	28,96	231,68
BT050A	UD PANTALLA ESTANCA Pantalla estanca WT120C L1200 1xLED40S/840 de Philips o equivalente, instalada y conexiada.	32,00	41,64	1.332,48
BT060A	UD PANTALLA LED EMPOTRADA 60x60 Pantalla empotrada RC 132V 1xLED20S/840 W60L60 de Philips o equivalente, instalada y conexiada.	41,00	61,99	2.541,59
BT070A	UD DOWNLIGHT LED Downlight DN 130B D217 1xLED20S/840 de Philips o equivalente, instalado y conexionado.	26,00	43,48	1.130,48
BT090A	UD LUMINARIA EMERGENCIA 100 LM Emergencia Basic Led serie L de Luznor, modelo LL-100-T o equivalente de 100 lúmenes, instalada y conexiada.	7,00	32,12	224,84
BT100A	UD LUMINARIA EMERGENCIA 300 LM Emergencia Basic Led serie L de Luznor, modelo LL-300-T o equivalente de 300 lúmenes, instalada y conexiada.	62,00	27,56	1.708,72
BT110A	ML CABLE TRANSMISION DATOS Cable eléctrico para transmisión de datos en red marca AMP, tipo U/UTP, categoría 5e, clase D, de 4 pares trenzados con conductores de cobre rígido, con cubierta de policloruro de vinilo (PVC), bajo tubo flexible aislante, incluso parte proporcional de cajas de registro y regletas de conexión.	180,00	0,82	147,60
BT120A	ML CABLE CIRCUITO ALUMBRADO 3x1.5 mm² Circuito de alumbrado realizado con conductor unipolar de cobre rígido, con aislamiento 700 V. y una sección de 3x1.5 mm², bajo tubo flexible aislante corrugado de PVC, de diámetro 16 mm. y grado de protección 7, en sistema monofásico (fase y neutro), incluso parte proporcional de cajas de registro y regletas de conexión. Canalización y conducciones según ITC-BT-28 para locales de pública concurrencia.	600,00	2,60	1.560,00
BT130A	ML CABLE CIRCUITO FUERZA 3x2.5 mm² M.I. Circuito de fuerza realizado con conductor unipolar de cobre rígido, con aislamiento 700 V. y una sección de 3x2.5 mm², bajo tubo flexible aislante corrugado de PVC, de diámetro 20 mm. y grado de protección 7, (fase +neutro+tierra), incluso parte proporcional de cajas de registro y regletas de conexión.	400,00	2,85	1.140,00
BT140A	ML CABLE CIRCUITO FUERZA 5x2.5 mm² M.I. Circuito de fuerza realizado con conductor unipolar de cobre rígido, con aislamiento 700 V. y una sección de 5x2.5 mm², bajo tubo flexible aislante corrugado de PVC, de diámetro 20 mm. y grado de protección 7, (3 fases +neutro+tierra), incluso parte proporcional de cajas de registro y regletas de conexión.	80,00	3,31	264,80
BT150A	UD BASE ENCHUFE MONOFÁSICA Ud. Base enchufe monofásica modelo a elegir, con toma de tierra lateral realizada bajo tubo según ITC-BT-21, tipo Aiscan CR (forroplast) o similar, empotrado en canalizaciones ordinarias en obra de fábrica (paredes, techos o falsos techos), D=20 mm no propagador de la llama UNE-EN 50085-1 y UNE EN 50086-1 y conductores de cobre unipolares aislados para una tensión nominal de 750 V y sección 2.5 mm2, (activo, neutro y protección), incluido caja registro, caja mecanismos especial con tornillo, base enchufe (II+T.T.), totalmente montado e instalado.			

PRESUPUESTOS PARCIALES.

ABASTECIMIENTO A VARIOS MUNICIPIOS DE LA RIOJA. SISTEMA CIDACOS

CÓDIGO	RESUMEN	CANTIDAD	PRECIO	IMPORTE
BT160A	UD BASE ENCHUFE TRIFÁSICA Ud. Base enchufe 2P+T 16A 380V modelo a elegir, con toma de tierra lateral realizada bajo tubo según ITC-BT-21, tipo Aiscan CR (forroplast) o similar, empotrado en canalizaciones ordinarias en obra de fábrica (paredes, techos o falsos techos), D=20 mm no propagador de la llama UNE-EN 50085-1 y UNE EN 50086-1 y conductores de cobre unipolares aislados para una tensión nominal de 750 V y sección 2.5 mm2, (activo, neutro y protección), incluido caja registro, caja mecanismos especial con tornillo, base enchufe de 16 A (II+T.T.), totalmente montado e instalado.	4,00	25,99	103,96
BT170A	UD CAJA EMP. TOMAS 2 RED + MOD. RJ45 + MOD. RJ11 Ud. Suministro, colocación y conexionado de caja de empotrar en pared, mampara o pladur de 2 módulos dobles con marcado CE según normativa UNE 20 451:1997 fabricado en material autoextinguible y libre de halógenos, modelo CA2E + MB2E (incluye cubeta, marco y separador energía-datos) de color a elegir por la dirección facultativa y formada por 2 tomas de corriente tipo schuko 2P+TT 16A con led y obturador de seguridad y placa de 4 conectores RJ11 - RJ45.	18,00	31,92	574,56
BT180A	UD DETECTOR PRESENCIA Ud. Detector de presencia de montaje sobre techo, con ajustes de temporización, distancia de detección y nivel de luminosidad, para accionamiento de puntos de luz, realizado bajo tubo según ITC-BT-21, tipo Aiscan CR (forroplast) o similar, empotrado en canalizaciones ordinarias en obra de fábrica (paredes, techos o falsos techos), D=20 mm no propagador de la llama UNE-EN 50085-1 y UNE EN 50086-1 y conductor de cobre unipolar aislado, para una tensión nominal de 750 V y sección 1,5 mm2, incluyendo caja de registro, detector de presencia, accesorios para montaje, instalado y conexionado.	10,00	22,92	229,20
BT190A	UD EQUIPOTENCIAL BAÑOS UD. Tierra equipotencial para baños, realizado con conductor de 4 mm2. sin protección mecánica y 2,5 mm2. con protección mecánica, conexionando las canalizaciones metálicas existentes y las masas de los aparatos sanitarios metálicos y todos los demás elementos conductores accesibles de acuerdo al Reglamento Electrotécnico para Baja Tensión actualmente en vigor.	4,00	43,06	172,24
EL310	UD SUBCUADRO TOMAS DE CORRIENTE Subcuadro para tomas de corriente de Schneider o equivalente con una salida trifásica protegida (32A y 16A) y dos salidas monofásicas también protegidas.	1,00	397,19	397,19
BT0505	ML CANALIZACION REJIBAND 100 mm CON PAT Canalización aérea constituida por bandeja tipo Rejiband de 100 mm. Incluso soportes (cada 80 cm como máximo) y puesta a tierra con conductor desnudo de cobre de 35 mm2.	170,00	12,86	2.186,20
TOTAL APARTADO 02.03.08 INSTALACIÓN ELÉCTRICA EDIFICIO DE CONTROL				15.267,54
APARTADO 02.03.09 INSTALACIÓN ELÉCTRICA CASETA DE DEPÓSITO DE AGUA TRATADA				
BT030A	UD PUNTO DE LUZ SENCILLO Punto de luz sencillo con parte proporcional de circuito general, bajo tubo corrugado d=16mm, cajas de registro con tapa atomillada, y conductores de cobre para una tensión de 750 V de sección 1.5 mm2, y p/p de mecanismo compuesto por interruptor, caja para empotrar y placa con bastidor, medida la unidad en funcionamiento. Canalización y conductores según ITC-BT-28 para locales de pública concurrencia.	1,00	27,40	27,40
BT050A	UD PANTALLA ESTANCA Pantalla estanca WT120C L1200 1xLED40S/840 de Philips o equivalente, instalada y conexiada.	3,00	41,64	124,92
BT090A	UD LUMINARIA EMERGENCIA 100 LM Emergencia Basic Led serie L de Luznor, modelo LL-100-T o equivalente de 100 lúmenes, instalada y conexiada.	1,00	32,12	32,12

PRESUPUESTOS PARCIALES.

ABASTECIMIENTO A VARIOS MUNICIPIOS DE LA RIOJA. SISTEMA CIDACOS

CÓDIGO	RESUMEN	CANTIDAD	PRECIO	IMPORTE
BT100A	UD LUMINARIA EMERGENCIA 300 LM Emergencia Basic Led serie L de Luznor, modelo LL-300-T o equivalente de 300 lúmenes, instalada y conexionada.	1,00	27,56	27,56
EL310	UD SUBCUADRO TOMAS DE CORRIENTE Subcuadro para tomas de corriente de Schneider o equivalente con una salida trifásica protegida (32A y 16A) y dos salidas monofásicas también protegidas.	1,00	397,19	397,19
BT120A	ML CABLE CIRCUITO ALUMBRADO 3x1.5 mm ² Circuito de alumbrado realizado con conductor unipolar de cobre rígido, con aislamiento 700 V. y una sección de 3x1.5 mm ² , bajo tubo flexible aislante corrugado de PVC, de diámetro 16 mm. y grado de protección 7, en sistema monofásico (fase y neutro), incluso parte proporcional de cajas de registro y regletas de conexión. Canalización y conducciones según ITC-BT-28 para locales de pública concurrencia.	50,00	2,60	130,00
BT0505	ML CANALIZACION REJIBAND 100 mm CON PAT Canalización aérea constituida por bandeja tipo Rejiband de 100 mm. Incluso soportes (cada 80 cm como máximo) y puesta a tierra con conductor desnudo de cobre de 35 mm ² .	30,00	12,86	385,80
TOTAL APARTADO 02.03.09 INSTALACIÓN ELÉCTRICA CASETA DE DEPÓSITO DE AGUA TRATADA.....				1.124,99
APARTADO 02.03.10 INSTALACIÓN ELÉCTRICA EDIFICIO DE DESHIDRATACIÓN Y REACTIVOS				
BT030A	UD PUNTO DE LUZ SENCILLO Punto de luz sencillo con parte proporcional de circuito general, bajo tubo corrugado d=16mm, cajas de registro con tapa atornillada, y conductores de cobre para una tensión de 750 V de sección 1.5 mm ² , y p/p de mecanismo compuesto por interruptor, caja para empotrar y placa con bastidor, medida la unidad en funcionamiento. Canalización y conductores según ITC-BT-28 para locales de pública concurrencia.	6,00	27,40	164,40
BT040A	UD PUNTO DE LUZ CONMUTADO Punto de luz conmutado con parte proporcional de circuito general, bajo tubo corrugado d=16mm, cajas de registro con tapa atornillada, y conductores de cobre para una tensión de 750 V de sección 1.5 mm ² , y p/p de mecanismo compuesto por interruptor, caja para empotrar y placa con bastidor, medida la unidad en funcionamiento. Canalización y conductores según ITC-BT-28 para locales de pública concurrencia.	2,00	28,96	57,92
BT050A	UD PANTALLA ESTANCA Pantalla estanca WT120C L1200 1xLED40S/840 de Philips o equivalente, instalada y conexionada.	49,00	41,64	2.040,36
BT090A	UD LUMINARIA EMERGENCIA 100 LM Emergencia Basic Led serie L de Luznor, modelo LL-100-T o equivalente de 100 lúmenes, instalada y conexionada.	8,00	32,12	256,96
BT100A	UD LUMINARIA EMERGENCIA 300 LM Emergencia Basic Led serie L de Luznor, modelo LL-300-T o equivalente de 300 lúmenes, instalada y conexionada.	29,00	27,56	799,24
BT120A	ML CABLE CIRCUITO ALUMBRADO 3x1.5 mm ² Circuito de alumbrado realizado con conductor unipolar de cobre rígido, con aislamiento 700 V. y una sección de 3x1.5 mm ² , bajo tubo flexible aislante corrugado de PVC, de diámetro 16 mm. y grado de protección 7, en sistema monofásico (fase y neutro), incluso parte proporcional de cajas de registro y regletas de conexión. Canalización y conducciones según ITC-BT-28 para locales de pública concurrencia.	200,00	2,60	520,00

PRESUPUESTOS PARCIALES.

ABASTECIMIENTO A VARIOS MUNICIPIOS DE LA RIOJA. SISTEMA CIDACOS

CÓDIGO	RESUMEN	CANTIDAD	PRECIO	IMPORTE
BT130A	ML CABLE CIRCUITO FUERZA 3x2.5 mm ² M.I. Circuito de fuerza realizado con conductor unipolar de cobre rígido, con aislamiento 700 V. y una sección de 3x2.5 mm ² , bajo tubo flexible aislante corrugado de PVC, de diámetro 20 mm. y grado de protección 7, (fase +neutro+tierra), incluso parte proporcional de cajas de registro y regletas de conexión.	200,00	2,85	570,00
BT160A	UD BASE ENCHUFE TRIFÁSICA Ud. Base enchufe 2P+T 16A 380V modelo a elegir, con toma de tierra lateral realizada bajo tubo según ITC-BT-21, tipo Aiscan CR (forroplast) o similar, empotrado en canalizaciones ordinarias en obra de fábrica (paredes, techos o falsos techos), D=20 mm no propagador de la llama UNE-EN 50085-1 y UNE EN 50086-1 y conductores de cobre unipolares aislados para una tensión nominal de 750 V y sección 2.5 mm ² , (activo, neutro y protección), incluido caja registro, caja mecanismos especial con tornillo, base enchufe de 16 A (II+T.T.), totalmente montado e instalado.	2,00	25,99	51,98
BT150A	UD BASE ENCHUFE MONOFÁSICA Ud. Base enchufe monofásica modelo a elegir, con toma de tierra lateral realizada bajo tubo según ITC-BT-21, tipo Aiscan CR (forroplast) o similar, empotrado en canalizaciones ordinarias en obra de fábrica (paredes, techos o falsos techos), D=20 mm no propagador de la llama UNE-EN 50085-1 y UNE EN 50086-1 y conductores de cobre unipolares aislados para una tensión nominal de 750 V y sección 2.5 mm ² , (activo, neutro y protección), incluido caja registro, caja mecanismos especial con tornillo, base enchufe (II+T.T.), totalmente montado e instalado.	8,00	17,98	143,84
EL310	UD SUBCUADRO TOMAS DE CORRIENTE Subcuadro para tomas de corriente de Schneider o equivalente con una salida trifásica protegida (32A y 16A) y dos salidas monofásicas también protegidas.	1,00	397,19	397,19
BT0505	ML CANALIZACION REJIBAND 100 mm CON PAT Canalización aérea constituida por bandeja tipo Rejiband de 100 mm. Incluso soportes (cada 80 cm como máximo) y puesta a tierra con conductor desnudo de cobre de 35 mm ² .	50,00	12,86	643,00
TOTAL APARTADO 02.03.10 INSTALACIÓN ELÉCTRICA EDIFICIO DE DESHIDRATACIÓN Y REACTIVOS.....				5.644,89
APARTADO 02.03.11 SISTEMA DE PROTECCIÓN CONTRA EL RAYO				
PRAY001	ud PARARRAYOS Sistema de pararrayos colocado sobre cubierta formado por punta captadora de Ingesco o equivalente, mástil, cableado, puesta a tierra, arqueta y puente de comprobación. Nivel de protección III y radio 90 m. Con certificado de empresa suministradora y certificado de empresa instaladora donde se refleje el valor de la resistencia de puesta a tierra.	2,00	2.979,24	5.958,48
TOTAL APARTADO 02.03.11 SISTEMA DE PROTECCIÓN CONTRA EL RAYO.....				5.958,48
TOTAL SUBCAPÍTULO 02.03 INSTALACIONES ELÉCTRICAS ETAP.....				329.368,54
SUBCAPÍTULO 02.04 ACCESOS				
001	M3 EXCAVACIÓN A CIELO ABIERTO Excavación a cielo abierto en todo tipo de terrenos incluido terrenos en roca, incluso agotamiento y transporte a lugar de empleo o vertedero.	400,50	3,62	1.449,81
056	M3 ZAHORRA ARTIFICIAL Zahorra artificial compactada.	55,80	16,98	947,48
054	T PAVIMENTO DE MBC AC16 surf S Pavimento de mezcla bituminosa en caliente en capa de rodadura tipo AC 16 surf S de 5 cm de espesor, que incluye riego de imprimación con dotación de 1 Kg/m ² , con betún B60/70 en dotación de 70 Kg/Tm, puesto en obra y terminado.	105,90	36,70	3.886,53

PRESUPUESTOS PARCIALES.

ABASTECIMIENTO A VARIOS MUNICIPIOS DE LA RIOJA. SISTEMA CIDACOS

CÓDIGO	RESUMEN	CANTIDAD	PRECIO	IMPORTE
399	ML CUNETAS SIN REVESTIR EN DESMONTE Ejecución de cuneta sin revestir en desmonte de carretera, incluyendo perfilado, totalmente terminada.	90,00	1,07	96,30
377	UD SEÑAL DE TRÁFICO NORMALIZADA Señal de tráfico normalizada con soporte, incluso adquisición, transporte y colocación en su lugar de emplazamiento.	2,00	93,20	186,40
378.1	M2 SUPERFICIE REALMENTE PINTADA Pintura reflexiva blanca, en señalización de isletas, cebreados, etc, incluso premarcaje, totalmente terminada.	8,40	11,65	97,86
TOTAL SUBCAPÍTULO 02.04 ACCESOS				6.664,38
SUBCAPÍTULO 02.05 IMPULSIÓN AGUAS SUCIAS				
APARTADO 05.05.01 ARQUETA DE BOMBEO AGUAS SUCIAS				
002	M3 EXCAVACIÓN EN ZANJAS Excavación en zanjas y zonas localizadas, en todo tipo de terrenos incluido terrenos en roca con medios mecánicos, incluso rasanteo, nivelación de la superficie de apoyo y transporte a lugar de empleo o vertedero.	44,80	3,74	167,55
010	M3 RELLENO ZANJAS, CIMIENTOS Y TRASDOSES DE MATERIAL SELECCIONADO Relleno con material seleccionado en zanjas, cimientos, trasdós de muros, estribos y otras estructuras procedente de la excavación o préstamos incluso carga, transporte y compactación.	14,52	3,32	48,21
028	M3 HORMIGÓN DE LIMPIEZA HL-150 Hormigón de limpieza HL-150, de consistencia plástica, árido de tamaño máximo 40 mm y cemento CEM-II-D/42,5/SR, para saneos y encachados, incluyendo fabricación y transporte totalmente colocado.	1,40	44,76	62,66
032.1	M3 HORMIGÓN HA-30/P/30/IV Hormigón armado HA-30/B/30/IV, con una dosificación de hormigón de 325 kg/m3 de cemento, consistencia plástica, elaborado en central para estructuras, incluso bombeado y medios manuales, vibrado y colocado.	15,98	76,99	1.230,30
025	M2 ENCOFRADO RECTO EN PARAMENTOS OCULTOS Encofrado recto en paramentos ocultos, incluso colocación, fijación y desencofrado.	5,52	17,65	97,43
026	M2 ENCOFRADO RECTO EN PARAMENTOS VISTOS 1C Encofrado recto en paramentos vistos a una cara, incluso colocación, fijación y desencofrado.	86,18	21,18	1.825,29
023	KG ACERO CORRUGADO B-500-S Acero redondo corrugado para armar tipo B-500-S elaborado y colocado.	1.258,43	0,96	1.208,09
052	ML JUNTAS DE ESTANQUEIDAD DE PVC 32 CM Junta de trabajo interior de policloruro de vinilo (PVC) 100% virgen, con una fuerza máxima de dilatación > 250 %, de 32 cm de ancho, MASTERFLEX 2000 TI-24 de BASF o equivalente, colocada simétricamente en el eje de la losa o muro, incluso solapes y piezas especiales para cruces o ángulos. Medida la longitud ejecutada.	9,20	7,31	67,25
290	UD PATE POLIPROPILENO Pate de polipropileno de dimensiones 30x25 cm, incluyendo fabricación, transporte a obra, perforación de anclajes y relleno con aportación de material de agarre, completamente colocado.	15,00	5,63	84,45

PRESUPUESTOS PARCIALES.

ABASTECIMIENTO A VARIOS MUNICIPIOS DE LA RIOJA. SISTEMA CIDACOS

CÓDIGO	RESUMEN	CANTIDAD	PRECIO	IMPORTE
289B	M2 TAPA DE CHAPA LACRIMADA GALVANIZADA e=4mm Tapa de chapa lacrimada de acero galvanizado de 4 mm de espesor, incluyendo el marco, tiradores, aros para cerradura con candado, anclada, totalmente colocada.	8,38	74,56	624,81
TOTAL APARTADO 05.05.01 ARQUETA DE BOMBEO AGUAS SUCIAS				5.416,04
APARTADO 05.05.02 IMPULSIÓN AGUAS SUCIAS				
172	ML TUBERÍA PEAD DN=110 mm PN 16 Tubería de polietileno de alta densidad de 110 mm de diámetro exterior y PN=16 bar, colocada en zanja incluso banda de señalización, p.p. de junta de unión colocada, codos, tes, portabridas, así como piezas especiales y medios auxiliares, totalmente colocada.	825,00	18,56	15.312,00
011	M3 RELLENO DE ARENA Arena para apoyo y protección de tuberías incluso carga, transporte, colocación, compactación y nivelación.	102,55	12,09	1.239,83
244.2	UD VENTOSA DN=100 (4") mm PN16 RESIDUALES Válvula ventosa de tres funciones para aguas residuales de DN=100 mm y PN 16 bar incluido transporte, juntas, válvula de corte DN=100 mm y PN 16 bar y piezas especiales, totalmente colocada y probada.	2,00	962,76	1.925,52
176	UD "T" PEAD TRES BOCAS 110 mm "T" en polietileno de alta densidad de tres bocas iguales de 110 mm de diámetro, colocada en zanja incluso p.p. de junta de unión colocada y medios auxiliares, totalmente colocada y probada.	3,00	72,44	217,32
373	UD POZO DE REGISTRO DE AROS DE HORMIGÓN DN1200 Pozo de registro de abastecimiento para válvulas de control de cualquier altura de diámetro interior D=1200 mm, incluso base de hormigón HNE-20, aros de hormigón, cono prefabricado de hormigón, pates y tapa de fundición, totalmente terminado.	2,00	357,84	715,68
EVC080	UD VÁLVULA DE COMPUERTA MANUAL DN80 PN16 Válvula de compuerta de cierre elástico de 80 mm. de diámetro nominal y 16 At. de P.N., de accionamiento manual por volante, de cuerpo de fundición nodular GGG-50, con eje de acero inoxidable al 13 % Cr. con roscas conformadas por laminación en frío, cierre en fundición nodular, tornillería de acero inoxidable, protegida contra la corrosión mediante aplicación de doble capa de pintura epoxy, totalmente colocada y probada. Resto de características según ET.	1,00	110,47	110,47
366	ML HINCA TUBO ACERO 355 mm TIERRAS Hinca de tubo de acero, de 355 mm de diámetro interior, bajo viales, en tierra o roca alterada, incluso p.p. de instalación de tubería de fundición dúctil comprendida entre 250 y 150 mm de diámetro interior y sus anclajes y apoyos; muros de reacción y contención; y todos los elementos necesarios para su montaje y desmontaje.	40,00	300,65	12.026,00
002	M3 EXCAVACIÓN EN ZANJAS Excavación en zanjas y zonas localizadas, en todo tipo de terrenos incluido terrenos en roca con medios mecánicos, incluso rasanteo, nivelación de la superficie de apoyo y transporte a lugar de empleo o vertedero.	56,00	3,74	209,44
010	M3 RELLENO ZANJAS, CIMIENTOS Y TRASDOSES DE MATERIAL SELECCIONADO Relleno con material seleccionado en zanjas, cimientos, trasdós de muros, estribos y otras estructuras procedente de la excavación o préstamos incluso carga, transporte y compactación.	31,22	3,32	103,65
TOTAL APARTADO 05.05.02 IMPULSIÓN AGUAS SUCIAS				31.859,91

PRESUPUESTOS PARCIALES.

ABASTECIMIENTO A VARIOS MUNICIPIOS DE LA RIOJA. SISTEMA CIDACOS

CÓDIGO	RESUMEN	CANTIDAD	PRECIO	IMPORTE
APARTADO 05.05.03 EQUIPOS BOMBEO AGUAS SUCIAS				
EBSLF02	UD BOMBA SUMERGIBLE Q= 16,0 m³/h a 14 m.c.a. P=1,7 kW Bomba sumergible para bombeo de aguas, de SULZER o equivalente modelo AS-0631D. Caudal: 16,0 m³/h. Altura manométrica: 14 m.c.a. Potencia nominal en eje: 1,7 kW. Ø Imp: 65 mm. Incluido módulo para supervisión de electrodos de temperatura y humedad, pedestal, anclajes, guía y cadena para izado. Incluso transporte, montaje, conexiones eléctricas y de control, pruebas de funcionamiento. Resto de características según E.T.	2,00	577,76	1.155,52
ETI316065	ML TUBERÍA DE INOXIDABLE AISI 316L DN 65 Tubería de acero inoxidable de diámetro DN 65 mm. Construcción: Mediante soldadura. Espesor 2 mm. Material: Acero inoxidable AISI -316 L. Material accesorios acero inoxidable AISI - 316L. Acabado: Decapado. Incluso p.p. de uniones, piezas especiales, bridas, codos, tes, injertos para otras tuberías y p.p. de estructuras y elementos de anclajes a solera y/o muros. Montada y probada.	5,20	39,24	204,05
EVCM06516	UD VÁLVULA DE COMPUERTA MANUAL DN65 PN16 Válvula de compuerta de cierre elástico de 65 mm. de diámetro nominal y 16 At. de P.N., de accionamiento manual por volante, de cuerpo de fundición nodular GGG-50, con eje de acero inoxidable al 13 % Cr. con roscas conformadas por laminación en frío, cierre en fundición nodular, tornillería de acero inoxidable, protegida contra la corrosión mediante aplicación de doble capa de pintura epoxy, totalmente colocada y probada. Resto de características según ET.	2,00	98,33	196,66
EVRB065	UD VÁLVULA DE RETENCIÓN DE BOLA DN65 Válvula de retención de bola DN 65 PN16. Cuerpo y tapa: Fundición nodular GGG-40. Bola de aluminio/fundición+Resina fenólica. Tornillería de acero inoxidable AISI 316. Junta de tapa: Nitrilo. Acabados con recubrimiento anticorrosivo interior y exterior con polvo de poliamida Epoxy aplicado electrostáticamente (RAL 5015 Epoxi azul). Instalada y probada. Resto de características según ET.	2,00	193,83	387,66
ECELM100	UD CAUDALÍMETRO ELECTROMAGNÉTICO DN 100 mm Equipo medidor de caudal de DN100 mm. tipo electromagnético y PN=10 atm. con salida 4/20 mA, tensión 220 V y escala 0-240 m3/h, totalmente instalado y probado. Incluido transporte, montaje, conexiones eléctricas y pruebas de funcionamiento. Resto de características, según ET.	1,00	951,67	951,67
300	UD BOYA DE NIVEL DE MÁXIMO Y MÍNIMO Boya de nivel cableada con la válvula de llenado, incluso montaje y pruebas.	1,00	49,74	49,74
ECD010016	UD CARRETE DE DESMONTAJE DN=100 mm PN16 Carrete telescópico de desmontaje DN100 PN16, bridas de acero al carbono, virolas de acero inoxidable, protección epoxy, tornillos y tuercas en acero F-114, cincado y posterior baño de cromo-niquel, incluido p.p. de brida enchufe, totalmente instalado y probado en obra.	1,00	167,93	167,93
244.2	UD VENTOSA DN=100 (4") mm PN16 RESIDUALES Válvula ventosa de tres funciones para aguas residuales de DN=100 mm y PN 16 bar incluido transporte, juntas, válvula de corte DN=100 mm y PN 16 bar y piezas especiales, totalmente colocada y probada.	1,00	962,76	962,76
ETI316100	ML TUBERÍA DE INOXIDABLE AISI 316L DN 100 Tubería de acero inoxidable de diámetro DN 100 mm. Construcción: Mediante soldadura. Espesor 1,5 mm. Material: Acero inoxidable AISI -316 L. Material accesorios acero inoxidable AISI - 316L. Acabado: Decapado. Incluso p.p. de uniones, piezas especiales, bridas, codos, tes, injertos para otras tuberías y p.p. de estructuras y elementos de anclajes a solera y/o muros. Montada y probada.	2,60	43,36	112,74
TOTAL APARTADO 05.05.03 EQUIPOS BOMBEO AGUAS SUCIAS.....				4.188,73
TOTAL SUBCAPÍTULO 02.05 IMPULSIÓN AGUAS SUCIAS				41.464,68

PRESUPUESTOS PARCIALES.

ABASTECIMIENTO A VARIOS MUNICIPIOS DE LA RIOJA. SISTEMA CIDACOS

CÓDIGO	RESUMEN	CANTIDAD	PRECIO	IMPORTE
SUBCAPÍTULO 02.06 COLECTOR AGUAS SUCIAS				
010	M3 RELLENO ZANJAS, CIMIENTOS Y TRASDOSES DE MATERIAL SELECCIONADO Relleno con material seleccionado en zanjas, cimientos, trasdós de muros, estribos y otras estructuras procedente de la excavación o préstamos incluso carga, transporte y compactación.	344,34	3,32	1.143,21
003	M3 EXCAVACIÓN EN ZANJAS CON AGOTAMIENTO Excavación en zanjas y zonas localizadas, en todo tipo de terrenos incluido terrenos en roca con medios mecánicos, incluso rasanteo, nivelación de la superficie de apoyo, agotamiento y transporte a lugar de empleo o vertedero.	384,00	3,84	1.474,56
008	M2 DESPEJE Y DESBROCE Despeje y desbroce de capa de tierra vegetal con un espesor medio de 50 cm, incluso corte de árboles, extracción de tocones, nivelación de zona adyacente para el paso de maquinaria, transporte a lugar de acopio independiente para posterior reposición de tierra vegetal tras las obras y despedregado de las parcelas, así como transporte a vertedero de tierras sobrantes.	480,00	0,57	273,60
030	M3 HORMIGÓN HNE-20/B/40 Hormigón HNE-20/B/40, con cemento CEM III/A-D/42,5/SR (UNE 80303:96), en masa o ligeramente armado, colocado en cualquier tipo de obra, incluso fabricación, carga y transporte, totalmente colocado.	451,80	50,38	22.761,68
148A	ML TUBERÍA DE HORMIGÓN EN MASA (D=400 mm.) CLASE 180 Tubería de hormigón en masa de 400 mm. de diámetro clase 180, de enchufe campana y junta de goma de enchufe rápido, con fresado de macho para acanaladura en alojamiento de junta, puesta en obra y colocada en zanja, incluso pruebas.	2.217,00	42,25	93.668,25
373A	UD POZO DE REGISTRO DE AROS DE HORMIGÓN DN1000 Pozo de registro de abastecimiento o saneamiento de cualquier altura de diámetro interior D=1000 mm, incluso base de hormigón HNE-20, aros de hormigón, cono prefabricado de hormigón, pates y tapa de fundición, totalmente terminado.	48,00	320,73	15.395,04
TOTAL SUBCAPÍTULO 02.06 COLECTOR AGUAS SUCIAS				134.716,34
TOTAL CAPÍTULO 02 ESTACIÓN DE TRATAMIENTO DE AGUA POTABLE (ETAP).....				6.725.051,20
CAPÍTULO 03 RAMAL PRINCIPAL: ETAP - ARQUETA P190				
SUBCAPÍTULO 03.01 EJE 3: ETAP - ACOMETIDA ARNEDO				
APARTADO 03.01.01 MOVIMIENTO DE TIERRAS				
010	M3 RELLENO ZANJAS, CIMIENTOS Y TRASDOSES DE MATERIAL SELECCIONADO Relleno con material seleccionado en zanjas, cimientos, trasdós de muros, estribos y otras estructuras procedente de la excavación o préstamos incluso carga, transporte y compactación.	56.288,80	3,32	186.878,82
011	M3 RELLENO DE ARENA Arena para apoyo y protección de tuberías incluso carga, transporte, colocación, compactación y nivelación.	17.094,80	12,09	206.676,13
007	M2 ENTIBACIÓN MÓDULOS METÁLICOS Entibación a dos caras mediante módulos metálicos y articulados, en zonas de protección de zanja, medida la superficie efectiva.	9.554,85	8,69	83.031,65
003	M3 EXCAVACIÓN EN ZANJAS CON AGOTAMIENTO Excavación en zanjas y zonas localizadas, en todo tipo de terrenos incluido terrenos en roca con medios mecánicos, incluso rasanteo, nivelación de la superficie de apoyo, agotamiento y transporte a lugar de empleo o vertedero.	78.585,00	3,84	301.766,40

PRESUPUESTOS PARCIALES.

ABASTECIMIENTO A VARIOS MUNICIPIOS DE LA RIOJA. SISTEMA CIDACOS

CÓDIGO	RESUMEN	CANTIDAD	PRECIO	IMPORTE
008	M2 DESPEJE Y DESBROCE Despeje y desbroce de capa de tierra vegetal con un espesor medio de 50 cm, incluso corte de árboles, extracción de tocones, nivelación de zona adyacente para el paso de maquinaria, transporte a lugar de acopio independiente para posterior reposición de tierra vegetal tras las obras y despedregado de las parcelas, así como transporte a vertedero de tierras sobrantes.	24.007,00	0,57	13.683,99
030	M3 HORMIGÓN HNE-20/B/40 Hormigón HNE-20/B/40, con cemento CEM II/A-D/42,5/SR (UNE 80303:96), en masa o ligeramente armado, colocado en cualquier tipo de obra, incluso fabricación, carga y transporte, totalmente colocado.	211,80	50,38	10.670,48
TOTAL APARTADO 03.01.01 MOVIMIENTO DE TIERRAS.....				802.707,47
APARTADO 03.01.02 OBRA CIVIL				
030	M3 HORMIGÓN HNE-20/B/40 Hormigón HNE-20/B/40, con cemento CEM II/A-D/42,5/SR (UNE 80303:96), en masa o ligeramente armado, colocado en cualquier tipo de obra, incluso fabricación, carga y transporte, totalmente colocado.	355,68	50,38	17.919,16
023	KG ACERO CORRUGADO B-500-S Acero redondo corrugado para armar tipo B-500-S elaborado y colocado.	13.489,40	0,96	12.949,82
034.1	UD ARQUETA HORMIGÓN DE 3,0x3,0 M Y HASTA 2,50 m DE PROFUNDIDAD Arqueta de hormigón armado HA-25/P/40/IIa para alojamiento de válvulas de tuberías de dimensiones interiores 3,0x3,0 m y una altura de hasta 2,50 m, con solera de 30 cm de canto, muros de 25 cm de espesor y tapa de 25 cm de canto, armado con parrilla de 20x20 cm con redondos de 12 mm, incluso excavación, relleno posterior, encofrado, ganchos de elevación de tapa, totalmente terminada.	2,00	3.122,67	6.245,34
373	UD POZO DE REGISTRO DE AROS DE HORMIGÓN DN1200 Pozo de registro de abastecimiento para válvulas de control de cualquier altura de diámetro interior D=1200 mm, incluso base de hormigón HNE-20, aros de hormigón, cono prefabricado de hormigón, pates y tapa de fundición, totalmente terminado.	22,00	357,84	7.872,48
TOTAL APARTADO 03.01.02 OBRA CIVIL.....				44.986,80
APARTADO 03.01.03 TUBERÍAS				
058A	ML TUBERÍA FD 900 mm Tubería de fundición dúctil de diámetro interior 900 mm y PFA de 32 bar, revestida interiormente con mortero de cemento y exteriormente con una capa de cinc y otra bituminosa, i/p.p. de junta automática flexible, banda de señalización y medios auxiliares, totalmente colocada y probada.	7.314,90	305,83	2.237.115,87
058RA	ML TUBERÍA FD 900 mm CON JUNTA ACERROJADA Tubería de fundición dúctil de diámetro interior 900 mm y PFA de 32 bar, revestida interiormente con mortero de cemento y exteriormente con una capa de cinc y otra bituminosa, i/p.p. de junta acerrojada, cinta señalizadora y medios auxiliares, totalmente colocada y probada.	86,10	364,72	31.402,39
068A	UD CODO FD 1/32 900 mm Codo de fundición dúctil de 1/32 de diámetro interior 900 mm y PFA 25 bar, con revestimiento interior y exterior epoxi, incluso p.p. de juntas y medios auxiliares, totalmente colocado y probado.	37,00	1.790,75	66.257,75
069A	UD CODO FD 1/16 900 mm Codo de fundición dúctil de 1/16 de diámetro interior 900 mm y PFA 25 bar, con revestimiento interior y exterior epoxi, incluso p.p. de juntas y medios auxiliares, totalmente colocado y probado.	7,00	2.166,46	15.165,22

PRESUPUESTOS PARCIALES.

ABASTECIMIENTO A VARIOS MUNICIPIOS DE LA RIOJA. SISTEMA CIDACOS

CÓDIGO	RESUMEN	CANTIDAD	PRECIO	IMPORTE
070A	UD CODO FD 1/8 900 mm Codo de fundición dúctil de 1/8 de diámetro interior 900 mm y PFA 25 bar, con revestimiento interior y exterior epoxi, incluso p.p. de juntas y medios auxiliares, totalmente colocado y probado.	7,00	2.251,65	15.761,55
070RA	UD CODO FD 1/4 900 mm Codo de fundición dúctil de 1/4 de diámetro interior 900 mm y PFA 25 bar, con revestimiento interior y exterior epoxi, incluso p.p. de juntas y medios auxiliares, totalmente colocado y probado.	2,00	2.308,69	4.617,38
196	ML TUBERÍA DE PVC 200 mm Tubería de PVC con junta elástica de 200 mm de diámetro exterior, y PN=6 bar, incluso banda de señalización, totalmente colocada en zanja.	115,00	18,67	2.147,05
TOTAL APARTADO 03.01.03 TUBERÍAS.....				2.372.467,21
APARTADO 03.01.04 VÁLVULAS Y ACCESORIOS				
114.1	UD BRIDA LISO FD 900 mm PN16 Brida lisa de fundición dúctil de PFA 16 bar para tubería de 900 mm, con un revestimiento interior y exterior epoxi, i/p.p. de junta de unión y medios auxiliares, totalmente colocada y probada.	3,00	1.663,55	4.990,65
115.1	UD BRIDA ENCHUFE FD 900 mm PN16 Brida enchufe de fundición dúctil de PFA 16 bar para tubería de 900 mm, con un revestimiento interior y exterior epoxi, i/p.p. de junta de unión y medios auxiliares, totalmente colocada y probada.	3,00	2.148,80	6.446,40
EVMM0900	UD VÁLVULA DE MARIPOSA DOBLE EXCENRICIDAD DN 900 mm PN16 MANUAL Válvula de mariposa de doble excentricidad de 900 mm de diámetro y PN16, de accionamiento manual por reductor, incluso mecanismo de accionamiento, maniobra y control, transporte, montaje, juntas, tomillería y pintura totalmente instalada y probada. Resto de características según ET de proyecto.	3,00	10.100,69	30.302,07
ECD0900	UD CARRETE DE DESMONTAJE DN=900 mm PN16 Carrete telescópico de desmontaje DN900 PN 16, bridas de acero al carbono, virolas de acero inoxidable, protección epoxi, tornillos y tuercas en acero F-114, cincado y posterior baño de cromo-níquel, incluido p.p. de brida enchufe, totalmente instalado y probado en obra.	3,00	2.189,63	6.568,89
244.1	UD VENTOSA DN=100 (4") mm PN16 Válvula ventosa de tres funciones de DN=100 mm y PN 16 bar incluido transporte, juntas, válvula de corte DN=100 mm y PN 16 bar y piezas especiales, totalmente colocada y probada.	13,00	903,50	11.745,50
243.1	UD VENTOSA DN=200 mm PN16 Válvula ventosa de tres funciones de DN=200 mm y PN 16 bar incluido transporte, juntas, válvula de corte DN=200 mm y PN 16 bar y piezas especiales, totalmente colocada y probada.	1,00	1.596,89	1.596,89
116A	UD TE FD EEB DN900 mm PN16 SALIDA HASTA DN200 "T" de fundición dúctil de PFA 16 bar, con dos enchufes y derivación con brida para tubería de 900 mm con salida comprendida entre 900 y 200 mm, con un revestimiento interior y exterior epoxi, i/p.p. de junta de unión y medios auxiliares, totalmente colocada y probada.	22,00	4.408,95	96.996,90
109	UD REDUCCIÓN FD 200 A 150/100 mm PN16 Reducción en fundición dúctil de 200 mm a 150-125-100 mm con dos bridas PN 16 bar, con un revestimiento interior y exterior epoxi, i/p.p. de junta de unión y medios auxiliares, totalmente colocada y probada.	13,00	91,37	1.187,81

PRESUPUESTOS PARCIALES.

ABASTECIMIENTO A VARIOS MUNICIPIOS DE LA RIOJA. SISTEMA CIDACOS

CÓDIGO	RESUMEN	CANTIDAD	PRECIO	IMPORTE
232	UD VÁLVULA DE COMPUERTA MANUAL DN200 PN16 Válvula de compuerta de cierre elástico de 200 mm. de diámetro nominal y 16 At. de P.N., de accionamiento manual por volante, de cuerpo de fundición nodular GGG-50, con eje de acero inoxidable al 13 % Cr. con rosca conformadas por laminación en frío, cierre en fundición nodular, tornillería de acero inoxidable, protegida contra la corrosión mediante aplicación de doble capa de pintura epoxy, totalmente colocada y probada. Resto de características según ET.	8,00	514,52	4.116,16
109A	UD RACORD TIPO BARCELONA SALIDAS 80-200 mm Rosca Racord tipo Barcelona con salidad entre 80 y 200 mm para enchufe de manguera, totalmente instalado y terminado.	2,00	150,66	301,32
TOTAL APARTADO 03.01.04 VÁLVULAS Y ACCESORIOS.....				164.252,59
APARTADO 03.01.05 HINCAS				
370	ML HINCA TUBO ACERO 1100 mm TIERRAS Hinca de tubo de acero, de 1100 mm de diámetro interior, bajo viales, en tierra o roca alterada, incluso p.p. de instalación de tubería de fundición dúctil entre 600 y 900 mm de diámetro interior y sus anclajes y apoyos; muros de reacción y contención; y todos los elementos necesarios para su montaje y desmontaje.	40,00	786,69	31.467,60
TOTAL APARTADO 03.01.05 HINCAS.....				31.467,60
APARTADO 03.01.06 OBRAS ACCESORIAS Y REPOSICIONES DE SERVICIOS				
389	ML REPOSICIÓN DE ACEQUIA Reposición de acequia con tubo de hormigón hasta 1 m de diámetro.	15,00	13,55	203,25
383	ML REPOSICIÓN DE CERRAMIENTO EXISTENTE Reposición de cerramiento existente hasta 2,00 m de altura.	20,00	9,37	187,40
387	ML REPOSICIÓN OBRA DE DRENAJE HASTA DN 1,00 m Reposición de obra de drenaje hasta 1,00 de diámetro, p.p. de boquilla de entrada y salida, excavación, hormigón de recubrimiento y relleno compactado, totalmente terminada.	15,00	174,54	2.618,10
388	ML REPOSICIÓN DE ACEQUIA HASTA 1 m ANCHURA Reposición de acequia prefabricada de hormigón hasta 1,00 m de anchura.	12,00	87,65	1.051,80
056	M3 ZAHORRA ARTIFICIAL Zahorra artificial compactada.	2.318,60	16,98	39.369,83
ELA0491	ML CANALIZACIÓN ELÉCTRICA 2T PE DP 160 Canalización subterránea para red de baja tensión y constituida por zanja de dimensiones 0.40x1.00 (anchura x profundidad), techo de hormigón, 2 tubos de PE DP d=160mm, cinta señalizadora y relleno con material procedente de la excavación.	50,00	12,59	629,50
174A	ML REPOSICIÓN TUBERÍA DE RIEGO Reposición de tubería en riego, colocada en zanja incluso banda de señalización, p.p. de junta de unión colocada así como piezas especiales y medios auxiliares, totalmente colocada.	690,00	9,13	6.299,70
TOTAL APARTADO 03.01.06 OBRAS ACCESORIAS Y REPOSICIONES DE SERVICIOS.....				50.359,58
TOTAL SUBCAPÍTULO 03.01 EJE 3: ETAP - ACOMETIDA ARNEDO.....				3.466.241,25

PRESUPUESTOS PARCIALES.

ABASTECIMIENTO A VARIOS MUNICIPIOS DE LA RIOJA. SISTEMA CIDACOS

CÓDIGO	RESUMEN	CANTIDAD	PRECIO	IMPORTE
SUBCAPÍTULO 03.02 EJE 4: ACOMETIDA ARNEDO - P190				
APARTADO 03.02.01 MOVIMIENTO DE TIERRAS				
010	M3 RELLENO ZANJAS, CIMIENTOS Y TRASDOSES DE MATERIAL SELECCIONADO Relleno con material seleccionado en zanjas, cimientos, trasdós de muros, estribos y otras estructuras procedente de la excavación o préstamos incluso carga, transporte y compactación.	18.137,06	3,32	60.215,04
011	M3 RELLENO DE ARENA Arena para apoyo y protección de tuberías incluso carga, transporte, colocación, compactación y nivelación.	9.265,86	12,09	112.024,25
019	M2 DEMOLICIÓN DE FIRMES Demolición de firmes de cualquier tipo, incluso precorte, carga y transporte a vertedero, posterior perfilado y compactación del terreno.	13.151,04	2,50	32.877,60
007	M2 ENTIBACIÓN MÓDULOS METÁLICOS Entibación a dos caras mediante módulos metálicos y articulados, en zonas de protección de zanja, medida la superficie efectiva.	8.483,36	8,69	73.720,40
003	M3 EXCAVACIÓN EN ZANJAS CON AGOTAMIENTO Excavación en zanjas y zonas localizadas, en todo tipo de terrenos incluido terrenos en roca con medios mecánicos, incluso rasanteo, nivelación de la superficie de apoyo, agotamiento y transporte a lugar de empleo o vertedero.	30.596,02	3,84	117.488,72
008	M2 DESPEJE Y DESBROCE Despeje y desbroce de capa de tierra vegetal con un espesor medio de 50 cm, incluso corte de árboles, extracción de tocones, nivelación de zona adyacente para el paso de maquinaria, transporte a lugar de acopio independiente para posterior reposición de tierra vegetal tras las obras y despedregado de las parcelas, así como transporte a vertedero de tierras sobrantes.	16.444,00	0,57	9.373,08
030	M3 HORMIGÓN HNE-20/B/40 Hormigón HNE-20/B/40, con cemento CEM III/A-D/42,5/SR (UNE 80303:96), en masa o ligeramente armado, colocado en cualquier tipo de obra, incluso fabricación, carga y transporte, totalmente colocado.	314,64	50,38	15.851,56
014	M3 ESCOLLERA D50 =1,00 m Escollera caliza pesada de D50 = 1,00 m colocada en protección de cauces, incluido suministro y preparación de la superficie de apoyo, perfectamente rasanteada y terminada.	5.266,80	32,97	173.646,40
TOTAL APARTADO 03.02.01 MOVIMIENTO DE TIERRAS.....				595.197,05
APARTADO 03.02.02 OBRA CIVIL				
030	M3 HORMIGÓN HNE-20/B/40 Hormigón HNE-20/B/40, con cemento CEM III/A-D/42,5/SR (UNE 80303:96), en masa o ligeramente armado, colocado en cualquier tipo de obra, incluso fabricación, carga y transporte, totalmente colocado.	2.226,38	50,38	112.165,02
023	KG ACERO CORRUGADO B-500-S Acero redondo corrugado para armar tipo B-500-S elaborado y colocado.	12.213,67	0,96	11.725,12
034.1	UD ARQUETA HORMIGÓN DE 3,0x3,0 M Y HASTA 2,50 m DE PROFUNDIDAD Arqueta de hormigón armado HA-25/P/40/IIa para alojamiento de válvulas de tuberías de dimensiones interiores 3,0x3,0 m y una altura de hasta 2,50 m, con solera de 30 cm de canto, muros de 25 cm de espesor y tapa de 25 cm de canto, armado con parrilla de 20x20 cm con redondos de 12 mm, incluso excavación, relleno posterior, encofrado, ganchos de elevación de tapa, totalmente terminada.	8,00	3.122,67	24.981,36

PRESUPUESTOS PARCIALES.

ABASTECIMIENTO A VARIOS MUNICIPIOS DE LA RIOJA. SISTEMA CIDACOS

CÓDIGO	RESUMEN	CANTIDAD	PRECIO	IMPORTE
373	UD POZO DE REGISTRO DE AROS DE HORMIGÓN DN1200 Pozo de registro de abastecimiento para válvulas de control de cualquier altura de diámetro interior D=1200 mm, incluso base de hormigón HNE-20, aros de hormigón, cono prefabricado de hormigón, pates y tapa de fundición, totalmente terminado.	15,00	357,84	5.367,60
TOTAL APARTADO 03.02.02 OBRA CIVIL.....				154.239,10
APARTADO 03.02.03 TUBERÍAS				
058	ML TUBERÍA FD 800 mm Tubería de fundición dúctil de diámetro interior 800 mm y PFA de 32 bar, revestida interiormente con mortero de cemento y exteriormente con una capa de cinc y otra bituminosa, i/p.p. de junta automática flexible, cinta señalizadora y medios auxiliares, totalmente colocada y probada.	4.850,00	260,92	1.265.462,00
058R	ML TUBERÍA FD 800 mm CON JUNTA ACERROJADA Tubería de fundición dúctil de diámetro interior 800 mm y PFA de 32 bar, revestida interiormente con mortero de cemento y exteriormente con una capa de cinc y otra bituminosa, i/p.p. de junta acerrojada, cinta señalizadora y medios auxiliares, totalmente colocada y probada.	1.184,00	312,98	370.568,32
068	UD CODO FD 1/32 800 mm Codo de fundición dúctil de 1/32 de diámetro interior 800 mm y PFA 25 bar, con revestimiento interior y exterior epoxi, incluso p.p. de juntas y medios auxiliares, totalmente colocado y probado.	81,00	1.563,70	126.659,70
069	UD CODO FD 1/16 800 mm Codo de fundición dúctil de 1/16 de diámetro interior 800 mm y PFA 25 bar, con revestimiento interior y exterior epoxi, incluso p.p. de juntas y medios auxiliares, totalmente colocado y probado.	22,00	1.890,40	41.588,80
070	UD CODO FD 1/8 800 mm Codo de fundición dúctil de 1/8 de diámetro interior 800 mm y PFA 25 bar, con revestimiento interior y exterior epoxi, incluso p.p. de juntas y medios auxiliares, totalmente colocado y probado.	13,00	1.964,46	25.537,98
070R	UD CODO FD 1/4 800 mm Codo de fundición dúctil de 1/4 de diámetro interior 800 mm y PFA 25 bar, con revestimiento interior y exterior epoxi, incluso p.p. de juntas y medios auxiliares, totalmente colocado y probado.	3,00	2.014,07	6.042,21
196	ML TUBERÍA DE PVC 200 mm Tubería de PVC con junta elástica de 200 mm de diámetro exterior, y PN=6 bar, incluso banda de señalización, totalmente colocada en zanja.	243,00	18,67	4.536,81
TOTAL APARTADO 03.02.03 TUBERÍAS.....				1.840.395,82
APARTADO 03.02.04 VÁLVULAS Y ACCESORIOS				
245.2	UD VENTOSA DN=80 (3") mm PN16 Válvula ventosa de tres funciones de DN=80 mm (3") y PN 16 bar incluido transporte, juntas, válvula de corte DN=80 mm y PN 16y piezas especiales, totalmente colocada y probada.	1,00	432,90	432,90
245.5	UD VENTOSA DN=80 (3") mm PN25 Válvula ventosa de tres funciones de DN=80 mm (3") y PN 25 bar incluido transporte, juntas, válvula de corte DN=80 mm y PN 25 y piezas especiales, totalmente colocada y probada.	8,00	552,08	4.416,64
244.1	UD VENTOSA DN=100 (4") mm PN16 Válvula ventosa de tres funciones de DN=100 mm y PN 16 bar incluido transporte, juntas, válvula de corte DN=100 mm y PN 16 ba y piezas especiales, totalmente colocada y probada.	1,00	903,50	903,50

PRESUPUESTOS PARCIALES.

ABASTECIMIENTO A VARIOS MUNICIPIOS DE LA RIOJA. SISTEMA CIDACOS

CÓDIGO	RESUMEN	CANTIDAD	PRECIO	IMPORTE
116	UD TE FD BBB 800 mm PN25 SALIDA DN800/150 "T" de fundición dúctil de PFA 25 bar, con dos enchufes y derivación con brida para tubería de 800 mm con salida comprendida entre 800 y 150 mm, con un revestimiento interior y exterior epoxi, i/p.p. de junta de unión y medios auxiliares, totalmente colocada y probada.	16,00	3.290,45	52.647,20
111	UD REDUCCIÓN FD 150 A 125/50 mm PN16/25 Reducción en fundición dúctil de 150 mm a 125-100-80-65-60-50 mm con dos bridas PN 16/25 bar, con un revestimiento interior y exterior epoxi, i/p.p. de junta de unión y medios auxiliares, totalmente colocada y probada.	10,00	97,26	972,60
231	UD VÁLVULA DE COMPUERTA MANUAL DN200 PN25 Válvula de compuerta de cierre elástico de 200 mm. de diámetro nominal y 25 At. de P.N., de accionamiento manual por volante, de cuerpo de fundición nodular GGG-50, con eje de acero inoxidable al 13 % Cr. con rosca conformadas por laminación en frío, cierre en fundición nodular, tornillería de acero inoxidable, protegida contra la corrosión mediante aplicación de doble capa de pintura epoxy, totalmente colocada y probada. Resto de características según ET.	5,00	861,41	4.307,05
109A	UD RACORD TIPO BARCELONA SALIDAS 80-200 mm Rosca Racord tipo Barcelona con salidad entre 80 y 200 mm para enchufe de manguera, totalmente instalado y terminado.	2,00	150,66	301,32
114.5	UD BRIDA LISO FD 800 mm PN25/40 Brida lisa de fundición dúctil de PFA 25/40 bar para tubería de 800 mm, con un revestimiento interior y exterior epoxi, i/p.p. de junta de unión y medios auxiliares, totalmente colocada y probada.	1,00	1.618,90	1.618,90
EVMM800P	UD VÁLVULA DE MARIPOSA DOBLE EXCENRICIDAD DN 800 mm PN25 MANUAL Válvula de mariposa de doble excentricidad de 800 mm de diámetro y PN25, de accionamiento manual por reductor, incluso mecanismo de accionamiento, maniobra y control, transporte, montaje, juntas, tornillería y pintura totalmente instalada y probada. Resto de características según ET de proyecto.	8,00	9.709,95	77.679,60
ECD0800P	UD CARRETE DE DESMONTAJE DN=800 mm PN25 Carrete telescópico de desmontaje DN800 PN25, bridas de acero al carbono, virolas de acero inoxidable, protección epoxi, tornillos y tuercas en acero F-114, cincado y posterior baño de cromo-niquel, incluido p.p. de brida enchufe, totalmente instalado y probado en obra.	8,00	2.686,14	21.489,12
115.2	UD BRIDA ENCHUFE FD 800 mm PN25 Brida enchufe de fundición dúctil de PFA 25 bar para tubería de 800 mm, con un revestimiento interior y exterior epoxi, i/p.p. de junta de unión y medios auxiliares, totalmente colocada y probada.	3,00	1.748,69	5.246,07
TOTAL APARTADO 03.02.04 VÁLVULAS Y ACCESORIOS.....				170.014,90
APARTADO 03.02.05 HINCAS				
370	ML HINCA TUBO ACERO 1100 mm TIERRAS Hinca de tubo de acero, de 1100 mm de diámetro interior, bajo viales, en tierra o roca alterada, incluso p.p. de instalación de tubería de fundición dúctil entre 600 y 900 mm de diámetro interior y sus anclajes y apoyos; muros de reacción y contención; y todos los elementos necesarios para su montaje y desmontaje.	52,32	786,69	41.159,62
TOTAL APARTADO 03.02.05 HINCAS.....				41.159,62

PRESUPUESTOS PARCIALES.

ABASTECIMIENTO A VARIOS MUNICIPIOS DE LA RIOJA. SISTEMA CIDACOS

CÓDIGO	RESUMEN	CANTIDAD	PRECIO	IMPORTE
APARTADO 03.02.06 OBRAS ACCESORIAS Y REPOSICIONES DE SERVICIOS				
030	M3 HORMIGÓN HNE-20/B/40 Hormigón HNE-20/B/40, con cemento CEM II/A-D/42,5/SR (UNE 80303:96), en masa o ligeramente armado, colocado en cualquier tipo de obra, incluso fabricación, carga y transporte, totalmente colocado.	5,49	50,38	276,59
389	ML REPOSICIÓN DE ACEQUIA Reposición de acequia con tubo de hormigón hasta 1 m de diámetro.	15,00	13,55	203,25
381	M2 REPOSICIÓN DE FIRME DE AGLOMERADO Reposición de firme de aglomerado en caliente en zonas afectadas por las obras.	13.151,04	4,14	54.445,31
056	M3 ZAHORRA ARTIFICIAL Zahorra artificial compactada.	336,50	16,98	5.713,77
383	ML REPOSICIÓN DE CERRAMIENTO EXISTENTE Reposición de cerramiento existente hasta 2,00 m de altura.	25,00	9,37	234,25
387	ML REPOSICIÓN OBRA DE DRENAJE HASTA DN 1,00 m Reposición de obra de drenaje hasta 1,00 de diámetro, p.p. de boquilla de entrada y salida, excavación, hormigón de recubrimiento y relleno compactado, totalmente terminada.	40,00	174,54	6.981,60
619	PA REPOSICIÓN DE PARQUE EXISTENTE Partida Alzada de Abono Íntegro para la reposición de parque existente.	1,00	11.383,99	11.383,99
385	M2 REPOSICIÓN DE JARDÍN EXISTENTE Reposición de jardín existente.	37,50	44,62	1.673,25
393	ML CANALIZACIÓN TELEFÓNICA FIBRA ÓPTICA Canalización telefónica en zanja bajo calzada, para reposición de cable de fibra óptica de 12 a 16 fibras, incluso p.p. de arquetas y caja de empalmes, totalmente terminado.	20,00	45,58	911,60
395	ML CANALIZACIÓN TELEFÓNICA BAJO CALZADA 4 TUBOS Canalización telefónica en zanja bajo calzada, de 0,45x1,01 m para 4 conductos, en base 2, de PVC de 110 mm de diámetro, embebidos en prisma de hormigón HM-20 de central de 8 cm de recubrimiento superior e inferior y 10 cm lateralmente, incluso excavación de tierras a máquina en terrenos flojos, tubos, soportes distanciadores cada 70 cm, cuerda guía para cables, hormigón y relleno en la capa superior con tierras procedentes de la excavación, en tongadas < 25 cm, compactada al 95% del P.N., totalmente terminado.	40,00	18,66	746,40
TOTAL APARTADO 03.02.06 OBRAS ACCESORIAS Y REPOSICIONES DE SERVICIOS.....				82.570,01
TOTAL SUBCAPÍTULO 03.02 EJE 4: ACOMETIDA ARNEDO - P190.....				2.883.576,50
SUBCAPÍTULO 03.03 EJES 14 Y 24: ACOMETIDA SANTA EULALIA S Y B				
APARTADO 03.03.01 MOVIMIENTO DE TIERRAS				
019	M2 DEMOLICIÓN DE FIRMES Demolición de firmes de cualquier tipo, incluso precorte, carga y transporte a vertedero, posterior perfilado y compactación del terreno.	462,00	2,50	1.155,00
010	M3 RELLENO ZANJAS, CIMIENTOS Y TRASDOSES DE MATERIAL SELECCIONADO Relleno con material seleccionado en zanjas, cimientos, trasdós de muros, estribos y otras estructuras procedente de la excavación o préstamos incluso carga, transporte y compactación.	1.139,30	3,32	3.782,48

PRESUPUESTOS PARCIALES.

ABASTECIMIENTO A VARIOS MUNICIPIOS DE LA RIOJA. SISTEMA CIDACOS

CÓDIGO	RESUMEN	CANTIDAD	PRECIO	IMPORTE
011	M3 RELLENO DE ARENA Arena para apoyo y protección de tuberías incluso carga, transporte, colocación, compactación y nivelación.	203,60	12,09	2.461,52
002	M3 EXCAVACIÓN EN ZANJAS Excavación en zanjas y zonas localizadas, en todo tipo de terrenos incluido terrenos en roca con medios mecánicos, incluso rasanteo, nivelación de la superficie de apoyo y transporte a lugar de empleo o vertedero.	294,80	3,74	1.102,55
003	M3 EXCAVACIÓN EN ZANJAS CON AGOTAMIENTO Excavación en zanjas y zonas localizadas, en todo tipo de terrenos incluido terrenos en roca con medios mecánicos, incluso rasanteo, nivelación de la superficie de apoyo, agotamiento y transporte a lugar de empleo o vertedero.	1.050,00	3,84	4.032,00
008	M2 DESPEJE Y DESBROCE Despeje y desbroce de capa de tierra vegetal con un espesor medio de 50 cm, incluso corte de árboles, extracción de tocones, nivelación de zona adyacente para el paso de maquinaria, transporte a lugar de acopio independiente para posterior reposición de tierra vegetal tras las obras y despedregado de las parcelas, así como transporte a vertedero de tierras sobrantes.	180,72	0,57	103,01
TOTAL APARTADO 03.03.01 MOVIMIENTO DE TIERRAS.....				12.636,56
APARTADO 03.03.02 OBRA CIVIL				
373	UD POZO DE REGISTRO DE AROS DE HORMIGÓN DN1200 Pozo de registro de abastecimiento para válvulas de control de cualquier altura de diámetro interior D=1200 mm, incluso base de hormigón HNE-20, aros de hormigón, cono prefabricado de hormigón, pates y tapa de fundición, totalmente terminado.	3,00	357,84	1.073,52
TOTAL APARTADO 03.03.02 OBRA CIVIL.....				1.073,52
APARTADO 03.03.03 TUBERÍAS				
174	ML TUBERIA PEAD DN=63 mm PN 16 Tubería de polietileno de alta densidad de 63 mm de diámetro exterior y PN=16 bar, colocada en zanja incluso banda de señalización, p.p. de junta de unión colocada, codos, tes, portabridas, así como piezas especiales y medios auxiliares, totalmente colocada.	861,00	9,60	8.265,60
TOTAL APARTADO 03.03.03 TUBERÍAS.....				8.265,60
APARTADO 03.03.04 VALVULERÍA Y ACCESORIOS				
116A	UD TE FD EEB DN900 mm PN16 SALIDA HASTA DN200 "T" de fundición dúctil de PFA 16 bar, con dos enchufes y derivación con brida para tubería de 900 mm con salida comprendida entre 900 y 200 mm, con un revestimiento interior y exterior epoxi, i/p.p. de junta de unión y medios auxiliares, totalmente colocada y probada.	1,00	4.408,95	4.408,95
109	UD REDUCCIÓN FD 200 A 150/100 mm PN16 Reducción en fundición dúctil de 200 mm a 150-125-100 mm con dos bridas PN 16 bar, con un revestimiento interior y exterior epoxi, i/p.p. de junta de unión y medios auxiliares, totalmente colocada y probada.	1,00	91,37	91,37
114	UD REDUCCIÓN FD 100 A 80/50 mm PN16/25 Reducción en fundición dúctil de 100 mm a 80-65-60-50 mm con dos bridas PN 16/25 bar, con un revestimiento interior y exterior epoxi, i/p.p. de tornillería y medios auxiliares, totalmente colocada y probada.	1,00	50,28	50,28

PRESUPUESTOS PARCIALES.

ABASTECIMIENTO A VARIOS MUNICIPIOS DE LA RIOJA. SISTEMA CIDACOS

CÓDIGO	RESUMEN	CANTIDAD	PRECIO	IMPORTE
EVCM06516	UD VÁLVULA DE COMPUERTA MANUAL DN65 PN16 Válvula de compuerta de cierre elástico de 65 mm. de diámetro nominal y 16 At. de P.N., de accionamiento manual por volante, de cuerpo de fundición nodular GGG-50, con eje de acero inoxidable al 13 % Cr. con rosca conformadas por laminación en frío, cierre en fundición nodular, tornillería de acero inoxidable, protegida contra la corrosión mediante aplicación de doble capa de pintura epoxy, totalmente colocada y probada. Resto de características según ET.	1,00	98,33	98,33
245.1	UD VENTOSA DN=25 mm (1") PN16 Válvula ventosa de tres funciones de 1" (DN=25 mm) y PN 16 bar incluido transporte, juntas, válvula de corte DN=25 mm y PN 16 bar y piezas especiales, totalmente colocada y probada.	2,00	162,21	324,42
175	UD "T" PEAD DN 140 A 63 mm PN16 "T" de derivación en polietileno de alta densidad de 140 mm de diámetro exterior a 63 mm y PN=16 bar, colocada en zanja incluso p.p. de junta de unión colocada y medios auxiliares, totalmente colocada y probada.	3,00	69,65	208,95
177.1	UD REDUCCIÓN PEAD 63 A 50 mm DIÁMETRO Reducción en polietileno de alta densidad de 63 mm a 50 mm de diámetro, totalmente colocada y probada.	3,00	21,03	63,09
242	UD VÁLVULA DE COMPUERTA MANUAL DN50 PN16 Válvula de compuerta de accionamiento manual de diámetro nominal DN=50 mm de 16 bares de presión máxima admisible, con tornillería y juntas, totalmente instalada y probada, incluso volante de accionamiento.	1,00	105,35	105,35
109A	UD RACORD TIPO BARCELONA SALIDAS 80-200 mm Rosca Racord tipo Barcelona con salida entre 80 y 200 mm para enchufe de manguera, totalmente instalado y terminado.	1,00	150,66	150,66
TOTAL APARTADO 03.03.04 VALVULERÍA Y ACCESORIOS				5.501,40
APARTADO 03.03.05 OBRAS ACCESORIAS Y REPOSICIONES DE SERVICIOS				
056	M3 ZAHORRA ARTIFICIAL Zahorra artificial compactada.	288,00	16,98	4.890,24
381	M2 REPOSICIÓN DE FIRME DE AGLOMERADO Reposición de firme de aglomerado en caliente en zonas afectadas por las obras.	462,00	4,14	1.912,68
391	ML REPOSICIÓN DE POZO DE REGISTRO Reposición de pozo de registro para saneamiento o abastecimiento, incluso base de hormigón HM-20, p.p. de cono prefabricado de hormigón y tapa, totalmente terminado.	1,00	47,47	47,47
393	ML CANALIZACIÓN TELEFÓNICA FIBRA ÓPTICA Canalización telefónica en zanja bajo calzada, para reposición de cable de fibra óptica de 12 a 16 fibras, incluso p.p. de arquetas y caja de empalmes, totalmente terminado.	20,00	45,58	911,60
TOTAL APARTADO 03.03.05 OBRAS ACCESORIAS Y REPOSICIONES DE SERVICIOS.....				7.761,99
TOTAL SUBCAPÍTULO 03.03 EJES 14 Y 24: ACOMETIDA SANTA EULALIA S Y B.....				35.239,07

PRESUPUESTOS PARCIALES.

ABASTECIMIENTO A VARIOS MUNICIPIOS DE LA RIOJA. SISTEMA CIDACOS

CÓDIGO	RESUMEN	CANTIDAD	PRECIO	IMPORTE
SUBCAPÍTULO 03.04 EJE 15: ACOMETIDA HERCE				
APARTADO 03.04.01 MOVIMIENTO DE TIERRAS				
002	M3 EXCAVACIÓN EN ZANJAS Excavación en zanjas y zonas localizadas, en todo tipo de terrenos incluido terrenos en roca con medios mecánicos, incluso rasanteo, nivelación de la superficie de apoyo y transporte a lugar de empleo o vertedero.	500,40	3,74	1.871,50
003	M3 EXCAVACIÓN EN ZANJAS CON AGOTAMIENTO Excavación en zanjas y zonas localizadas, en todo tipo de terrenos incluido terrenos en roca con medios mecánicos, incluso rasanteo, nivelación de la superficie de apoyo, agotamiento y transporte a lugar de empleo o vertedero.	111,20	3,84	427,01
008	M2 DESPEJE Y DESBROCE Despeje y desbroce de capa de tierra vegetal con un espesor medio de 50 cm, incluso corte de árboles, extracción de tocones, nivelación de zona adyacente para el paso de maquinaria, transporte a lugar de acopio independiente para posterior reposición de tierra vegetal tras las obras y despedregado de las parcelas, así como transporte a vertedero de tierras sobrantes.	586,83	0,57	334,49
010	M3 RELLENO ZANJAS, CIMIENTOS Y TRASDOSES DE MATERIAL SELECCIONADO Relleno con material seleccionado en zanjas, cimientos, trasdós de muros, estribos y otras estructuras procedente de la excavación o préstamos incluso carga, transporte y compactación.	454,10	3,32	1.507,61
011	M3 RELLENO DE ARENA Arena para apoyo y protección de tuberías incluso carga, transporte, colocación, compactación y nivelación.	154,50	12,09	1.867,91
019	M2 DEMOLICIÓN DE FIRMES Demolición de firmes de cualquier tipo, incluso precorte, carga y transporte a vertedero, posterior perfilado y compactación del terreno.	1.086,00	2,50	2.715,00
007	M2 ENTIBACIÓN MÓDULOS METÁLICOS Entibación a dos caras mediante módulos metálicos y articulados, en zonas de protección de zanja, medida la superficie efectiva.	483,00	8,69	4.197,27
TOTAL APARTADO 03.04.01 MOVIMIENTO DE TIERRAS.....				12.920,79
APARTADO 03.04.02 OBRA CIVIL				
373	UD POZO DE REGISTRO DE AROS DE HORMIGÓN DN1200 Pozo de registro de abastecimiento para válvulas de control de cualquier altura de diámetro interior D=1200 mm, incluso base de hormigón HNE-20, aros de hormigón, cono prefabricado de hormigón, pates y tapa de fundición, totalmente terminado.	3,00	357,84	1.073,52
TOTAL APARTADO 03.04.02 OBRA CIVIL.....				1.073,52
APARTADO 03.04.03 TUBERÍAS				
173R	ML TUBERÍA PEAD DN=75 mm PN 16 Tubería de polietileno de alta densidad de 75 mm de diámetro exterior y PN=16 bar, colocada en zanja incluso p.p. de junta de unión colocada, cinta señalizadora, piezas especiales y medios auxiliares, totalmente colocada.	576,00	11,23	6.468,48
TOTAL APARTADO 03.04.03 TUBERÍAS.....				6.468,48

PRESUPUESTOS PARCIALES.

ABASTECIMIENTO A VARIOS MUNICIPIOS DE LA RIOJA. SISTEMA CIDACOS

CÓDIGO	RESUMEN	CANTIDAD	PRECIO	IMPORTE
APARTADO 03.04.04 VALVULERÍA Y ACCESORIOS				
116A	UD TE FD EEB DN900 mm PN16 SALIDA HASTA DN200 "T" de fundición dúctil de PFA 16 bar, con dos enchufes y derivación con brida para tubería de 900 mm con salida comprendida entre 900 y 200 mm, con un revestimiento interior y exterior epoxi, i/p.p. de junta de unión y medios auxiliares, totalmente colocada y probada.	1,00	4.408,95	4.408,95
109	UD REDUCCIÓN FD 200 A 150/100 mm PN16 Reducción en fundición dúctil de 200 mm a 150-125-100 mm con dos bridas PN 16 bar, con un revestimiento interior y exterior epoxi, i/p.p. de junta de unión y medios auxiliares, totalmente colocada y probada.	1,00	91,37	91,37
111	UD REDUCCIÓN FD 150 A 125/50 mm PN16/25 Reducción en fundición dúctil de 150 mm a 125-100-80-65-60-50 mm con dos bridas PN 16/25 bar, con un revestimiento interior y exterior epoxi, i/p.p. de junta de unión y medios auxiliares, totalmente colocada y probada.	1,00	97,26	97,26
EVC080	UD VÁLVULA DE COMPUERTA MANUAL DN80 PN16 Válvula de compuerta de cierre elástico de 80 mm. de diámetro nominal y 16 At. de P.N., de accionamiento manual por volante, de cuerpo de fundición nodular GGG-50, con eje de acero inoxidable al 13 % Cr. con roscas conformadas por laminación en frío, cierre en fundición nodular, tornillería de acero inoxidable, protegida contra la corrosión mediante aplicación de doble capa de pintura epoxy, totalmente colocada y probada. Resto de características según ET.	3,00	110,47	331,41
TOTAL APARTADO 03.04.04 VALVULERÍA Y ACCESORIOS				4.928,99
APARTADO 03.04.05 HINCAS				
366	ML HINCA TUBO ACERO 355 mm TIERRAS Hinca de tubo de acero, de 355 mm de diámetro interior, bajo viales, en tierra o roca alterada, incluso p.p. de instalación de tubería de fundición dúctil comprendida entre 250 y 150 mm de diámetro interior y sus anclajes y apoyos; muros de reacción y contención; y todos los elementos necesarios para su montaje y desmontaje.	18,00	300,65	5.411,70
TOTAL APARTADO 03.04.05 HINCAS.....				5.411,70
APARTADO 03.04.06 OBRAS ACCESORIAS Y REPOSICIONES DE SERVICIOS				
380	M2 REPOSICIÓN DE PAVIMENTO DE HORMIGÓN Reposición de pavimento de hormigón HM-20/B/40/IIa+Qa de 15 cm de espesor, totalmente terminado.	738,00	17,84	13.165,92
381	M2 REPOSICIÓN DE FIRME DE AGLOMERADO Reposición de firme de aglomerado en caliente en zonas afectadas por las obras.	348,00	4,14	1.440,72
382	ML REPOSICIÓN DE MURO DE HORMIGÓN EXISTENTE Reposición de muro de hormigón existente hasta 2,00 m de altura.	2,00	42,70	85,40
391	ML REPOSICIÓN DE POZO DE REGISTRO Reposición de pozo de registro para saneamiento o abastecimiento, incluso base de hormigón HM-20, p.p. de cono prefabricado de hormigón y tapa, totalmente terminado.	3,00	47,47	142,41
393	ML CANALIZACIÓN TELEFÓNICA FIBRA ÓPTICA Canalización telefónica en zanja bajo calzada, para reposición de cable de fibra óptica de 12 a 16 fibras, incluso p.p. de arquetas y caja de empalmes, totalmente terminado.	20,00	45,58	911,60

PRESUPUESTOS PARCIALES.

ABASTECIMIENTO A VARIOS MUNICIPIOS DE LA RIOJA. SISTEMA CIDACOS

CÓDIGO	RESUMEN	CANTIDAD	PRECIO	IMPORTE
395	ML CANALIZACIÓN TELEFÓNICA BAJO CALZADA 4 TUBOS Canalización telefónica en zanja bajo calzada, de 0,45x1,01 m para 4 conductos, en base 2, de PVC de 110 mm de diámetro, embebidos en prisma de hormigón HM-20 de central de 8 cm de recubrimiento superior e inferior y 10 cm lateralmente, incluso excavación de tierras a máquina en terrenos flojos, tubos, soportes distanciadores cada 70 cm, cuerda guía para cables, hormigón y relleno en la capa superior con tierras procedentes de la excavación, en tongadas < 25 cm, compactada al 95% del P.N., totalmente terminado.	20,00	18,66	373,20
TOTAL APARTADO 03.04.06 OBRAS ACCESORIAS Y REPOSICIONES DE SERVICIOS.....				16.119,25
TOTAL SUBCAPÍTULO 03.04 EJE 15: ACOMETIDA HERCE.....				46.922,73
SUBCAPÍTULO 03.05 EJE 16: ACOMETIDA ARNEDO				
APARTADO 03.05.01 MOVIMIENTO DE TIERRAS				
008	M2 DESPEJE Y DESBROCE Despeje y desbroce de capa de tierra vegetal con un espesor medio de 50 cm, incluso corte de árboles, extracción de tocones, nivelación de zona adyacente para el paso de maquinaria, transporte a lugar de acopio independiente para posterior reposición de tierra vegetal tras las obras y despedregado de las parcelas, así como transporte a vertedero de tierras sobrantes.	2.913,00	0,57	1.660,41
003	M3 EXCAVACIÓN EN ZANJAS CON AGOTAMIENTO Excavación en zanjas y zonas localizadas, en todo tipo de terrenos incluido terrenos en roca con medios mecánicos, incluso rasanteo, nivelación de la superficie de apoyo, agotamiento y transporte a lugar de empleo o vertedero.	4.634,87	3,84	17.797,90
010	M3 RELLENO ZANJAS, CIMIENTOS Y TRASDOSES DE MATERIAL SELECCIONADO Relleno con material seleccionado en zanjas, cimientos, trasdós de muros, estribos y otras estructuras procedente de la excavación o préstamos incluso carga, transporte y compactación.	2.778,52	3,32	9.224,69
011	M3 RELLENO DE ARENA Arena para apoyo y protección de tuberías incluso carga, transporte, colocación, compactación y nivelación.	1.525,25	12,09	18.440,27
019	M2 DEMOLICIÓN DE FIRMES Demolición de firmes de cualquier tipo, incluso precorte, carga y transporte a vertedero, posterior perfilado y compactación del terreno.	959,88	2,50	2.399,70
007	M2 ENTIBACIÓN MÓDULOS METÁLICOS Entibación a dos caras mediante módulos metálicos y articulados, en zonas de protección de zanja, medida la superficie efectiva.	1.208,00	8,69	10.497,52
TOTAL APARTADO 03.05.01 MOVIMIENTO DE TIERRAS.....				60.020,49
APARTADO 03.05.02 OBRA CIVIL				
023	KG ACERO CORRUGADO B-500-S Acero redondo corrugado para armar tipo B-500-S elaborado y colocado.	16.417,39	0,96	15.760,69
030	M3 HORMIGÓN HNE-20/B/40 Hormigón HNE-20/B/40, con cemento CEM III/A-D/42,5/SR (UNE 80303:96), en masa o ligeramente armado, colocado en cualquier tipo de obra, incluso fabricación, carga y transporte, totalmente colocado.	510,70	50,38	25.729,07
373	UD POZO DE REGISTRO DE AROS DE HORMIGÓN DN1200 Pozo de registro de abastecimiento para válvulas de control de cualquier altura de diámetro interior D=1200 mm, incluso base de hormigón HNE-20, aros de hormigón, cono prefabricado de hormigón, pates y tapa de fundición, totalmente terminado.	13,00	357,84	4.651,92

PRESUPUESTOS PARCIALES.

ABASTECIMIENTO A VARIOS MUNICIPIOS DE LA RIOJA. SISTEMA CIDACOS

CÓDIGO	RESUMEN	CANTIDAD	PRECIO	IMPORTE
034.2	UD ARQUETA HORMIGÓN DE 3,00x2,50 M Y HASTA 2,50 m DE PROFUNDIDAD Arqueta de hormigón armado HA-25/P/40/IIa para alojamiento de válvulas de tuberías de dimensiones interiores 3,0x2,5 m y una altura de hasta 2,50 m, con solera de 30 cm de canto, muros de 25 cm de espesor y tapa de 25 cm de canto, armado con parrilla de 20x20 cm con redondos de 12 mm, incluso excavación, relleno posterior, encofrado, totalmente terminada.	4,00	2.855,46	11.421,84
TOTAL APARTADO 03.05.02 OBRA CIVIL.....				57.563,52
APARTADO 03.05.03 TUBERÍAS				
061	ML TUBERÍA FD 400 mm Tubería de fundición dúctil de diámetro interior 400 mm y PFA de 42 bar, revestida interiormente con mortero de cemento y exteriormente con una capa de cinc y otra bituminosa, i/p.p. de junta automática flexible, banda de señalización y medios auxiliares, totalmente colocada y probada.	2.330,00	68,70	160.071,00
078	UD CODO FD 1/16 A 1/32 400 mm Codo de fundición dúctil de 1/16 a 1/32 de diámetro interior 400 mm y PFA 30 bar, con revestimiento interior y exterior epoxi, incluso p.p. de juntas y medios auxiliares, totalmente colocado y probado.	96,00	325,62	31.259,52
077	UD CODO FD 1/8 400 mm Codo de fundición dúctil de 1/8 de diámetro interior 400 mm y PFA 30 bar, con revestimiento interior y exterior epoxi, incluso p.p. de juntas y medios auxiliares, totalmente colocado y probado.	14,00	336,83	4.715,62
079	UD CODO FD 1/4 400 mm Codo de fundición dúctil de 1/4 de diámetro interior 400 mm y PFA 30 bar, con revestimiento interior y exterior epoxi, incluso p.p. de juntas y medios auxiliares, totalmente colocado y probado.	7,00	388,90	2.722,30
197	ML TUBERÍA DE PVC 160 mm Tubería de PVC con junta elástica de 160 mm de diámetro exterior, y PN=6 bar, incluso banda de señalización, totalmente colocada en zanja.	55,00	13,32	732,60
TOTAL APARTADO 03.05.03 TUBERÍAS.....				199.501,04
APARTADO 03.05.04 VALVULERÍA Y ACCESORIOS				
244.1	UD VENTOSA DN=100 (4") mm PN16 Válvula ventosa de tres funciones de DN=100 mm y PN 16 bar incluido transporte, juntas, válvula de corte DN=100 mm y PN 16 ba y piezas especiales, totalmente colocada y probada.	1,00	903,50	903,50
245.2	UD VENTOSA DN=80 (3") mm PN16 Válvula ventosa de tres funciones de DN=80 mm (3") y PN 16 bar incluido transporte, juntas, válvula de corte DN=80 mm y PN 16y piezas especiales, totalmente colocada y probada.	6,00	432,90	2.597,40
121	UD TE FD EEB 400 mm PN16/25 SALIDA DN400/80 "T" de fundición dúctil de PFA 16/25 bar, con dos enchufes y derivación con brida para tubería de 400 mm con salida comprendida entre 400 y 80 mm, con un revestimiento interior y exterior epoxi, i/p.p. de junta de unión y medios auxiliares, totalmente colocada y probada.	13,00	669,87	8.708,31
235	UD VÁLVULA DE COMPUERTA MANUAL DN150 PN16 Válvula de compuerta de accionamiento manual de diámetro nominal DN=150 mm de 16 bares de presión máxima admisible, con tornillería y juntas, totalmente instalada y probada, incluso volante de accionamiento.	6,00	299,35	1.796,10
109A	UD RACORD TIPO BARCELONA SALIDAS 80-200 mm Rosca Racord tipo Barcelona con salidad entre 80 y 200 mm para enchufe de manguera, totalmente instalado y terminado.	2,00	150,66	301,32

PRESUPUESTOS PARCIALES.

ABASTECIMIENTO A VARIOS MUNICIPIOS DE LA RIOJA. SISTEMA CIDACOS

CÓDIGO	RESUMEN	CANTIDAD	PRECIO	IMPORTE
EVMM400.1	UD VÁLVULA DE MARIPOSA DOBLE EXCENRICIDAD DN 400 mm PN25 MANUAL Válvula de mariposa de doble excentricidad de 400 mm de diámetro y PN25, de accionamiento manual por reductor, incluso mecanismo de accionamiento, maniobra y control, transporte, montaje, juntas, tornillería y pintura totalmente instalada y probada. Resto de características según ET de proyecto.	4,00	2.594,70	10.378,80
TOTAL APARTADO 03.05.04 VALVULERÍA Y ACCESORIOS.....				24.685,43
APARTADO 03.05.05 HINCAS				
368	ML HINCA TUBO ACERO 609 mm TIERRAS Hinca de tubo de acero, de 609 mm de diámetro interior, bajo viales, en tierra o roca alterada, incluso p.p. de instalación de tubería de fundición dúctil comprendida entre 400 mm y 250 mm de diámetro interior y sus anclajes y apoyos; muros de reacción y contención; y todos los elementos necesarios para su montaje y desmontaje.	31,00	515,25	15.972,75
TOTAL APARTADO 03.05.05 HINCAS.....				15.972,75
APARTADO 03.05.06 OBRAS ACCESORIAS Y REPOSICIONES DE SERVICIOS				
381	M2 REPOSICIÓN DE FIRME DE AGLOMERADO Reposición de firme de aglomerado en caliente en zonas afectadas por las obras.	762,00	4,14	3.154,68
380	M2 REPOSICIÓN DE PAVIMENTO DE HORMIGÓN Reposición de pavimento de hormigón HM-20/B/40/IIa+Qa de 15 cm de espesor, totalmente terminado.	197,88	17,84	3.530,18
056	M3 ZAHORRA ARTIFICIAL Zahorra artificial compactada.	604,80	16,98	10.269,50
TOTAL APARTADO 03.05.06 OBRAS ACCESORIAS Y REPOSICIONES DE SERVICIOS.....				16.954,36
TOTAL SUBCAPÍTULO 03.05 EJE 16: ACOMETIDA ARNEDO.....				374.697,59
SUBCAPÍTULO 03.06 EJE 17: ACOMETIDA QUEL				
APARTADO 03.06.01 MOVIMIENTO DE TIERRAS				
003	M3 EXCAVACIÓN EN ZANJAS CON AGOTAMIENTO Excavación en zanjas y zonas localizadas, en todo tipo de terrenos incluido terrenos en roca con medios mecánicos, incluso rasanteo, nivelación de la superficie de apoyo, agotamiento y transporte a lugar de empleo o vertedero.	6.525,45	3,84	25.057,73
007	M2 ENTIBACIÓN MÓDULOS METÁLICOS Entibación a dos caras mediante módulos metálicos y articulados, en zonas de protección de zanja, medida la superficie efectiva.	466,59	8,69	4.054,67
008	M2 DESPEJE Y DESBROCE Despeje y desbroce de capa de tierra vegetal con un espesor medio de 50 cm, incluso corte de árboles, extracción de tocones, nivelación de zona adyacente para el paso de maquinaria, transporte a lugar de acopio independiente para posterior reposición de tierra vegetal tras las obras y despedregado de las parcelas, así como transporte a vertedero de tierras sobrantes.	210,00	0,57	119,70
010	M3 RELLENO ZANJAS, CIMIENTOS Y TRASDOSES DE MATERIAL SELECCIONADO Relleno con material seleccionado en zanjas, cimientos, trasdós de muros, estribos y otras estructuras procedente de la excavación o préstamos incluso carga, transporte y compactación.	5.609,45	3,32	18.623,37
011	M3 RELLENO DE ARENA Arena para apoyo y protección de tuberías incluso carga, transporte, colocación, compactación y nivelación.	886,20	12,09	10.714,16

PRESUPUESTOS PARCIALES.

ABASTECIMIENTO A VARIOS MUNICIPIOS DE LA RIOJA. SISTEMA CIDACOS

CÓDIGO	RESUMEN	CANTIDAD	PRECIO	IMPORTE
019	M2 DEMOLICIÓN DE FIRMES Demolición de firmes de cualquier tipo, incluso precorte, carga y transporte a vertedero, posterior perfilado y compactación del terreno.	3.723,18	2,50	9.307,95
TOTAL APARTADO 03.06.01 MOVIMIENTO DE TIERRAS.....				67.877,58
APARTADO 03.06.02 OBRA CIVIL				
023	KG ACERO CORRUGADO B-500-S Acero redondo corrugado para armar tipo B-500-S elaborado y colocado.	1.262,17	0,96	1.211,68
030	M3 HORMIGÓN HNE-20/B/40 Hormigón HNE-20/B/40, con cemento CEM III/A-D/42,5/SR (UNE 80303:96), en masa o ligeramente armado, colocado en cualquier tipo de obra, incluso fabricación, carga y transporte, totalmente colocado.	761,76	50,38	38.377,47
373	UD POZO DE REGISTRO DE AROS DE HORMIGÓN DN1200 Pozo de registro de abastecimiento para válvulas de control de cualquier altura de diámetro interior D=1200 mm, incluso base de hormigón HNE-20, aros de hormigón, cono prefabricado de hormigón, pates y tapa de fundición, totalmente terminado.	3,00	357,84	1.073,52
TOTAL APARTADO 03.06.02 OBRA CIVIL.....				40.662,67
APARTADO 03.06.03 TUBERÍAS				
065	ML TUBERÍA FD 150 mm Tubería de fundición dúctil de diámetro interior 150 mm y PFA de 64 bar, revestida interiormente con mortero de cemento y exteriormente con una capa de cinc y otra bituminosa, i/p.p. de junta automática flexible, banda de señalización y medios auxiliares, totalmente colocada y probada.	1.312,00	21,42	28.103,04
085	UD CODO FD 1/8 A 1/32 150 mm Codo de fundición dúctil de 1/8 a 1/32 de diámetro interior 150 mm y PFA 40 bar, con un revestimiento interior y exterior epoxi, incluso p.p. de juntas y medios auxiliares, totalmente colocado y probado.	18,00	86,51	1.557,18
199	ML TUBERÍA DE PVC 90 mm Tubería de PVC con junta elástica de 90 mm de diámetro exterior, y PN=6 bar, incluso banda de señalización, totalmente colocada en zanja.	26,00	6,78	176,28
TOTAL APARTADO 03.06.03 TUBERÍAS.....				29.836,50
APARTADO 03.06.04 VÁLVULAS Y ACCESORIOS				
116	UD TE FD BBB 800 mm PN25 SALIDA DN800/150 "T" de fundición dúctil de PFA 25 bar, con dos enchufes y derivación con brida para tubería de 800 mm con salida comprendida entre 800 y 150 mm, con un revestimiento interior y exterior epoxi, i/p.p. de junta de unión y medios auxiliares, totalmente colocada y probada.	1,00	3.290,45	3.290,45
162	UD MANGUITO FD DN100 A DN250 mm PN16/25 Manguito de fundición dúctil con bridas diámetros de 100 a 250 mm, longitud comprendida entre 0,20 y 1,00 m y PN 16/25, incluso p.p. de tornillería y medios auxiliares, totalmente colocado y probado.	1,00	110,14	110,14
234	UD VÁLVULA DE COMPUERTA MANUAL DN150 PN25 Válvula de compuerta de cierre elástico de 150 mm. de diámetro nominal y 25 At. de P.N., de accionamiento manual por volante, de cuerpo de fundición nodular GGG-50, con eje de acero inoxidable al 13 % Cr. con roscas conformadas por laminación en frío, cierre en fundición nodular, tornillería de acero inoxidable, protegida contra la corrosión mediante aplicación de doble capa de pintura epoxy, totalmente colocada y probada. Resto de características según ET.	1,00	490,62	490,62

PRESUPUESTOS PARCIALES.

ABASTECIMIENTO A VARIOS MUNICIPIOS DE LA RIOJA. SISTEMA CIDACOS

CÓDIGO	RESUMEN	CANTIDAD	PRECIO	IMPORTE
145	UD CARRETE DE DESMONTAJE DN=150 mm PN25 Carrete telescópico de desmontaje DN150 PN25, bridas de acero al carbono, virolas de acero inoxidable, protección epoxi, tornillos y tuercas en acero F-114, cincado y posterior baño de cromo-níquel, incluido p.p. de brida enchufe, totalmente instalado y probado en obra.	1,00	268,45	268,45
114.4	UD BRIDA LISO FD DN<150 mm PN16/25/40 Brida lisa de fundición dúctil de PFA 16/25/40 bar para tubería de diámetro menor o igual de 150 mm, con un revestimiento interior y exterior epoxi, i/p.p. de junta de unión y medios auxiliares, totalmente colocada y probada.	1,00	78,80	78,80
245.3	UD VENTOSA DN=50 (2") mm PN25 Válvula ventosa de tres funciones de DN=50 mm (2") y PN 25 bar incluido transporte, juntas, válvula de corte DN=50 mm y PN 25 y piezas especiales, totalmente colocada y probada.	1,00	434,43	434,43
245.8	UD VENTOSA DN=25 mm (1") PN25 Válvula ventosa de tres funciones de 1" (DN=25 mm) y PN 25 bar incluido transporte, juntas, válvula de corte DN=25 mm y PN 25 bar y piezas especiales, totalmente colocada y probada.	1,00	173,76	173,76
129.1	UD TE FD EEB 150 mm PN16/25 SALIDA DN150/40 "T" de fundición dúctil de PFA 16/25 bar, con dos enchufes y derivación con brida para tubería de 150 mm y salida comprendida entre 150 y 40 mm, con un revestimiento interior y exterior epoxi, i/p.p. de junta de unión y medios auxiliares, totalmente colocada y probada.	3,00	100,62	301,86
114.8	UD REDUCCIÓN FD 50 A 40/25 mm PN16/25 Reducción en fundición dúctil de 50 mm a 40-25 mm con dos bridas PN 16/25 bar, con un revestimiento interior y exterior epoxi, i/p.p. de tornillería y medios auxiliares, totalmente colocada y probada.	1,00	28,54	28,54
240	UD VÁLVULA DE COMPUERTA MANUAL DN80 PN25 Válvula de compuerta de accionamiento manual de diámetro nominal DN=80 mm de 25 bares de presión máxima admisible, con tornillería y juntas, totalmente instalada y probada, incluso volante de accionamiento.	1,00	238,18	238,18
TOTAL APARTADO 03.06.04 VÁLVULAS Y ACCESORIOS.....				5.415,23
APARTADO 03.06.05 OBRAS ACCESORIAS Y REPOSICIONES DE SERVICIOS				
380	M2 REPOSICIÓN DE PAVIMENTO DE HORMIGÓN Reposición de pavimento de hormigón HM-20/B/40/IIa+Qa de 15 cm de espesor, totalmente terminado.	2.790,00	17,84	49.773,60
381	M2 REPOSICIÓN DE FIRME DE AGLOMERADO Reposición de firme de aglomerado en caliente en zonas afectadas por las obras.	933,18	4,14	3.863,37
387	ML REPOSICIÓN OBRA DE DRENAJE HASTA DN 1,00 m Reposición de obra de drenaje hasta 1,00 de diámetro, p.p. de boquilla de entrada y salida, excavación, hormigón de recubrimiento y relleno compactado, totalmente terminada.	5,00	174,54	872,70
TOTAL APARTADO 03.06.05 OBRAS ACCESORIAS Y REPOSICIONES DE SERVICIOS.....				54.509,67
TOTAL SUBCAPÍTULO 03.06 EJE 17: ACOMETIDA QUEL.....				198.301,65

PRESUPUESTOS PARCIALES.

ABASTECIMIENTO A VARIOS MUNICIPIOS DE LA RIOJA. SISTEMA CIDACOS

CÓDIGO	RESUMEN	CANTIDAD	PRECIO	IMPORTE
SUBCAPÍTULO 03.07 DERIVACIÓN ARNEDO Y VÁLVULA ANTIINUNDACIÓN DN500.				
APARTADO 03.07.01 OBRA CIVIL				
008	M2 DESPEJE Y DESBROCE Despeje y desbroce de capa de tierra vegetal con un espesor medio de 50 cm, incluso corte de árboles, extracción de tocones, nivelación de zona adyacente para el paso de maquinaria, transporte a lugar de acopio independiente para posterior reposición de tierra vegetal tras las obras y despedregado de las parcelas, así como transporte a vertedero de tierras sobrantes.	29,60	0,57	16,87
002	M3 EXCAVACIÓN EN ZANJAS Excavación en zanjas y zonas localizadas, en todo tipo de terrenos incluido terrenos en roca con medios mecánicos, incluso rasanteo, nivelación de la superficie de apoyo y transporte a lugar de empleo o vertedero.	88,80	3,74	332,11
010	M3 RELLENO ZANJAS, CIMIENTOS Y TRASDOSES DE MATERIAL SELECCIONADO Relleno con material seleccionado en zanjas, cimientos, trasdós de muros, estribos y otras estructuras procedente de la excavación o préstamos incluso carga, transporte y compactación.	-10,56	3,32	-35,06
028	M3 HORMIGÓN DE LIMPIEZA HL-150 Hormigón de limpieza HL-150, de consistencia plástica, árido de tamaño máximo 40 mm y cemento CEM-II-D/42,5/SR, para saneos y encachados, incluyendo fabricación y transporte totalmente colocado.	3,43	44,76	153,53
031	M3 HORMIGÓN HA-25/B/20/IIa Hormigón HA-25/B/20/IIa, con cemento CEM II/A-D/42,5/SR, incluyendo fabricación, transporte, puesta en obra y vibrado, totalmente ejecutado, incluso curado y juntas.	30,65	53,39	1.636,40
023	KG ACERO CORRUGADO B-500-S Acero redondo corrugado para armar tipo B-500-S elaborado y colocado.	2.089,87	0,96	2.006,28
020	KG ACERO S 275 J PERFILES LAMINADOS Acero S 275 J en perfiles laminados elaborado y colocado.	1.036,58	1,95	2.021,33
025	M2 ENCOFRADO RECTO EN PARAMENTOS OCULTOS Encofrado recto en paramentos ocultos, incluso colocación, fijación y desencofrado.	9,76	17,65	172,26
026	M2 ENCOFRADO RECTO EN PARAMENTOS VISTOS 1C Encofrado recto en paramentos vistos a una cara, incluso colocación, fijación y desencofrado.	118,80	21,18	2.516,18
026.2	M2 ENCOFRADO RECTO EN PILARES VISTOS Encofrado recto en pilares vistos, incluso colocación, fijación y desencofrado.	11,08	27,68	306,69
026.3	M2 ENCOFRADO RECTO EN VIGAS VISTOS Encofrado recto en vigas vistos, incluso colocación, fijación, apuntalamiento o cimbras, y desencofrado.	16,20	29,84	483,41
052	ML JUNTAS DE ESTANQUEIDAD DE PVC 32 CM Junta de trabajo interior de policloruro de vinilo (PVC) 100% virgen, con una fuerza máxima de dilatación > 250 %, de 32 cm de ancho, MASTERFLEX 2000 TI-24 de BASF o equivalente, colocada simétricamente en el eje de la losa o muro, incluso solapes y piezas especiales para cruces o ángulos. Medida la longitud ejecutada.	22,00	7,31	160,82

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ABASTECIMIENTO A VARIOS MUNICIPIOS DE LA RIOJA. SISTEMA CIDACOS

CÓDIGO	RESUMEN	CANTIDAD	PRECIO	IMPORTE
462	M2 FÁBRICA BLOQUES 40x20x20 cm TIPO SPLIT COLOR Fábrica de bloques de hormigón tipo Split, de medidas 40x20x20 cm color i/relleno de hormigón y colocación de armaduras s/normativa y recibido con mortero de cemento y arena de río 1/6 i/p.p. de piezas especiales para dinteles y materialización de jambas, roturas, nivelados, aplomados, llagueados y limpieza, todo ello según normativa.	565,12	31,80	17.970,82
520	M2 CUBIERTA PANEL SANDWICH (E=50 mm.) Cubierta con panel tipo sandwich espesor 50 cm., con doble chapa prelacada de 0,4 mm de espesor, y aislamiento térmico de poliuretano, fijada con gancho de acero galvanizado, incluso p.p de piezas de remate, totalmente colocada.	29,60	27,03	800,09
519	ML REMATE DE CHAPA PRELACADA CUBIERTA Remate de chapa prelacada en color, para cubrir parte superior de bloque o panel, hasta el panel sandwich de la cubierta por el interior del peto, fijado mediante tacos y/o ganchos anclado a muro y o cubierta, dispuesto según planos.	18,80	22,47	422,44
465.1	M2 PUERTA DOBLE CHAPA ACERO CON LAMAS Puerta de paso hojas abatibles de doble chapa lisa de acero de 1 mm de espesor, con aislamiento interno de fibre de vidrio, engatillada, realizada en dos bandejas, con rigidizadores de tubo rectangular, i/manillas de acero inoxidable y cerradura, con dos o cuatro rejillas de ventilación con malla anti insectos interior, patillas para recibir en fábricas, herrajes de colgar y de seguridad, imprimación antióxido y pintura al esmalte, totalmente colocada incluyendo el recibido de fábricas.	1,76	75,01	132,02
464cf	M2 CARPINTERÍA FIJA ALUMINIO m². Carpintería fija con junquillos para la fijación del vidrio, de aluminio modelo con rotura de puente térmico, Alfil A54RPT de SAPAGROUP con un ancho de marco de 54 mm y con un ancho de hoja de 61 mm, medida del frente de 96,3 mm, con sistema de cámara europea, con espesor de perfil de 1,5 mm, con sistema de cierre por junta central de estanqueidad en EPDM, coplanar exteriormente y con resalte de hoja sobre el marco al interior, para un acristalamiento con altura de galce de 22 mm y anchura hasta 44 mm en marcos y 51 mm en hojas, lacado (entre 60-100 micras) en color estándar (RAL estándar: blanco, gris...), herrajes de colgar, p.p. de cerradura Tesa o similar y costes indirectos. Homologada con Clase 4 en el ensayo de permeabilidad al aire según norma UNE-EN 1026:2000. La transmitancia máxima del marco es de 2,90 W/m² K, y cumple en las zonas A, B, C, D y E, según el CTE/DB-HE 1.	0,48	144,71	69,46
464V3	M2 VIDRIO SEGURIDAD STADIP 44.1 INCOLORO (2B2) m². Acristalamiento de vidrio laminar de seguridad Stadip compuesto por dos vidrios de 4 mm de espesor unidos mediante lámina de butiral de polivinilo incolora de 0,38 mm, clasificado 2B2 según UNE-EN 12600, fijado sobre carpintería con acuíado mediante calzos de apoyo perimetrales y laterales y sellado en frío con silicona neutra, incluso colocación de junquillos, según UNE 85222:1985.	0,48	37,05	17,78
521	M2 CELOSIA FIJA VENTILACIÓN Celosía metálica fija para ventilación, formada por cerco con empanelado de lamas de acero de 60 mm, con abertura mínima de 1 cm entre lamas, malla de 2 mm para evitar entrada de insectos, garras de sujeción a soporte de 10 cm, elaborada en taller y montada en obra, totalmente colocada.	0,48	73,80	35,42
474.1	ML CANALON CHAPA PRELACADA 50cm Canalón de chapa prelacada en color, de 50 cm. de desarrollo fijado mediante ganchos ocultos con tornillo autoroscante 40 cm., incluso p.p. de embocadura de bajante, codos y piezas especiales.	4,00	11,85	47,40
474.2	ML BAJANTE DE CHAPA PRELACADA DN110 Bajante de chapa prelacada en color, DN110, fijado mediante ganchos con tornillo autoroscante 20 cm., incluso p.p. de embocadura de bajante, codos y piezas especiales.	3,00	12,29	36,87

PRESUPUESTOS PARCIALES.

ABASTECIMIENTO A VARIOS MUNICIPIOS DE LA RIOJA. SISTEMA CIDACOS

CÓDIGO	RESUMEN	CANTIDAD	PRECIO	IMPORTE
290B	M2 ESCALERA Y PASARELAS DE ACERO GALVANIZADO. BARANDILLAS GALVANIZ Escalera y pasarelas de acceso de forma según planos, ejecutada en perfiles de acero galvanizado en caliente, incluso barandilla tubular del mismo material, de 90 cm de altura en uno o dos lados, rodapié de seguridad del mismo en uno o dos lados, así como entramado metálico de 30x30x3 en descansillos y peldaños, medida según su proyección en planta. Anclada a los muros y/o solera, instalada.	3,20	81,77	261,66
620	UD APOYOS DE TUBERÍA Y VÁLVULAS SOBRE SOLERA Apoyos de tuberías y válvulas en soleras, mediante dado de hormigón HA-25/P/20/IIa, ligeramente armado y anclado a la solera, así como cintas o eslingas de acero con material de protección de tubería para sujeción de las mismas, incluyendo el hormigón, encofrados, acero, eslingas, material de PE de protección, montado.	2,00	63,07	126,14
290AA	ML ESCALERA TUBULAR GALVANIZADO CON ELEMENTOS ANTICAIDA Formación de escalera tubular de 50 mm de diámetro, de acero galvanizado, incluso protecciones circulares contra caídas según normativa, anclada a la pared y/o muros, totalmente ejecutada.	6,20	53,09	329,16
TOTAL APARTADO 03.07.01 OBRA CIVIL.....				30.020,08
APARTADO 03.07.02 VÁLVULAS Y ACCESORIOS				
116A	UD TE FD EEB DN900 mm PN16 SALIDA HASTA DN200 "T" de fundición dúctil de PFA 16 bar, con dos enchufes y derivación con brida para tubería de 900 mm con salida comprendida entre 900 y 200 mm, con un revestimiento interior y exterior epoxi, i/p.p. de junta de unión y medios auxiliares, totalmente colocada y probada.	1,00	4.408,95	4.408,95
225	UD VÁLVULA DE COMPUERTA MANUAL DN400 PN16 Válvula de compuerta de accionamiento manual de diámetro nominal DN=400 mm de 16 bares de presión máxima admisible, con tornillería y juntas, totalmente instalada y probada, incluso volante de accionamiento.	1,00	2.217,03	2.217,03
ECD0400	UD CARRETE DE DESMONTAJE DN=400 mm PN16 Carrete telescópico de desmontaje DN400 PN16, bridas de acero al carbono, virolas de acero inoxidable, protección epoxi, tornillos y tuercas en acero F-114, cincado y posterior baño de cromo-níquel, incluido p.p. de brida enchufe, totalmente instalado y probado en obra.	1,00	703,07	703,07
115.5	UD BRIDA ENCHUFE FD 400 mm PN16/25 Brida enchufe de fundición dúctil de PFA 16/25 bar para tubería de 400 mm, con un revestimiento interior y exterior epoxi, i/p.p. de junta de unión y medios auxiliares, totalmente colocada y probada.	1,00	445,02	445,02
114.1	UD BRIDA LISO FD 900 mm PN16 Brida lisa de fundición dúctil de PFA 16 bar para tubería de 900 mm, con un revestimiento interior y exterior epoxi, i/p.p. de junta de unión y medios auxiliares, totalmente colocada y probada.	1,00	1.663,55	1.663,55
EVMM0900	UD VÁLVULA DE MARIPOSA DOBLE EXCENRICIDAD DN 900 mm PN16 MANUAL Válvula de mariposa de doble excentricidad de 900 mm de diámetro y PN16, de accionamiento manual por reductor, incluso mecanismo de accionamiento, maniobra y control, transporte, montaje, juntas, tornillería y pintura totalmente instalada y probada. Resto de características según ET de proyecto.	2,00	10.100,69	20.201,38
ECD0900	UD CARRETE DE DESMONTAJE DN=900 mm PN16 Carrete telescópico de desmontaje DN900 PN 16, bridas de acero al carbono, virolas de acero inoxidable, protección epoxi, tornillos y tuercas en acero F-114, cincado y posterior baño de cromo-níquel, incluido p.p. de brida enchufe, totalmente instalado y probado en obra.	2,00	2.189,63	4.379,26

PRESUPUESTOS PARCIALES.

ABASTECIMIENTO A VARIOS MUNICIPIOS DE LA RIOJA. SISTEMA CIDACOS

CÓDIGO	RESUMEN	CANTIDAD	PRECIO	IMPORTE
088	UD REDUCCIÓN FD 900 A 800 mm Reducción en fundición dúctil de 900 mm a 800 mm con enchufes y PN 16-25 bar, con un revestimiento interior y exterior epoxi, i/p.p. de junta de unión y medios auxiliares, totalmente colocada y probada.	1,00	1.557,42	1.557,42
115.3	UD BRIDA ENCHUFE FD 800 mm PN16 Brida enchufe de fundición dúctil de PFA 16 bar para tubería de 800 mm, con un revestimiento interior y exterior epoxi, i/p.p. de junta de unión y medios auxiliares, totalmente colocada y probada.	1,00	1.748,69	1.748,69
271.1	UD VÁLVULA ANTIINUNDACIÓN DN 500 mm PN16 Válvula antiinundación DN-500 mm, bridas PN16, incluido montaje y carrete de desmontaje.	1,00	24.480,95	24.480,95
TOTAL APARTADO 03.07.02 VÁLVULAS Y ACCESORIOS.....				61.805,32
TOTAL SUBCAPÍTULO 03.07 DERIVACIÓN ARNEDO Y VÁLVULA ANTIINUNDACIÓN DN500.....				91.825,40
SUBCAPÍTULO 03.08 ARQUETA DERIVACIÓN P-190				
APARTADO 03.08.01 OBRA CIVIL				
008	M2 DESPEJE Y DESBROCE Despeje y desbroce de capa de tierra vegetal con un espesor medio de 50 cm, incluso corte de árboles, extracción de tocones, nivelación de zona adyacente para el paso de maquinaria, transporte a lugar de acopio independiente para posterior reposición de tierra vegetal tras las obras y despedregado de las parcelas, así como transporte a vertedero de tierras sobrantes.	210,00	0,57	119,70
002	M3 EXCAVACIÓN EN ZANJAS Excavación en zanjas y zonas localizadas, en todo tipo de terrenos incluido terrenos en roca con medios mecánicos, incluso rasanteo, nivelación de la superficie de apoyo y transporte a lugar de empleo o vertedero.	609,00	3,74	2.277,66
010	M3 RELLENO ZANJAS, CIMIENTOS Y TRASDOSES DE MATERIAL SELECCIONADO Relleno con material seleccionado en zanjas, cimientos, trasdós de muros, estribos y otras estructuras procedente de la excavación o préstamos incluso carga, transporte y compactación.	130,30	3,32	432,60
028	M3 HORMIGÓN DE LIMPIEZA HL-150 Hormigón de limpieza HL-150, de consistencia plástica, árido de tamaño máximo 40 mm y cemento CEM-II-D/42,5/SR, para saneos y encachados, incluyendo fabricación y transporte totalmente colocado.	17,55	44,76	785,54
031	M3 HORMIGÓN HA-25/B/20/IIa Hormigón HA-25/B/20/IIa, con cemento CEM II/A-D/42,5/SR, incluyendo fabricación, transporte, puesta en obra y vibrado, totalmente ejecutado, incluso curado y juntas.	143,11	53,39	7.640,64
023	KG ACERO CORRUGADO B-500-S Acero redondo corrugado para armar tipo B-500-S elaborado y colocado.	11.564,81	0,96	11.102,22
025	M2 ENCOFRADO RECTO EN PARAMENTOS OCULTOS Encofrado recto en paramentos ocultos, incluso colocación, fijación y desencofrado.	33,00	17,65	582,45
026	M2 ENCOFRADO RECTO EN PARAMENTOS VISTOS 1C Encofrado recto en paramentos vistos a una cara, incluso colocación, fijación y desencofrado.	316,00	21,18	6.692,88
026.2	M2 ENCOFRADO RECTO EN PILARES VISTOS Encofrado recto en pilares vistos, incluso colocación, fijación y desencofrado.	49,50	27,68	1.370,16

PRESUPUESTOS PARCIALES.

ABASTECIMIENTO A VARIOS MUNICIPIOS DE LA RIOJA. SISTEMA CIDACOS

CÓDIGO	RESUMEN	CANTIDAD	PRECIO	IMPORTE
026.3	M2 ENCOFRADO RECTO EN VIGAS VISTOS Encofrado recto en vigas vistas, incluso colocación, fijación, apuntalamiento o cimbras, y desencofrado.	48,30	29,84	1.441,27
052	ML JUNTAS DE ESTANQUEIDAD DE PVC 32 CM Junta de trabajo interior de policloruro de vinilo (PVC) 100% virgen, con una fuerza máxima de dilatación > 250 % , de 32 cm de ancho, MASTERFLEX 2000 TI-24 de BASF o equivalente, colocada simétricamente en el eje de la losa o muro, incluso solapes y piezas especiales para cruces o ángulos. Medida la longitud ejecutada.	64,40	7,31	470,76
462	M2 FÁBRICA BLOQUES 40x20x20 cm TIPO SPLIT COLOR Fábrica de bloques de hormigón tipo Split, de medidas 40x20x20 cm color i/relleno de hormigón y colocación de armaduras s/normativa y recibido con mortero de cemento y arena de río 1/6 i/p.p. de piezas especiales para dinteles y materialización de jambas, roturas, nivelados, aplomados, llagueados y limpieza, todo ello según normativa.	234,98	31,80	7.472,36
520	M2 CUBIERTA PANEL SANDWICH (E=50 mm.) Cubierta con panel tipo sandwich espesor 50 cm., con doble chapa prelacada de 0,4 mm de espesor, y aislamiento térmico de poliuretano, fijada con gancho de acero galvanizado, incluso p.p de piezas de remate, totalmente colocada.	64,40	27,03	1.740,73
519	ML REMATE DE CHAPA PRELACADA CUBIERTA Remate de chapa prelacada en color, para cubrir parte superior de bloque o panel, hasta el panel sandwich de la cubierta por el interior del peto, fijado mediante tacos y/o ganchos anclado a muro y o cubierta, dispuesto según planos.	40,00	22,47	898,80
465.1	M2 PUERTA DOBLE CHAPA ACERO CON LAMAS Puerta de paso hojas abatibles de doble chapa lisa de acero de 1 mm de espesor, con aislamiento interno de fibre de vidrio, engatillada, realizada en dos bandejas, con rigidizadores de tubo rectangular, i/manillas de acero inoxidable y cerradura, con dos o cuatro rejillas de ventilación con malla anti insectos interior, patillas para recibir en fábricas, herrajes de colgar y de seguridad, imprimación antióxido y pintura al esmalte, totalmente colocada incluyendo el recibido de fábricas.	2,20	75,01	165,02
464cf	M2 CARPINTERÍA FIJA ALUMINIO m². Carpintería fija con junquillos para la fijación del vidrio, de aluminio modelo con rotura de puente térmico, Alfil A54RPT de SAPAGROUP con un ancho de marco de 54 mm y con un ancho de hoja de 61 mm, medida del frente de 96,3 mm, con sistema de cámara europea, con espesor de perfil de 1,5 mm, con sistema de cierre por junta central de estanqueidad en EPDM, coplanar exteriormente y con resalte de hoja sobre el marco al interior, para un acristalamiento con altura de galce de 22 mm y anchura hasta 44 mm en marcos y 51 mm en hojas, lacado (entre 60-100 micras) en color estándar (RAL estándar: blanco, gris...), herrajes de colgar, p.p. de cerradura Tesa o similar y costes indirectos. Homologada con Clase 4 en el ensayo de permeabilidad al aire según norma UNE-EN 1026:2000. La transmitancia máxima del marco es de 2,90 W/m² K, y cumple en las zonas A, B, C, D y E, según el CTE/DB-HE 1.	3,84	144,71	555,69
464V3	M2 VIDRIO SEGURIDAD STADIP 44.1 INCOLORO (2B2) m². Acristalamiento de vidrio laminar de seguridad Stadip compuesto por dos vidrios de 4 mm de espesor unidos mediante lámina de butiral de polivinilo incolora de 0,38 mm, clasificado 2B2 según UNE-EN 12600, fijado sobre carpintería con acuíado mediante calzos de apoyo perimetrales y laterales y sellado en frío con silicona neutra, incluso colocación de junquillos, según UNE 85222:1985.	3,84	37,05	142,27
521	M2 CELOSIA FIJA VENTILACIÓN Celosía metálica fija para ventilación, formada por cerco con empanelado de lamas de acero de 60 mm, con abertura mínima de 1 cm entre lamas, malla de 2 mm para evitar entrada de insectos, garras de sujeción a soporte de 10 cm, elaborada en taller y montada en obra, totalmente colocada.			

PRESUPUESTOS PARCIALES.

ABASTECIMIENTO A VARIOS MUNICIPIOS DE LA RIOJA. SISTEMA CIDACOS

CÓDIGO	RESUMEN	CANTIDAD	PRECIO	IMPORTE
020	KG ACERO S 275 J PERFILES LAMINADOS Acero S 275 J en perfiles laminados elaborado y colocado.	0,96	73,80	70,85
474.1	ML CANALON CHAPA PRELACADA 50cm Canalón de chapa prelacada en color, de 50 cm. de desarrollo fijado mediante ganchos ocultos con tornillo autoroscante 40 cm., incluso p.p. de embocadura de bajante, codos y piezas especiales.	1.184,17	1,95	2.309,13
474.2	ML BAJANTE DE CHAPA PRELACADA DN110 Bajante de chapa prelacada en color, DN110, fijado mediante ganchos con tornillo autoroscante 20 cm., incluso p.p. de embocadura de bajante, codos y piezas especiales.	32,20	11,85	381,57
290B	M2 ESCALERA Y PASARELAS DE ACERO GALVANIZADO. BARANDILLAS GALVANIZ Escalera y pasarelas de acceso de forma segun planos, ejecutada en perfiles de acero galvanizado en caliente, incluso barandilla tubular del mismo material, de 90 cm de altura en uno o dos lados, rodapié de seguridad del mismo en uno o dos lados, así como entramado metálico de 30x30x3 en descansillos y peldaños, medida según su proyección en planta. Anclada a los muros y/o solera, instalada.	16,50	12,29	202,79
620	UD APOYOS DE TUBERÍA Y VÁLVULAS SOBRE SOLERA Apoyos de tuberías y válvulas en soleras, mediante dado de hormigón HA-25/P/20/IIa, ligeramente armado y anclado a la solera, así como cintas o eslingas de acero con material de protección de tubería para sujeción de las mismas, incluyendo el hormigón, encofrados, acero, eslingas, material de PE de protección, montado.	7,43	81,77	607,55
290	UD PATE POLIPROPILENO Pate de polipropileno de dimensiones 30x25 cm, incluyendo fabricación, transporte a obra, perforación de anclajes y relleno con aportación de material de agarre, completamente colocado.	22,00	63,07	1.387,54
	TOTAL APARTADO 03.08.01 OBRA CIVIL.....			48.917,74
	APARTADO 03.08.02 VÁLVULAS Y ACCESORIOS			
115.2	UD BRIDA ENCHUFE FD 800 mm PN25 Brida enchufe de fundición dúctil de PFA 25 bar para tubería de 800 mm, con un revestimiento interior y exterior epoxi, i/p.p. de junta de unión y medios auxiliares, totalmente colocada y probada.	1,00	1.748,69	1.748,69
115.4	UD BRIDA ENCHUFE FD 500 mm PN16/25 Brida enchufe de fundición dúctil de PFA 16 bar para tubería de 500 mm, con un revestimiento interior y exterior epoxi, i/p.p. de junta de unión y medios auxiliares, totalmente colocada y probada.	2,00	530,98	1.061,96
115.5	UD BRIDA ENCHUFE FD 400 mm PN16/25 Brida enchufe de fundición dúctil de PFA 16/25 bar para tubería de 400 mm, con un revestimiento interior y exterior epoxi, i/p.p. de junta de unión y medios auxiliares, totalmente colocada y probada.	1,00	445,02	445,02
116	UD TE FD BBB 800 mm PN25 SALIDA DN800/150 "T" de fundición dúctil de PFA 25 bar, con dos enchufes y derivación con brida para tubería de 800 mm con salida comprendida entre 800 y 150 mm, con un revestimiento interior y exterior epoxi, i/p.p. de junta de unión y medios auxiliares, totalmente colocada y probada.	2,00	3.290,45	6.580,90
138	UD TE FD BBB 150 mm PN16/25 SALIDA DN150/40 "T" de fundición dúctil de PFA 16 bar, con tres bridas para tubería de 150 mm con salida comprendida entre 150 y 40 mm, con un revestimiento interior y exterior epoxi, i/p.p. de junta de unión y medios auxiliares, totalmente colocada y probada.	2,00	117,45	234,90

PRESUPUESTOS PARCIALES.

ABASTECIMIENTO A VARIOS MUNICIPIOS DE LA RIOJA. SISTEMA CIDACOS

CÓDIGO	RESUMEN	CANTIDAD	PRECIO	IMPORTE
125	UD TE FD BBB 300 mm PN16/25 SALIDA DN300/40 "T" de fundición dúctil de PFA 16/25 bar, con tres bridas para tubería de 300 mm con salida comprendida entre 300 y 40 mm, con un revestimiento interior y exterior epoxi, i/p.p. de junta de unión y medios auxiliares, totalmente colocada y probada.	1,00	271,32	271,32
121	UD TE FD EEB 400 mm PN16/25 SALIDA DN400/80 "T" de fundición dúctil de PFA 16/25 bar, con dos enchufes y derivación con brida para tubería de 400 mm con salida comprendida entre 400 y 80 mm, con un revestimiento interior y exterior epoxi, i/p.p. de junta de unión y medios auxiliares, totalmente colocada y probada.	5,00	669,87	3.349,35
121.1	UD TE FD BBB 400 mm PN16/25 SALIDA DN400/80 "T" de fundición dúctil de PFA 16/25 bar, con tres bridas para tubería de 400 mm con salida comprendida entre 400 y 80 mm, con un revestimiento interior y exterior epoxi, i/p.p. de junta de unión y medios auxiliares, totalmente colocada y probada.	4,00	669,87	2.679,48
133	UD TE FD BBB 500 mm PN16/25 SALIDA DN500/100 "T" de fundición dúctil de PFA 16/25 bar, con tres bridas para tubería de 500 mm con salida comprendida entre 400 y 100 mm, con un revestimiento interior y exterior epoxi, i/p.p. de junta de unión y medios auxiliares, totalmente colocada y probada.	3,00	844,09	2.532,27
092	UD REDUCCIÓN FD 800 A 700/500 mm PN16/25 Reducción en fundición dúctil de 800 mm a 700-600-500 mm con dos bridas PN 16/25 bar, con un revestimiento interior y exterior epoxi, i/p.p. de junta de unión y medios auxiliares, totalmente colocada y probada.	1,00	1.922,72	1.922,72
089	UD REDUCCIÓN FD 600 A 500/400 mm PN16/25 Reducción en fundición dúctil de 600 mm a 500-450-400 mm con dos bridas PN 16/25 bar, con un revestimiento interior y exterior epoxi, i/p.p. de junta de unión y medios auxiliares, totalmente colocada y probada.	1,00	1.251,97	1.251,97
097	UD REDUCCIÓN FD 500 A 450/350 mm PN16/25 Reducción en fundición dúctil de 500 mm a 450-400-350 mm con dos bridas PN 16/25 bar, con un revestimiento interior y exterior epoxi, i/p.p. de junta de unión y medios auxiliares, totalmente colocada y probada.	5,00	832,31	4.161,55
098	UD REDUCCIÓN FD 400 A 350/250 mm PN16/25 Reducción en fundición dúctil de 400 mm a 350-300-250 mm con dos bridas PN 16/25 bar, con un revestimiento interior y exterior epoxi, i/p.p. de junta de unión y medios auxiliares, totalmente colocada y probada.	2,00	380,88	761,76
105	UD REDUCCIÓN FD 300 A 250/150 mm PN16 Reducción en fundición dúctil de 300 mm a 250-200-150 mm con dos bridas PN 16 bar, con un revestimiento interior y exterior epoxi, i/p.p. de junta de unión y medios auxiliares, totalmente colocada y probada.	2,00	204,20	408,40
162.1	UD MANGUITO FD DN300 A DN400 mm PN16/25 Manguito de fundición dúctil con bridas diámetros de 300 a 400 mm, longitud comprendida entre 0,20 y 1,00 m y PN 16/25, incluso p.p. de tornillería y medios auxiliares, totalmente colocado y probado.	8,00	200,95	1.607,60
250.3	UD FILTRO COLADOR EN Y DN=400 mm PN25 Filtro colador en "Y" de diámetro nominal DN=400 mm y brida PN=25 bar de presión, incluso juntas de unión y tornillería, totalmente instalado.	2,00	2.072,81	4.145,62

PRESUPUESTOS PARCIALES.

ABASTECIMIENTO A VARIOS MUNICIPIOS DE LA RIOJA. SISTEMA CIDACOS

CÓDIGO	RESUMEN	CANTIDAD	PRECIO	IMPORTE
249	UD FILTRO COLADOR EN Y DN=150 mm PN25 Filtro colador en "Y" de diámetro nominal DN=150 mm y brida PN=25 bar de presión, incluso juntas de unión y tornillería, totalmente instalado.	1,00	798,47	798,47
250.2	UD FILTRO COLADOR EN Y DN=300 mm PN25 Filtro colador en "Y" de diámetro nominal DN=300 mm y brida PN=25 bar de presión, incluso juntas de unión y tornillería, totalmente instalado.	1,00	1.769,42	1.769,42
255.4	UD VÁLVULA REDUCTORA DE PRESIÓN DN=400 mm PN25 Válvula reductora de presión de diámetro DN=400 mm y PN 25 bar, incluso juntas de unión y tornillería, totalmente colocada y probada.	2,00	26.685,98	53.371,96
259	UD VÁLVULA REDUCTORA DE PRESIÓN DN=150 mm PN25 Válvula reductora de presión de diámetro DN=150 mm y PN 25 bar, incluso juntas de unión y tornillería, totalmente colocada y probada.	1,00	3.310,28	3.310,28
234	UD VÁLVULA DE COMPUERTA MANUAL DN150 PN25 Válvula de compuerta de cierre elástico de 150 mm. de diámetro nominal y 25 At. de P.N., de accionamiento manual por volante, de cuerpo de fundición nodular GGG-50, con eje de acero inoxidable al 13 % Cr. con rosca conformada por laminación en frío, cierre en fundición nodular, tornillería de acero inoxidable, protegida contra la corrosión mediante aplicación de doble capa de pintura epoxy, totalmente colocada y probada. Resto de características según ET.	1,00	490,62	490,62
235	UD VÁLVULA DE COMPUERTA MANUAL DN150 PN16 Válvula de compuerta de accionamiento manual de diámetro nominal DN=150 mm de 16 bares de presión máxima admisible, con tornillería y juntas, totalmente instalada y probada, incluso volante de accionamiento.	1,00	299,35	299,35
229.2	UD VÁLVULA DE COMPUERTA MANUAL DN300 PN25 Válvula de compuerta de accionamiento manual de diámetro nominal DN=300 mm de 25 bares de presión máxima admisible, con tornillería y juntas, totalmente instalada y probada, incluso volante de accionamiento.	2,00	1.579,93	3.159,86
225.1	UD VÁLVULA DE COMPUERTA MANUAL DN400 PN25 Válvula de compuerta de accionamiento manual de diámetro nominal DN=400 mm de 25 bares de presión máxima admisible, con tornillería y juntas, totalmente instalada y probada, incluso volante de accionamiento.	2,00	2.423,49	4.846,98
225	UD VÁLVULA DE COMPUERTA MANUAL DN400 PN16 Válvula de compuerta de accionamiento manual de diámetro nominal DN=400 mm de 16 bares de presión máxima admisible, con tornillería y juntas, totalmente instalada y probada, incluso volante de accionamiento.	4,00	2.217,03	8.868,12
EVMM0450	UD VÁLVULA DE MARIPOSA DOBLE EXCENRICIDAD DN 450 mm PN16 MANUAL Válvula de mariposa de doble excentricidad de 450 mm de diámetro y PN16, de accionamiento manual por reductor, incluso mecanismo de accionamiento, maniobra y control, transporte, montaje, juntas, tornillería y pintura totalmente instalada y probada. Resto de características según ET de proyecto.	1,00	2.928,66	2.928,66
EVMM0450.1	UD VÁLVULA DE MARIPOSA DOBLE EXCENRICIDAD. DN 450 mm PN16 MOTORIZADA Válvula de mariposa de doble excentricidad de 450 mm de diámetro y PN16, de accionamiento motorizado, incluso mecanismo de accionamiento, maniobra y control, transporte, montaje, juntas, tornillería y pintura totalmente instalada y probada. Resto de características según ET de proyecto.	1,00	3.484,29	3.484,29

PRESUPUESTOS PARCIALES.

ABASTECIMIENTO A VARIOS MUNICIPIOS DE LA RIOJA. SISTEMA CIDACOS

CÓDIGO	RESUMEN	CANTIDAD	PRECIO	IMPORTE
ECD0400.1	UD CARRETE DE DESMONTAJE DN=400 mm PN25 Carrete telescópico de desmontaje DN400 PN25, bridas de acero al carbono, virolas de acero inoxidable, protección epoxi, tornillos y tuercas en acero F-114, cincado y posterior baño de cromo-niquel, incluido p.p. de brida enchufe, totalmente instalado y probado en obra.	2,00	854,88	1.709,76
ECD0400	UD CARRETE DE DESMONTAJE DN=400 mm PN16 Carrete telescópico de desmontaje DN400 PN16, bridas de acero al carbono, virolas de acero inoxidable, protección epoxi, tornillos y tuercas en acero F-114, cincado y posterior baño de cromo-niquel, incluido p.p. de brida enchufe, totalmente instalado y probado en obra.	3,00	703,07	2.109,21
ECD0300.1	UD CARRETE DE DESMONTAJE DN=300 mm PN25 Carrete telescópico de desmontaje DN300 PN25, bridas de acero al carbono, virolas de acero inoxidable, protección epoxi, tornillos y tuercas en acero F-114, cincado y posterior baño de cromo-niquel, incluido p.p. de brida enchufe, totalmente instalado y probado en obra.	1,00	536,07	536,07
274.1	UD VÁLVULA ALIVIO DE PRESIÓN 2" PN 25 Válvula de alivio de presión de 2" brida PN 25 bar, incluso incluso válvula de corte de 2", juntas de unión, collarín de toma y tornillería, totalmente colocada y probada.	1,00	1.275,46	1.275,46
273.2	UD VÁLVULA ALIVIO DE PRESIÓN 4" PN 16 Válvula de alivio de presión de 4" brida PN 16 bar, incluso válvula de corte de 4", juntas de unión, y tornillería, totalmente colocada y probada.	2,00	1.543,63	3.087,26
245.3	UD VENTOSA DN=50 (2") mm PN25 Válvula ventosa de tres funciones de DN=50 mm (2") y PN 25 bar incluido transporte, juntas, válvula de corte DN=50 mm y PN 25 y piezas especiales, totalmente colocada y probada.	1,00	434,43	434,43
244	UD VENTOSA DN=100 (4") mm PN25 Válvula ventosa de tres funciones de DN=100 mm y PN 25 bar incluido transporte, juntas, válvula de corte DN=100 mm y PN 25 bar y piezas especiales, totalmente colocada y probada.	6,00	510,93	3.065,58
243	UD VENTOSA DN=150 mm PN25 Válvula ventosa de tres funciones de DN=150 mm y PN 25 bar incluido transporte, juntas, válvula de corte DN=150 mm y PN 25 bar y piezas especiales, totalmente colocada y probada.	1,00	1.028,68	1.028,68
079	UD CODO FD 1/4 400 mm Codo de fundición dúctil de 1/4 de diámetro interior 400 mm y PFA 30 bar, con revestimiento interior y exterior epoxi, incluso p.p. de juntas y medios auxiliares, totalmente colocado y probado.	2,00	388,90	777,80
074R	UD CODO FD 1/4 500 mm Codo de fundición dúctil de 1/8 de diámetro interior 500 mm y PFA 30 bar, con revestimiento interior y exterior epoxi, incluso p.p. de juntas y medios auxiliares, totalmente colocado y probado.	2,00	578,72	1.157,44
162.3	UD MANGUITO FD DN450 A DN600 mm PN16/25 Manguito de fundición dúctil con bridas diámetros de 450 a 600 mm, longitud comprendida entre 0,20 y 1,00 m y PN16/25, incluso p.p. de tornillería y medios auxiliares, totalmente colocado y probado.	2,00	374,55	749,10
060	ML TUBERÍA FD 500 mm Tubería de fundición dúctil de diámetro interior 500 mm y PFA de 38 bar, revestida interiormente con mortero de cemento y exteriormente con una capa de cinc y otra bituminosa, i/p.p. de junta automática flexible, banda de señalización y medios auxiliares, totalmente colocada y probada.	3,00	86,59	259,77

PRESUPUESTOS PARCIALES.

ABASTECIMIENTO A VARIOS MUNICIPIOS DE LA RIOJA. SISTEMA CIDACOS

CÓDIGO	RESUMEN	CANTIDAD	PRECIO	IMPORTE
062	ML TUBERÍA FD 300 mm Tubería de fundición dúctil de diámetro interior 300 mm y PFA de 49 bar, revestida interiormente con mortero de cemento y exteriormente con una capa de cinc y otra bituminosa, i/p.p. de junta automática flexible, banda de señalización y medios auxiliares, totalmente colocada y probada.	2,40	46,41	111,38
061	ML TUBERÍA FD 400 mm Tubería de fundición dúctil de diámetro interior 400 mm y PFA de 42 bar, revestida interiormente con mortero de cemento y exteriormente con una capa de cinc y otra bituminosa, i/p.p. de junta automática flexible, banda de señalización y medios auxiliares, totalmente colocada y probada.	6,80	68,70	467,16
TOTAL APARTADO 03.08.02 VÁLVULAS Y ACCESORIOS.....				133.260,62
APARTADO 03.08.03 INSTRUMENTACIÓN Y CONTROL				
280.2	UD CAUDALÍMETRO ELECTROMAGNÉTICO DN 300 mm PN10 Equipo medidor de caudal de DN300mm. tipo electromagnético y PN=10 atm. con salida 4/20 mA, tensión 220 V y escala 0-240 m3/h, totalmente instalado y probado. Incluido transporte, montaje, conexiones eléctricas y pruebas de funcionamiento. Resto de características, según ET.	1,00	2.144,31	2.144,31
ECD0400	UD CARRETE DE DESMONTAJE DN=400 mm PN16 Carrete telescópico de desmontaje DN400 PN16, bridas de acero al carbono, virolas de acero inoxidable, protección epoxi, tornillos y tuercas en acero F-114, cincado y posterior baño de cromo-niquel, incluido p.p. de brida enchufe, totalmente instalado y probado en obra.	1,00	703,07	703,07
ECD0450	UD CARRETE DE DESMONTAJE DN=450 mm PN16 Carrete telescópico de desmontaje DN450 PN16, bridas de acero al carbono, virolas de acero inoxidable, protección epoxi, tornillos y tuercas en acero F-114, cincado y posterior baño de cromo-niquel, incluido p.p. de brida enchufe, totalmente instalado y probado en obra.	1,00	930,78	930,78
TOTAL APARTADO 03.08.03 INSTRUMENTACIÓN Y CONTROL.....				3.778,16
APARTADO 03.08.04 INSTALACIÓN ELÉCTRICA DE BT				
563.1	ud PANTALLA ESTANCA LED Luminaria estanca WT120C LED80S/840 de Philips o equivalente para montaje en superficie de dimensiones 1515x80, carcasa de policarbonato, óptica de polimetacrilato de metilo, flujo luminoso 8.000 lm, potencia 68 W, Tª color 4000 K, rango de Tª de 10°C a 35°C, protección IP-65 Clase I. Incluso p.p. de canalización y cableado, completamente instalado.	3,00	28,30	84,90
524.1	m LINEA 3x1.5mm2 Cu 0.6/1kV RZ1-K (AS) Línea eléctrica con conductor multipolares 3x1.5mm2 RZ1-K (AS) en canalización existente, incluso conexionado en inicio y final de línea.	50,00	3,34	167,00
571	ud INTERRUPTOR EMPOTRAR SIMO 32 BLANCO. Interruptor empotrar blanco, totalmente instalado.	1,00	9,25	9,25
204	m TUBO DE PVC RÍGIDO DE 25 MM DIÁMETRO Tubo rígido de PVC d=25mm para canalización de conductores, incluso soportes y anclajes a pared, instalado.	50,00	4,17	208,50
TOTAL APARTADO 03.08.04 INSTALACIÓN ELÉCTRICA DE BT.....				469,65

PRESUPUESTOS PARCIALES.

ABASTECIMIENTO A VARIOS MUNICIPIOS DE LA RIOJA. SISTEMA CIDACOS

CÓDIGO	RESUMEN	CANTIDAD	PRECIO	IMPORTE
APARTADO 03.08.05 VARIOS				
617.4	PA CONEXIÓN ALIVIOS CON POZO EXTERIOR Y DESAGÜE Partida Alzada de Abono Íntegro para conexión de la salida de los alivios de la nueva caseta de válvulas con pozo exterior y salida a cuneta y/o cauce, incluyendo, excavaciones, tuberías de PEAD DN de salida de alivio, rellenos, ayudas de albalñillería, demoliciones, relleno de huecos con morteros sin retracción, anclaje de tuberías, así como todos los medios auxiliares necesarios para la conexión entre ambas tuberías.	1,00	536,70	536,70
TOTAL APARTADO 03.08.05 VARIOS				536,70
TOTAL SUBCAPÍTULO 03.08 ARQUETA DERIVACIÓN P-190.....				186.962,87
TOTAL CAPÍTULO 03 RAMAL PRINCIPAL: ETAP - ARQUETA P190.....				7.283.767,06
CAPÍTULO 04 IMPULSIÓN A ARNEDILLO				
SUBCAPÍTULO 04.01 EJE 2: IMPULSIÓN ETAP - ARNEDILLO				
APARTADO 04.01.01 MOVIMIENTO DE TIERRAS				
019	M2 DEMOLICIÓN DE FIRMES Demolición de firmes de cualquier tipo, incluso precorte, carga y transporte a vertedero, posterior perfilado y compactación del terreno.	1.102,47	2,50	2.756,18
010	M3 RELLENO ZANJAS, CIMIENTOS Y TRASDOSES DE MATERIAL SELECCIONADO Relleno con material seleccionado en zanjas, cimientos, trasdós de muros, estribos y otras estructuras procedente de la excavación o préstamos incluso carga, transporte y compactación.	293,44	3,32	974,22
011	M3 RELLENO DE ARENA Arena para apoyo y protección de tuberías incluso carga, transporte, colocación, compactación y nivelación.	115,40	12,09	1.395,19
007	M2 ENTIBACIÓN MÓDULOS METÁLICOS Entibación a dos caras mediante módulos metálicos y articulados, en zonas de protección de zanja, medida la superficie efectiva.	432,74	8,69	3.760,51
002	M3 EXCAVACIÓN EN ZANJAS Excavación en zanjas y zonas localizadas, en todo tipo de terrenos incluido terrenos en roca con medios mecánicos, incluso rasanteo, nivelación de la superficie de apoyo y transporte a lugar de empleo o vertedero.	415,74	3,74	1.554,87
008	M2 DESPEJE Y DESBROCE Despeje y desbroce de capa de tierra vegetal con un espesor medio de 50 cm, incluso corte de árboles, extracción de tocones, nivelación de zona adyacente para el paso de maquinaria, transporte a lugar de acopio independiente para posterior reposición de tierra vegetal tras las obras y despedregado de las parcelas, así como transporte a vertedero de tierras sobrantes.	120,00	0,57	68,40
TOTAL APARTADO 04.01.01 MOVIMIENTO DE TIERRAS.....				10.509,37
APARTADO 04.01.02 OBRA CIVIL				
030	M3 HORMIGÓN HNE-20/B/40 Hormigón HNE-20/B/40, con cemento CEM III/A-D/42,5/SR (UNE 80303:96), en masa o ligeramente armado, colocado en cualquier tipo de obra, incluso fabricación, carga y transporte, totalmente colocado.	129,26	50,38	6.512,12
023	KG ACERO CORRUGADO B-500-S Acero redondo corrugado para armar tipo B-500-S elaborado y colocado.	964,19	0,96	925,62

PRESUPUESTOS PARCIALES.

ABASTECIMIENTO A VARIOS MUNICIPIOS DE LA RIOJA. SISTEMA CIDACOS

CÓDIGO	RESUMEN	CANTIDAD	PRECIO	IMPORTE
373	UD POZO DE REGISTRO DE AROS DE HORMIGÓN DN1200 Pozo de registro de abastecimiento para válvulas de control de cualquier altura de diámetro interior D=1200 mm, incluso base de hormigón HNE-20, aros de hormigón, cono prefabricado de hormigón, pates y tapa de fundición, totalmente terminado.	19,00	357,84	6.798,96
034.2	UD ARQUETA HORMIGÓN DE 3,00x2,50 M Y HASTA 2,50 m DE PROFUNDIDAD Arqueta de hormigón armado HA-25/P/40/IIa para alojamiento de válvulas de tuberías de dimensiones interiores 3,0x2,5 m y una altura de hasta 2,50 m, con solera de 30 cm de canto, muros de 25 cm de espesor y tapa de 25 cm de canto, armado con parrilla de 20x20 cm con redondos de 12 mm, incluso excavación, relleno posterior, encofrado, totalmente terminada.	2,00	2.855,46	5.710,92
TOTAL APARTADO 04.01.02 OBRA CIVIL.....				19.947,62
APARTADO 04.01.03 TUBERÍA				
065	ML TUBERÍA FD 150 mm Tubería de fundición dúctil de diámetro interior 150 mm y PFA de 64 bar, revestida interiormente con mortero de cemento y exteriormente con una capa de cinc y otra bituminosa, i/p.p. de junta automática flexible, banda de señalización y medios auxiliares, totalmente colocada y probada.	5.875,00	21,42	125.842,50
085	UD CODO FD 1/8 A 1/32 150 mm Codo de fundición dúctil de 1/8 a 1/32 de diámetro interior 150 mm y PFA 40 bar, con un revestimiento interior y exterior epoxi, incluso p.p. de juntas y medios auxiliares, totalmente colocado y probado.	121,00	86,51	10.467,71
199	ML TUBERÍA DE PVC 90 mm Tubería de PVC con junta elástica de 90 mm de diámetro exterior, y PN=6 bar, incluso banda de señalización, totalmente colocada en zanja.	40,00	6,78	271,20
TOTAL APARTADO 04.01.03 TUBERÍA.....				136.581,41
APARTADO 04.01.04 VÁLVULAS Y ACCESORIOS				
245.4	UD VENTOSA DN=50 (2") mm PN16 Válvula ventosa de tres funciones de DN=50 mm (2") y PN 16 bar incluido transporte, juntas, válvula de corte DN=50 mm y PN 16 y piezas especiales, totalmente colocada y probada.	7,00	367,64	2.573,48
245.3	UD VENTOSA DN=50 (2") mm PN25 Válvula ventosa de tres funciones de DN=50 mm (2") y PN 25 bar incluido transporte, juntas, válvula de corte DN=50 mm y PN 25 y piezas especiales, totalmente colocada y probada.	4,00	434,43	1.737,72
129.1	UD TE FD EEB 150 mm PN16/25 SALIDA DN150/40 "T" de fundición dúctil de PFA 16/25 bar, con dos enchufes y derivación con brida para tubería de 150 mm y salida comprendida entre 150 y 40 mm, con un revestimiento interior y exterior epoxi, i/p.p. de junta de unión y medios auxiliares, totalmente colocada y probada.	19,00	100,62	1.911,78
EVC080	UD VÁLVULA DE COMPUERTA MANUAL DN80 PN16 Válvula de compuerta de cierre elástico de 80 mm. de diámetro nominal y 16 At. de P.N., de accionamiento manual por volante, de cuerpo de fundición nodular GGG-50, con eje de acero inoxidable al 13 % Cr. con roscas conformadas por laminación en frío, cierre en fundición nodular, tornillería de acero inoxidable, protegida contra la corrosión mediante aplicación de doble capa de pintura epoxy, totalmente colocada y probada. Resto de características según ET.	4,00	110,47	441,88
240	UD VÁLVULA DE COMPUERTA MANUAL DN80 PN25 Válvula de compuerta de accionamiento manual de diámetro nominal DN=80 mm de 25 bares de presión máxima admisible, con tornillería y juntas, totalmente instalada y probada, incluso volante de accionamiento.	4,00	238,18	952,72

PRESUPUESTOS PARCIALES.

ABASTECIMIENTO A VARIOS MUNICIPIOS DE LA RIOJA. SISTEMA CIDACOS

CÓDIGO	RESUMEN	CANTIDAD	PRECIO	IMPORTE
152	UD ADAPTADOR BRIDA-ENCHUFE FD DN 100-200 PN16 Adaptador brida-enchufe, brida-liso o enchufe-enchufe de FD de diámetros 100 a 200 mm y PN 16 bar, incluso juntas de unión y tornillería, totalmente colocado y probado.	2,00	48,74	97,48
235	UD VÁLVULA DE COMPUERTA MANUAL DN150 PN16 Válvula de compuerta de accionamiento manual de diámetro nominal DN=150 mm de 16 bares de presión máxima admisible, con tornillería y juntas, totalmente instalada y probada, incluso volante de accionamiento.	3,00	299,35	898,05
ECD15016	UD CARRETE DE DESMONTAJE DN=150 mm PN16 Carrete telescópico de desmontaje DN150 PN16, bridas de acero al carbono, virolas de acero inoxidable, protección epoxi, tornillos y tuercas en acero F-114, cincado y posterior baño de cromo-niquel, incluido p.p. de brida enchufe, totalmente instalado y probado en obra.	3,00	200,47	601,41
TOTAL APARTADO 04.01.04 VÁLVULAS Y ACCESORIOS.....				9.214,52
APARTADO 04.01.05 HINCAS				
367	ML HINCA TUBO ACERO 455 mm TIERRAS Hinca de tubo de acero, de 455 mm de diámetro interior, bajo viales, en tierra o roca alterada, incluso p.p. de instalación de tubería de fundición dúctil comprendida entre 250 y 150 mm de diámetro interior y sus anclajes y apoyos; muros de reacción y contención; y todos los elementos necesarios para su montaje y desmontaje.	12,00	368,88	4.426,56
TOTAL APARTADO 04.01.05 HINCAS.....				4.426,56
APARTADO 04.01.06 OBRAS ACCESORIAS Y REPOSICIONES DE SERVICIOS				
380	M2 REPOSICIÓN DE PAVIMENTO DE HORMIGÓN Reposición de pavimento de hormigón HM-20/B/40/IIa+Qa de 15 cm de espesor, totalmente terminado.	642,93	17,84	11.469,87
381	M2 REPOSICIÓN DE FIRME DE AGLOMERADO Reposición de firme de aglomerado en caliente en zonas afectadas por las obras.	459,54	4,14	1.902,50
056	M3 ZAHORRA ARTIFICIAL Zahorra artificial compactada.	24,00	16,98	407,52
TOTAL APARTADO 04.01.06 OBRAS ACCESORIAS Y REPOSICIONES DE SERVICIOS.....				13.779,89
TOTAL SUBCAPÍTULO 04.01 EJE 2: IMPULSIÓN ETAP - ARNEDILLO.....				194.459,37
SUBCAPÍTULO 04.02 BOMBEO ETAP - ARNEDILLO				
EBMV01	UD BOMBA MONOBLOCK VERTICAL Q=18,32 l/s H=130 mca Bomba multietapa monoblock vertical tipo HVU50/4A+V30370221-V de Caprari o equivalente para bombeo de un caudal de 66 m3/h (16,82 l/s) y una altura de 130 m.c.a. Aspiración DN65 e impulsión DN50. Cuerpo de función, rodete en acero inoxidable. Motor eléctrico asincrónico, trifásico, cerrado, estandarizado según normas UNEL-IEC de 37 kW-4P-50Hz-400V-IP-55, estructura de soporte en perfiles de acero electrosoldado. Transmisor de presión inteligente. Resto de características según E.T. de Proyecto. Instalada y probada en obra.	2,00	5.654,92	11.309,84
ETI316150	ML TUBERÍA DE INOXIDABLE AISI 316L DN 150 Tubería de acero inoxidable de diámetro DN 150 mm. Construcción: Mediante soldadura. Espesor 2 mm. Material: Acero inoxidable AISI -316 L. Material accesorios acero inoxidable AISI - 316L. Acabado: Decapado. Incluso p.p. de uniones, piezas especiales, bridas, codos, tes, injertos para otras tuberías y p.p. de estructuras y elementos de anclajes a solera y/o muros. Montada y probada.	17,00	64,03	1.088,51

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ABASTECIMIENTO A VARIOS MUNICIPIOS DE LA RIOJA. SISTEMA CIDACOS

CÓDIGO	RESUMEN	CANTIDAD	PRECIO	IMPORTE
ETI316050	ML TUBERÍA DE INOXIDABLE AISI 316L DN 50 Tubería de acero inoxidable de diámetro DN 50 mm. Construcción: Mediante soldadura. Espesor 2 mm. Material: Acero inoxidable AISI -316 L. Material accesorios acero inoxidable AISI - 316L. Acabado: Decapado. Incluso p.p. de uniones, piezas especiales, bridas, codos, tes, injertos para otras tuberías y p.p. de estructuras y elementos de anclajes a solera y/o muros. Montada y probada.	2,00	34,27	68,54
ETI316065	ML TUBERÍA DE INOXIDABLE AISI 316L DN 65 Tubería de acero inoxidable de diámetro DN 65 mm. Construcción: Mediante soldadura. Espesor 2 mm. Material: Acero inoxidable AISI -316 L. Material accesorios acero inoxidable AISI - 316L. Acabado: Decapado. Incluso p.p. de uniones, piezas especiales, bridas, codos, tes, injertos para otras tuberías y p.p. de estructuras y elementos de anclajes a solera y/o muros. Montada y probada.	2,00	39,24	78,48
242.1	UD VÁLVULA DE COMPUERTA MANUAL DN50 PN25 Válvula de compuerta de accionamiento manual de diámetro nominal DN=50 mm de 25 bares de presión máxima admisible, con tornillería y juntas, totalmente instalada y probada, incluso volante de accionamiento.	2,00	167,60	335,20
EVRC050.1	UD VÁLVULA DE RETENCIÓN DE DISCO PARTIDO DN50 PN25 Válvula de retención de disco partido PN 25 y DN-50, con racores de bridas, totalmente instalada. Resto de características según E.T de Proyecto.	2,00	182,46	364,92
EVCM06516	UD VÁLVULA DE COMPUERTA MANUAL DN65 PN16 Válvula de compuerta de cierre elástico de 65 mm. de diámetro nominal y 16 At. de P.N., de accionamiento manual por volante, de cuerpo de fundición nodular GGG-50, con eje de acero inoxidable al 13 % Cr. con roscas conformadas por laminación en frío, cierre en fundición nodular, tornillería de acero inoxidable, protegida contra la corrosión mediante aplicación de doble capa de pintura epoxy, totalmente colocada y probada. Resto de características según ET.	2,00	98,33	196,66
234	UD VÁLVULA DE COMPUERTA MANUAL DN150 PN25 Válvula de compuerta de cierre elástico de 150 mm. de diámetro nominal y 25 At. de P.N., de accionamiento manual por volante, de cuerpo de fundición nodular GGG-50, con eje de acero inoxidable al 13 % Cr. con roscas conformadas por laminación en frío, cierre en fundición nodular, tornillería de acero inoxidable, protegida contra la corrosión mediante aplicación de doble capa de pintura epoxy, totalmente colocada y probada. Resto de características según ET.	2,00	490,62	981,24
145	UD CARRETE DE DESMONTAJE DN=150 mm PN25 Carrete telescópico de desmontaje DN150 PN25, bridas de acero al carbono, virolas de acero inoxidable, protección epoxi, tornillos y tuercas en acero F-114, cincado y posterior baño de cromo-niquel, incluido p.p. de brida enchufe, totalmente instalado y probado en obra.	2,00	268,45	536,90
ECAH1500	UD EQUIPO ANTIARIETE HIDRONEUMÁTICO 1.500 l PN25 Equipo antiariete hidroneumático con membrana, marca Ibaiondo o equivalente modelo 1500 AHN PN25. Consistente en un calderín cilíndrico de 1.500 l, con presión máxima de servicio de 25 bares. Construido en chapa soldada de acero S-275JR s/EN-10025. Membrana interior de EPDM calidad alimentaria. Incluso llaves de aislamiento, indicador de nivel del agua, válvula de inflado, manómetro, boca de hombre y brida de conexión de agua DN 150. Acabado exterior granallado Sa 2 1/2, con imprimación de 10 micras de epoxi de dos componentes y acabado con 60 micras de esmalte de poliuretano; acabado interior granallado Sa 2 1/2. Incluido bancada con patas de apoyo. Según Directiva 2014/68/UE. Resto de características según E.T. de Proyecto. Totalmente instalado y en funcionamiento, incluso piezas especiales de acoplamiento a la tubería de entrada.	1,00	6.431,24	6.431,24
TOTAL SUBCAPÍTULO 04.02 BOMBEO ETAP - ARNEDILLO.....				21.391,53
TOTAL CAPÍTULO 04 IMPULSIÓN A ARNEDILLO.....				215.850,90

PRESUPUESTOS PARCIALES.

ABASTECIMIENTO A VARIOS MUNICIPIOS DE LA RIOJA. SISTEMA CIDACOS

CÓDIGO	RESUMEN	CANTIDAD	PRECIO	IMPORTE
CAPÍTULO 05 RAMAL DESDE ARQUETA P190 - CALAHORRA				
SUBCAPÍTULO 05.01 EJE 7: P190 - CALAHORRA				
APARTADO 05.01.01 EJE 7: TRAMO P-190 - SEPARACIÓN EJE 8				
SUBAPARTADO 05.01.01.01 MOVIMIENTO DE TIERRAS				
010	M3 RELLENO ZANJAS, CIMIENTOS Y TRASDOSES DE MATERIAL SELECCIONADO Relleno con material seleccionado en zanjas, cimientos, trasdós de muros, estribos y otras estructuras procedente de la excavación o préstamos incluso carga, transporte y compactación.	1.404,60	3,32	4.663,27
011	M3 RELLENO DE ARENA Arena para apoyo y protección de tuberías incluso carga, transporte, colocación, compactación y nivelación.	703,60	12,09	8.506,52
019	M2 DEMOLICIÓN DE FIRMES Demolición de firmes de cualquier tipo, incluso precorte, carga y transporte a vertedero, posterior perfilado y compactación del terreno.	36,00	2,50	90,00
002	M3 EXCAVACIÓN EN ZANJAS Excavación en zanjas y zonas localizadas, en todo tipo de terrenos incluido terrenos en roca con medios mecánicos, incluso rasanteo, nivelación de la superficie de apoyo y transporte a lugar de empleo o vertedero.	2.206,60	3,74	8.252,68
TOTAL SUBAPARTADO 05.01.01.01 MOVIMIENTO DE TIERRAS.....				21.512,47
SUBAPARTADO 05.01.01.02 OBRA CIVIL				
030	M3 HORMIGÓN HNE-20/B/40 Hormigón HNE-20/B/40, con cemento CEM III/A-D/42,5/SR (UNE 80303:96), en masa o ligeramente armado, colocado en cualquier tipo de obra, incluso fabricación, carga y transporte, totalmente colocado.	71,92	50,38	3.623,33
023	KG ACERO CORRUGADO B-500-S Acero redondo corrugado para armar tipo B-500-S elaborado y colocado.	3.234,97	0,96	3.105,57
373	UD POZO DE REGISTRO DE AROS DE HORMIGÓN DN1200 Pozo de registro de abastecimiento para válvulas de control de cualquier altura de diámetro interior D=1200 mm, incluso base de hormigón HNE-20, aros de hormigón, cono prefabricado de hormigón, pates y tapa de fundición, totalmente terminado.	2,00	357,84	715,68
TOTAL SUBAPARTADO 05.01.01.02 OBRA CIVIL.....				7.444,58
SUBAPARTADO 05.01.01.03 TUBERÍAS				
060	ML TUBERÍA FD 500 mm Tubería de fundición dúctil de diámetro interior 500 mm y PFA de 38 bar, revestida interiormente con mortero de cemento y exteriormente con una capa de cinc y otra bituminosa, i/p.p. de junta automática flexible, banda de señalización y medios auxiliares, totalmente colocada y probada.	443,00	86,59	38.359,37
076	UD CODO FD 1/32 500 mm Codo de fundición dúctil de 1/32 de diámetro interior 500 mm y PFA 30 bar, con revestimiento interior y exterior epoxi, incluso p.p. de juntas y medios auxiliares, totalmente colocado y probado.	9,00	385,46	3.469,14
075	UD CODO FD 1/16 500 mm Codo de fundición dúctil de 1/16 de diámetro interior 500 mm y PFA 30 bar, con revestimiento interior y exterior epoxi, incluso p.p. de juntas y medios auxiliares, totalmente colocado y probado.	9,00	458,14	4.123,26
074	UD CODO FD 1/8 500 mm Codo de fundición dúctil de 1/8 de diámetro interior 500 mm y PFA 30 bar, con revestimiento interior y exterior epoxi, incluso p.p. de juntas y medios auxiliares, totalmente colocado y probado.			

PRESUPUESTOS PARCIALES.

ABASTECIMIENTO A VARIOS MUNICIPIOS DE LA RIOJA. SISTEMA CIDACOS

CÓDIGO	RESUMEN	CANTIDAD	PRECIO	IMPORTE
		1,00	529,11	529,11
074R	UD CODO FD 1/4 500 mm Codo de fundición dúctil de 1/8 de diámetro interior 500 mm y PFA 30 bar, con revestimiento interior y exterior epoxi, incluso p.p. de juntas y medios auxiliares, totalmente colocado y probado.	1,00	578,72	578,72
TOTAL SUBAPARTADO 05.01.01.03 TUBERÍAS.....				47.059,60
SUBAPARTADO 05.01.01.04 VALVULERÍA Y ACCESORIOS				
245.2	UD VENTOSA DN=80 (3") mm PN16 Válvula ventosa de tres funciones de DN=80 mm (3") y PN 16 bar incluido transporte, juntas, válvula de corte DN=80 mm y PN 16y piezas especiales, totalmente colocada y probada.	1,00	432,90	432,90
119	UD TE FD 500 mm PN25 "T" de fundición dúctil de PFA 25 bar, con dos enchufes y derivación con brida para tubería de 500 mm con salida comprendida entre 500 y 100 mm, con un revestimiento interior y exterior epoxi, i/p.p. de junta de unión y medios auxiliares, totalmente colocada y probada.	2,00	845,96	1.691,92
114	UD REDUCCIÓN FD 100 A 80/50 mm PN16/25 Reducción en fundición dúctil de 100 mm a 80-65-60-50 mm con dos bridas PN 16/25 bar, con un revestimiento interior y exterior epoxi, i/p.p. de tornillería y medios auxiliares, totalmente colocada y probada.	1,00	50,28	50,28
235	UD VÁLVULA DE COMPUERTA MANUAL DN150 PN16 Válvula de compuerta de accionamiento manual de diámetro nominal DN=150 mm de 16 bares de presión máxima admisible, con tornillería y juntas, totalmente instalada y probada, incluso volante de accionamiento.	1,00	299,35	299,35
109A	UD RACORD TIPO BARCELONA SALIDAS 80-200 mm Rosca Racord tipo Barcelona con salidad entre 80 y 200 mm para enchufe de manguera, totalmente instalado y terminado.	1,00	150,66	150,66
TOTAL SUBAPARTADO 05.01.01.04 VALVULERÍA Y ACCESORIOS.....				2.625,11
SUBAPARTADO 05.01.01.05 OBRAS ACCESORIAS Y REPOSICIONES DE SERVICIOS				
381	M2 REPOSICIÓN DE FIRME DE AGLOMERADO Reposición de firme de aglomerado en caliente en zonas afectadas por las obras.	36,00	4,14	149,04
056	M3 ZAHORRA ARTIFICIAL Zahorra artificial compactada.	258,60	16,98	4.391,03
TOTAL SUBAPARTADO 05.01.01.05 OBRAS ACCESORIAS Y REPOSICIONES DE SERVICIOS.....				4.540,07
TOTAL APARTADO 05.01.01 EJE 7: TRAMO P-190 - SEPARACIÓN EJE 8.....				83.181,83
APARTADO 05.01.02 EJE 7: SEPARACIÓN EJE 8 - FIN TM QUEL				
SUBAPARTADO 05.01.02.01 MOVIMIENTO DE TIERRAS				
010	M3 RELLENO ZANJAS, CIMIENTOS Y TRASDOSES DE MATERIAL SELECCIONADO Relleno con material seleccionado en zanjas, cimientos, trasdós de muros, estribos y otras estructuras procedente de la excavación o préstamos incluso carga, transporte y compactación.	9.820,68	3,32	32.604,66
011	M3 RELLENO DE ARENA Arena para apoyo y protección de tuberías incluso carga, transporte, colocación, compactación y nivelación.	4.427,63	12,09	53.530,05

PRESUPUESTOS PARCIALES.

ABASTECIMIENTO A VARIOS MUNICIPIOS DE LA RIOJA. SISTEMA CIDACOS

CÓDIGO	RESUMEN	CANTIDAD	PRECIO	IMPORTE
002	M3 EXCAVACIÓN EN ZANJAS Excavación en zanjas y zonas localizadas, en todo tipo de terrenos incluido terrenos en roca con medios mecánicos, incluso rasanteo, nivelación de la superficie de apoyo y transporte a lugar de empleo o vertedero.	2.621,00	3,74	9.802,54
003	M3 EXCAVACIÓN EN ZANJAS CON AGOTAMIENTO Excavación en zanjas y zonas localizadas, en todo tipo de terrenos incluido terrenos en roca con medios mecánicos, incluso rasanteo, nivelación de la superficie de apoyo, agotamiento y transporte a lugar de empleo o vertedero.	12.622,92	3,84	48.472,01
008	M2 DESPEJE Y DESBROCE Despeje y desbroce de capa de tierra vegetal con un espesor medio de 50 cm, incluso corte de árboles, extracción de tocones, nivelación de zona adyacente para el paso de maquinaria, transporte a lugar de acopio independiente para posterior reposición de tierra vegetal tras las obras y despedregado de las parcelas, así como transporte a vertedero de tierras sobrantes.	486,00	0,57	277,02
TOTAL SUBAPARTADO 05.01.02.01 MOVIMIENTO DE TIERRAS.....				144.686,28
SUBAPARTADO 05.01.02.02 OBRA CIVIL				
030	M3 HORMIGÓN HNE-20/B/40 Hormigón HNE-20/B/40, con cemento CEM II/A-D/42,5/SR (UNE 80303:96), en masa o ligeramente armado, colocado en cualquier tipo de obra, incluso fabricación, carga y transporte, totalmente colocado.	204,30	50,38	10.292,63
023	KG ACERO CORRUGADO B-500-S Acero redondo corrugado para armar tipo B-500-S elaborado y colocado.	10.445,28	0,96	10.027,47
034.2	UD ARQUETA HORMIGÓN DE 3,00x2,50 M Y HASTA 2,50 m DE PROFUNDIDAD Arqueta de hormigón armado HA-25/P/40/IIa para alojamiento de válvulas de tuberías de dimensiones interiores 3,0x2,5 m y una altura de hasta 2,50 m, con solera de 30 cm de canto, muros de 25 cm de espesor y tapa de 25 cm de canto, armado con parrilla de 20x20 cm con redondos de 12 mm, incluso excavación, relleno posterior, encofrado, totalmente terminada.	1,00	2.855,46	2.855,46
373	UD POZO DE REGISTRO DE AROS DE HORMIGÓN DN1200 Pozo de registro de abastecimiento para válvulas de control de cualquier altura de diámetro interior D=1200 mm, incluso base de hormigón HNE-20, aros de hormigón, cono prefabricado de hormigón, pates y tapa de fundición, totalmente terminado.	6,00	357,84	2.147,04
TOTAL SUBAPARTADO 05.01.02.02 OBRA CIVIL.....				25.322,60
SUBAPARTADO 05.01.02.03 TUBERÍAS				
060	ML TUBERÍA FD 500 mm Tubería de fundición dúctil de diámetro interior 500 mm y PFA de 38 bar, revestida interiormente con mortero de cemento y exteriormente con una capa de cinc y otra bituminosa, i/p.p. de junta automática flexible, banda de señalización y medios auxiliares, totalmente colocada y probada.	4.486,00	86,59	388.442,74
076	UD CODO FD 1/32 500 mm Codo de fundición dúctil de 1/32 de diámetro interior 500 mm y PFA 30 bar, con revestimiento interior y exterior epoxi, incluso p.p. de juntas y medios auxiliares, totalmente colocado y probado.	50,00	385,46	19.273,00
075	UD CODO FD 1/16 500 mm Codo de fundición dúctil de 1/16 de diámetro interior 500 mm y PFA 30 bar, con revestimiento interior y exterior epoxi, incluso p.p. de juntas y medios auxiliares, totalmente colocado y probado.	13,00	458,14	5.955,82

PRESUPUESTOS PARCIALES.

ABASTECIMIENTO A VARIOS MUNICIPIOS DE LA RIOJA. SISTEMA CIDACOS

CÓDIGO	RESUMEN	CANTIDAD	PRECIO	IMPORTE
074	UD CODO FD 1/8 500 mm Codo de fundición dúctil de 1/8 de diámetro interior 500 mm y PFA 30 bar, con revestimiento interior y exterior epoxi, incluso p.p. de juntas y medios auxiliares, totalmente colocado y probado.	2,00	529,11	1.058,22
197	ML TUBERÍA DE PVC 160 mm Tubería de PVC con junta elástica de 160 mm de diámetro exterior, y PN=6 bar, incluso banda de señalización, totalmente colocada en zanja.	351,00	13,32	4.675,32
TOTAL SUBAPARTADO 05.01.02.03 TUBERÍAS.....				419.405,10
SUBAPARTADO 05.01.02.04 VALVULERÍA Y ACCESORIOS				
245.5	UD VENTOSA DN=80 (3") mm PN25 Válvula ventosa de tres funciones de DN=80 mm (3") y PN 25 bar incluido transporte, juntas, válvula de corte DN=80 mm y PN 25 y piezas especiales, totalmente colocada y probada.	3,00	552,08	1.656,24
244.1	UD VENTOSA DN=100 (4") mm PN16 Válvula ventosa de tres funciones de DN=100 mm y PN 16 bar incluido transporte, juntas, válvula de corte DN=100 mm y PN 16 ba y piezas especiales, totalmente colocada y probada.	1,00	903,50	903,50
119	UD TE FD 500 mm PN25 "T" de fundición dúctil de PFA 25 bar, con dos enchufes y derivación con brida para tubería de 500 mm con salida comprendida entre 500 y 100 mm, con un revestimiento interior y exterior epoxi, i/p.p. de junta de unión y medios auxiliares, totalmente colocada y probada.	6,00	845,96	5.075,76
113	UD REDUCCIÓN FD 100 A 80/50 mm PN25 Reducción en fundición dúctil de 100 mm a 80-65-60-50 mm con dos bridas PN 25 bar, con un revestimiento interior y exterior epoxi, i/p.p. de tornillería y medios auxiliares, totalmente colocada y probada.	3,00	71,75	215,25
235	UD VÁLVULA DE COMPUERTA MANUAL DN150 PN16 Válvula de compuerta de accionamiento manual de diámetro nominal DN=150 mm de 16 bares de presión máxima admisible, con tornillería y juntas, totalmente instalada y probada, incluso volante de accionamiento.	1,00	299,35	299,35
234	UD VÁLVULA DE COMPUERTA MANUAL DN150 PN25 Válvula de compuerta de cierre elástico de 150 mm. de diámetro nominal y 25 At. de P.N., de accionamiento manual por volante, de cuerpo de fundición nodular GGG-50, con eje de acero inoxidable al 13 % Cr. con roscas conformadas por laminación en frío, cierre en fundición nodular, tornillería de acero inoxidable, protegida contra la corrosión mediante aplicación de doble capa de pintura epoxy, totalmente colocada y probada. Resto de características según ET.	1,00	490,62	490,62
EVMM0500.1	UD VÁLVULA DE MARIPOSA DOBLE EXCENRICIDAD DN 500 mm PN25 MANUAL Válvula de mariposa de doble excentricidad de 500 mm de diámetro y PN25, de accionamiento manual por reductor, incluso mecanismo de accionamiento, maniobra y control, transporte, montaje, juntas, tornillería y pintura totalmente instalada y probada. Resto de características según ET de proyecto.	1,00	4.681,30	4.681,30
ECD0500.1	UD CARRETE DE DESMONTAJE DN=500 mm PN25 Carrete telescópico de desmontaje DN500 PN 25, bridas de acero al carbono, virolas de acero inoxidable, protección epoxi, tornillos y tuercas en acero F-114, cincado y posterior baño de cromo-niquel, incluido p.p. de brida enchufe, totalmente instalado y probado en obra.	1,00	1.246,98	1.246,98
115.4	UD BRIDA ENCHUFE FD 500 mm PN16/25 Brida enchufe de fundición dúctil de PFA 16 bar para tubería de 500 mm, con un revestimiento interior y exterior epoxi, i/p.p. de junta de unión y medios auxiliares, totalmente colocada y probada.	1,00	530,98	530,98

PRESUPUESTOS PARCIALES.

ABASTECIMIENTO A VARIOS MUNICIPIOS DE LA RIOJA. SISTEMA CIDACOS

CÓDIGO	RESUMEN	CANTIDAD	PRECIO	IMPORTE
114.2	UD BRIDA LISO FD 500 mm PN16/25 Brida lisa de fundición dúctil de PFA 16 bar para tubería de 500 mm, con un revestimiento interior y exterior epoxi, i/p.p. de junta de unión y medios auxiliares, totalmente colocada y probada.	1,00	449,98	449,98
TOTAL SUBAPARTADO 05.01.02.04 VALVULERÍA Y ACCESORIOS				15.549,96
SUBAPARTADO 05.01.02.05 OBRAS ACCESORIAS Y REPOSICIONES DE SERVICIOS				
172	ML TUBERÍA PEAD DN=110 mm PN 16 Tubería de polietileno de alta densidad de 110 mm de diámetro exterior y PN=16 bar, colocada en zanja incluso banda de señalización, p.p. de junta de unión colocada, codos, tes, portabridas, así como piezas especiales y medios auxiliares, totalmente colocada.	6,00	18,56	111,36
030	M3 HORMIGÓN HNE-20/B/40 Hormigón HNE-20/B/40, con cemento CEM III/A-D/42,5/SR (UNE 80303:96), en masa o ligeramente armado, colocado en cualquier tipo de obra, incluso fabricación, carga y transporte, totalmente colocado.	0,90	50,38	45,34
388	ML REPOSICIÓN DE ACEQUIA HASTA 1 m ANCHURA Reposición de acequia prefabricada de hormigón hasta 1,00 m de anchura.	15,00	87,65	1.314,75
056	M3 ZAHORRA ARTIFICIAL Zahorra artificial compactada.	2.594,40	16,98	44.052,91
383	ML REPOSICIÓN DE CERRAMIENTO EXISTENTE Reposición de cerramiento existente hasta 2,00 m de altura.	5,00	9,37	46,85
387	ML REPOSICIÓN OBRA DE DRENAJE HASTA DN 1,00 m Reposición de obra de drenaje hasta 1,00 de diámetro, p.p. de boquilla de entrada y salida, excavación, hormigón de recubrimiento y relleno compactado, totalmente terminada.	5,00	174,54	872,70
TOTAL SUBAPARTADO 05.01.02.05 OBRAS ACCESORIAS Y REPOSICIONES DE SERVICIOS.....				46.443,91
TOTAL APARTADO 05.01.02 EJE 7: SEPARACIÓN EJE 8 - FIN TM QUEL.....				651.407,85
APARTADO 05.01.03 EJE 7: FIN TM QUEL - CALAHORRA				
SUBAPARTADO 05.01.03.01 MOVIMIENTO DE TIERRAS				
010	M3 RELLENO ZANJAS, CIMIENTOS Y TRASDOSES DE MATERIAL SELECCIONADO Relleno con material seleccionado en zanjas, cimientos, trasdós de muros, estribos y otras estructuras procedente de la excavación o préstamos incluso carga, transporte y compactación.	13.049,16	3,32	43.323,21
011	M3 RELLENO DE ARENA Arena para apoyo y protección de tuberías incluso carga, transporte, colocación, compactación y nivelación.	6.571,28	12,09	79.446,78
019	M2 DEMOLICIÓN DE FIRMES Demolición de firmes de cualquier tipo, incluso precorte, carga y transporte a vertedero, posterior perfilado y compactación del terreno.	3.176,04	2,50	7.940,10
002	M3 EXCAVACIÓN EN ZANJAS Excavación en zanjas y zonas localizadas, en todo tipo de terrenos incluido terrenos en roca con medios mecánicos, incluso rasanteo, nivelación de la superficie de apoyo y transporte a lugar de empleo o vertedero.	19.408,70	3,74	72.588,54

PRESUPUESTOS PARCIALES.

ABASTECIMIENTO A VARIOS MUNICIPIOS DE LA RIOJA. SISTEMA CIDACOS

CÓDIGO	RESUMEN	CANTIDAD	PRECIO	IMPORTE
003	M3 EXCAVACIÓN EN ZANJAS CON AGOTAMIENTO Excavación en zanjas y zonas localizadas, en todo tipo de terrenos incluido terrenos en roca con medios mecánicos, incluso rasanteo, nivelación de la superficie de apoyo, agotamiento y transporte a lugar de empleo o vertedero.	1.870,24	3,84	7.181,72
008	M2 DESPEJE Y DESBROCE Despeje y desbroce de capa de tierra vegetal con un espesor medio de 50 cm, incluso corte de árboles, extracción de tocones, nivelación de zona adyacente para el paso de maquinaria, transporte a lugar de acopio independiente para posterior reposición de tierra vegetal tras las obras y despedregado de las parcelas, así como transporte a vertedero de tierras sobrantes.	5.139,90	0,57	2.929,74
007	M2 ENTIBACIÓN MÓDULOS METÁLICOS Entibación a dos caras mediante módulos metálicos y articulados, en zonas de protección de zanja, medida la superficie efectiva.	2.175,36	8,69	18.903,88
030	M3 HORMIGÓN HNE-20/B/40 Hormigón HNE-20/B/40, con cemento CEM III/A-D/42,5/SR (UNE 80303:96), en masa o ligeramente armado, colocado en cualquier tipo de obra, incluso fabricación, carga y transporte, totalmente colocado.	24,96	50,38	1.257,48
TOTAL SUBAPARTADO 05.01.03.01 MOVIMIENTO DE TIERRAS.....				233.571,45
SUBAPARTADO 05.01.03.02 OBRA CIVIL				
030	M3 HORMIGÓN HNE-20/B/40 Hormigón HNE-20/B/40, con cemento CEM III/A-D/42,5/SR (UNE 80303:96), en masa o ligeramente armado, colocado en cualquier tipo de obra, incluso fabricación, carga y transporte, totalmente colocado.	1.136,29	50,38	57.246,29
023	KG ACERO CORRUGADO B-500-S Acero redondo corrugado para armar tipo B-500-S elaborado y colocado.	19.896,06	0,96	19.100,22
034.2	UD ARQUETA HORMIGÓN DE 3,00x2,50 M Y HASTA 2,50 m DE PROFUNDIDAD Arqueta de hormigón armado HA-25/P/40/IIa para alojamiento de válvulas de tuberías de dimensiones interiores 3,0x2,5 m y una altura de hasta 2,50 m, con solera de 30 cm de canto, muros de 25 cm de espesor y tapa de 25 cm de canto, armado con parrilla de 20x20 cm con redondos de 12 mm, incluso excavación, relleno posterior, encofrado, totalmente terminada.	9,00	2.855,46	25.699,14
373	UD POZO DE REGISTRO DE AROS DE HORMIGÓN DN1200 Pozo de registro de abastecimiento para válvulas de control de cualquier altura de diámetro interior D=1200 mm, incluso base de hormigón HNE-20, aros de hormigón, cono prefabricado de hormigón, pates y tapa de fundición, totalmente terminado.	23,00	357,84	8.230,32
TOTAL SUBAPARTADO 05.01.03.02 OBRA CIVIL.....				110.275,97
SUBAPARTADO 05.01.03.03 TUBERÍAS				
060	ML TUBERÍA FD 500 mm Tubería de fundición dúctil de diámetro interior 500 mm y PFA de 38 bar, revestida interiormente con mortero de cemento y exteriormente con una capa de cinc y otra bituminosa, i/p.p. de junta automática flexible, banda de señalización y medios auxiliares, totalmente colocada y probada.	7.603,00	86,59	658.343,77
076	UD CODO FD 1/32 500 mm Codo de fundición dúctil de 1/32 de diámetro interior 500 mm y PFA 30 bar, con revestimiento interior y exterior epoxi, incluso p.p. de juntas y medios auxiliares, totalmente colocado y probado.	55,00	385,46	21.200,30

PRESUPUESTOS PARCIALES.

ABASTECIMIENTO A VARIOS MUNICIPIOS DE LA RIOJA. SISTEMA CIDACOS

CÓDIGO	RESUMEN	CANTIDAD	PRECIO	IMPORTE
075	UD CODO FD 1/16 500 mm Codo de fundición dúctil de 1/16 de diámetro interior 500 mm y PFA 30 bar, con revestimiento interior y exterior epoxi, incluso p.p. de juntas y medios auxiliares, totalmente colocado y probado.	11,00	458,14	5.039,54
074	UD CODO FD 1/8 500 mm Codo de fundición dúctil de 1/8 de diámetro interior 500 mm y PFA 30 bar, con revestimiento interior y exterior epoxi, incluso p.p. de juntas y medios auxiliares, totalmente colocado y probado.	14,00	529,11	7.407,54
074R	UD CODO FD 1/4 500 mm Codo de fundición dúctil de 1/8 de diámetro interior 500 mm y PFA 30 bar, con revestimiento interior y exterior epoxi, incluso p.p. de juntas y medios auxiliares, totalmente colocado y probado.	1,00	578,72	578,72
197	ML TUBERÍA DE PVC 160 mm Tubería de PVC con junta elástica de 160 mm de diámetro exterior, y PN=6 bar, incluso banda de señalización, totalmente colocada en zanja.	459,00	13,32	6.113,88
TOTAL SUBAPARTADO 05.01.03.03 TUBERÍAS.....				698.683,75
SUBAPARTADO 05.01.03.04 VALVULERÍA Y ACCESORIOS				
245.5	UD VENTOSA DN=80 (3") mm PN25 Válvula ventosa de tres funciones de DN=80 mm (3") y PN 25 bar incluido transporte, juntas, válvula de corte DN=80 mm y PN 25 y piezas especiales, totalmente colocada y probada.	11,00	552,08	6.072,88
245.6	UD VENTOSA DN=80 (3") mm PN40 Válvula ventosa de tres funciones de DN=80 mm (3") y PN 40 bar incluido transporte, juntas, válvula de corte DN=80 mm y PN 40 y piezas especiales, totalmente colocada y probada.	1,00	686,57	686,57
244	UD VENTOSA DN=100 (4") mm PN25 Válvula ventosa de tres funciones de DN=100 mm y PN 25 bar incluido transporte, juntas, válvula de corte DN=100 mm y PN 25 bar y piezas especiales, totalmente colocada y probada.	1,00	510,93	510,93
119	UD TE FD 500 mm PN25 "T" de fundición dúctil de PFA 25 bar, con dos enchufes y derivación con brida para tubería de 500 mm con salida comprendida entre 500 y 100 mm, con un revestimiento interior y exterior epoxi, i/p.p. de junta de unión y medios auxiliares, totalmente colocada y probada.	23,00	845,96	19.457,08
113	UD REDUCCIÓN FD 100 A 80/50 mm PN25 Reducción en fundición dúctil de 100 mm a 80-65-60-50 mm con dos bridas PN 25 bar, con un revestimiento interior y exterior epoxi, i/p.p. de tornillería y medios auxiliares, totalmente colocada y probada.	11,00	71,75	789,25
113.1	UD REDUCCIÓN FD 100 A 80/50 mm PN40 Reducción en fundición dúctil de 100 mm a 80-65-60-50 mm con dos bridas PN 40 bar, con un revestimiento interior y exterior epoxi, i/p.p. de tornillería y medios auxiliares, totalmente colocada y probada.	1,00	88,17	88,17
234	UD VÁLVULA DE COMPUERTA MANUAL DN150 PN25 Válvula de compuerta de cierre elástico de 150 mm. de diámetro nominal y 25 At. de P.N., de accionamiento manual por volante, de cuerpo de fundición nodular GGG-50, con eje de acero inoxidable al 13 % Cr. con roscas conformadas por laminación en frío, cierre en fundición nodular, tornillería de acero inoxidable, protegida contra la corrosión mediante aplicación de doble capa de pintura epoxy, totalmente colocada y probada. Resto de características según ET.	9,00	490,62	4.415,58

PRESUPUESTOS PARCIALES.

ABASTECIMIENTO A VARIOS MUNICIPIOS DE LA RIOJA. SISTEMA CIDACOS

CÓDIGO	RESUMEN	CANTIDAD	PRECIO	IMPORTE
233	UD VÁLVULA DE COMPUERTA MANUAL DN150 PN40 Válvula de compuerta de accionamiento manual de diámetro nominal DN=150 mm de 40 bares de presión máxima admisible, con tornillería y juntas, totalmente instalada y probada, incluso volante de accionamiento.	1,00	611,31	611,31
109A	UD RACORD TIPO BARCELONA SALIDAS 80-200 mm Rosca Racord tipo Barcelona con salidas entre 80 y 200 mm para enchufe de manguera, totalmente instalado y terminado.	7,00	150,66	1.054,62
EVMM0500.1	UD VÁLVULA DE MARIPOSA DOBLE EXCENRICIDAD DN 500 mm PN25 MANUAL Válvula de mariposa de doble excentricidad de 500 mm de diámetro y PN25, de accionamiento manual por reductor, incluso mecanismo de accionamiento, maniobra y control, transporte, montaje, juntas, tornillería y pintura totalmente instalada y probada. Resto de características según ET de proyecto.	9,00	4.681,30	42.131,70
ECD0500.1	UD CARRETE DE DESMONTAJE DN=500 mm PN25 Carrete telescópico de desmontaje DN500 PN 25, bridas de acero al carbono, virolas de acero inoxidable, protección epoxi, tornillos y tuercas en acero F-114, cincado y posterior baño de cromo-niquel, incluido p.p. de brida enchufe, totalmente instalado y probado en obra.	9,00	1.246,98	11.222,82
115.4	UD BRIDA ENCHUFE FD 500 mm PN16/25 Brida enchufe de fundición dúctil de PFA 16 bar para tubería de 500 mm, con un revestimiento interior y exterior epoxi, i/p.p. de junta de unión y medios auxiliares, totalmente colocada y probada.	1,00	530,98	530,98
114.2	UD BRIDA LISO FD 500 mm PN16/25 Brida lisa de fundición dúctil de PFA 16 bar para tubería de 500 mm, con un revestimiento interior y exterior epoxi, i/p.p. de junta de unión y medios auxiliares, totalmente colocada y probada.	1,00	449,98	449,98
TOTAL SUBAPARTADO 05.01.03.04 VALVULERÍA Y ACCESORIOS.....				88.021,87
SUBAPARTADO 05.01.03.05 HINCAS				
369	ML HINCA TUBO ACERO 813 mm TIERRAS Hinca de tubo de acero, de 813 mm de diámetro interior, bajo viales, en tierra o roca alterada, incluso p.p. de instalación de tubería de fundición dúctil de 500 mm de diámetro interior y sus anclajes y apoyos; muros de reacción y contención; y todos los elementos necesarios para su montaje y desmontaje.	105,83	636,74	67.386,19
TOTAL SUBAPARTADO 05.01.03.05 HINCAS.....				67.386,19
SUBAPARTADO 05.01.03.06 OBRAS ACCESORIAS Y REPOSICIONES DE SERVICIOS				
030	M3 HORMIGÓN HNE-20/B/40 Hormigón HNE-20/B/40, con cemento CEM III/A-D/42,5/SR (UNE 80303:96), en masa o ligeramente armado, colocado en cualquier tipo de obra, incluso fabricación, carga y transporte, totalmente colocado.	12,64	50,38	636,80
388	ML REPOSICIÓN DE ACEQUIA HASTA 1 m ANCHURA Reposición de acequia prefabricada de hormigón hasta 1,00 m de anchura.	40,00	87,65	3.506,00
194	ML TUBO PVC CORRUGADO DN 110 mm CANALIZACIONES ELÉCTRICAS Tubo corrugado de PVC de D=110 mm, para reposición de línea eléctrica subterránea, totalmente colocado.	75,00	4,27	320,25
381	M2 REPOSICIÓN DE FIRME DE AGLOMERADO Reposición de firme de aglomerado en caliente en zonas afectadas por las obras.	555,00	4,14	2.297,70

PRESUPUESTOS PARCIALES.

ABASTECIMIENTO A VARIOS MUNICIPIOS DE LA RIOJA. SISTEMA CIDACOS

CÓDIGO	RESUMEN	CANTIDAD	PRECIO	IMPORTE
380	M2 REPOSICIÓN DE PAVIMENTO DE HORMIGÓN Reposición de pavimento de hormigón HM-20/B/40/IIa+Qa de 15 cm de espesor, totalmente terminado.	41,43	17,84	739,11
386	M2 PAVIMENTO ADOQUÍN PREFABRICADO HORMIGÓN Pavimento de adoquín prefabricado de hormigón bicapa en color gris, de forma rectangular de 20x10x8 cm, colocado sobre cama de arena de río, rasanteada, de 3/4 cm de espesor, dejando entre ellos una junta de separación de 2/3 mm para su posterior relleno con arena caliza de machaqueo, i/recebado de juntas, barrido y compactado, a colocar sobre base firme existente, no incluido en el precio, compactada al 100% del ensayo Proctor.	2.567,61	21,49	55.177,94
384	M2 REPOSICIÓN DE ACERA DE HORMIGÓN Reposición de acera de hormigón existente en vía pública, incluso bordillo, totalmente terminada.	12,00	42,42	509,04
385	M2 REPOSICIÓN DE JARDÍN EXISTENTE Reposición de jardín existente.	363,00	44,62	16.197,06
056	M3 ZAHORRA ARTIFICIAL Zahorra artificial compactada.	2.757,60	16,98	46.824,05
383	ML REPOSICIÓN DE CERRAMIENTO EXISTENTE Reposición de cerramiento existente hasta 2,00 m de altura.	30,00	9,37	281,10
391	ML REPOSICIÓN DE POZO DE REGISTRO Reposición de pozo de registro para saneamiento o abastecimiento, incluso base de hormigón HM-20, p.p. de cono prefabricado de hormigón y tapa, totalmente terminado.	8,00	47,47	379,76
393	ML CANALIZACIÓN TELEFÓNICA FIBRA ÓPTICA Canalización telefónica en zanja bajo calzada, para reposición de cable de fibra óptica de 12 a 16 fibras, incluso p.p. de arquetas y caja de empalmes, totalmente terminado.	45,00	45,58	2.051,10
397	ML CANALIZACIÓN TELEFÓNICA BAJO CALZADA 8 TUBOS Canalización telefónica en zanja bajo calzada, de 0,65x1,01 m para 8 conductos, en base 4, de PVC de 110 mm de diámetro, embebidos en prisma de hormigón HM-20 de central de 8 cm de recubrimiento superior e inferior y 10 cm lateralmente, incluso excavación de tierras a máquina en terrenos flojos, tubos, soportes distanciadores cada 70 cm, cuerda guía para cables, hormigón y relleno en la capa superior con tierras procedentes de la excavación, en tongadas < 25 cm, compactada al 95% del P.N., totalmente terminado.	20,00	31,48	629,60
396	ML CANALIZACIÓN TELEFÓNICA BAJO CALZADA 6 TUBOS Canalización telefónica en zanja bajo calzada, de 0,45x1,01 m para 6 conductos, en base 2, de PVC de 110 mm de diámetro, embebidos en prisma de hormigón HM-20 de central de 8 cm de recubrimiento superior e inferior y 10 cm lateralmente, incluso excavación de tierras a máquina en terrenos flojos, tubos, soportes distanciadores cada 70 cm, cuerda guía para cables, hormigón y relleno en la capa superior con tierras procedentes de la excavación, en tongadas < 25 cm, compactada al 95% del P.N., totalmente terminado.	60,00	25,88	1.552,80
395	ML CANALIZACIÓN TELEFÓNICA BAJO CALZADA 4 TUBOS Canalización telefónica en zanja bajo calzada, de 0,45x1,01 m para 4 conductos, en base 2, de PVC de 110 mm de diámetro, embebidos en prisma de hormigón HM-20 de central de 8 cm de recubrimiento superior e inferior y 10 cm lateralmente, incluso excavación de tierras a máquina en terrenos flojos, tubos, soportes distanciadores cada 70 cm, cuerda guía para cables, hormigón y relleno en la capa superior con tierras procedentes de la excavación, en tongadas < 25 cm, compactada al 95% del P.N., totalmente terminado.	20,00	18,66	373,20

PRESUPUESTOS PARCIALES.

ABASTECIMIENTO A VARIOS MUNICIPIOS DE LA RIOJA. SISTEMA CIDACOS

CÓDIGO	RESUMEN	CANTIDAD	PRECIO	IMPORTE
394	ML CANALIZACIÓN TELEFÓNICA BAJO CALZADA 2 TUBOS Canalización telefónica en zanja bajo calzada, de 0,45x0,88 m para 2 conductos, en base 2, de PVC de 110 mm de diámetro, embebidos en prisma de hormigón HM-20 de central de 8 cm de recubrimiento superior e inferior y 10 cm lateralmente, incluso excavación de tierras a máquina en terrenos flojos, tubos, soportes distanciadores cada 70 cm, cuerda guía para cables, hormigón y relleno en la capa superior con tierras procedentes de la excavación, en tongadas < 25 cm, compactada al 95% del P.N., totalmente terminado.	100,00	13,42	1.342,00
398	ML CANALIZACIÓN TELEFÓNICA BAJO CALZADA 12 TUBOS Canalización telefónica en zanja bajo calzada, de 0,65x1,01 m para 12 conductos, en base 5, de PVC de 110 mm de diámetro, embebidos en prisma de hormigón HM-20 de central de 8 cm de recubrimiento superior e inferior y 10 cm lateralmente, incluso excavación de tierras a máquina en terrenos flojos, tubos, soportes distanciadores cada 70 cm, cuerda guía para cables, hormigón y relleno en la capa superior con tierras procedentes de la excavación, en tongadas < 25 cm, compactada al 95% del P.N., totalmente terminado.	20,00	46,65	933,00
TOTAL SUBAPARTADO 05.01.03.06 OBRAS ACCESORIAS Y REPOSICIONES DE SERVICIOS.....				133.750,51
TOTAL APARTADO 05.01.03 EJE 7: FIN TM QUEL - CALAHORRA.....				1.331.689,74
TOTAL SUBCAPÍTULO 05.01 EJE 7: P190 - CALAHORRA.....				2.066.279,42
SUBCAPÍTULO 05.02 ARQUETA ANTIINUNDACIÓN DN300				
APARTADO 05.02.01 OBRA CIVIL				
008	M2 DESPEJE Y DESBROCE Despeje y desbroce de capa de tierra vegetal con un espesor medio de 50 cm, incluso corte de árboles, extracción de tocones, nivelación de zona adyacente para el paso de maquinaria, transporte a lugar de acopio independiente para posterior reposición de tierra vegetal tras las obras y despedregado de las parcelas, así como transporte a vertedero de tierras sobrantes.	29,60	0,57	16,87
002	M3 EXCAVACIÓN EN ZANJAS Excavación en zanjas y zonas localizadas, en todo tipo de terrenos incluido terrenos en roca con medios mecánicos, incluso rasanteo, nivelación de la superficie de apoyo y transporte a lugar de empleo o vertedero.	88,80	3,74	332,11
010	M3 RELLENO ZANJAS, CIMIENTOS Y TRASDOSES DE MATERIAL SELECCIONADO Relleno con material seleccionado en zanjas, cimientos, trasdós de muros, estribos y otras estructuras procedente de la excavación o préstamos incluso carga, transporte y compactación.	45,64	3,32	151,52
028	M3 HORMIGÓN DE LIMIEPEZA HL-150 Hormigón de limpieza HL-150, de consistencia plástica, árido de tamaño máximo 40 mm y cemento CEM-II-D/42,5/SR, para saneos y encachados, incluyendo fabricación y transporte totalmente colocado.	1,82	44,76	81,46
031	M3 HORMIGÓN HA-25/B/20/IIa Hormigón HA-25/B/20/IIa, con cemento CEM II/A-D/42,5/SR, incluyendo fabricación, transporte, puesta en obra y vibrado, totalmente ejecutado, incluso curado y juntas.	19,96	53,39	1.065,66
023	KG ACERO CORRUGADO B-500-S Acero redondo corrugado para armar tipo B-500-S elaborado y colocado.	1.317,07	0,96	1.264,39
025	M2 ENCOFRADO RECTO EN PARAMENTOS OCULTOS Encofrado recto en paramentos ocultos, incluso colocación, fijación y desencofrado.	7,04	17,65	124,26
026	M2 ENCOFRADO RECTO EN PARAMENTOS VISTOS 1C Encofrado recto en paramentos vistos a una cara, incluso colocación, fijación y desencofrado.	76,80	21,18	1.626,62

PRESUPUESTOS PARCIALES.

ABASTECIMIENTO A VARIOS MUNICIPIOS DE LA RIOJA. SISTEMA CIDACOS

CÓDIGO	RESUMEN	CANTIDAD	PRECIO	IMPORTE
052	ML JUNTAS DE ESTANQUEIDAD DE PVC 32 CM Junta de trabajo interior de policloruro de vinilo (PVC) 100% virgen, con una fuerza máxima de dilatación > 250 % , de 32 cm de ancho, MASTERFLEX 2000 TI-24 de BASF o equivalente, colocada simétricamente en el eje de la losa o muro, incluso solapes y piezas especiales para cruces o ángulos. Medida la longitud ejecutada.	16,00	7,31	116,96
289	UD TAPA DE FUNDICIÓN DN600 Tapa de fundición normalizada DN600, incluyendo el marco, anclada, totalmente colocada.	2,00	63,62	127,24
290	UD PATE POLIPROPILENO Pate de polipropileno de dimensiones 30x25 cm, incluyendo fabricación, transporte a obra, perforación de anclajes y relleno con aportación de material de agarre, completamente colocado.	16,00	5,63	90,08
ETI316150	ML TUBERÍA DE INOXIDABLE AISI 316L DN 150 Tubería de acero inoxidable de diámetro DN 150 mm. Construcción: Mediante soldadura. Espesor 2 mm. Material: Acero inoxidable AISI -316 L. Material accesorios acero inoxidable AISI - 316L. Acabado: Decapado. Incluso p.p. de uniones, piezas especiales, bridas, codos, tes, injertos para otras tuberías y p.p. de estructuras y elementos de anclajes a solera y/o muros. Montada y probada.	2,00	64,03	128,06
TOTAL APARTADO 05.02.01 OBRA CIVIL.....				5.125,23
APARTADO 05.02.02 VÁLVULAS Y ACCESORIOS				
271	UD VÁLVULA ANTIINUNDACIÓN DN 300 mm PN25 Válvula antiinundación DN-300 mm, bridas PN25, incluido montaje y carrete de desmontaje.	1,00	10.427,26	10.427,26
115.4	UD BRIDA ENCHUFE FD 500 mm PN16/25 Brida enchufe de fundición dúctil de PFA 16 bar para tubería de 500 mm, con un revestimiento interior y exterior epoxi, i/p.p. de junta de unión y medios auxiliares, totalmente colocada y probada.	2,00	530,98	1.061,96
229.2	UD VÁLVULA DE COMPUERTA MANUAL DN300 PN25 Válvula de compuerta de accionamiento manual de diámetro nominal DN=300 mm de 25 bares de presión máxima admisible, con tornillería y juntas, totalmente instalada y probada, incluso volante de accionamiento.	2,00	1.579,93	3.159,86
ECD0300.1	UD CARRETE DE DESMONTAJE DN=300 mm PN25 Carrete telescópico de desmontaje DN300 PN25, bridas de acero al carbono, virolas de acero inoxidable, protección epoxi, tornillos y tuercas en acero F-114, cincado y posterior baño de cromo-niquel, incluido p.p. de brida enchufe, totalmente instalado y probado en obra.	2,00	536,07	1.072,14
097	UD REDUCCIÓN FD 500 A 450/350 mm PN16/25 Reducción en fundición dúctil de 500 mm a 450-400-350 mm con dos bridas PN 16/25 bar, con un revestimiento interior y exterior epoxi, i/p.p. de junta de unión y medios auxiliares, totalmente colocada y probada.	2,00	832,31	1.664,62
133	UD TE FD BBB 500 mm PN16/25 SALIDA DN500/100 "T" de fundición dúctil de PFA 16/25 bar, con tres bridas para tubería de 500 mm con salida comprendida entre 400 y 100 mm, con un revestimiento interior y exterior epoxi, i/p.p. de junta de unión y medios auxiliares, totalmente colocada y probada.	1,00	844,09	844,09
244	UD VENTOSA DN=100 (4") mm PN25 Válvula ventosa de tres funciones de DN=100 mm y PN 25 bar incluido transporte, juntas, válvula de corte DN=100 mm y PN 25 bar y piezas especiales, totalmente colocada y probada.	1,00	510,93	510,93

PRESUPUESTOS PARCIALES.

ABASTECIMIENTO A VARIOS MUNICIPIOS DE LA RIOJA. SISTEMA CIDACOS

CÓDIGO	RESUMEN	CANTIDAD	PRECIO	IMPORTE
162.1	UD MANGUITO FD DN300 A DN400 mm PN16/25 Manguito de fundición dúctil con bridas diámetros de 300 a 400 mm, longitud comprendida entre 0,20 y 1,00 m y PN16/25, incluso p.p. de tornillería y medios auxiliares, totalmente colocado y probado.	1,00	200,95	200,95
TOTAL APARTADO 05.02.02 VÁLVULAS Y ACCESORIOS.....				18.941,81
TOTAL SUBCAPÍTULO 05.02 ARQUETA ANTIINUNDACIÓN DN300.....				24.067,04
TOTAL CAPÍTULO 05 RAMAL DESDE ARQUETA P190 - CALAHORRA.....				2.090.346,46
CAPÍTULO 06 RAMAL DESDE ARQUETA P190 - ALFARO				
SUBCAPÍTULO 06.01 EJE 5: P-190 - DERIVACIÓN ALDEANUEVA DE EBRO				
APARTADO 06.01.01 MOVIMIENTO DE TIERRAS				
002	M3 EXCAVACIÓN EN ZANJAS Excavación en zanjas y zonas localizadas, en todo tipo de terrenos incluido terrenos en roca con medios mecánicos, incluso rasanteo, nivelación de la superficie de apoyo y transporte a lugar de empleo o vertedero.	22.103,50	3,74	82.667,09
003	M3 EXCAVACIÓN EN ZANJAS CON AGOTAMIENTO Excavación en zanjas y zonas localizadas, en todo tipo de terrenos incluido terrenos en roca con medios mecánicos, incluso rasanteo, nivelación de la superficie de apoyo, agotamiento y transporte a lugar de empleo o vertedero.	23.871,92	3,84	91.668,17
008	M2 DESPEJE Y DESBROCE Despeje y desbroce de capa de tierra vegetal con un espesor medio de 50 cm, incluso corte de árboles, extracción de tocones, nivelación de zona adyacente para el paso de maquinaria, transporte a lugar de acopio independiente para posterior reposición de tierra vegetal tras las obras y despedregado de las parcelas, así como transporte a vertedero de tierras sobrantes.	6.399,00	0,57	3.647,43
010	M3 RELLENO ZANJAS, CIMIENTOS Y TRASDOSES DE MATERIAL SELECCIONADO Relleno con material seleccionado en zanjas, cimientos, trasdós de muros, estribos y otras estructuras procedente de la excavación o préstamos incluso carga, transporte y compactación.	29.948,44	3,32	99.428,82
011	M3 RELLENO DE ARENA Arena para apoyo y protección de tuberías incluso carga, transporte, colocación, compactación y nivelación.	13.022,68	12,09	157.444,20
019	M2 DEMOLICIÓN DE FIRMES Demolición de firmes de cualquier tipo, incluso precorte, carga y transporte a vertedero, posterior perfilado y compactación del terreno.	1.288,74	2,50	3.221,85
007	M2 ENTIBACIÓN MÓDULOS METÁLICOS Entibación a dos caras mediante módulos metálicos y articulados, en zonas de protección de zanja, medida la superficie efectiva.	437,16	8,69	3.798,92
030	M3 HORMIGÓN HNE-20/B/40 Hormigón HNE-20/B/40, con cemento CEM III/A-D/42,5/SR (UNE 80303:96), en masa o ligeramente armado, colocado en cualquier tipo de obra, incluso fabricación, carga y transporte, totalmente colocado.	116,48	50,38	5.868,26
TOTAL APARTADO 06.01.01 MOVIMIENTO DE TIERRAS.....				447.744,74

PRESUPUESTOS PARCIALES.

ABASTECIMIENTO A VARIOS MUNICIPIOS DE LA RIOJA. SISTEMA CIDACOS

CÓDIGO	RESUMEN	CANTIDAD	PRECIO	IMPORTE
APARTADO 06.01.02 OBRA CIVIL				
023	KG ACERO CORRUGADO B-500-S Acero redondo corrugado para armar tipo B-500-S elaborado y colocado.	39.791,69	0,96	38.200,02
030	M3 HORMIGÓN HNE-20/B/40 Hormigón HNE-20/B/40, con cemento CEM III/A-D/42,5/SR (UNE 80303:96), en masa o ligeramente armado, colocado en cualquier tipo de obra, incluso fabricación, carga y transporte, totalmente colocado.	1.164,02	50,38	58.643,33
034.2	UD ARQUETA HORMIGÓN DE 3,00x2,50 M Y HASTA 2,50 m DE PROFUNDIDAD Arqueta de hormigón armado HA-25/P/40/IIa para alojamiento de válvulas de tuberías de dimensiones interiores 3,0x2,5 m y una altura de hasta 2,50 m, con solera de 30 cm de canto, muros de 25 cm de espesor y tapa de 25 cm de canto, armado con parilla de 20x20 cm con redondos de 12 mm, incluso excavación, relleno posterior, encofrado, totalmente terminada.	8,00	2.855,46	22.843,68
373	UD POZO DE REGISTRO DE AROS DE HORMIGÓN DN1200 Pozo de registro de abastecimiento para válvulas de control de cualquier altura de diámetro interior D=1200 mm, incluso base de hormigón HNE-20, aros de hormigón, cono prefabricado de hormigón, pates y tapa de fundición, totalmente terminado.	33,00	357,84	11.808,72
TOTAL APARTADO 06.01.02 OBRA CIVIL.....				131.495,75
APARTADO 06.01.03 TUBERÍAS				
060	ML TUBERÍA FD 500 mm Tubería de fundición dúctil de diámetro interior 500 mm y PFA de 38 bar, revestida interiormente con mortero de cemento y exteriormente con una capa de cinc y otra bituminosa, i/p.p. de junta automática flexible, banda de señalización y medios auxiliares, totalmente colocada y probada.	13.576,00	86,59	1.175.545,84
074R	UD CODO FD 1/4 500 mm Codo de fundición dúctil de 1/8 de diámetro interior 500 mm y PFA 30 bar, con revestimiento interior y exterior epoxi, incluso p.p. de juntas y medios auxiliares, totalmente colocado y probado.	6,00	578,72	3.472,32
074	UD CODO FD 1/8 500 mm Codo de fundición dúctil de 1/8 de diámetro interior 500 mm y PFA 30 bar, con revestimiento interior y exterior epoxi, incluso p.p. de juntas y medios auxiliares, totalmente colocado y probado.	17,00	529,11	8.994,87
075	UD CODO FD 1/16 500 mm Codo de fundición dúctil de 1/16 de diámetro interior 500 mm y PFA 30 bar, con revestimiento interior y exterior epoxi, incluso p.p. de juntas y medios auxiliares, totalmente colocado y probado.	64,00	458,14	29.320,96
076	UD CODO FD 1/32 500 mm Codo de fundición dúctil de 1/32 de diámetro interior 500 mm y PFA 30 bar, con revestimiento interior y exterior epoxi, incluso p.p. de juntas y medios auxiliares, totalmente colocado y probado.	121,00	385,46	46.640,66
197	ML TUBERÍA DE PVC 160 mm Tubería de PVC con junta elástica de 160 mm de diámetro exterior, y PN=6 bar, incluso banda de señalización, totalmente colocada en zanja.	785,00	13,32	10.456,20
TOTAL APARTADO 06.01.03 TUBERÍAS.....				1.274.430,85

PRESUPUESTOS PARCIALES.

ABASTECIMIENTO A VARIOS MUNICIPIOS DE LA RIOJA. SISTEMA CIDACOS

CÓDIGO	RESUMEN	CANTIDAD	PRECIO	IMPORTE
APARTADO 06.01.04 VÁLVULAS Y ACCESORIOS				
245.2	UD VENTOSA DN=80 (3") mm PN16 Válvula ventosa de tres funciones de DN=80 mm (3") y PN 16 bar incluido transporte, juntas, válvula de corte DN=80 mm y PN 16y piezas especiales, totalmente colocada y probada.	16,00	432,90	6.926,40
245.5	UD VENTOSA DN=80 (3") mm PN25 Válvula ventosa de tres funciones de DN=80 mm (3") y PN 25 bar incluido transporte, juntas, válvula de corte DN=80 mm y PN 25 y piezas especiales, totalmente colocada y probada.	6,00	552,08	3.312,48
119	UD TE FD 500 mm PN25 "T" de fundición dúctil de PFA 25 bar, con dos enchufes y derivación con brida para tubería de 500 mm con salida comprendida entre 500 y 100 mm, con un revestimiento interior y exterior epoxi, i/p.p. de junta de unión y medios auxiliares, totalmente colocada y probada.	33,00	845,96	27.916,68
114	UD REDUCCIÓN FD 100 A 80/50 mm PN16/25 Reducción en fundición dúctil de 100 mm a 80-65-60-50 mm con dos bridas PN 16/25 bar, con un revestimiento interior y exterior epoxi, i/p.p. de tornillería y medios auxiliares, totalmente colocada y probada.	16,00	50,28	804,48
113	UD REDUCCIÓN FD 100 A 80/50 mm PN25 Reducción en fundición dúctil de 100 mm a 80-65-60-50 mm con dos bridas PN 25 bar, con un revestimiento interior y exterior epoxi, i/p.p. de tornillería y medios auxiliares, totalmente colocada y probada.	6,00	71,75	430,50
235	UD VÁLVULA DE COMPUERTA MANUAL DN150 PN16 Válvula de compuerta de accionamiento manual de diámetro nominal DN=150 mm de 16 bares de presión máxima admisible, con tornillería y juntas, totalmente instalada y probada, incluso volante de accionamiento.	9,00	299,35	2.694,15
234	UD VÁLVULA DE COMPUERTA MANUAL DN150 PN25 Válvula de compuerta de cierre elástico de 150 mm. de diámetro nominal y 25 At. de P.N., de accionamiento manual por volante, de cuerpo de fundición nodular GGG-50, con eje de acero inoxidable al 13 % Cr. con rosca conformada por laminación en frío, cierre en fundición nodular, tornillería de acero inoxidable, protegida contra la corrosión mediante aplicación de doble capa de pintura epoxy, totalmente colocada y probada. Resto de características según ET.	2,00	490,62	981,24
109A	UD RACORD TIPO BARCELONA SALIDAS 80-200 mm Rosca Racord tipo Barcelona con salidad entre 80 y 200 mm para enchufe de manguera, totalmente instalado y terminado.	6,00	150,66	903,96
EVMM0500	UD VÁLVULA DE MARIPOSA DOBLE EXCENRICIDAD DN 500 mm PN16 MANUAL Válvula de mariposa de doble excentricidad de 500 mm de diámetro y PN16, de accionamiento manual por reductor, incluso mecanismo de accionamiento, maniobra y control, transporte, montaje, juntas, tornillería y pintura totalmente instalada y probada. Resto de características según ET de proyecto.	8,00	3.466,82	27.734,56
ECD0500	UD CARRETE DE DESMONTAJE DN=500 mm PN16 Carrete telescópico de desmontaje DN500 PN 16, bridas de acero al carbono, virolas de acero inoxidable, protección epoxi, tornillos y tuercas en acero F-114, cincado y posterior baño de cromo-niquel, incluido p.p. de brida enchufe, totalmente instalado y probado en obra.	8,00	1.095,18	8.761,44
115.4	UD BRIDA ENCHUFE FD 500 mm PN16/25 Brida enchufe de fundición dúctil de PFA 16 bar para tubería de 500 mm, con un revestimiento interior y exterior epoxi, i/p.p. de junta de unión y medios auxiliares, totalmente colocada y probada.	4,00	530,98	2.123,92

PRESUPUESTOS PARCIALES.

ABASTECIMIENTO A VARIOS MUNICIPIOS DE LA RIOJA. SISTEMA CIDACOS

CÓDIGO	RESUMEN	CANTIDAD	PRECIO	IMPORTE
114.2	UD BRIDA LISO FD 500 mm PN16/25 Brida lisa de fundición dúctil de PFA 16 bar para tubería de 500 mm, con un revestimiento interior y exterior epoxi, i/p.p. de junta de unión y medios auxiliares, totalmente colocada y probada.	4,00	449,98	1.799,92
TOTAL APARTADO 06.01.04 VÁLVULAS Y ACCESORIOS.....				84.389,73
APARTADO 06.01.05 HINCAS				
369	ML HINCA TUBO ACERO 813 mm TIERRAS Hinca de tubo de acero, de 813 mm de diámetro interior, bajo viales, en tierra o roca alterada, incluso p.p. de instalación de tubería de fundición dúctil de 500 mm de diámetro interior y sus anclajes y apoyos; muros de reacción y contención; y todos los elementos necesarios para su montaje y desmontaje.	30,47	636,74	19.401,47
TOTAL APARTADO 06.01.05 HINCAS.....				19.401,47
APARTADO 06.01.06 OBRAS ACCESORIAS Y REPOSICIONES DE SERVICIOS				
030	M3 HORMIGÓN HNE-20/B/40 Hormigón HNE-20/B/40, con cemento CEM III/A-D/42,5/SR (UNE 80303:96), en masa o ligeramente armado, colocado en cualquier tipo de obra, incluso fabricación, carga y transporte, totalmente colocado.	6,62	50,38	333,52
055	M2 PAVIMENTO DOBLE TRATAMIENTO SUPERFICIAL Pavimento doble tratamiento superficial formado por árido 13/7 y 6/3, y ligante emulsión C60B3 ADH con dotación 4 kg/m2, incluso riego de imprimación previo con ligante emulsión C60BF4 IMP en dotación 1 kg/m2, puesto en obra y terminado.	18,00	2,52	45,36
389	ML REPOSICIÓN DE ACEQUIA Reposición de acequia con tubo de hormigón hasta 1 m de diámetro.	20,00	13,55	271,00
381	M2 REPOSICIÓN DE FIRME DE AGLOMERADO Reposición de firme de aglomerado en caliente en zonas afectadas por las obras.	633,00	4,14	2.620,62
380	M2 REPOSICIÓN DE PAVIMENTO DE HORMIGÓN Reposición de pavimento de hormigón HM-20/B/40/IIa+Qa de 15 cm de espesor, totalmente terminado.	655,74	17,84	11.698,40
056	M3 ZAHORRA ARTIFICIAL Zahorra artificial compactada.	6.445,05	16,98	109.436,95
383	ML REPOSICIÓN DE CERRAMIENTO EXISTENTE Reposición de cerramiento existente hasta 2,00 m de altura.	14,00	9,37	131,18
382	ML REPOSICIÓN DE MURO DE HORMIGÓN EXISTENTE Reposición de muro de hormigón existente hasta 2,00 m de altura.	10,00	42,70	427,00
391	ML REPOSICIÓN DE POZO DE REGISTRO Reposición de pozo de registro para saneamiento o abastecimiento, incluso base de hormigón HM-20, p.p. de cono prefabricado de hormigón y tapa, totalmente terminado.	2,00	47,47	94,94
387	ML REPOSICIÓN OBRA DE DRENAJE HASTA DN 1,00 m Reposición de obra de drenaje hasta 1,00 de diámetro, p.p. de boquilla de entrada y salida, excavación, hormigón de recubrimiento y relleno compactado, totalmente terminada.	5,00	174,54	872,70

PRESUPUESTOS PARCIALES.

ABASTECIMIENTO A VARIOS MUNICIPIOS DE LA RIOJA. SISTEMA CIDACOS

CÓDIGO	RESUMEN	CANTIDAD	PRECIO	IMPORTE
393	ML CANALIZACIÓN TELEFÓNICA FIBRA ÓPTICA Canalización telefónica en zanja bajo calzada, para reposición de cable de fibra óptica de 12 a 16 fibras, incluso p.p. de arquetas y caja de empalmes, totalmente terminado.	40,00	45,58	1.823,20
TOTAL APARTADO 06.01.06 OBRAS ACCESORIAS Y REPOSICIONES DE SERVICIOS.....				127.754,87
TOTAL SUBCAPÍTULO 06.01 EJE 5: P-190 - DERIVACIÓN ALDEANUEVA DE EBRO.....				2.085.217,41
SUBCAPÍTULO 06.02 EJE 6: DERIVACIÓN ALDEANUEVA DE EBRO - DEPÓSITO DE ALFARO				
APARTADO 06.02.01 MOVIMIENTO DE TIERRAS				
002	M3 EXCAVACIÓN EN ZANJAS Excavación en zanjas y zonas localizadas, en todo tipo de terrenos incluido terrenos en roca con medios mecánicos, incluso rasanteo, nivelación de la superficie de apoyo y transporte a lugar de empleo o vertedero.	8.632,30	3,74	32.284,80
003	M3 EXCAVACIÓN EN ZANJAS CON AGOTAMIENTO Excavación en zanjas y zonas localizadas, en todo tipo de terrenos incluido terrenos en roca con medios mecánicos, incluso rasanteo, nivelación de la superficie de apoyo, agotamiento y transporte a lugar de empleo o vertedero.	46.877,54	3,84	180.009,75
008	M2 DESPEJE Y DESBROCE Despeje y desbroce de capa de tierra vegetal con un espesor medio de 50 cm, incluso corte de árboles, extracción de tocones, nivelación de zona adyacente para el paso de maquinaria, transporte a lugar de acopio independiente para posterior reposición de tierra vegetal tras las obras y despedregado de las parcelas, así como transporte a vertedero de tierras sobrantes.	20.244,45	0,57	11.539,34
010	M3 RELLENO ZANJAS, CIMIENTOS Y TRASDOSES DE MATERIAL SELECCIONADO Relleno con material seleccionado en zanjas, cimientos, trasdós de muros, estribos y otras estructuras procedente de la excavación o préstamos incluso carga, transporte y compactación.	37.983,00	3,32	126.103,56
011	M3 RELLENO DE ARENA Arena para apoyo y protección de tuberías incluso carga, transporte, colocación, compactación y nivelación.	14.773,04	12,09	178.606,05
019	M2 DEMOLICIÓN DE FIRMES Demolición de firmes de cualquier tipo, incluso precorte, carga y transporte a vertedero, posterior perfilado y compactación del terreno.	1.579,59	2,50	3.948,98
030	M3 HORMIGÓN HNE-20/B/40 Hormigón HNE-20/B/40, con cemento CEM III/A-D/42,5/SR (UNE 80303:96), en masa o ligeramente armado, colocado en cualquier tipo de obra, incluso fabricación, carga y transporte, totalmente colocado.	79,17	50,38	3.988,58
TOTAL APARTADO 06.02.01 MOVIMIENTO DE TIERRAS.....				536.481,06
APARTADO 06.02.02 OBRA CIVIL				
023	KG ACERO CORRUGADO B-500-S Acero redondo corrugado para armar tipo B-500-S elaborado y colocado.	35.472,14	0,96	34.053,25
030	M3 HORMIGÓN HNE-20/B/40 Hormigón HNE-20/B/40, con cemento CEM III/A-D/42,5/SR (UNE 80303:96), en masa o ligeramente armado, colocado en cualquier tipo de obra, incluso fabricación, carga y transporte, totalmente colocado.	1.031,76	50,38	51.980,07

PRESUPUESTOS PARCIALES.

ABASTECIMIENTO A VARIOS MUNICIPIOS DE LA RIOJA. SISTEMA CIDACOS

CÓDIGO	RESUMEN	CANTIDAD	PRECIO	IMPORTE
034.2	UD ARQUETA HORMIGÓN DE 3,00x2,50 M Y HASTA 2,50 m DE PROFUNDIDAD Arqueta de hormigón armado HA-25/P/40/IIa para alojamiento de válvulas de tuberías de dimensiones interiores 3,0x2,5 m y una altura de hasta 2,50 m, con solera de 30 cm de canto, muros de 25 cm de espesor y tapa de 25 cm de canto, armado con parrilla de 20x20 cm con redondos de 12 mm, incluso excavación, relleno posterior, encofrado, totalmente terminada.	9,00	2.855,46	25.699,14
373	UD POZO DE REGISTRO DE AROS DE HORMIGÓN DN1200 Pozo de registro de abastecimiento para válvulas de control de cualquier altura de diámetro interior D=1200 mm, incluso base de hormigón HNE-20, aros de hormigón, cono prefabricado de hormigón, pates y tapa de fundición, totalmente terminado.	55,00	357,84	19.681,20
TOTAL APARTADO 06.02.02 OBRA CIVIL.....				131.413,66
APARTADO 06.02.03 TUBERÍAS				
061	ML TUBERÍA FD 400 mm Tubería de fundición dúctil de diámetro interior 400 mm y PFA de 42 bar, revestida interiormente con mortero de cemento y exteriormente con una capa de cinc y otra bituminosa, i/p.p. de junta automática flexible, banda de señalización y medios auxiliares, totalmente colocada y probada.	19.405,00	68,70	1.333.123,50
077	UD CODO FD 1/8 400 mm Codo de fundición dúctil de 1/8 de diámetro interior 400 mm y PFA 30 bar, con revestimiento interior y exterior epoxi, incluso p.p. de juntas y medios auxiliares, totalmente colocado y probado.	29,00	336,83	9.768,07
078	UD CODO FD 1/16 A 1/32 400 mm Codo de fundición dúctil de 1/16 a 1/32 de diámetro interior 400 mm y PFA 30 bar, con revestimiento interior y exterior epoxi, incluso p.p. de juntas y medios auxiliares, totalmente colocado y probado.	189,00	325,62	61.542,18
079	UD CODO FD 1/4 400 mm Codo de fundición dúctil de 1/4 de diámetro interior 400 mm y PFA 30 bar, con revestimiento interior y exterior epoxi, incluso p.p. de juntas y medios auxiliares, totalmente colocado y probado.	7,00	388,90	2.722,30
197	ML TUBERÍA DE PVC 160 mm Tubería de PVC con junta elástica de 160 mm de diámetro exterior, y PN=6 bar, incluso banda de señalización, totalmente colocada en zanja.	1.150,00	13,32	15.318,00
TOTAL APARTADO 06.02.03 TUBERÍAS.....				1.422.474,05
APARTADO 06.02.04 VÁLVULAS Y ACCESORIOS				
245.4	UD VENTOSA DN=50 (2") mm PN16 Válvula ventosa de tres funciones de DN=50 mm (2") y PN 16 bar incluido transporte, juntas, válvula de corte DN=50 mm y PN 16 y piezas especiales, totalmente colocada y probada.	20,00	367,64	7.352,80
245.3	UD VENTOSA DN=50 (2") mm PN25 Válvula ventosa de tres funciones de DN=50 mm (2") y PN 25 bar incluido transporte, juntas, válvula de corte DN=50 mm y PN 25 y piezas especiales, totalmente colocada y probada.	12,00	434,43	5.213,16
121	UD TE FD EEB 400 mm PN16/25 SALIDA DN400/80 "T" de fundición dúctil de PFA 16/25 bar, con dos enchufes y derivación con brida para tubería de 400 mm con salida comprendida entre 400 y 80 mm, con un revestimiento interior y exterior epoxi, i/p.p. de junta de unión y medios auxiliares, totalmente colocada y probada.	55,00	669,87	36.842,85
114	UD REDUCCIÓN FD 100 A 80/50 mm PN16/25 Reducción en fundición dúctil de 100 mm a 80-65-60-50 mm con dos bridas PN 16/25 bar, con un revestimiento interior y exterior epoxi, i/p.p. de tornillería y medios auxiliares, totalmente colocada y probada.	20,00	50,28	1.005,60

PRESUPUESTOS PARCIALES.

ABASTECIMIENTO A VARIOS MUNICIPIOS DE LA RIOJA. SISTEMA CIDACOS

CÓDIGO	RESUMEN	CANTIDAD	PRECIO	IMPORTE
113	UD REDUCCIÓN FD 100 A 80/50 mm PN25 Reducción en fundición dúctil de 100 mm a 80-65-60-50 mm con dos bridas PN 25 bar, con un revestimiento interior y exterior epoxi, i/p.p. de tornillería y medios auxiliares, totalmente colocada y probada.	12,00	71,75	861,00
235	UD VÁLVULA DE COMPUERTA MANUAL DN150 PN16 Válvula de compuerta de accionamiento manual de diámetro nominal DN=150 mm de 16 bares de presión máxima admisible, con tornillería y juntas, totalmente instalada y probada, incluso volante de accionamiento.	12,00	299,35	3.592,20
234	UD VÁLVULA DE COMPUERTA MANUAL DN150 PN25 Válvula de compuerta de cierre elástico de 150 mm. de diámetro nominal y 25 At. de P.N., de accionamiento manual por volante, de cuerpo de fundición nodular GGG-50, con eje de acero inoxidable al 13 % Cr. con rosca conformadas por laminación en frío, cierre en fundición nodular, tornillería de acero inoxidable, protegida contra la corrosión mediante aplicación de doble capa de pintura epoxi, totalmente colocada y probada. Resto de características según ET.	11,00	490,62	5.396,82
109A	UD RACORD TIPO BARCELONA SALIDAS 80-200 mm Rosca Racord tipo Barcelona con salida entre 80 y 200 mm para enchufe de manguera, totalmente instalado y terminado.	12,00	150,66	1.807,92
ECD0400.1	UD CARRETE DE DESMONTAJE DN=400 mm PN25 Carrete telescópico de desmontaje DN400 PN25, bridas de acero al carbono, virolas de acero inoxidable, protección epoxi, tornillos y tuercas en acero F-114, cincado y posterior baño de cromo-niquel, incluido p.p. de brida enchufe, totalmente instalado y probado en obra.	9,00	854,88	7.693,92
EVMM400.1	UD VÁLVULA DE MARIPOSA DOBLE EXCENRICIDAD DN 400 mm PN25 MANUAL Válvula de mariposa de doble excentricidad de 400 mm de diámetro y PN25, de accionamiento manual por reductor, incluso mecanismo de accionamiento, maniobra y control, transporte, montaje, juntas, tornillería y pintura totalmente instalada y probada. Resto de características según ET de proyecto.	9,00	2.594,70	23.352,30
114.6	UD BRIDA LISO FD 400 mm PN16/25 Brida lisa de fundición dúctil de PFA 16/25 bar para tubería de 400 mm, con un revestimiento interior y exterior epoxi, i/p.p. de junta de unión y medios auxiliares, totalmente colocada y probada.	5,00	441,71	2.208,55
115.5	UD BRIDA ENCHUFE FD 400 mm PN16/25 Brida enchufe de fundición dúctil de PFA 16/25 bar para tubería de 400 mm, con un revestimiento interior y exterior epoxi, i/p.p. de junta de unión y medios auxiliares, totalmente colocada y probada.	5,00	445,02	2.225,10
TOTAL APARTADO 06.02.04 VÁLVULAS Y ACCESORIOS.....				97.552,22
APARTADO 06.02.05 HINCAS				
368	ML HINCA TUBO ACERO 609 mm TIERRAS Hinca de tubo de acero, de 609 mm de diámetro interior, bajo viales, en tierra o roca alterada, incluso p.p. de instalación de tubería de fundición dúctil comprendida entre 400 mm y 250 mm de diámetro interior y sus anclajes y apoyos; muros de reacción y contención; y todos los elementos necesarios para su montaje y desmontaje.	159,92	515,25	82.398,78
TOTAL APARTADO 06.02.05 HINCAS.....				82.398,78

PRESUPUESTOS PARCIALES.

ABASTECIMIENTO A VARIOS MUNICIPIOS DE LA RIOJA. SISTEMA CIDACOS

CÓDIGO	RESUMEN	CANTIDAD	PRECIO	IMPORTE
APARTADO 06.02.06 OBRAS ACCESORIAS Y REPOSICIONES DE SERVICIOS				
380	M2 REPOSICIÓN DE PAVIMENTO DE HORMIGÓN Reposición de pavimento de hormigón HM-20/B/40/IIa+Qa de 15 cm de espesor, totalmente terminado.	1.108,59	17,84	19.777,25
381	M2 REPOSICIÓN DE FIRME DE AGLOMERADO Reposición de firme de aglomerado en caliente en zonas afectadas por las obras.	471,00	4,14	1.949,94
056	M3 ZAHORRA ARTIFICIAL Zahorra artificial compactada.	5.938,71	16,98	100.839,30
030	M3 HORMIGÓN HNE-20/B/40 Hormigón HNE-20/B/40, con cemento CEM II/A-D/42,5/SR (UNE 80303:96), en masa o ligeramente armado, colocado en cualquier tipo de obra, incluso fabricación, carga y transporte, totalmente colocado.	6,00	50,38	302,28
383	ML REPOSICIÓN DE CERRAMIENTO EXISTENTE Reposición de cerramiento existente hasta 2,00 m de altura.	20,00	9,37	187,40
387	ML REPOSICIÓN OBRA DE DRENAJE HASTA DN 1,00 m Reposición de obra de drenaje hasta 1,00 de diámetro, p.p. de boquilla de entrada y salida, excavación, hormigón de recubrimiento y relleno compactado, totalmente terminada.	25,00	174,54	4.363,50
388	ML REPOSICIÓN DE ACEQUIA HASTA 1 m ANCHURA Reposición de acequia prefabricada de hormigón hasta 1,00 m de anchura.	5,00	87,65	438,25
390	ML REPOSICIÓN DE ACEQUIA HASTA 3 m ANCHURA Reposición de acequia de hormigón de 1,00 a 3,00 m de anchura.	5,00	201,26	1.006,30
389	ML REPOSICIÓN DE ACEQUIA Reposición de acequia con tubo de hormigón hasta 1 m de diámetro.	85,00	13,55	1.151,75
393	ML CANALIZACIÓN TELEFÓNICA FIBRA ÓPTICA Canalización telefónica en zanja bajo calzada, para reposición de cable de fibra óptica de 12 a 16 fibras, incluso p.p. de arquetas y caja de empalmes, totalmente terminado.	80,00	45,58	3.646,40
396	ML CANALIZACIÓN TELEFÓNICA BAJO CALZADA 6 TUBOS Canalización telefónica en zanja bajo calzada, de 0,45x1,01 m para 6 conductos, en base 2, de PVC de 110 mm de diámetro, embebidos en prisma de hormigón HM-20 de central de 8 cm de recubrimiento superior e inferior y 10 cm lateralmente, incluso excavación de tierras a máquina en terrenos flojos, tubos, soportes distanciadores cada 70 cm, cuerda guía para cables, hormigón y relleno en la capa superior con tierras procedentes de la excavación, en tongadas < 25 cm, compactada al 95% del P.N., totalmente terminado.	45,00	25,88	1.164,60
023	KG ACERO CORRUGADO B-500-S Acero redondo corrugado para armar tipo B-500-S elaborado y colocado.	2.191,62	0,96	2.103,96
025	M2 ENCOFRADO RECTO EN PARAMENTOS OCULTOS Encofrado recto en paramentos ocultos, incluso colocación, fijación y desencofrado.	15,88	17,65	280,28

PRESUPUESTOS PARCIALES.

ABASTECIMIENTO A VARIOS MUNICIPIOS DE LA RIOJA. SISTEMA CIDACOS

CÓDIGO	RESUMEN	CANTIDAD	PRECIO	IMPORTE
028	M3 HORMIGÓN DE LIMPIEZA HL-150 Hormigón de limpieza HL-150, de consistencia plástica, árido de tamaño máximo 40 mm y cemento CEM-II-D/42,5/SR, para saneos y encachados, incluyendo fabricación y transporte totalmente colocado.	0,20	44,76	8,95
031	M3 HORMIGÓN HA-25/B/20/IIa Hormigón HA-25/B/20/IIa, con cemento CEM II/A-D/42,5/SR, incluyendo fabricación, transporte, puesta en obra y vibrado, totalmente ejecutado, incluso curado y juntas.	2,38	53,39	127,07
054	T PAVIMENTO DE MBC AC16 surf S Pavimento de mezcla bituminosa en caliente en capa de rodadura tipo AC 16 surf S de 5 cm de espesor, que incluye riego de imprimación con dotación de 1 Kg/m2, con betún B60/70 en dotación de 70 Kg/Tm, puesto en obra y terminado.	1,44	36,70	52,85
181	ML TUBERÍA DE ACERO DN=632 mm Tubería de acero AE-42 helicosoldado, de límite elástico no inferior a 2000 Kp/cm2, de diámetro exterior 632 mm y PN 16 bar, con recubrimiento interior de 300 micras de pintura epoxi tipo alimentario y recubrimiento exterior de tres capas de polietileno extruido en caliente, incluso montaje, soldaduras y pruebas de control.	30,00	190,94	5.728,20
194	ML TUBO PVC CORRUGADO DN 110 mm CANALIZACIONES ELÉCTRICAS Tubo corrugado de PVC de D=110 mm, para reposición de línea eléctrica subterránea, totalmente colocado.	25,00	4,27	106,75
209	ML TUBERÍA HORMIGÓN DN=60 cm Tubería de hormigón centrifugado de diámetro interior 60 cm, fabricada con cemento CEM II/A-D/42,5/SR (UNE 80303:96), totalmente terminada.	25,50	39,64	1.010,82
TOTAL APARTADO 06.02.06 OBRAS ACCESORIAS Y REPOSICIONES DE SERVICIOS.....				144.245,85
TOTAL SUBCAPÍTULO 06.02 EJE 6: DERIVACIÓN ALDEANUEVA DE EBRO - DEPÓSITO DE ALFARO.....				2.414.565,62
SUBCAPÍTULO 06.03 EJE 18: ACOMETIDA AUTOL				
APARTADO 06.03.01 MOVIMIENTO DE TIERRAS				
002	M3 EXCAVACIÓN EN ZANJAS Excavación en zanjas y zonas localizadas, en todo tipo de terrenos incluido terrenos en roca con medios mecánicos, incluso rasanteo, nivelación de la superficie de apoyo y transporte a lugar de empleo o vertedero.	3.233,20	3,74	12.092,17
007	M2 ENTIBACIÓN MÓDULOS METÁLICOS Entibación a dos caras mediante módulos metálicos y articulados, en zonas de protección de zanja, medida la superficie efectiva.	1.908,50	8,69	16.584,87
008	M2 DESPEJE Y DESBROCE Despeje y desbroce de capa de tierra vegetal con un espesor medio de 50 cm, incluso corte de árboles, extracción de tocones, nivelación de zona adyacente para el paso de maquinaria, transporte a lugar de acopio independiente para posterior reposición de tierra vegetal tras las obras y despedregado de las parcelas, así como transporte a vertedero de tierras sobrantes.	1.473,00	0,57	839,61
010	M3 RELLENO ZANJAS, CIMIENTOS Y TRASDOSES DE MATERIAL SELECCIONADO Relleno con material seleccionado en zanjas, cimientos, trasdós de muros, estribos y otras estructuras procedente de la excavación o préstamos incluso carga, transporte y compactación.	2.249,30	3,32	7.467,68
011	M3 RELLENO DE ARENA Arena para apoyo y protección de tuberías incluso carga, transporte, colocación, compactación y nivelación.			

PRESUPUESTOS PARCIALES.

ABASTECIMIENTO A VARIOS MUNICIPIOS DE LA RIOJA. SISTEMA CIDACOS

CÓDIGO	RESUMEN	CANTIDAD	PRECIO	IMPORTE
		878,40	12,09	10.619,86
019	M2 DEMOLICIÓN DE FIRMES Demolición de firmes de cualquier tipo, incluso precorte, carga y transporte a vertedero, posterior perfilado y compactación del terreno.			
		1.527,00	2,50	3.817,50
	TOTAL APARTADO 06.03.01 MOVIMIENTO DE TIERRAS.....			51.421,69
	APARTADO 06.03.02 OBRA CIVIL			
023	KG ACERO CORRUGADO B-500-S Acero redondo corrugado para armar tipo B-500-S elaborado y colocado.			
		6.253,64	0,96	6.003,49
030	M3 HORMIGÓN HNE-20/B/40 Hormigón HNE-20/B/40, con cemento CEM III/A-D/42,5/SR (UNE 80303:96), en masa o ligeramente armado, colocado en cualquier tipo de obra, incluso fabricación, carga y transporte, totalmente colocado.			
		559,79	50,38	28.202,22
373	UD POZO DE REGISTRO DE AROS DE HORMIGÓN DN1200 Pozo de registro de abastecimiento para válvulas de control de cualquier altura de diámetro interior D=1200 mm, incluso base de hormigón HNE-20, aros de hormigón, cono prefabricado de hormigón, pates y tapa de fundición, totalmente terminado.			
		7,00	357,84	2.504,88
	TOTAL APARTADO 06.03.02 OBRA CIVIL.....			36.710,59
	APARTADO 06.03.03 TUBERÍAS			
063	ML TUBERÍA FD 250 mm Tubería de fundición dúctil de diámetro interior 250 mm y PFA de 54 bar, revestida interiormente con mortero de cemento y exteriormente con una capa de cinc y otra bituminosa, i/p.p. de junta automática flexible, banda de señalización y medios auxiliares, totalmente colocada y probada.			
		1.864,00	37,81	70.477,84
081	UD CODO FD 1/8 A 1/32 250 mm Codo de fundición dúctil de 1/8 a 1/32 de diámetro interior 250 mm y PFA 54 bar, con un revestimiento interior y exterior epoxi, incluso p.p. de juntas y medios auxiliares, totalmente colocado y probado.			
		40,00	168,57	6.742,80
082	UD CODO FD 1/4 250 mm Codo de fundición dúctil de 1/8 de diámetro interior 250 mm y PFA 40 bar, con revestimiento interior y exterior epoxi, incluso p.p. de juntas y medios auxiliares, totalmente colocado y probado.			
		4,00	238,06	952,24
198	ML TUBERÍA DE PVC 110 mm Tubería de PVC con junta elástica de 110 mm de diámetro exterior, y PN=6 bar, incluso banda de señalización, totalmente colocada en zanja.			
		143,00	7,42	1.061,06
	TOTAL APARTADO 06.03.03 TUBERÍAS.....			79.233,94
	APARTADO 06.03.04 VÁLVULAS Y ACCESORIOS			
245.4	UD VENTOSA DN=50 (2") mm PN16 Válvula ventosa de tres funciones de DN=50 mm (2") y PN 16 bar incluido transporte, juntas, válvula de corte DN=50 mm y PN 16 y piezas especiales, totalmente colocada y probada.			
		3,00	367,64	1.102,92
135	UD TE FD EEB 250 mm PN16/25 SALIDA DN250/60 "T" de fundición dúctil de PFA 16/25 bar, con dos enchufes y derivación con brida para tubería de 250 mm y salida comprendida entre 250 y 60 mm, con un revestimiento interior y exterior epoxi, i/p.p. de junta de unión y medios auxiliares, totalmente colocada y probada.			
		5,00	372,50	1.862,50

PRESUPUESTOS PARCIALES.

ABASTECIMIENTO A VARIOS MUNICIPIOS DE LA RIOJA. SISTEMA CIDACOS

CÓDIGO	RESUMEN	CANTIDAD	PRECIO	IMPORTE
114	UD REDUCCIÓN FD 100 A 80/50 mm PN16/25 Reducción en fundición dúctil de 100 mm a 80-65-60-50 mm con dos bridas PN 16/25 bar, con un revestimiento interior y exterior epoxi, i/p.p. de tornillería y medios auxiliares, totalmente colocada y probada.	3,00	50,28	150,84
238	ud VÁLVULA DE COMPUERTA MANUAL DN100 PN16 Válvula de compuerta de cierre elástico de 100 mm. de diámetro nominal y 16 At. de P.N., de accionamiento manual por volante, de cuerpo de fundición nodular GGG-50, con eje de acero inoxidable al 13 % Cr. con roscas conformadas por laminación en frío, cierre en fundición nodular, tornillería de acero inoxidable, protegida contra la corrosión mediante aplicación de doble capa de pintura epoxy, totalmente colocada y probada. Resto de características según ET.	2,00	221,47	442,94
120	UD TE FD EEB 500 mm PN16 SALIDA DN500/100 "T" de fundición dúctil de PFA 16 bar, con dos enchufes y derivación con brida para tubería de 500 mm y salida comprendida entre 500 y 100 mm, con un revestimiento interior y exterior epoxi, i/p.p. de junta de unión y medios auxiliares, totalmente colocada y probada.	1,00	647,05	647,05
114.2	UD BRIDA LISO FD 500 mm PN16/25 Brida lisa de fundición dúctil de PFA 16 bar para tubería de 500 mm, con un revestimiento interior y exterior epoxi, i/p.p. de junta de unión y medios auxiliares, totalmente colocada y probada.	1,00	449,98	449,98
162	UD MANGUITO FD DN100 A DN250 mm PN16/25 Manguito de fundición dúctil con bridas diámetros de 100 a 250 mm, longitud comprendida entre 0,20 y 1,00 m y PN16/25, incluso p.p. de tornillería y medios auxiliares, totalmente colocado y probado.	1,00	110,14	110,14
229	UD VÁLVULA DE COMPUERTA MANUAL DN250 PN16 Válvula de compuerta de accionamiento manual de diámetro nominal DN=250 mm de 16 bares de presión máxima admisible, con tornillería y juntas, totalmente instalada y probada, incluso volante de accionamiento.	3,00	825,16	2.475,48
141	UD CARRETE DE DESMONTAJE DN=250 mm PN25 Carrete de desmontaje autoportante de PFA 25 bar de D=250 mm, colocado.	3,00	484,55	1.453,65
115.6	UD BRIDA ENCHUFE FD 250 mm PN16/25 Brida enchufe de fundición dúctil de PFA 16/25 bar para tubería de 250 mm, con un revestimiento interior y exterior epoxi, i/p.p. de junta de unión y medios auxiliares, totalmente colocada y probada.	1,00	164,78	164,78
	TOTAL APARTADO 06.03.04 VÁLVULAS Y ACCESORIOS.....			8.860,28
	APARTADO 06.03.05 HINCAS			
368	ML HINCA TUBO ACERO 609 mm TIERRAS Hinca de tubo de acero, de 609 mm de diámetro interior, bajo viales, en tierra o roca alterada, incluso p.p. de instalación de tubería de fundición dúctil comprendida entre 400 mm y 250 mm de diámetro interior y sus anclajes y apoyos; muros de reacción y contención; y todos los elementos necesarios para su montaje y desmontaje.	16,00	515,25	8.244,00
	TOTAL APARTADO 06.03.05 HINCAS.....			8.244,00
	APARTADO 06.03.06 OBRAS ACCESORIAS Y REPOSICIONES DE SERVICIOS			
030	M3 HORMIGÓN HNE-20/B/40 Hormigón HNE-20/B/40, con cemento CEM III/A-D/42,5/SR (UNE 80303:96), en masa o ligeramente armado, colocado en cualquier tipo de obra, incluso fabricación, carga y transporte, totalmente colocado.	462,40	50,38	23.295,71
025	M2 ENCOFRADO RECTO EN PARAMENTOS OCULTOS Encofrado recto en paramentos ocultos, incluso colocación, fijación y desencofrado.			

PRESUPUESTOS PARCIALES.

ABASTECIMIENTO A VARIOS MUNICIPIOS DE LA RIOJA. SISTEMA CIDACOS

CÓDIGO	RESUMEN	CANTIDAD	PRECIO	IMPORTE
056	M3 ZAHORRA ARTIFICIAL Zahorra artificial compactada.	4.599,36	17,65	81.178,70
380	M2 REPOSICIÓN DE PAVIMENTO DE HORMIGÓN Reposición de pavimento de hormigón HM-20/B/40/IIa+Qa de 15 cm de espesor, totalmente terminado.	488,17	16,98	8.289,13
393	ML CANALIZACIÓN TELEFÓNICA FIBRA ÓPTICA Canalización telefónica en zanja bajo calzada, para reposición de cable de fibra óptica de 12 a 16 fibras, incluso p.p. de arquetas y caja de empalmes, totalmente terminado.	1.527,00	17,84	27.241,68
		20,00	45,58	911,60
	TOTAL APARTADO 06.03.06 OBRAS ACCESORIAS Y REPOSICIONES DE SERVICIOS.....			140.916,82
	TOTAL SUBCAPÍTULO 06.03 EJE 18: ACOMETIDA AUTOL.....			325.387,32
	SUBCAPÍTULO 06.04 EJE 19: ACOMETIDA ALDEANUEVA DE EBRO			
	APARTADO 06.04.01 MOVIMIENTO DE TIERRAS			
002	M3 EXCAVACIÓN EN ZANJAS Excavación en zanjas y zonas localizadas, en todo tipo de terrenos incluido terrenos en roca con medios mecánicos, incluso rasanteo, nivelación de la superficie de apoyo y transporte a lugar de empleo o vertedero.	813,90	3,74	3.043,99
010	M3 RELLENO ZANJAS, CIMIENTOS Y TRASDOSES DE MATERIAL SELECCIONADO Relleno con material seleccionado en zanjas, cimientos, trasdós de muros, estribos y otras estructuras procedente de la excavación o préstamos incluso carga, transporte y compactación.	569,20	3,32	1.889,74
011	M3 RELLENO DE ARENA Arena para apoyo y protección de tuberías incluso carga, transporte, colocación, compactación y nivelación.	220,60	12,09	2.667,05
	TOTAL APARTADO 06.04.01 MOVIMIENTO DE TIERRAS.....			7.600,78
	APARTADO 06.04.02 OBRA CIVIL			
023	KG ACERO CORRUGADO B-500-S Acero redondo corrugado para armar tipo B-500-S elaborado y colocado.	1.071,92	0,96	1.029,04
030	M3 HORMIGÓN HNE-20/B/40 Hormigón HNE-20/B/40, con cemento CEM III/A-D/42,5/SR (UNE 80303:96), en masa o ligeramente armado, colocado en cualquier tipo de obra, incluso fabricación, carga y transporte, totalmente colocado.	29,28	50,38	1.475,13
373	UD POZO DE REGISTRO DE AROS DE HORMIGÓN DN1200 Pozo de registro de abastecimiento para válvulas de control de cualquier altura de diámetro interior D=1200 mm, incluso base de hormigón HNE-20, aros de hormigón, con prefabricado de hormigón, pates y tapa de fundición, totalmente terminado.	2,00	357,84	715,68
	TOTAL APARTADO 06.04.02 OBRA CIVIL.....			3.219,85

PRESUPUESTOS PARCIALES.

ABASTECIMIENTO A VARIOS MUNICIPIOS DE LA RIOJA. SISTEMA CIDACOS

CÓDIGO	RESUMEN	CANTIDAD	PRECIO	IMPORTE
	APARTADO 06.04.03 TUBERÍAS			
063	ML TUBERIA FD 250 mm Tubería de fundición dúctil de diámetro interior 250 mm y PFA de 54 bar, revestida interiormente con mortero de cemento y exteriormente con una capa de cinc y otra bituminosa, i/p.p. de junta automática flexible, banda de señalización y medios auxiliares, totalmente colocada y probada.	410,00	37,81	15.502,10
081	UD CODO FD 1/8 A 1/32 250 mm Codo de fundición dúctil de 1/8 a 1/32 de diámetro interior 250 mm y PFA 54 bar, con un revestimiento interior y exterior epoxi, incluso p.p. de juntas y medios auxiliares, totalmente colocado y probado.	3,00	168,57	505,71
082	UD CODO FD 1/4 250 mm Codo de fundición dúctil de 1/8 de diámetro interior 250 mm y PFA 40 bar, con revestimiento interior y exterior epoxi, incluso p.p. de juntas y medios auxiliares, totalmente colocado y probado.	2,00	238,06	476,12
	TOTAL APARTADO 06.04.03 TUBERÍAS.....			16.483,93
	APARTADO 06.04.04 VÁLVULAS Y ACCESORIOS			
245.8	UD VENTOSA DN=25 mm (1") PN25 Válvula ventosa de tres funciones de 1" (DN=25 mm) y PN 25 bar incluido transporte, juntas, válvula de corte DN=25 mm y PN 25 bar y piezas especiales, totalmente colocada y probada.	1,00	173,76	173,76
135	UD TE FD EEB 250 mm PN16/25 SALIDA DN250/60 "T" de fundición dúctil de PFA 16/25 bar, con dos enchufes y derivación con brida para tubería de 250 mm y salida comprendida entre 250 y 60 mm, con un revestimiento interior y exterior epoxi, i/p.p. de junta de unión y medios auxiliares, totalmente colocada y probada.	2,00	372,50	745,00
114	UD REDUCCIÓN FD 100 A 80/50 mm PN16/25 Reducción en fundición dúctil de 100 mm a 80-65-60-50 mm con dos bridas PN 16/25 bar, con un revestimiento interior y exterior epoxi, i/p.p. de tornillería y medios auxiliares, totalmente colocada y probada.	1,00	50,28	50,28
114.8	UD REDUCCIÓN FD 50 A 40/25 mm PN16/25 Reducción en fundición dúctil de 50 mm a 40-25 mm con dos bridas PN 16/25 bar, con un revestimiento interior y exterior epoxi, i/p.p. de tornillería y medios auxiliares, totalmente colocada y probada.	1,00	28,54	28,54
237	UD VÁLVULA DE COMPUERTA MANUAL DN100 PN25 Válvula de compuerta de cierre elástico de 100 mm. de diámetro nominal y 25 At. de P.N., de accionamiento manual por volante, de cuerpo de fundición nodular GGG-50, con eje de acero inoxidable al 13 % Cr. con roscas conformadas por laminación en frío, cierre en fundición nodular, tornillería de acero inoxidable, protegida contra la corrosión mediante aplicación de doble capa de pintura epoxy, totalmente colocada y probada. Resto de características según ET.	1,00	361,59	361,59
109A	UD RACORD TIPO BARCELONA SALIDAS 80-200 mm Rosca Racord tipo Barcelona con salidad entre 80 y 200 mm para enchufe de manguera, totalmente instalado y terminado.	1,00	150,66	150,66
120	UD TE FD EEB 500 mm PN16 SALIDA DN500/100 "T" de fundición dúctil de PFA 16 bar, con dos enchufes y derivación con brida para tubería de 500 mm y salida comprendida entre 500 y 100 mm, con un revestimiento interior y exterior epoxi, i/p.p. de junta de unión y medios auxiliares, totalmente colocada y probada.	1,00	647,05	647,05
162	UD MANGUITO FD DN100 A DN250 mm PN16/25 Manguito de fundición dúctil con bridas diámetros de 100 a 250 mm, longitud comprendida entre 0,20 y 1,00 m y PN16/25, incluso p.p. de tornillería y medios auxiliares, totalmente colocado y probado.			

PRESUPUESTOS PARCIALES.

ABASTECIMIENTO A VARIOS MUNICIPIOS DE LA RIOJA. SISTEMA CIDACOS

CÓDIGO	RESUMEN	CANTIDAD	PRECIO	IMPORTE
		1,00	110,14	110,14
228	UD VÁLVULA DE COMPUERTA MANUAL DN250 PN25 Válvula de compuerta de accionamiento manual de diámetro nominal DN=250 mm de 25 bares de presión máxima admisible, con tornillería y juntas, totalmente instalada y probada, incluso volante de accionamiento.			
		1,00	1.008,14	1.008,14
141	UD CARRETE DE DESMONTAJE DN=250 mm PN25 Carrete de desmontaje autoportante de PFA 25 bar de D=250 mm, colocado.			
		1,00	484,55	484,55
115.6	UD BRIDA ENCHUFE FD 250 mm PN16/25 Brida enchufe de fundición dúctil de PFA 16/25 bar para tubería de 250 mm, con un revestimiento interior y exterior epoxi, i/p.p. de junta de unión y medios auxiliares, totalmente colocada y probada.			
		1,00	164,78	164,78
TOTAL APARTADO 06.04.04 VÁLVULAS Y ACCESORIOS.....				3.924,49
APARTADO 06.04.05 OBRAS ACCESORIAS Y REPOSICIONES DE SERVICIOS				
056	M3 ZAHORRA ARTIFICIAL Zahorra artificial compactada.			
		233,40	16,98	3.963,13
383	ML REPOSICIÓN DE CERRAMIENTO EXISTENTE Reposición de cerramiento existente hasta 2,00 m de altura.			
		5,00	9,37	46,85
TOTAL APARTADO 06.04.05 OBRAS ACCESORIAS Y REPOSICIONES DE SERVICIOS.....				4.009,98
TOTAL SUBCAPÍTULO 06.04 EJE 19: ACOMETIDA ALDEANUEVA DE EBRO.....				35.239,03
SUBCAPÍTULO 06.05 EJE 20: ACOMETIDA RINCÓN DE SOTO				
APARTADO 06.05.01 MOVIMIENTO DE TIERRAS				
003	M3 EXCAVACIÓN EN ZANJAS CON AGOTAMIENTO Excavación en zanjas y zonas localizadas, en todo tipo de terrenos incluido terrenos en roca con medios mecánicos, incluso rasanteo, nivelación de la superficie de apoyo, agotamiento y transporte a lugar de empleo o vertedero.			
		3.580,96	3,84	13.750,89
010	M3 RELLENO ZANJAS, CIMIENTOS Y TRASDOSES DE MATERIAL SELECCIONADO Relleno con material seleccionado en zanjas, cimientos, trasdós de muros, estribos y otras estructuras procedente de la excavación o préstamos incluso carga, transporte y compactación.			
		2.596,96	3,32	8.621,91
011	M3 RELLENO DE ARENA Arena para apoyo y protección de tuberías incluso carga, transporte, colocación, compactación y nivelación.			
		891,36	12,09	10.776,54
019	M2 DEMOLICIÓN DE FIRMES Demolición de firmes de cualquier tipo, incluso precorte, carga y transporte a vertedero, posterior perfilado y compactación del terreno.			
		315,00	2,50	787,50
TOTAL APARTADO 06.05.01 MOVIMIENTO DE TIERRAS.....				33.936,84
APARTADO 06.05.02 OBRA CIVIL				
023	KG ACERO CORRUGADO B-500-S Acero redondo corrugado para armar tipo B-500-S elaborado y colocado.			
		1.788,47	0,96	1.716,93
030	M3 HORMIGÓN HNE-20/B/40 Hormigón HNE-20/B/40, con cemento CEM II/A-D/42,5/SR (UNE 80303:96), en masa o ligeramente armado, colocado en cualquier tipo de obra, incluso fabricación, carga y transporte, totalmente colocado.			
		93,23	50,38	4.696,93

PRESUPUESTOS PARCIALES.

ABASTECIMIENTO A VARIOS MUNICIPIOS DE LA RIOJA. SISTEMA CIDACOS

CÓDIGO	RESUMEN	CANTIDAD	PRECIO	IMPORTE
373	UD POZO DE REGISTRO DE AROS DE HORMIGÓN DN1200 Pozo de registro de abastecimiento para válvulas de control de cualquier altura de diámetro interior D=1200 mm, incluso base de hormigón HNE-20, aros de hormigón, cono prefabricado de hormigón, pates y tapa de fundición, totalmente terminado.			
		4,00	357,84	1.431,36
TOTAL APARTADO 06.05.02 OBRA CIVIL.....				7.845,22
APARTADO 06.05.03 TUBERÍAS				
063	ML TUBERÍA FD 250 mm Tubería de fundición dúctil de diámetro interior 250 mm y PFA de 54 bar, revestida interiormente con mortero de cemento y exteriormente con una capa de cinc y otra bituminosa, i/p.p. de junta automática flexible, banda de señalización y medios auxiliares, totalmente colocada y probada.			
		1.649,00	37,81	62.348,69
081	UD CODO FD 1/8 A 1/32 250 mm Codo de fundición dúctil de 1/8 a 1/32 de diámetro interior 250 mm y PFA 54 bar, con un revestimiento interior y exterior epoxi, incluso p.p. de juntas y medios auxiliares, totalmente colocado y probado.			
		15,00	168,57	2.528,55
082	UD CODO FD 1/4 250 mm Codo de fundición dúctil de 1/8 de diámetro interior 250 mm y PFA 40 bar, con revestimiento interior y exterior epoxi, incluso p.p. de juntas y medios auxiliares, totalmente colocado y probado.			
		1,00	238,06	238,06
199	ML TUBERÍA DE PVC 90 mm Tubería de PVC con junta elástica de 90 mm de diámetro exterior, y PN=6 bar, incluso banda de señalización, totalmente colocada en zanja.			
		55,00	6,78	372,90
TOTAL APARTADO 06.05.03 TUBERÍAS.....				65.488,20
APARTADO 06.05.04 VÁLVULAS Y ACCESORIOS				
245.4	UD VENTOSA DN=50 (2") mm PN16 Válvula ventosa de tres funciones de DN=50 mm (2") y PN 16 bar incluido transporte, juntas, válvula de corte DN=50 mm y PN 16 y piezas especiales, totalmente colocada y probada.			
		3,00	367,64	1.102,92
135	UD TE FD EEB 250 mm PN16/25 SALIDA DN250/60 "T" de fundición dúctil de PFA 16/25 bar, con dos enchufes y derivación con brida para tubería de 250 mm y salida comprendida entre 250 y 60 mm, con un revestimiento interior y exterior epoxi, i/p.p. de junta de unión y medios auxiliares, totalmente colocada y probada.			
		4,00	372,50	1.490,00
114	UD REDUCCIÓN FD 100 A 80/50 mm PN16/25 Reducción en fundición dúctil de 100 mm a 80-65-60-50 mm con dos bridas PN 16/25 bar, con un revestimiento interior y exterior epoxi, i/p.p. de tornillería y medios auxiliares, totalmente colocada y probada.			
		3,00	50,28	150,84
238	UD VÁLVULA DE COMPUERTA MANUAL DN100 PN16 Válvula de compuerta de cierre elástico de 100 mm. de diámetro nominal y 16 At. de P.N., de accionamiento manual por volante, de cuerpo de fundición nodular GGG-50, con eje de acero inoxidable al 13 % Cr. con rosca conformada por laminación en frío, cierre en fundición nodular, tornillería de acero inoxidable, protegida contra la corrosión mediante aplicación de doble capa de pintura epoxy, totalmente colocada y probada. Resto de características según ET.			
		1,00	221,47	221,47
TOTAL APARTADO 06.05.04 VÁLVULAS Y ACCESORIOS.....				2.965,23

PRESUPUESTOS PARCIALES.

ABASTECIMIENTO A VARIOS MUNICIPIOS DE LA RIOJA. SISTEMA CIDACOS

CÓDIGO	RESUMEN	CANTIDAD	PRECIO	IMPORTE
APARTADO 06.05.05 OBRAS ACCESORIAS Y REPOSICIONES DE SERVICIOS				
023	KG ACERO CORRUGADO B-500-S Acero redondo corrugado para armar tipo B-500-S elaborado y colocado.	138,94	0,96	133,38
025	M2 ENCOFRADO RECTO EN PARAMENTOS OCULTOS Encofrado recto en paramentos ocultos, incluso colocación, fijación y desencofrado.	8,26	17,65	145,79
028	M3 HORMIGÓN DE LIMPIEZA HL-150 Hormigón de limpieza HL-150, de consistencia plástica, árido de tamaño máximo 40 mm y cemento CEM-II-D/42,5/SR, para saneos y encachados, incluyendo fabricación y transporte totalmente colocado.	0,10	44,76	4,48
031	M3 HORMIGÓN HA-25/B/20/IIa Hormigón HA-25/B/20/IIa, con cemento CEM II/A-D/42,5/SR, incluyendo fabricación, transporte, puesta en obra y vibrado, totalmente ejecutado, incluso curado y juntas.	1,28	53,39	68,34
054	T PAVIMENTO DE MBC AC16 surf S Pavimento de mezcla bituminosa en caliente en capa de rodadura tipo AC 16 surf S de 5 cm de espesor, que incluye riego de imprimación con dotación de 1 Kg/m2, con betún B60/70 en dotación de 70 Kg/Tm, puesto en obra y terminado.	0,72	36,70	26,42
056	M3 ZAHORRA ARTIFICIAL Zahorra artificial compactada.	902,92	16,98	15.331,58
181	ML TUBERÍA DE ACERO DN=632 mm Tubería de acero AE-42 helicosoldado, de límite elástico no inferior a 2000 Kp/cm2, de diámetro exterior 632 mm y PN 16 bar, con recubrimiento interior de 300 micras de pintura epoxi tipo alimentario y recubrimiento exterior de tres capas de polietileno extruido en caliente, incluso montaje, soldaduras y pruebas de control.	15,00	190,94	2.864,10
209	ML TUBERÍA HORMIGÓN DN=60 cm Tubería de hormigón centrifugado de diámetro interior 60 cm, fabricada con cemento CEM II/A-D/42,5/SR (UNE 80303:96), totalmente terminada.	9,85	39,64	390,45
381	M2 REPOSICIÓN DE FIRME DE AGLOMERADO Reposición de firme de aglomerado en caliente en zonas afectadas por las obras.	315,00	4,14	1.304,10
383	ML REPOSICIÓN DE CERRAMIENTO EXISTENTE Reposición de cerramiento existente hasta 2,00 m de altura.	5,00	9,37	46,85
388	ML REPOSICIÓN DE ACEQUIA HASTA 1 m ANCHURA Reposición de acequia prefabricada de hormigón hasta 1,00 m de anchura.	15,00	87,65	1.314,75
TOTAL APARTADO 06.05.05 OBRAS ACCESORIAS Y REPOSICIONES DE SERVICIOS.....				21.630,24
TOTAL SUBCAPÍTULO 06.05 EJE 20: ACOMETIDA RINCÓN DE SOTO.....				131.865,73

PRESUPUESTOS PARCIALES.

ABASTECIMIENTO A VARIOS MUNICIPIOS DE LA RIOJA. SISTEMA CIDACOS

CÓDIGO	RESUMEN	CANTIDAD	PRECIO	IMPORTE
SUBCAPÍTULO 06.06 DERIVACIÓN RINCÓN. ARQUETA VÁLVULAS DE RETENCIÓN P-260				
APARTADO 06.06.01 OBRA CIVIL				
008	M2 DESPEJE Y DESBROCE Despeje y desbroce de capa de tierra vegetal con un espesor medio de 50 cm, incluso corte de árboles, extracción de tocones, nivelación de zona adyacente para el paso de maquinaria, transporte a lugar de acopio independiente para posterior reposición de tierra vegetal tras las obras y despedregado de las parcelas, así como transporte a vertedero de tierras sobrantes.	75,00	0,57	42,75
002	M3 EXCAVACIÓN EN ZANJAS Excavación en zanjas y zonas localizadas, en todo tipo de terrenos incluido terrenos en roca con medios mecánicos, incluso rasanteo, nivelación de la superficie de apoyo y transporte a lugar de empleo o vertedero.	171,60	3,74	641,78
010	M3 RELLENO ZANJAS, CIMIENTOS Y TRASDOSES DE MATERIAL SELECCIONADO Relleno con material seleccionado en zanjas, cimientos, trasdós de muros, estribos y otras estructuras procedente de la excavación o préstamos incluso carga, transporte y compactación.	7,58	3,32	25,17
028	M3 HORMIGÓN DE LIMPIEZA HL-150 Hormigón de limpieza HL-150, de consistencia plástica, árido de tamaño máximo 40 mm y cemento CEM-II-D/42,5/SR, para saneos y encachados, incluyendo fabricación y transporte totalmente colocado.	68,16	44,76	3.050,84
031	M3 HORMIGÓN HA-25/B/20/IIa Hormigón HA-25/B/20/IIa, con cemento CEM II/A-D/42,5/SR, incluyendo fabricación, transporte, puesta en obra y vibrado, totalmente ejecutado, incluso curado y juntas.	52,08	53,39	2.780,55
023	KG ACERO CORRUGADO B-500-S Acero redondo corrugado para armar tipo B-500-S elaborado y colocado.	4.218,80	0,96	4.050,05
025	M2 ENCOFRADO RECTO EN PARAMENTOS OCULTOS Encofrado recto en paramentos ocultos, incluso colocación, fijación y desencofrado.	15,04	17,65	265,46
026	M2 ENCOFRADO RECTO EN PARAMENTOS VISTOS 1C Encofrado recto en paramentos vistos a una cara, incluso colocación, fijación y desencofrado.	85,54	21,18	1.811,74
052	ML JUNTAS DE ESTANQUEIDAD DE PVC 32 CM Junta de trabajo interior de policloruro de vinilo (PVC) 100% virgen, con una fuerza máxima de dilatación > 250 % , de 32 cm de ancho, MASTERFLEX 2000 TI-24 de BASF o equivalente, colocada simétricamente en el eje de la losa o muro, incluso solapes y piezas especiales para cruces o ángulos. Medida la longitud ejecutada.	36,40	7,31	266,08
462	M2 FÁBRICA BLOQUES 40x20x20 cm TIPO SPLIT COLOR Fábrica de bloques de hormigón tipo Split, de medidas 40x20x20 cm color i/relleno de hormigón y colocación de armaduras s/normativa y recibido con mortero de cemento y arena de río 1/6 i/p.p. de piezas especiales para dinteles y materialización de jambas, roturas, nivelados, aplomados, llagueados y limpieza, todo ello según normativa.	127,40	31,80	4.051,32
520	M2 CUBIERTA PANEL SANDWICH (E=50 mm.) Cubierta con panel tipo sandwich espesor 50 cm., con doble chapa prelacada de 0,4 mm de espesor, y aislamiento térmico de poliuretano, fijada con gancho de acero galvanizado, incluso p.p de piezas de remate, totalmente colocada.	60,72	27,03	1.641,26

PRESUPUESTOS PARCIALES.

ABASTECIMIENTO A VARIOS MUNICIPIOS DE LA RIOJA. SISTEMA CIDACOS

CÓDIGO	RESUMEN	CANTIDAD	PRECIO	IMPORTE
519	ML REMATE DE CHAPA PRELACADA CUBIERTA Remate de chapa prelacada en color, para cubrir parte superior de bloque o panel, hasta el panel sandwich de la cubierta por el interior del peto, fijado mediante tacos y/o ganchos anclado a muro y o cubierta, dispuesto según planos.	36,40	22,47	817,91
465.1	M2 PUERTA DOBLE CHAPA ACERO CON LAMAS Puerta de paso hojas abatibles de doble chapa lisa de acero de 1 mm de espesor, con aislamiento interno de fibra de vidrio, engatillada, realizada en dos bandejas, con rigidizadores de tubo rectangular, i/manillas de acero inoxidable y cerradura, con dos o cuatro rejillas de ventilación con malla anti insectos interior, patillas para recibir en fábricas, herrajes de colgar y de seguridad, imprimación antióxido y pintura al esmalte, totalmente colocada incluyendo el recibido de fábricas.	2,20	75,01	165,02
464cf	M2 CARPINTERÍA FIJA ALUMINIO m². Carpintería fija con junquillos para la fijación del vidrio, de aluminio modelo con rotura de puente térmico, Alfil A54RPT de SAPAGROUP con un ancho de marco de 54 mm y con un ancho de hoja de 61 mm, medida del frente de 96,3 mm, con sistema de cámara europea, con espesor de perfil de 1,5 mm, con sistema de cierre por junta central de estanqueidad en EPDM, coplanar exteriormente y con resalte de hoja sobre el marco al interior, para un acristalamiento con altura de galce de 22 mm y anchura hasta 44 mm en marcos y 51 mm en hojas, lacado (entre 60-100 micras) en color estándar (RAL estándar: blanco, gris...), herrajes de colgar, p.p. de cerradura Tesa o similar y costes indirectos. Homologada con Clase 4 en el ensayo de permeabilidad al aire según norma UNE-EN 1026:2000. La transmitancia máxima del marco es de 2,90 W/m² K, y cumple en las zonas A, B, C, D y E, según el CTE/DB-HE 1.	0,96	144,71	138,92
464V3	M2 VIDRIO SEGURIDAD STADIP 44.1 INCOLORO (2B2) m². Acristalamiento de vidrio laminar de seguridad Stadip compuesto por dos vidrios de 4 mm de espesor unidos mediante lámina de butiral de polivinilo incolora de 0,38 mm, clasificado 2B2 según UNE-EN 12600, fijado sobre carpintería con acuíñado mediante calzos de apoyo perimetrales y laterales y sellado en frío con silicona neutra, incluso colocación de junquillos, según UNE 85222:1985.	0,96	37,05	35,57
521	M2 CELOSIA FIJA VENTILACIÓN Celosía metálica fija para ventilación, formada por cerco con empanelado de lamas de acero de 60 mm, con abertura mínima de 1 cm entre lamas, malla de 2 mm para evitar entrada de insectos, garras de sujeción a soporte de 10 cm, elaborada en taller y montada en obra, totalmente colocada.	0,48	73,80	35,42
020	KG ACERO S 275 J PERFILES LAMINADOS Acero S 275 J en perfiles laminados elaborado y colocado.	2.466,72	1,95	4.810,10
474.1	ML CANALON CHAPA PRELACADA 50cm Canalón de chapa prelacada en color, de 50 cm. de desarrollo fijado mediante ganchos ocultos con tornillo autoroscante 40 cm., incluso p.p. de embocadura de bajante, codos y piezas especiales.	13,80	11,85	163,53
474.2	ML BAJANTE DE CHAPA PRELACADA DN110 Bajante de chapa prelacada en color, DN110, fijado mediante ganchos con tornillo autoroscante 20 cm., incluso p.p. de embocadura de bajante, codos y piezas especiales.	2,00	12,29	24,58
290B	M2 ESCALERA Y PASARELAS DE ACERO GALVANIZADO. BARANDILLAS GALVANIZ Escalera y pasarelas de acceso de forma según planos, ejecutada en perfiles de acero galvanizado en caliente, incluso barandilla tubular del mismo material, de 90 cm de altura en uno o dos lados, rodapié de seguridad del mismo en uno o dos lados, así como entramado metálico de 30x30x3 en descansillos y peldaños, medida según su proyección en planta. Anclada a los muros y/o solera, instalada.	7,00	81,77	572,39

PRESUPUESTOS PARCIALES.

ABASTECIMIENTO A VARIOS MUNICIPIOS DE LA RIOJA. SISTEMA CIDACOS

CÓDIGO	RESUMEN	CANTIDAD	PRECIO	IMPORTE
290AA	ML ESCALERA TUBULAR GALVANIZADO CON ELEMENTOS ANTICAIDA Formación de escalera tubular de 50 mm de diámetro, de acero galvanizado, incluso protecciones circulares contra caídas según normativa, anclada a la pared y/o muros, totalmente ejecutada.	2,00	53,09	106,18
620	UD APOYOS DE TUBERÍA Y VÁLVULAS SOBRE SOLERA Apoyos de tuberías y válvulas en soleras, mediante dado de hormigón HA-25/P/20/IIa, ligeramente armado y anclado a la solera, así como cintas o eslingas de acero con material de protección de tubería para sujeción de las mismas, incluyendo el hormigón, encofrados, acero, eslingas, material de PE de protección, montado.	12,00	63,07	756,84
TOTAL APARTADO 06.06.01 OBRA CIVIL.....				26.253,46
APARTADO 06.06.02 VÁLVULAS Y ACCESORIOS				
115.13	UD BRIDA ENCHUFE FD 400 mm PN40 Brida enchufe de fundición dúctil de PFA 40 bar para tubería de 400 mm, con un revestimiento interior y exterior epoxi, i/p.p. de junta de unión y medios auxiliares, totalmente colocada y probada.	1,00	466,88	466,88
115.5	UD BRIDA ENCHUFE FD 400 mm PN16/25 Brida enchufe de fundición dúctil de PFA 16/25 bar para tubería de 400 mm, con un revestimiento interior y exterior epoxi, i/p.p. de junta de unión y medios auxiliares, totalmente colocada y probada.	1,00	445,02	445,02
115.6	UD BRIDA ENCHUFE FD 250 mm PN16/25 Brida enchufe de fundición dúctil de PFA 16/25 bar para tubería de 250 mm, con un revestimiento interior y exterior epoxi, i/p.p. de junta de unión y medios auxiliares, totalmente colocada y probada.	1,00	164,78	164,78
134	UD TE FD BBB 250 mm PN16/25 SALIDA DN250/60 "T" de fundición dúctil de PFA 16/25 bar, con tres bridas para tubería de 250 mm con salida comprendida entre 250 y 60 mm, con un revestimiento interior y exterior epoxi, i/p.p. de junta de unión y medios auxiliares, totalmente colocada y probada.	5,00	271,20	1.356,00
126	UD TE FD BBB 250 mm PN40 SALIDA DN250/60 "T" de fundición dúctil de PFA 40 bar, con tres bridas para tubería de 250 mm con salida comprendida entre 250 y 60 mm, con un revestimiento interior y exterior epoxi, i/p.p. de junta de unión y medios auxiliares, totalmente colocada y probada.	1,00	255,60	255,60
121.1	UD TE FD BBB 400 mm PN16/25 SALIDA DN400/80 "T" de fundición dúctil de PFA 16/25 bar, con tres bridas para tubería de 400 mm con salida comprendida entre 400 y 80 mm, con un revestimiento interior y exterior epoxi, i/p.p. de junta de unión y medios auxiliares, totalmente colocada y probada.	3,00	669,87	2.009,61
098.1	UD REDUCCIÓN FD 400 A 350/250 mm PN40 Reducción en fundición dúctil de 400 mm a 350-300-250 mm con dos bridas PN 40 bar, con un revestimiento interior y exterior epoxi, i/p.p. de junta de unión y medios auxiliares, totalmente colocada y probada.	1,00	424,62	424,62
098	UD REDUCCIÓN FD 400 A 350/250 mm PN16/25 Reducción en fundición dúctil de 400 mm a 350-300-250 mm con dos bridas PN 16/25 bar, con un revestimiento interior y exterior epoxi, i/p.p. de junta de unión y medios auxiliares, totalmente colocada y probada.	2,00	380,88	761,76
160	UD MANGUITO FD 100 A 250 mm PN40 Manguito de fundición dúctil con bridas diámetros de 100 a 250 mm, longitud comprendida entre 0,20 y 1,00 m y PN40, incluso p.p. de tornillería y medios auxiliares, totalmente colocado y probado.	2,00	193,76	387,52

PRESUPUESTOS PARCIALES.

ABASTECIMIENTO A VARIOS MUNICIPIOS DE LA RIOJA. SISTEMA CIDACOS

CÓDIGO	RESUMEN	CANTIDAD	PRECIO	IMPORTE
162	UD MANGUITO FD DN100 A DN250 mm PN16/25 Manguito de fundición dúctil con bridas diámetros de 100 a 250 mm, longitud comprendida entre 0,20 y 1,00 m y PN16/25, incluso p.p. de tornillería y medios auxiliares, totalmente colocado y probado.	3,00	110,14	330,42
162.1	UD MANGUITO FD DN300 A DN400 mm PN16/25 Manguito de fundición dúctil con bridas diámetros de 300 a 400 mm, longitud comprendida entre 0,20 y 1,00 m y PN16/25, incluso p.p. de tornillería y medios auxiliares, totalmente colocado y probado.	2,00	200,95	401,90
250.12	UD FILTRO COLADOR EN Y DN=250 mm PN40 Filtro colador en "Y" de diámetro nominal DN=250 mm y brida PN=40 bar de presión, incluso juntas de unión y tornillería, totalmente instalado.	2,00	1.852,09	3.704,18
EVCMT250.1	UD VÁLVULA DE COMPUERTA MANUAL DN250 PN40 Válvula de compuerta de cierre elástico de 250 mm. de diámetro nominal y 40 At. de P.N., de accionamiento manual, de cuerpo de fundición nodular GGG-50, con eje de acero inoxidable al 13 % Cr. con roscas conformadas por laminación en frío, cierre en fundición nodular, tornillería de acero inoxidable, protegida contra la corrosión mediante aplicación de doble capa de pintura epoxi y, totalmente colocada y probada. Resto de características según ET.	2,00	946,37	1.892,74
EVMM400	UD VÁLVULA DE MARIPOSA DOBLE EXCENRICIDAD DN 400 mm PN16 MANUAL Válvula de mariposa de doble excentricidad de 400 mm de diámetro y PN16, de accionamiento manual por reductor, incluso mecanismo de accionamiento, maniobra y control, transporte, montaje, juntas, tornillería y pintura totalmente instalada y probada. Resto de características según ET de proyecto.	3,00	2.281,96	6.845,88
229	UD VÁLVULA DE COMPUERTA MANUAL DN250 PN16 Válvula de compuerta de accionamiento manual de diámetro nominal DN=250 mm de 16 bares de presión máxima admisible, con tornillería y juntas, totalmente instalada y probada, incluso volante de accionamiento.	1,00	825,16	825,16
255.2	UD VÁLVULA REDUCTORA DE PRESIÓN DN=250 mm PN40 Válvula reductora de presión de diámetro DN=250 mm y PN 40 bar, incluso juntas de unión y tornillería, totalmente colocada y probada.	2,00	17.098,96	34.197,92
ECD25040	UD CARRETE DE DESMONTAJE DN=250 mm PN40 Carrete telescópico de desmontaje DN250 PN40, bridas de acero al carbono, virolas de acero inoxidable, protección epoxi, tornillos y tuercas en acero F-114, cincado y posterior baño de cromo-níquel, incluido p.p. de brida enchufe, totalmente instalado y probado en obra.	2,00	513,32	1.026,64
ECD25016	UD CARRETE DE DESMONTAJE DN=250 mm PN16 Carrete telescópico de desmontaje DN250 PN16, bridas de acero al carbono, virolas de acero inoxidable, protección epoxi, tornillos y tuercas en acero F-114, cincado y posterior baño de cromo-níquel, incluido p.p. de brida enchufe, totalmente instalado y probado en obra.	1,00	398,69	398,69
ECD0400	UD CARRETE DE DESMONTAJE DN=400 mm PN16 Carrete telescópico de desmontaje DN400 PN16, bridas de acero al carbono, virolas de acero inoxidable, protección epoxi, tornillos y tuercas en acero F-114, cincado y posterior baño de cromo-níquel, incluido p.p. de brida enchufe, totalmente instalado y probado en obra.	3,00	703,07	2.109,21
273	UD VÁLVULA ALIVIO DE PRESIÓN 3" PN 16 Válvula de alivio de presión de 3" brida PN 16 bar, incluso válvula de corte de 3", juntas de unión, y tornillería, totalmente colocada y probada.	2,00	1.438,29	2.876,58

PRESUPUESTOS PARCIALES.

ABASTECIMIENTO A VARIOS MUNICIPIOS DE LA RIOJA. SISTEMA CIDACOS

CÓDIGO	RESUMEN	CANTIDAD	PRECIO	IMPORTE
245.2	UD VENTOSA DN=80 (3") mm PN16 Válvula ventosa de tres funciones de DN=80 mm (3") y PN 16 bar incluido transporte, juntas, válvula de corte DN=80 mm y PN 16y piezas especiales, totalmente colocada y probada.	4,00	432,90	1.731,60
079	UD CODO FD 1/4 400 mm Codo de fundición dúctil de 1/4 de diámetro interior 400 mm y PFA 30 bar, con revestimiento interior y exterior epoxi, incluso p.p. de juntas y medios auxiliares, totalmente colocado y probado.	2,00	388,90	777,80
082	UD CODO FD 1/4 250 mm Codo de fundición dúctil de 1/8 de diámetro interior 250 mm y PFA 40 bar, con revestimiento interior y exterior epoxi, incluso p.p. de juntas y medios auxiliares, totalmente colocado y probado.	2,00	238,06	476,12
061	ML TUBERIA FD 400 mm Tubería de fundición dúctil de diámetro interior 400 mm y PFA de 42 bar, revestida interiormente con mortero de cemento y exteriormente con una capa de cinc y otra bituminosa, i/p.p. de junta automática flexible, banda de señalización y medios auxiliares, totalmente colocada y probada.	6,40	68,70	439,68
ECELM400	UD CAUDALÍMETRO ELECTROMAGNÉTICO DN 400 mm Equipo medidor de caudal de DN400 mm. tipo electromagnético y PN=10 atm. con salida 4/20 mA, tensión 220 V y escala 0-240 m3/h, totalmente instalado y probado. Incluido transporte, montaje, conexiones eléctricas y pruebas de funcionamiento. Resto de características, según ET.	2,00	2.414,13	4.828,26
TOTAL APARTADO 06.06.02 VÁLVULAS Y ACCESORIOS.....				69.134,57
APARTADO 06.06.03 INSTALACIÓN ELÉCTRICA DE BT				
563.1	ud PANTALLA ESTANCA LED Luminaria estanca WT120C LED80S/840 de Philips o equivalente para montaje en superficie de dimensiones 1515x80, carcasa de policarbonato, óptica de polimetacrilato de metilo, flujo luminoso 8.000 lm, potencia 68 W, Tª color 4000 K, rango de Tª de 10°C a 35°C, protección IP-65 Clase I. Incluso p.p. de canalización y cableado, completamente instalado.	2,00	28,30	56,60
524.1	m LINEA 3x1.5mm2 Cu 0.6/1KV RZ1-K (AS) Línea eléctrica con conductor multipolares 3x1.5mm2 RZ1-K (AS) en canalización existente, incluso conexionado en inicio y final de línea.	30,00	3,34	100,20
571	ud INTERRUPTOR EMPOTRAR SIMO 32 BLANCO. Interruptor empotrar blanco, totalmente instalado.	1,00	9,25	9,25
204	m TUBO DE PVC RÍGIDO DE 25 MM DIÁMETRO Tubo rígido de PVC d=25mm para canalización de conductores, incluso soportes y anclajes a pared, instalado.	50,00	4,17	208,50
TOTAL APARTADO 06.06.03 INSTALACIÓN ELÉCTRICA DE BT.....				374,55
APARTADO 06.06.04 VARIOS				
617.4	PA CONEXIÓN ALIVIOS CON POZO EXTERIOR Y DESAGÜE Partida Alzada de Abono Íntegro para conexión de la salida de los alivios de la nueva caseta de válvulas con pozo exterior y salida a cuneta y/o cauce, incluyendo, excavaciones, tuberías de PEAD DN de salida de alivio, rellenos, ayudas de albañilería, demoliciones, relleno de huecos con morteros sin retracción, anclaje de tuberías, así como todos los medios auxiliares necesarios para la conexión entre ambas tuberías.	1,00	536,70	536,70
TOTAL APARTADO 06.06.04 VARIOS				536,70
TOTAL SUBCAPÍTULO 06.06 DERIVACIÓN RINCÓN. ARQUETA VÁLVULAS DE RETENCIÓN P-260.....				96.299,28

PRESUPUESTOS PARCIALES.

ABASTECIMIENTO A VARIOS MUNICIPIOS DE LA RIOJA. SISTEMA CIDACOS

CÓDIGO	RESUMEN	CANTIDAD	PRECIO	IMPORTE
	TOTAL CAPÍTULO 06 RAMAL DESDE ARQUETA P190 - ALFARO.....			5.088.574,39
	CAPÍTULO 07 RAMAL DESDE ARQUETA P190- ALCANADRE			
	SUBCAPÍTULO 07.01 EJE 8: P-190 - DERIVACIÓN HACIA TUDELILLA (P-350)			
	APARTADO 07.01.01 MOVIMIENTO DE TIERRAS			
002	M3 EXCAVACIÓN EN ZANJAS Excavación en zanjas y zonas localizadas, en todo tipo de terrenos incluido terrenos en roca con medios mecánicos, incluso rasanteo, nivelación de la superficie de apoyo y transporte a lugar de empleo o vertedero.	16.244,70	3,74	60.755,18
003	M3 EXCAVACIÓN EN ZANJAS CON AGOTAMIENTO Excavación en zanjas y zonas localizadas, en todo tipo de terrenos incluido terrenos en roca con medios mecánicos, incluso rasanteo, nivelación de la superficie de apoyo, agotamiento y transporte a lugar de empleo o vertedero.	9.491,09	3,84	36.445,79
008	M2 DESPEJE Y DESBROCE Despeje y desbroce de capa de tierra vegetal con un espesor medio de 50 cm, incluso corte de árboles, extracción de tocones, nivelación de zona adyacente para el paso de maquinaria, transporte a lugar de acopio independiente para posterior reposición de tierra vegetal tras las obras y despedregado de las parcelas, así como transporte a vertedero de tierras sobrantes.	5.640,30	0,57	3.214,97
010	M3 RELLENO ZANJAS, CIMIENTOS Y TRASDOSES DE MATERIAL SELECCIONADO Relleno con material seleccionado en zanjas, cimientos, trasdós de muros, estribos y otras estructuras procedente de la excavación o préstamos incluso carga, transporte y compactación.	17.654,63	3,32	58.613,37
011	M3 RELLENO DE ARENA Arena para apoyo y protección de tuberías incluso carga, transporte, colocación, compactación y nivelación.	6.810,66	12,09	82.340,88
030	M3 HORMIGÓN HNE-20/B/40 Hormigón HNE-20/B/40, con cemento CEM III/A-D/42,5/SR (UNE 80303:96), en masa o ligeramente armado, colocado en cualquier tipo de obra, incluso fabricación, carga y transporte, totalmente colocado.	80,85	50,38	4.073,22
	TOTAL APARTADO 07.01.01 MOVIMIENTO DE TIERRAS.....			245.443,41
	APARTADO 07.01.02 OBRA CIVIL			
023	KG ACERO CORRUGADO B-500-S Acero redondo corrugado para armar tipo B-500-S elaborado y colocado.	24.758,26	0,96	23.767,93
030	M3 HORMIGÓN HNE-20/B/40 Hormigón HNE-20/B/40, con cemento CEM III/A-D/42,5/SR (UNE 80303:96), en masa o ligeramente armado, colocado en cualquier tipo de obra, incluso fabricación, carga y transporte, totalmente colocado.	512,53	50,38	25.821,26
034.2	UD ARQUETA HORMIGÓN DE 3,00x2,50 M Y HASTA 2,50 m DE PROFUNDIDAD Arqueta de hormigón armado HA-25/P/40/IIa para alojamiento de válvulas de tuberías de dimensiones interiores 3,0x2,5 m y una altura de hasta 2,50 m, con solera de 30 cm de canto, muros de 25 cm de espesor y tapa de 25 cm de canto, armado con parilla de 20x20 cm con redondos de 12 mm, incluso excavación, relleno posterior, encofrado, totalmente terminada.	11,00	2.855,46	31.410,06
373	UD POZO DE REGISTRO DE AROS DE HORMIGÓN DN1200 Pozo de registro de abastecimiento para válvulas de control de cualquier altura de diámetro interior D=1200 mm, incluso base de hormigón HNE-20, aros de hormigón, cono prefabricado de hormigón, pates y tapa de fundición, totalmente terminado.	28,00	357,84	10.019,52

PRESUPUESTOS PARCIALES.

ABASTECIMIENTO A VARIOS MUNICIPIOS DE LA RIOJA. SISTEMA CIDACOS

CÓDIGO	RESUMEN	CANTIDAD	PRECIO	IMPORTE
	TOTAL APARTADO 07.01.02 OBRA CIVIL.....			91.018,77
	APARTADO 07.01.03 TUBERÍAS			
061	ML TUBERÍA FD 400 mm Tubería de fundición dúctil de diámetro interior 400 mm y PFA de 42 bar, revestida interiormente con mortero de cemento y exteriormente con una capa de cinc y otra bituminosa, i/p.p. de junta automática flexible, banda de señalización y medios auxiliares, totalmente colocada y probada.	9.332,00	68,70	641.108,40
079	UD CODO FD 1/4 400 mm Codo de fundición dúctil de 1/4 de diámetro interior 400 mm y PFA 30 bar, con revestimiento interior y exterior epoxi, incluso p.p. de juntas y medios auxiliares, totalmente colocado y probado.	4,00	388,90	1.555,60
077	UD CODO FD 1/8 400 mm Codo de fundición dúctil de 1/8 de diámetro interior 400 mm y PFA 30 bar, con revestimiento interior y exterior epoxi, incluso p.p. de juntas y medios auxiliares, totalmente colocado y probado.	21,00	336,83	7.073,43
078	UD CODO FD 1/16 A 1/32 400 mm Codo de fundición dúctil de 1/16 a 1/32 de diámetro interior 400 mm y PFA 30 bar, con revestimiento interior y exterior epoxi, incluso p.p. de juntas y medios auxiliares, totalmente colocado y probado.	123,00	325,62	40.051,26
199	ML TUBERÍA DE PVC 90 mm Tubería de PVC con junta elástica de 90 mm de diámetro exterior, y PN=6 bar, incluso banda de señalización, totalmente colocada en zanja.	587,00	6,78	3.979,86
	TOTAL APARTADO 07.01.03 TUBERÍAS.....			693.768,55
	APARTADO 07.01.04 VÁLVULAS Y ACCESORIOS			
245.2	UD VENTOSA DN=80 (3") mm PN16 Válvula ventosa de tres funciones de DN=80 mm (3") y PN 16 bar incluido transporte, juntas, válvula de corte DN=80 mm y PN 16y piezas especiales, totalmente colocada y probada.	9,00	432,90	3.896,10
245.5	UD VENTOSA DN=80 (3") mm PN25 Válvula ventosa de tres funciones de DN=80 mm (3") y PN 25 bar incluido transporte, juntas, válvula de corte DN=80 mm y PN 25 y piezas especiales, totalmente colocada y probada.	8,00	552,08	4.416,64
121	UD TE FD EEB 400 mm PN16/25 SALIDA DN400/80 "T" de fundición dúctil de PFA 16/25 bar, con dos enchufes y derivación con brida para tubería de 400 mm con salida comprendida entre 400 y 80 mm, con un revestimiento interior y exterior epoxi, i/p.p. de junta de unión y medios auxiliares, totalmente colocada y probada.	28,00	669,87	18.756,36
234	UD VÁLVULA DE COMPUERTA MANUAL DN150 PN25 Válvula de compuerta de cierre elástico de 150 mm. de diámetro nominal y 25 At. de P.N., de accionamiento manual por volante, de cuerpo de fundición nodular GGG-50, con eje de acero inoxidable al 13 % Cr. con rosca conformadas por laminación en frío, cierre en fundición nodular, tornillería de acero inoxidable, protegida contra la corrosión mediante aplicación de doble capa de pintura epoxy, totalmente colocada y probada. Resto de características según ET.	5,00	490,62	2.453,10
235	UD VÁLVULA DE COMPUERTA MANUAL DN150 PN16 Válvula de compuerta de accionamiento manual de diámetro nominal DN=150 mm de 16 bares de presión máxima admisible, con tornillería y juntas, totalmente instalada y probada, incluso volante de accionamiento.	6,00	299,35	1.796,10
109A	UD RACORD TIPO BARCELONA SALIDAS 80-200 mm Rosca Racord tipo Barcelona con salida entre 80 y 200 mm para enchufe de manguera, totalmente instalado y terminado.	3,00	150,66	451,98

PRESUPUESTOS PARCIALES.

ABASTECIMIENTO A VARIOS MUNICIPIOS DE LA RIOJA. SISTEMA CIDACOS

CÓDIGO	RESUMEN	CANTIDAD	PRECIO	IMPORTE
EVM400.1	UD VÁLVULA DE MARIPOSA DOBLE EXCENRICIDAD DN 400 mm PN25 MANUAL Válvula de mariposa de doble excentricidad de 400 mm de diámetro y PN25, de accionamiento manual por reductor, incluso mecanismo de accionamiento, maniobra y control, transporte, montaje, juntas, tornillería y pintura totalmente instalada y probada. Resto de características según ET de proyecto.	11,00	2.594,70	28.541,70
114.6	UD BRIDA LISO FD 400 mm PN16/25 Brida lisa de fundición dúctil de PFA 16/25 bar para tubería de 400 mm, con un revestimiento interior y exterior epoxi, i/p.p. de junta de unión y medios auxiliares, totalmente colocada y probada.	3,00	441,71	1.325,13
115.5	UD BRIDA ENCHUFE FD 400 mm PN16/25 Brida enchufe de fundición dúctil de PFA 16/25 bar para tubería de 400 mm, con un revestimiento interior y exterior epoxi, i/p.p. de junta de unión y medios auxiliares, totalmente colocada y probada.	3,00	445,02	1.335,06
ECD0400.1	UD CARRETE DE DESMONTAJE DN=400 mm PN25 Carrete telescópico de desmontaje DN400 PN25, bridas de acero al carbono, virolas de acero inoxidable, protección epoxi, tornillos y tuercas en acero F-114, cincado y posterior baño de cromo-níquel, incluido p.p. de brida enchufe, totalmente instalado y probado en obra.	11,00	854,88	9.403,68
TOTAL APARTADO 07.01.04 VÁLVULAS Y ACCESORIOS.....				72.375,85
APARTADO 07.01.05 HINCAS				
368	ML HINCA TUBO ACERO 609 mm TIERRAS Hinca de tubo de acero, de 609 mm de diámetro interior, bajo viales, en tierra o roca alterada, incluso p.p. de instalación de tubería de fundición dúctil comprendida entre 400 mm y 250 mm de diámetro interior y sus anclajes y apoyos; muros de reacción y contención; y todos los elementos necesarios para su montaje y desmontaje.	74,99	515,25	38.638,60
TOTAL APARTADO 07.01.05 HINCAS.....				38.638,60
APARTADO 07.01.06 OBRAS ACCESORIAS Y REPOSICIONES DE SERVICIOS				
056	M3 ZAHORRA ARTIFICIAL Zahorra artificial compactada.	4.155,20	16,98	70.555,30
383	ML REPOSICIÓN DE CERRAMIENTO EXISTENTE Reposición de cerramiento existente hasta 2,00 m de altura.	5,00	9,37	46,85
393	ML CANALIZACIÓN TELEFÓNICA FIBRA ÓPTICA Canalización telefónica en zanja bajo calzada, para reposición de cable de fibra óptica de 12 a 16 fibras, incluso p.p. de arquetas y caja de empalmes, totalmente terminado.	5,00	45,58	227,90
TOTAL APARTADO 07.01.06 OBRAS ACCESORIAS Y REPOSICIONES DE SERVICIOS.....				70.830,05
TOTAL SUBCAPÍTULO 07.01 EJE 8: P-190 - DERIVACIÓN HACIA TUDELILLA (P-350).....				1.212.075,23
SUBCAPÍTULO 07.02 EJE 9: P-350 - ETAP VALLE DE OCÓN				
APARTADO 07.02.01 MOVIMIENTO DE TIERRAS				
002	M3 EXCAVACIÓN EN ZANJAS Excavación en zanjas y zonas localizadas, en todo tipo de terrenos incluido terrenos en roca con medios mecánicos, incluso rasanteo, nivelación de la superficie de apoyo y transporte a lugar de empleo o vertedero.	11.062,80	3,74	41.374,87
003	M3 EXCAVACIÓN EN ZANJAS CON AGOTAMIENTO Excavación en zanjas y zonas localizadas, en todo tipo de terrenos incluido terrenos en roca con medios mecánicos, incluso rasanteo, nivelación de la superficie de apoyo, agotamiento y transporte a lugar de empleo o vertedero.	6.322,72	3,84	24.279,24

PRESUPUESTOS PARCIALES.

ABASTECIMIENTO A VARIOS MUNICIPIOS DE LA RIOJA. SISTEMA CIDACOS

CÓDIGO	RESUMEN	CANTIDAD	PRECIO	IMPORTE
008	M2 DESPEJE Y DESBROCE Despeje y desbroce de capa de tierra vegetal con un espesor medio de 50 cm, incluso corte de árboles, extracción de tocones, nivelación de zona adyacente para el paso de maquinaria, transporte a lugar de acopio independiente para posterior reposición de tierra vegetal tras las obras y despedregado de las parcelas, así como transporte a vertedero de tierras sobrantes.	7.758,00	0,57	4.422,06
010	M3 RELLENO ZANJAS, CIMIENTOS Y TRASDOSES DE MATERIAL SELECCIONADO Relleno con material seleccionado en zanjas, cimientos, trasdós de muros, estribos y otras estructuras procedente de la excavación o préstamos incluso carga, transporte y compactación.	12.679,39	3,32	42.095,57
011	M3 RELLENO DE ARENA Arena para apoyo y protección de tuberías incluso carga, transporte, colocación, compactación y nivelación.	4.345,44	12,09	52.536,37
030	M3 HORMIGÓN HNE-20/B/40 Hormigón HNE-20/B/40, con cemento CEM III/A-D/42,5/SR (UNE 80303:96), en masa o ligeramente armado, colocado en cualquier tipo de obra, incluso fabricación, carga y transporte, totalmente colocado.	14,00	50,38	705,32
TOTAL APARTADO 07.02.01 MOVIMIENTO DE TIERRAS.....				165.413,43
APARTADO 07.02.02 OBRA CIVIL				
023	KG ACERO CORRUGADO B-500-S Acero redondo corrugado para armar tipo B-500-S elaborado y colocado.	11.916,00	0,96	11.439,36
030	M3 HORMIGÓN HNE-20/B/40 Hormigón HNE-20/B/40, con cemento CEM III/A-D/42,5/SR (UNE 80303:96), en masa o ligeramente armado, colocado en cualquier tipo de obra, incluso fabricación, carga y transporte, totalmente colocado.	216,57	50,38	10.910,80
373	UD POZO DE REGISTRO DE AROS DE HORMIGÓN DN1200 Pozo de registro de abastecimiento para válvulas de control de cualquier altura de diámetro interior D=1200 mm, incluso base de hormigón HNE-20, aros de hormigón, cono prefabricado de hormigón, pates y tapa de fundición, totalmente terminado.	25,00	357,84	8.946,00
TOTAL APARTADO 07.02.02 OBRA CIVIL.....				31.296,16
APARTADO 07.02.03 TUBERÍA				
063	ML TUBERÍA FD 250 mm Tubería de fundición dúctil de diámetro interior 250 mm y PFA de 54 bar, revestida interiormente con mortero de cemento y exteriormente con una capa de cinc y otra bituminosa, i/p.p. de junta automática flexible, banda de señalización y medios auxiliares, totalmente colocada y probada.	9.386,00	37,81	354.884,66
081	UD CODO FD 1/8 A 1/32 250 mm Codo de fundición dúctil de 1/8 a 1/32 de diámetro interior 250 mm y PFA 54 bar, con un revestimiento interior y exterior epoxi, incluso p.p. de juntas y medios auxiliares, totalmente colocado y probado.	104,00	168,57	17.531,28
082	UD CODO FD 1/4 250 mm Codo de fundición dúctil de 1/8 de diámetro interior 250 mm y PFA 40 bar, con revestimiento interior y exterior epoxi, incluso p.p. de juntas y medios auxiliares, totalmente colocado y probado.	5,00	238,06	1.190,30
199	ML TUBERÍA DE PVC 90 mm Tubería de PVC con junta elástica de 90 mm de diámetro exterior, y PN=6 bar, incluso banda de señalización, totalmente colocada en zanja.	385,00	6,78	2.610,30

PRESUPUESTOS PARCIALES.

ABASTECIMIENTO A VARIOS MUNICIPIOS DE LA RIOJA. SISTEMA CIDACOS

CÓDIGO	RESUMEN	CANTIDAD	PRECIO	IMPORTE
	TOTAL APARTADO 07.02.03 TUBERÍA.....			376.216,54
	APARTADO 07.02.04 VÁLVULAS Y ACCESORIOS			
245.2	UD VENTOSA DN=80 (3") mm PN16 Válvula ventosa de tres funciones de DN=80 mm (3") y PN 16 bar incluido transporte, juntas, válvula de corte DN=80 mm y PN 16y piezas especiales, totalmente colocada y probada.	12,00	432,90	5.194,80
245.5	UD VENTOSA DN=80 (3") mm PN25 Válvula ventosa de tres funciones de DN=80 mm (3") y PN 25 bar incluido transporte, juntas, válvula de corte DN=80 mm y PN 25 y piezas especiales, totalmente colocada y probada.	2,00	552,08	1.104,16
245.6	UD VENTOSA DN=80 (3") mm PN40 Válvula ventosa de tres funciones de DN=80 mm (3") y PN 40 bar incluido transporte, juntas, válvula de corte DN=80 mm y PN 40 y piezas especiales, totalmente colocada y probada.	1,00	686,57	686,57
134	UD TE FD BBB 250 mm PN16/25 SALIDA DN250/60 "T" de fundición dúctil de PFA 16/25 bar, con tres bridas para tubería de 250 mm con salida comprendida entre 250 y 60 mm, con un revestimiento interior y exterior epoxi, i/p.p. de junta de unión y medios auxiliares, totalmente colocada y probada.	23,00	271,20	6.237,60
EVCM080	UD VÁLVULA DE COMPUERTA MANUAL DN80 PN16 Válvula de compuerta de cierre elástico de 80 mm. de diámetro nominal y 16 At. de P.N., de accionamiento manual por volante, de cuerpo de fundición nodular GGG-50, con eje de acero inoxidable al 13 % Cr. con roscas conformadas por laminación en frío, cierre en fundición nodular, tornillería de acero inoxidable, protegida contra la corrosión mediante aplicación de doble capa de pintura epoxy, totalmente colocada y probada. Resto de características según ET.	7,00	110,47	773,29
239	UD VÁLVULA DE COMPUERTA MANUAL DN80 PN40 Válvula de compuerta de accionamiento manual de diámetro nominal DN=80 mm de 40 bares de presión máxima admisible, con tornillería y juntas, totalmente instalada y probada, incluso volante de accionamiento.	1,00	251,85	251,85
141	UD CARRETE DE DESMONTAJE DN=250 mm PN25 Carrete de desmontaje autoportante de PFA 25 bar de D=250 mm, colocado.	3,00	484,55	1.453,65
228	UD VÁLVULA DE COMPUERTA MANUAL DN250 PN25 Válvula de compuerta de accionamiento manual de diámetro nominal DN=250 mm de 25 bares de presión máxima admisible, con tornillería y juntas, totalmente instalada y probada, incluso volante de accionamiento.	3,00	1.008,14	3.024,42
115.6	UD BRIDA ENCHUFE FD 250 mm PN16/25 Brida enchufe de fundición dúctil de PFA 16/25 bar para tubería de 250 mm, con un revestimiento interior y exterior epoxi, i/p.p. de junta de unión y medios auxiliares, totalmente colocada y probada.	3,00	164,78	494,34
114.3	UD BRIDA LISO FD 250 mm PN16/25 Brida lisa de fundición dúctil de PFA 16/25 bar para tubería de 250 mm, con un revestimiento interior y exterior epoxi, i/p.p. de junta de unión y medios auxiliares, totalmente colocada y probada.	2,00	202,81	405,62
162	UD MANGUITO FD DN100 A DN250 mm PN16/25 Manguito de fundición dúctil con bridas diámetros de 100 a 250 mm, longitud comprendida entre 0,20 y 1,00 m y PN16/25, incluso p.p. de tornillería y medios auxiliares, totalmente colocado y probado.	1,00	110,14	110,14

PRESUPUESTOS PARCIALES.

ABASTECIMIENTO A VARIOS MUNICIPIOS DE LA RIOJA. SISTEMA CIDACOS

CÓDIGO	RESUMEN	CANTIDAD	PRECIO	IMPORTE
121	UD TE FD EEB 400 mm PN16/25 SALIDA DN400/80 "T" de fundición dúctil de PFA 16/25 bar, con dos enchufes y derivación con brida para tubería de 400 mm con salida comprendida entre 400 y 80 mm, con un revestimiento interior y exterior epoxi, i/p.p. de junta de unión y medios auxiliares, totalmente colocada y probada.	1,00	669,87	669,87
	TOTAL APARTADO 07.02.04 VÁLVULAS Y ACCESORIOS.....			20.406,31
	APARTADO 07.02.05 OBRAS ACCESORIAS Y REPOSICIONES DE SERVICIOS			
381	M2 REPOSICIÓN DE FIRME DE AGLOMERADO Reposición de firme de aglomerado en caliente en zonas afectadas por las obras.	30,00	4,14	124,20
056	M3 ZAHORRA ARTIFICIAL Zahorra artificial compactada.	2.064,20	16,98	35.050,12
383	ML REPOSICIÓN DE CERRAMIENTO EXISTENTE Reposición de cerramiento existente hasta 2,00 m de altura.	10,00	9,37	93,70
389	ML REPOSICIÓN DE ACEQUIA Reposición de acequia con tubo de hormigón hasta 1 m de diámetro.	10,00	13,55	135,50
	TOTAL APARTADO 07.02.05 OBRAS ACCESORIAS Y REPOSICIONES DE SERVICIOS.....			35.403,52
	TOTAL SUBCAPÍTULO 07.02 EJE 9: P-350 - ETAP VALLE DE OCÓN.....			628.735,96
	SUBCAPÍTULO 07.03 EJE 10: P-350 - DERIVACIÓN A VILLAR DE ARNEDO (P-410)			
	APARTADO 07.03.01 MOVIMIENTO DE TIERRAS			
002	M3 EXCAVACIÓN EN ZANJAS Excavación en zanjas y zonas localizadas, en todo tipo de terrenos incluido terrenos en roca con medios mecánicos, incluso rasanteo, nivelación de la superficie de apoyo y transporte a lugar de empleo o vertedero.	10.061,90	3,74	37.631,51
003	M3 EXCAVACIÓN EN ZANJAS CON AGOTAMIENTO Excavación en zanjas y zonas localizadas, en todo tipo de terrenos incluido terrenos en roca con medios mecánicos, incluso rasanteo, nivelación de la superficie de apoyo, agotamiento y transporte a lugar de empleo o vertedero.	844,98	3,84	3.244,72
008	M2 DESPEJE Y DESBROCE Despeje y desbroce de capa de tierra vegetal con un espesor medio de 50 cm, incluso corte de árboles, extracción de tocones, nivelación de zona adyacente para el paso de maquinaria, transporte a lugar de acopio independiente para posterior reposición de tierra vegetal tras las obras y despedregado de las parcelas, así como transporte a vertedero de tierras sobrantes.	6.158,91	0,57	3.510,58
010	M3 RELLENO ZANJAS, CIMIENTOS Y TRASDOSES DE MATERIAL SELECCIONADO Relleno con material seleccionado en zanjas, cimientos, trasdós de muros, estribos y otras estructuras procedente de la excavación o préstamos incluso carga, transporte y compactación.	7.515,87	3,32	24.952,69
011	M3 RELLENO DE ARENA Arena para apoyo y protección de tuberías incluso carga, transporte, colocación, compactación y nivelación.	2.967,31	12,09	35.874,78
019	M2 DEMOLICIÓN DE FIRMES Demolición de firmes de cualquier tipo, incluso precorte, carga y transporte a vertedero, posterior perfilado y compactación del terreno.	222,00	2,50	555,00

PRESUPUESTOS PARCIALES.

ABASTECIMIENTO A VARIOS MUNICIPIOS DE LA RIOJA. SISTEMA CIDACOS

CÓDIGO	RESUMEN	CANTIDAD	PRECIO	IMPORTE
030	M3 HORMIGÓN HNE-20/B/40 Hormigón HNE-20/B/40, con cemento CEM II/A-D/42,5/SR (UNE 80303:96), en masa o ligeramente armado, colocado en cualquier tipo de obra, incluso fabricación, carga y transporte, totalmente colocado.	6,60	50,38	332,51
TOTAL APARTADO 07.03.01 MOVIMIENTO DE TIERRAS.....				106.101,79
APARTADO 07.03.02 OBRA CIVIL				
023	KG ACERO CORRUGADO B-500-S Acero redondo corrugado para armar tipo B-500-S elaborado y colocado.	12.581,42	0,96	12.078,16
030	M3 HORMIGÓN HNE-20/B/40 Hormigón HNE-20/B/40, con cemento CEM II/A-D/42,5/SR (UNE 80303:96), en masa o ligeramente armado, colocado en cualquier tipo de obra, incluso fabricación, carga y transporte, totalmente colocado.	317,30	50,38	15.985,57
373	UD POZO DE REGISTRO DE AROS DE HORMIGÓN DN1200 Pozo de registro de abastecimiento para válvulas de control de cualquier altura de diámetro interior D=1200 mm, incluso base de hormigón HNE-20, aros de hormigón, cono prefabricado de hormigón, pates y tapa de fundición, totalmente terminado.	10,00	357,84	3.578,40
034.2	UD ARQUETA HORMIGÓN DE 3,00x2,50 M Y HASTA 2,50 m DE PROFUNDIDAD Arqueta de hormigón armado HA-25/P/40/IIa para alojamiento de válvulas de tuberías de dimensiones interiores 3,0x2,5 m y una altura de hasta 2,50 m, con solera de 30 cm de canto, muros de 25 cm de espesor y tapa de 25 cm de canto, armado con parilla de 20x20 cm con redondos de 12 mm, incluso excavación, relleno posterior, encofrado, totalmente terminada.	10,00	2.855,46	28.554,60
TOTAL APARTADO 07.03.02 OBRA CIVIL.....				60.196,73
APARTADO 07.03.03 TUBERÍAS				
062	ML TUBERÍA FD 300 mm Tubería de fundición dúctil de diámetro interior 300 mm y PFA de 49 bar, revestida interiormente con mortero de cemento y exteriormente con una capa de cinc y otra bituminosa, i/p.p. de junta automática flexible, banda de señalización y medios auxiliares, totalmente colocada y probada.	5.201,00	46,41	241.378,41
080	UD CODO FD 1/8 A 1/32 300 mm Codo de fundición dúctil de 1/8 a 1/32 de diámetro interior 300 mm y PFA 40 bar, con un revestimiento interior y exterior epoxi, incluso p.p. de juntas y medios auxiliares, totalmente colocado y probado.	73,00	244,28	17.832,44
199	ML TUBERÍA DE PVC 90 mm Tubería de PVC con junta elástica de 90 mm de diámetro exterior, y PN=6 bar, incluso banda de señalización, totalmente colocada en zanja.	108,00	6,78	732,24
TOTAL APARTADO 07.03.03 TUBERÍAS.....				259.943,09
APARTADO 07.03.04 VÁLVULAS Y ACCESORIOS				
245.4	UD VENTOSA DN=50 (2") mm PN16 Válvula ventosa de tres funciones de DN=50 mm (2") y PN 16 bar incluido transporte, juntas, válvula de corte DN=50 mm y PN 16 y piezas especiales, totalmente colocada y probada.	1,00	367,64	367,64
245.3	UD VENTOSA DN=50 (2") mm PN25 Válvula ventosa de tres funciones de DN=50 mm (2") y PN 25 bar incluido transporte, juntas, válvula de corte DN=50 mm y PN 25 y piezas especiales, totalmente colocada y probada.	3,00	434,43	1.303,29

PRESUPUESTOS PARCIALES.

ABASTECIMIENTO A VARIOS MUNICIPIOS DE LA RIOJA. SISTEMA CIDACOS

CÓDIGO	RESUMEN	CANTIDAD	PRECIO	IMPORTE
245.7	UD VENTOSA DN=50 (2") mm PN40 Válvula ventosa de tres funciones de DN=50 mm (2") y PN 40 bar incluido transporte, juntas, válvula de corte y piezas especiales, totalmente colocada y probada.	3,00	586,24	1.758,72
135.1	UD TE FD EEB 300 mm PN16/25/40 SALIDA DN300/60 "T" de fundición dúctil de PFA 16/25/40 bar, con dos enchufes y derivación con brida para tubería de 300 mm y salida comprendida entre 300 y 60 mm, con un revestimiento interior y exterior epoxi, i/p.p. de junta de unión y medios auxiliares, totalmente colocada y probada.	10,00	393,56	3.935,60
114	UD REDUCCIÓN FD 100 A 80/50 mm PN16/25 Reducción en fundición dúctil de 100 mm a 80-65-60-50 mm con dos bridas PN 16/25 bar, con un revestimiento interior y exterior epoxi, i/p.p. de tornillería y medios auxiliares, totalmente colocada y probada.	1,00	50,28	50,28
113	UD REDUCCIÓN FD 100 A 80/50 mm PN25 Reducción en fundición dúctil de 100 mm a 80-65-60-50 mm con dos bridas PN 25 bar, con un revestimiento interior y exterior epoxi, i/p.p. de tornillería y medios auxiliares, totalmente colocada y probada.	3,00	71,75	215,25
113.1	UD REDUCCIÓN FD 100 A 80/50 mm PN40 Reducción en fundición dúctil de 100 mm a 80-65-60-50 mm con dos bridas PN 40 bar, con un revestimiento interior y exterior epoxi, i/p.p. de tornillería y medios auxiliares, totalmente colocada y probada.	3,00	88,17	264,51
237	UD VÁLVULA DE COMPUERTA MANUAL DN100 PN25 Válvula de compuerta de cierre elástico de 100 mm. de diámetro nominal y 25 At. de P.N., de accionamiento manual por volante, de cuerpo de fundición nodular GGG-50, con eje de acero inoxidable al 13 % Cr. con roscas conformadas por laminación en frío, cierre en fundición nodular, tornillería de acero inoxidable, protegida contra la corrosión mediante aplicación de doble capa de pintura epoxy, totalmente colocada y probada. Resto de características según ET.	3,00	361,59	1.084,77
109A	UD RACORD TIPO BARCELONA SALIDAS 80-200 mm Rosca Racord tipo Barcelona con salidad entre 80 y 200 mm para enchufe de manguera, totalmente instalado y terminado.	2,00	150,66	301,32
114.6	UD BRIDA LISO FD 400 mm PN16/25 Brida lisa de fundición dúctil de PFA 16/25 bar para tubería de 400 mm, con un revestimiento interior y exterior epoxi, i/p.p. de junta de unión y medios auxiliares, totalmente colocada y probada.	1,00	441,71	441,71
098	UD REDUCCIÓN FD 400 A 350/250 mm PN16/25 Reducción en fundición dúctil de 400 mm a 350-300-250 mm con dos bridas PN 16/25 bar, con un revestimiento interior y exterior epoxi, i/p.p. de junta de unión y medios auxiliares, totalmente colocada y probada.	1,00	380,88	380,88
229.1	UD VÁLVULA DE COMPUERTA MANUAL DN300 PN16 Válvula de compuerta de accionamiento manual de diámetro nominal DN=300 mm de 16 bares de presión máxima admisible, con tornillería y juntas, totalmente instalada y probada, incluso volante de accionamiento.	10,00	1.001,25	10.012,50
ECD0300	UD CARRETE DE DESMONTAJE DN=300 mm PN16 Carrete telescópico de desmontaje DN300 PN16, bridas de acero al carbono, virolas de acero inoxidable, protección epoxi, tornillos y tuercas en acero F-114, cincado y posterior baño de cromo-niquel, incluido p.p. de brida enchufe, totalmente instalado y probado en obra.	10,00	440,43	4.404,30

PRESUPUESTOS PARCIALES.

ABASTECIMIENTO A VARIOS MUNICIPIOS DE LA RIOJA. SISTEMA CIDACOS

CÓDIGO	RESUMEN	CANTIDAD	PRECIO	IMPORTE
115.12	UD BRIDA ENCHUFE FD 300 mm PN16 Brida enchufe de fundición dúctil de PFA 16 bar para tubería de 300 mm, con un revestimiento interior y exterior epoxi, i/p.p. de junta de unión y medios auxiliares, totalmente colocada y probada.	1,00	206,95	206,95
TOTAL APARTADO 07.03.04 VÁLVULAS Y ACCESORIOS.....				24.727,72
APARTADO 07.03.05 HINCAS				
568	ML TUBO ACERO 609 mm Tubo de acero, de 609 mm de diámetro interior, bajo viales, incluso piezas especiales, medios auxiliares, totalmente terminada y colocada.	140,00	221,43	31.000,20
368	ML HINCA TUBO ACERO 609 mm TIERRAS Hinca de tubo de acero, de 609 mm de diámetro interior, bajo viales, en tierra o roca alterada, incluso p.p. de instalación de tubería de fundición dúctil comprendida entre 400 mm y 250 mm de diámetro interior y sus anclajes y apoyos; muros de reacción y contención; y todos los elementos necesarios para su montaje y desmontaje.	74,83	515,25	38.556,16
TOTAL APARTADO 07.03.05 HINCAS.....				69.556,36
APARTADO 07.03.06 OBRAS ACCESORIAS Y REPOSICIONES DE SERVICIOS				
381	M2 REPOSICIÓN DE FIRME DE AGLOMERADO Reposición de firme de aglomerado en caliente en zonas afectadas por las obras.	222,00	4,14	919,08
056	M3 ZAHORRA ARTIFICIAL Zahorra artificial compactada.	1.768,43	16,98	30.027,94
030	M3 HORMIGÓN HNE-20/B/40 Hormigón HNE-20/B/40, con cemento CEM III/A-D/42,5/SR (UNE 80303:96), en masa o ligeramente armado, colocado en cualquier tipo de obra, incluso fabricación, carga y transporte, totalmente colocado.	1,25	50,38	62,98
393	ML CANALIZACIÓN TELEFÓNICA FIBRA ÓPTICA Canalización telefónica en zanja bajo calzada, para reposición de cable de fibra óptica de 12 a 16 fibras, incluso p.p. de arquetas y caja de empalmes, totalmente terminado.	20,00	45,58	911,60
395	ML CANALIZACIÓN TELEFÓNICA BAJO CALZADA 4 TUBOS Canalización telefónica en zanja bajo calzada, de 0,45x1,01 m para 4 conductos, en base 2, de PVC de 110 mm de diámetro, embebidos en prisma de hormigón HM-20 de central de 8 cm de recubrimiento superior e inferior y 10 cm lateralmente, incluso excavación de tierras a máquina en terrenos flojos, tubos, soportes distanciadores cada 70 cm, cuerda guía para cables, hormigón y relleno en la capa superior con tierras procedentes de la excavación, en tongadas < 25 cm, compactada al 95% del P.N., totalmente terminado.	40,00	18,66	746,40
TOTAL APARTADO 07.03.06 OBRAS ACCESORIAS Y REPOSICIONES DE SERVICIOS.....				32.668,00
TOTAL SUBCAPÍTULO 07.03 EJE 10: P-350 - DERIVACIÓN A VILLAR DE ARNEDO (P-410).....				553.193,69
SUBCAPÍTULO 07.04 EJE 11: P-410 - DEPÓSITO DE PRADEJÓN				
APARTADO 07.04.01 MOVIMIENTO DE TIERRAS				
003	M3 EXCAVACIÓN EN ZANJAS CON AGOTAMIENTO Excavación en zanjas y zonas localizadas, en todo tipo de terrenos incluido terrenos en roca con medios mecánicos, incluso rasanteo, nivelación de la superficie de apoyo, agotamiento y transporte a lugar de empleo o vertedero.	5.792,00	3,84	22.241,28

PRESUPUESTOS PARCIALES.

ABASTECIMIENTO A VARIOS MUNICIPIOS DE LA RIOJA. SISTEMA CIDACOS

CÓDIGO	RESUMEN	CANTIDAD	PRECIO	IMPORTE
008	M2 DESPEJE Y DESBROCE Despeje y desbroce de capa de tierra vegetal con un espesor medio de 50 cm, incluso corte de árboles, extracción de tocones, nivelación de zona adyacente para el paso de maquinaria, transporte a lugar de acopio independiente para posterior reposición de tierra vegetal tras las obras y despedregado de las parcelas, así como transporte a vertedero de tierras sobrantes.	2.394,00	0,57	1.364,58
010	M3 RELLENO ZANJAS, CIMIENTOS Y TRASDOSES DE MATERIAL SELECCIONADO Relleno con material seleccionado en zanjas, cimientos, trasdós de muros, estribos y otras estructuras procedente de la excavación o préstamos incluso carga, transporte y compactación.	3.987,80	3,32	13.239,50
011	M3 RELLENO DE ARENA Arena para apoyo y protección de tuberías incluso carga, transporte, colocación, compactación y nivelación.	1.618,30	12,09	19.565,25
019	M2 DEMOLICIÓN DE FIRMES Demolición de firmes de cualquier tipo, incluso precorte, carga y transporte a vertedero, posterior perfilado y compactación del terreno.	3.726,00	2,50	9.315,00
007	M2 ENTIBACIÓN MÓDULOS METÁLICOS Entibación a dos caras mediante módulos metálicos y articulados, en zonas de protección de zanja, medida la superficie efectiva.	1.632,00	8,69	14.182,08
TOTAL APARTADO 07.04.01 MOVIMIENTO DE TIERRAS.....				79.907,69
APARTADO 07.04.02 OBRA CIVIL				
023	KG ACERO CORRUGADO B-500-S Acero redondo corrugado para armar tipo B-500-S elaborado y colocado.	5.597,95	0,96	5.374,03
030	M3 HORMIGÓN HNE-20/B/40 Hormigón HNE-20/B/40, con cemento CEM III/A-D/42,5/SR (UNE 80303:96), en masa o ligeramente armado, colocado en cualquier tipo de obra, incluso fabricación, carga y transporte, totalmente colocado.	764,09	50,38	38.494,85
373	UD POZO DE REGISTRO DE AROS DE HORMIGÓN DN1200 Pozo de registro de abastecimiento para válvulas de control de cualquier altura de diámetro interior D=1200 mm, incluso base de hormigón HNE-20, aros de hormigón, cono prefabricado de hormigón, pates y tapa de fundición, totalmente terminado.	8,00	357,84	2.862,72
TOTAL APARTADO 07.04.02 OBRA CIVIL.....				46.731,60
APARTADO 07.04.03 TUBERÍAS				
063	ML TUBERÍA FD 250 mm Tubería de fundición dúctil de diámetro interior 250 mm y PFA de 54 bar, revestida interiormente con mortero de cemento y exteriormente con una capa de cinc y otra bituminosa, i/p.p. de junta automática flexible, banda de señalización y medios auxiliares, totalmente colocada y probada.	3.220,00	37,81	121.748,20
082	UD CODO FD 1/4 250 mm Codo de fundición dúctil de 1/8 de diámetro interior 250 mm y PFA 40 bar, con revestimiento interior y exterior epoxi, incluso p.p. de juntas y medios auxiliares, totalmente colocado y probado.	1,00	238,06	238,06
081	UD CODO FD 1/8 A 1/32 250 mm Codo de fundición dúctil de 1/8 a 1/32 de diámetro interior 250 mm y PFA 54 bar, con un revestimiento interior y exterior epoxi, incluso p.p. de juntas y medios auxiliares, totalmente colocado y probado.	42,00	168,57	7.079,94

PRESUPUESTOS PARCIALES.

ABASTECIMIENTO A VARIOS MUNICIPIOS DE LA RIOJA. SISTEMA CIDACOS

CÓDIGO	RESUMEN	CANTIDAD	PRECIO	IMPORTE
	TOTAL APARTADO 07.04.03 TUBERÍAS.....			129.066,20
	APARTADO 07.04.04 VÁLVULAS Y ACCESORIOS			
245.4	UD VENTOSA DN=50 (2") mm PN16 Válvula ventosa de tres funciones de DN=50 mm (2") y PN 16 bar incluido transporte, juntas, válvula de corte DN=50 mm y PN 16 y piezas especiales, totalmente colocada y probada.	2,00	367,64	735,28
245.3	UD VENTOSA DN=50 (2") mm PN25 Válvula ventosa de tres funciones de DN=50 mm (2") y PN 25 bar incluido transporte, juntas, válvula de corte DN=50 mm y PN 25 y piezas especiales, totalmente colocada y probada.	2,00	434,43	868,86
135	UD TE FD EEB 250 mm PN16/25 SALIDA DN250/60 "T" de fundición dúctil de PFA 16/25 bar, con dos enchufes y derivación con brida para tubería de 250 mm y salida comprendida entre 250 y 60 mm, con un revestimiento interior y exterior epoxi, i/p.p. de junta de unión y medios auxiliares, totalmente colocada y probada.	6,00	372,50	2.235,00
114	UD REDUCCIÓN FD 100 A 80/50 mm PN16/25 Reducción en fundición dúctil de 100 mm a 80-65-60-50 mm con dos bridas PN 16/25 bar, con un revestimiento interior y exterior epoxi, i/p.p. de tornillería y medios auxiliares, totalmente colocada y probada.	2,00	50,28	100,56
113	UD REDUCCIÓN FD 100 A 80/50 mm PN25 Reducción en fundición dúctil de 100 mm a 80-65-60-50 mm con dos bridas PN 25 bar, con un revestimiento interior y exterior epoxi, i/p.p. de tornillería y medios auxiliares, totalmente colocada y probada.	2,00	71,75	143,50
237	UD VÁLVULA DE COMPUERTA MANUAL DN100 PN25 Válvula de compuerta de cierre elástico de 100 mm. de diámetro nominal y 25 At. de P.N., de accionamiento manual por volante, de cuerpo de fundición nodular GGG-50, con eje de acero inoxidable al 13 % Cr. con roscas conformadas por laminación en frío, cierre en fundición nodular, tornillería de acero inoxidable, protegida contra la corrosión mediante aplicación de doble capa de pintura epoxy, totalmente colocada y probada. Resto de características según ET.	1,00	361,59	361,59
109A	UD RACORD TIPO BARCELONA SALIDAS 80-200 mm Rosca Racord tipo Barcelona con salidad entre 80 y 200 mm para enchufe de manguera, totalmente instalado y terminado.	1,00	150,66	150,66
162	UD MANGUITO FD DN100 A DN250 mm PN16/25 Manguito de fundición dúctil con bridas diámetros de 100 a 250 mm, longitud comprendida entre 0,20 y 1,00 m y PN 16/25, incluso p.p. de tornillería y medios auxiliares, totalmente colocado y probado.	1,00	110,14	110,14
229	UD VÁLVULA DE COMPUERTA MANUAL DN250 PN16 Válvula de compuerta de accionamiento manual de diámetro nominal DN=250 mm de 16 bares de presión máxima admisible, con tornillería y juntas, totalmente instalada y probada, incluso volante de accionamiento.	3,00	825,16	2.475,48
ECD25016	UD CARRETE DE DESMONTAJE DN=250 mm PN16 Carrete telescópico de desmontaje DN250 PN 16, bridas de acero al carbono, virolas de acero inoxidable, protección epoxi, tornillos y tuercas en acero F-114, cincado y posterior baño de cromo-niquel, incluido p.p. de brida enchufe, totalmente instalado y probado en obra.	3,00	398,69	1.196,07
115.6	UD BRIDA ENCHUFE FD 250 mm PN16/25 Brida enchufe de fundición dúctil de PFA 16/25 bar para tubería de 250 mm, con un revestimiento interior y exterior epoxi, i/p.p. de junta de unión y medios auxiliares, totalmente colocada y probada.	1,00	164,78	164,78

PRESUPUESTOS PARCIALES.

ABASTECIMIENTO A VARIOS MUNICIPIOS DE LA RIOJA. SISTEMA CIDACOS

CÓDIGO	RESUMEN	CANTIDAD	PRECIO	IMPORTE
	TOTAL APARTADO 07.04.04 VÁLVULAS Y ACCESORIOS.....			8.541,92
	APARTADO 07.04.05 HINCAS			
367	ML HINCA TUBO ACERO 455 mm TIERRAS Hinca de tubo de acero, de 455 mm de diámetro interior, bajo viales, en tierra o roca alterada, incluso p.p. de instalación de tubería de fundición dúctil comprendida entre 250 y 150 mm de diámetro interior y sus anclajes y apoyos; muros de reacción y contención; y todos los elementos necesarios para su montaje y desmontaje.	19,00	368,88	7.008,72
	TOTAL APARTADO 07.04.05 HINCAS.....			7.008,72
	APARTADO 07.04.06 OBRAS ACCESORIAS Y REPOSICIONES DE SERVICIOS			
381	M2 REPOSICIÓN DE FIRME DE AGLOMERADO Reposición de firme de aglomerado en caliente en zonas afectadas por las obras.	3.291,00	4,14	13.624,74
380	M2 REPOSICIÓN DE PAVIMENTO DE HORMIGÓN Reposición de pavimento de hormigón HM-20/B/40/IIa+Qa de 15 cm de espesor, totalmente terminado.	12,00	17,84	214,08
384	M2 REPOSICIÓN DE ACERA DE HORMIGÓN Reposición de acera de hormigón existente en vía pública, incluso bordillo, totalmente terminada.	423,00	42,42	17.943,66
056	M3 ZAHORRA ARTIFICIAL Zahorra artificial compactada.	696,21	16,98	11.821,65
385	M2 REPOSICIÓN DE JARDÍN EXISTENTE Reposición de jardín existente.	32,00	44,62	1.427,84
383	ML REPOSICIÓN DE CERRAMIENTO EXISTENTE Reposición de cerramiento existente hasta 2,00 m de altura.	20,00	9,37	187,40
030	M3 HORMIGÓN HNE-20/B/40 Hormigón HNE-20/B/40, con cemento CEM III/A-D/42,5/SR (UNE 80303:96), en masa o ligeramente armado, colocado en cualquier tipo de obra, incluso fabricación, carga y transporte, totalmente colocado.	1,50	50,38	75,57
194	ML TUBO PVC CORRUGADO DN 110 mm CANALIZACIONES ELÉCTRICAS Tubo corrugado de PVC de D=110 mm, para reposición de línea eléctrica subterránea, totalmente colocado.	25,00	4,27	106,75
395	ML CANALIZACIÓN TELEFÓNICA BAJO CALZADA 4 TUBOS Canalización telefónica en zanja bajo calzada, de 0,45x1,01 m para 4 conductos, en base 2, de PVC de 110 mm de diámetro, embebidos en prisma de hormigón HM-20 de central de 8 cm de recubrimiento superior e inferior y 10 cm lateralmente, incluso excavación de tierras a máquina en terrenos flojos, tubos, soportes distanciadores cada 70 cm, cuerda guía para cables, hormigón y relleno en la capa superior con tierras procedentes de la excavación, en tongadas < 25 cm, compactada al 95% del P.N., totalmente terminado.	40,00	18,66	746,40
	TOTAL APARTADO 07.04.06 OBRAS ACCESORIAS Y REPOSICIONES DE SERVICIOS.....			46.148,09
	TOTAL SUBCAPÍTULO 07.04 EJE 11: P-410 - DEPÓSITO DE PRADEJÓN.....			317.404,22

PRESUPUESTOS PARCIALES.

ABASTECIMIENTO A VARIOS MUNICIPIOS DE LA RIOJA. SISTEMA CIDACOS

CÓDIGO	RESUMEN	CANTIDAD	PRECIO	IMPORTE
SUBCAPÍTULO 07.05 EJE 12: DERIVACIÓN PRADEJÓN (P-430) - DEPÓSITO DE ALCANADRE				
APARTADO 07.05.01 MOVIMIENTO DE TIERRAS				
002	M3 EXCAVACIÓN EN ZANJAS Excavación en zanjas y zonas localizadas, en todo tipo de terrenos incluido terrenos en roca con medios mecánicos, incluso rasanteo, nivelación de la superficie de apoyo y transporte a lugar de empleo o vertedero.	6.075,90	3,74	22.723,87
003	M3 EXCAVACIÓN EN ZANJAS CON AGOTAMIENTO Excavación en zanjas y zonas localizadas, en todo tipo de terrenos incluido terrenos en roca con medios mecánicos, incluso rasanteo, nivelación de la superficie de apoyo, agotamiento y transporte a lugar de empleo o vertedero.	16.259,10	3,84	62.434,94
008	M2 DESPEJE Y DESBROCE Despeje y desbroce de capa de tierra vegetal con un espesor medio de 50 cm, incluso corte de árboles, extracción de tocones, nivelación de zona adyacente para el paso de maquinaria, transporte a lugar de acopio independiente para posterior reposición de tierra vegetal tras las obras y despedregado de las parcelas, así como transporte a vertedero de tierras sobrantes.	14.579,73	0,57	8.310,45
010	M3 RELLENO ZANJAS, CIMIENTOS Y TRASDOSES DE MATERIAL SELECCIONADO Relleno con material seleccionado en zanjas, cimientos, trasdós de muros, estribos y otras estructuras procedente de la excavación o préstamos incluso carga, transporte y compactación.	17.766,86	3,32	58.985,98
011	M3 RELLENO DE ARENA Arena para apoyo y protección de tuberías incluso carga, transporte, colocación, compactación y nivelación.	4.384,04	12,09	53.003,04
019	M2 DEMOLICIÓN DE FIRMES Demolición de firmes de cualquier tipo, incluso precorte, carga y transporte a vertedero, posterior perfilado y compactación del terreno.	8.787,00	2,50	21.967,50
030	M3 HORMIGÓN HNE-20/B/40 Hormigón HNE-20/B/40, con cemento CEM III/A-D/42,5/SR (UNE 80303:96), en masa o ligeramente armado, colocado en cualquier tipo de obra, incluso fabricación, carga y transporte, totalmente colocado.	12,38	50,38	623,70
TOTAL APARTADO 07.05.01 MOVIMIENTO DE TIERRAS.....				228.049,48
APARTADO 07.05.02 OBRA CIVIL				
023	KG ACERO CORRUGADO B-500-S Acero redondo corrugado para armar tipo B-500-S elaborado y colocado.	4.758,00	0,96	4.567,68
030	M3 HORMIGÓN HNE-20/B/40 Hormigón HNE-20/B/40, con cemento CEM III/A-D/42,5/SR (UNE 80303:96), en masa o ligeramente armado, colocado en cualquier tipo de obra, incluso fabricación, carga y transporte, totalmente colocado.	1.810,50	50,38	91.212,99
373	UD POZO DE REGISTRO DE AROS DE HORMIGÓN DN1200 Pozo de registro de abastecimiento para válvulas de control de cualquier altura de diámetro interior D=1200 mm, incluso base de hormigón HNE-20, aros de hormigón, cono prefabricado de hormigón, pates y tapa de fundición, totalmente terminado.	39,00	357,84	13.955,76
TOTAL APARTADO 07.05.02 OBRA CIVIL.....				109.736,43

PRESUPUESTOS PARCIALES.

ABASTECIMIENTO A VARIOS MUNICIPIOS DE LA RIOJA. SISTEMA CIDACOS

CÓDIGO	RESUMEN	CANTIDAD	PRECIO	IMPORTE
APARTADO 07.05.03 TUBERÍAS				
066	ML TUBERIA FD 125 mm Tubería de fundición dúctil de diámetro interior 125 mm y PFA de 64 bar, revestida interiormente con mortero de cemento y exteriormente con una capa de cinc y otra bituminosa, i/p.p. de junta automática flexible, cinta señalizadora y medios auxiliares, totalmente colocada y probada.	11.420,00	20,20	230.684,00
086	UD CODO FD 1/4 A 1/32 125 mm Codo de fundición dúctil de 1/4 a 1/32 de diámetro interior 125 mm y PFA 40 bar, con un revestimiento interior exterior epoxi, incluso p.p. de juntas y medios auxiliares, totalmente colocado y probado.	99,00	77,78	7.700,22
199	ML TUBERIA DE PVC 90 mm Tubería de PVC con junta elástica de 90 mm de diámetro exterior, y PN=6 bar, incluso banda de señalización, totalmente colocada en zanja.	379,00	6,78	2.569,62
TOTAL APARTADO 07.05.03 TUBERÍAS.....				240.953,84
APARTADO 07.05.04 VÁLVULAS Y ACCESORIOS				
245.1	UD VENTOSA DN=25 mm (1") PN16 Válvula ventosa de tres funciones de 1" (DN=25 mm) y PN 16 bar incluido transporte, juntas, válvula de corte DN=25 mm y PN 16 bar y piezas especiales, totalmente colocada y probada.	18,00	162,21	2.919,78
245.8	UD VENTOSA DN=25 mm (1") PN25 Válvula ventosa de tres funciones de 1" (DN=25 mm) y PN 25 bar incluido transporte, juntas, válvula de corte DN=25 mm y PN 25 bar y piezas especiales, totalmente colocada y probada.	2,00	173,76	347,52
129.8	UD TE FD EEB 125 mm PN16/25 SALIDA DN125/40 "T" de fundición dúctil de PFA 16/25 bar, con dos enchufes y derivación con brida para tubería de 125 mm y salida comprendida entre 125 y 40 mm, con un revestimiento interior y exterior epoxi, i/p.p. de junta de unión y medios auxiliares, totalmente colocada y probada.	32,00	91,90	2.940,80
114.8	UD REDUCCIÓN FD 50 A 40/25 mm PN16/25 Reducción en fundición dúctil de 50 mm a 40-25 mm con dos bridas PN 16/25 bar, con un revestimiento interior y exterior epoxi, i/p.p. de tornillería y medios auxiliares, totalmente colocada y probada.	20,00	28,54	570,80
EVC080	UD VÁLVULA DE COMPUERTA MANUAL DN80 PN16 Válvula de compuerta de cierre elástico de 80 mm. de diámetro nominal y 16 At. de P.N., de accionamiento manual por volante, de cuerpo de fundición nodular GGG-50, con eje de acero inoxidable al 13 % Cr. con roscas conformadas por laminación en frío, cierre en fundición nodular, tornillería de acero inoxidable, protegida contra la corrosión mediante aplicación de doble capa de pintura epoxy, totalmente colocada y probada. Resto de características según ET.	10,00	110,47	1.104,70
240	UD VÁLVULA DE COMPUERTA MANUAL DN80 PN25 Válvula de compuerta de accionamiento manual de diámetro nominal DN=80 mm de 25 bares de presión máxima admisible, con tornillería y juntas, totalmente instalada y probada, incluso volante de accionamiento.	2,00	238,18	476,36
109A	UD RACORD TIPO BARCELONA SALIDAS 80-200 mm Rosca Racord tipo Barcelona con salidas entre 80 y 200 mm para enchufe de manguera, totalmente instalado y terminado.	4,00	150,66	602,64

PRESUPUESTOS PARCIALES.

ABASTECIMIENTO A VARIOS MUNICIPIOS DE LA RIOJA. SISTEMA CIDACOS

CÓDIGO	RESUMEN	CANTIDAD	PRECIO	IMPORTE
EVC12525	UD VÁLVULA DE COMPUERTA MANUAL DN125 PN25 Válvula de compuerta de cierre elástico de 125 mm. de diámetro nominal y 25 At. de P.N., de accionamiento manual por volante, de cuerpo de fundición nodular GGG-50, con eje de acero inoxidable al 13 % Cr. con roscas conformadas por laminación en frío, cierre en fundición nodular, tornillería de acero inoxidable, protegida contra la corrosión mediante aplicación de doble capa de pintura epoxy, totalmente colocada y probada. Resto de características según ET.	7,00	348,82	2.441,74
ECD012525	UD CARRETE DE DESMONTAJE DN=125 mm PN25 Carrete telescópico de desmontaje DN125 PN25, bridas de acero al carbono, virolas de acero inoxidable, protección epoxy, tornillos y tuercas en acero F-114, cincado y posterior baño de cromo-niquel, incluido p.p. de brida enchufe, totalmente instalado y probado en obra.	7,00	309,89	2.169,23
114.4	UD BRIDA LISO FD DN<150 mm PN16/25/40 Brida lisa de fundición dúctil de PFA 16/25/40 bar para tubería de diámetro menor o igual de 150 mm, con un revestimiento interior y exterior epoxy, i/p.p. de junta de unión y medios auxiliares, totalmente colocada y probada.	2,00	78,80	157,60
115.7	UD BRIDA ENCHUFE FD DN<150 mm PN16/25/40 Brida enchufe de fundición dúctil de PFA 16/25/40 bar para tubería de diámetro menor o igual de 150 mm, con un revestimiento interior y exterior epoxy, i/p.p. de junta de unión y medios auxiliares, totalmente colocada y probada.	3,00	104,02	312,06
106	UD REDUCCIÓN FD 250 A 200/125 mm PN16 Reducción en fundición dúctil de 250 mm a 200-150-125 mm con dos bridas PN 25 bar, con un revestimiento interior y exterior epoxy, i/p.p. de junta de unión y medios auxiliares, totalmente colocada y probada.	1,00	110,44	110,44
TOTAL APARTADO 07.05.04 VÁLVULAS Y ACCESORIOS.....				14.153,67
APARTADO 07.05.05 HINCAS				
366	ML HINCA TUBO ACERO 355 mm TIERRAS Hinca de tubo de acero, de 355 mm de diámetro interior, bajo viales, en tierra o roca alterada, incluso p.p. de instalación de tubería de fundición dúctil comprendida entre 250 y 150 mm de diámetro interior y sus anclajes y apoyos; muros de reacción y contención; y todos los elementos necesarios para su montaje y desmontaje.	90,09	300,65	27.085,56
TOTAL APARTADO 07.05.05 HINCAS.....				27.085,56
APARTADO 07.05.06 OBRAS ACCESORIAS Y REPOSICIONES DE SERVICIOS				
381	M2 REPOSICIÓN DE FIRME DE AGLOMERADO Reposición de firme de aglomerado en caliente en zonas afectadas por las obras.	8.787,00	4,14	36.378,18
056	M3 ZAHORRA ARTIFICIAL Zahorra artificial compactada.	2.124,29	16,98	36.070,44
383	ML REPOSICIÓN DE CERRAMIENTO EXISTENTE Reposición de cerramiento existente hasta 2,00 m de altura.	10,00	9,37	93,70
387	ML REPOSICIÓN OBRA DE DRENAJE HASTA DN 1,00 m Reposición de obra de drenaje hasta 1,00 de diámetro, p.p. de boquilla de entrada y salida, excavación, hormigón de recubrimiento y relleno compactado, totalmente terminada.	5,00	174,54	872,70
389	ML REPOSICIÓN DE ACEQUIA Reposición de acequia con tubo de hormigón hasta 1 m de diámetro.	15,00	13,55	203,25

PRESUPUESTOS PARCIALES.

ABASTECIMIENTO A VARIOS MUNICIPIOS DE LA RIOJA. SISTEMA CIDACOS

CÓDIGO	RESUMEN	CANTIDAD	PRECIO	IMPORTE
TOTAL APARTADO 07.05.06 OBRAS ACCESORIAS Y REPOSICIONES DE SERVICIOS.....				73.618,27
TOTAL SUBCAPÍTULO 07.05 EJE 12: DERIVACIÓN PRADEJÓN (P-430) - DEPÓSITO DE ALCANADRE.....				693.597,25
SUBCAPÍTULO 07.06 EJE 13: IMPULSIÓN A AUZEJO				
APARTADO 07.06.01 MOVIMIENTO DE TIERRAS				
019	M2 DEMOLICIÓN DE FIRMES Demolición de firmes de cualquier tipo, incluso precorte, carga y transporte a vertedero, posterior perfilado y compactación del terreno.	570,00	2,50	1.425,00
010	M3 RELLENO ZANJAS, CIMIENTOS Y TRASDOSES DE MATERIAL SELECCIONADO Relleno con material seleccionado en zanjas, cimientos, trasdós de muros, estribos y otras estructuras procedente de la excavación o préstamos incluso carga, transporte y compactación.	8.024,70	3,32	26.642,00
011	M3 RELLENO DE ARENA Arena para apoyo y protección de tuberías incluso carga, transporte, colocación, compactación y nivelación.	2.776,51	12,09	33.568,01
003	M3 EXCAVACIÓN EN ZANJAS CON AGOTAMIENTO Excavación en zanjas y zonas localizadas, en todo tipo de terrenos incluido terrenos en roca con medios mecánicos, incluso rasanteo, nivelación de la superficie de apoyo, agotamiento y transporte a lugar de empleo o vertedero.	10.960,51	3,84	42.088,36
008	M2 DESPEJE Y DESBROCE Despeje y desbroce de capa de tierra vegetal con un espesor medio de 50 cm, incluso corte de árboles, extracción de tocones, nivelación de zona adyacente para el paso de maquinaria, transporte a lugar de acopio independiente para posterior reposición de tierra vegetal tras las obras y despedregado de las parcelas, así como transporte a vertedero de tierras sobrantes.	8.964,00	0,57	5.109,48
030	M3 HORMIGÓN HNE-20/B/40 Hormigón HNE-20/B/40, con cemento CEM III/A-D/42,5/SR (UNE 80303:96), en masa o ligeramente armado, colocado en cualquier tipo de obra, incluso fabricación, carga y transporte, totalmente colocado.	3,60	50,38	181,37
TOTAL APARTADO 07.06.01 MOVIMIENTO DE TIERRAS.....				109.014,22
APARTADO 07.06.02 OBRA CIVIL				
030	M3 HORMIGÓN HNE-20/B/40 Hormigón HNE-20/B/40, con cemento CEM III/A-D/42,5/SR (UNE 80303:96), en masa o ligeramente armado, colocado en cualquier tipo de obra, incluso fabricación, carga y transporte, totalmente colocado.	188,88	50,38	9.515,77
023	KG ACERO CORRUGADO B-500-S Acero redondo corrugado para armar tipo B-500-S elaborado y colocado.	6.213,80	0,96	5.965,25
373	UD POZO DE REGISTRO DE AROS DE HORMIGÓN DN1200 Pozo de registro de abastecimiento para válvulas de control de cualquier altura de diámetro interior D=1200 mm, incluso base de hormigón HNE-20, aros de hormigón, cono prefabricado de hormigón, pates y tapa de fundición, totalmente terminado.	27,00	357,84	9.661,68
TOTAL APARTADO 07.06.02 OBRA CIVIL.....				25.142,70

PRESUPUESTOS PARCIALES.

ABASTECIMIENTO A VARIOS MUNICIPIOS DE LA RIOJA. SISTEMA CIDACOS

CÓDIGO	RESUMEN	CANTIDAD	PRECIO	IMPORTE
APARTADO 07.06.03 TUBERÍA				
065	ML TUBERÍA FD 150 mm Tubería de fundición dúctil de diámetro interior 150 mm y PFA de 64 bar, revestida interiormente con mortero de cemento y exteriormente con una capa de cinc y otra bituminosa, i/p.p. de junta automática flexible, banda de señalización y medios auxiliares, totalmente colocada y probada.	7.021,00	21,42	150.389,82
085	UD CODO FD 1/8 A 1/32 150 mm Codo de fundición dúctil de 1/8 a 1/32 de diámetro interior 150 mm y PFA 40 bar, con un revestimiento interior exterior epoxi, incluso p.p. de juntas y medios auxiliares, totalmente colocado y probado.	117,00	86,51	10.121,67
199	ML TUBERÍA DE PVC 90 mm Tubería de PVC con junta elástica de 90 mm de diámetro exterior, y PN=6 bar, incluso banda de señalización, totalmente colocada en zanja.	100,00	6,78	678,00
TOTAL APARTADO 07.06.03 TUBERÍA.....				161.189,49
APARTADO 07.06.04 VÁLVULAS Y ACCESORIOS				
245.4	UD VENTOSA DN=50 (2") mm PN16 Válvula ventosa de tres funciones de DN=50 mm (2") y PN 16 bar incluido transporte, juntas, válvula de corte DN=50 mm y PN 16 y piezas especiales, totalmente colocada y probada.	15,00	367,64	5.514,60
129.1	UD TE FD EEB 150 mm PN16/25 SALIDA DN150/40 "T" de fundición dúctil de PFA 16/25 bar, con dos enchufes y derivación con brida para tubería de 150 mm y salida comprendida entre 150 y 40 mm, con un revestimiento interior y exterior epoxi, i/p.p. de junta de unión y medios auxiliares, totalmente colocada y probada.	24,00	100,62	2.414,88
EVCM080	UD VÁLVULA DE COMPUERTA MANUAL DN80 PN16 Válvula de compuerta de cierre elástico de 80 mm. de diámetro nominal y 16 At. de P.N., de accionamiento manual por volante, de cuerpo de fundición nodular GGG-50, con eje de acero inoxidable al 13 % Cr. con roscas conformadas por laminación en frío, cierre en fundición nodular, tornillería de acero inoxidable, protegida contra la corrosión mediante aplicación de doble capa de pintura epoxy, totalmente colocada y probada. Resto de características según ET.	9,00	110,47	994,23
109A	UD RACORD TIPO BARCELONA SALIDAS 80-200 mm Rosca Racord tipo Barcelona con salidad entre 80 y 200 mm para enchufe de manguera, totalmente instalado y terminado.	2,00	150,66	301,32
115.7	UD BRIDA ENCHUFE FD DN<150 mm PN16/25/40 Brida enchufe de fundición dúctil de PFA 16/25/40 bar para tubería de diámetro menor o igual de 150 mm, con un revestimiento interior y exterior epoxi, i/p.p. de junta de unión y medios auxiliares, totalmente colocada y probada.	1,00	104,02	104,02
114.4	UD BRIDA LISO FD DN<150 mm PN16/25/40 Brida lisa de fundición dúctil de PFA 16/25/40 bar para tubería de diámetro menor o igual de 150 mm, con un revestimiento interior y exterior epoxi, i/p.p. de junta de unión y medios auxiliares, totalmente colocada y probada.	1,00	78,80	78,80
ECD010016	UD CARRETE DE DESMONTAJE DN=100 mm PN16 Carrete telescópico de desmontaje DN100 PN16, bridas de acero al carbono, virolas de acero inoxidable, protección epoxi, tornillos y tuercas en acero F-114, cincado y posterior baño de cromo-níquel, incluido p.p. de brida enchufe, totalmente instalado y probado en obra.	3,00	167,93	503,79

PRESUPUESTOS PARCIALES.

ABASTECIMIENTO A VARIOS MUNICIPIOS DE LA RIOJA. SISTEMA CIDACOS

CÓDIGO	RESUMEN	CANTIDAD	PRECIO	IMPORTE
EVCM12516	UD VÁLVULA DE COMPUERTA MANUAL DN125 PN16 Válvula de compuerta de cierre elástico de 125 mm. de diámetro nominal y 16 At. de P.N., de accionamiento manual por volante, de cuerpo de fundición nodular GGG-50, con eje de acero inoxidable al 13 % Cr. con roscas conformadas por laminación en frío, cierre en fundición nodular, tornillería de acero inoxidable, protegida contra la corrosión mediante aplicación de doble capa de pintura epoxy, totalmente colocada y probada. Resto de características según ET.	3,00	202,32	606,96
TOTAL APARTADO 07.06.04 VÁLVULAS Y ACCESORIOS.....				10.518,60
APARTADO 07.06.05 HINCAS				
367	ML HINCA TUBO ACERO 455 mm TIERRAS Hinca de tubo de acero, de 455 mm de diámetro interior, bajo viales, en tierra o roca alterada, incluso p.p. de instalación de tubería de fundición dúctil comprendida entre 250 y 150 mm de diámetro interior y sus anclajes y apoyos; muros de reacción y contención; y todos los elementos necesarios para su montaje y desmontaje.	13,00	368,88	4.795,44
TOTAL APARTADO 07.06.05 HINCAS.....				4.795,44
APARTADO 07.06.06 OBRAS ACCESORIAS Y REPOSICIONES DE SERVICIOS				
381	M2 REPOSICIÓN DE FIRME DE AGLOMERADO Reposición de firme de aglomerado en caliente en zonas afectadas por las obras.	570,00	4,14	2.359,80
056	M3 ZAHORRA ARTIFICIAL Zahorra artificial compactada.	2.297,56	16,98	39.012,57
TOTAL APARTADO 07.06.06 OBRAS ACCESORIAS Y REPOSICIONES DE SERVICIOS.....				41.372,37
TOTAL SUBCAPÍTULO 07.06 EJE 13: IMPULSIÓN A AUSEJO.....				352.032,82
SUBCAPÍTULO 07.07 EJE 21: ACOMETIDA BERGASA				
APARTADO 07.07.01 MOVIMIENTO DE TIERRAS				
003	M3 EXCAVACIÓN EN ZANJAS CON AGOTAMIENTO Excavación en zanjas y zonas localizadas, en todo tipo de terrenos incluido terrenos en roca con medios mecánicos, incluso rasanteo, nivelación de la superficie de apoyo, agotamiento y transporte a lugar de empleo o vertedero.	5.355,00	3,84	20.563,20
007	M2 ENTIBACIÓN MÓDULOS METÁLICOS Entibación a dos caras mediante módulos metálicos y articulados, en zonas de protección de zanja, medida la superficie efectiva.	617,50	8,69	5.366,08
008	M2 DESPEJE Y DESBROCE Despeje y desbroce de capa de tierra vegetal con un espesor medio de 50 cm, incluso corte de árboles, extracción de tocones, nivelación de zona adyacente para el paso de maquinaria, transporte a lugar de acopio independiente para posterior reposición de tierra vegetal tras las obras y despedregado de las parcelas, así como transporte a vertedero de tierras sobrantes.	10.188,00	0,57	5.807,16
010	M3 RELLENO ZANJAS, CIMIENTOS Y TRASDOSES DE MATERIAL SELECCIONADO Relleno con material seleccionado en zanjas, cimientos, trasdós de muros, estribos y otras estructuras procedente de la excavación o préstamos incluso carga, transporte y compactación.	4.027,20	3,32	13.370,30
011	M3 RELLENO DE ARENA Arena para apoyo y protección de tuberías incluso carga, transporte, colocación, compactación y nivelación.	1.277,70	12,09	15.447,39
019	M2 DEMOLICIÓN DE FIRMES Demolición de firmes de cualquier tipo, incluso precorte, carga y transporte a vertedero, posterior perfilado y compactación del terreno.			

PRESUPUESTOS PARCIALES.

ABASTECIMIENTO A VARIOS MUNICIPIOS DE LA RIOJA. SISTEMA CIDACOS

CÓDIGO	RESUMEN	CANTIDAD	PRECIO	IMPORTE
		1.203,00	2,50	3.007,50
030	M3 HORMIGÓN HNE-20/B/40 Hormigón HNE-20/B/40, con cemento CEM II/A-D/42,5/SR (UNE 80303:96), en masa o ligeramente armado, colocado en cualquier tipo de obra, incluso fabricación, carga y transporte, totalmente colocado.	4,16	50,38	209,58
TOTAL APARTADO 07.07.01 MOVIMIENTO DE TIERRAS.....				63.771,21
APARTADO 07.07.02 OBRA CIVIL				
030	M3 HORMIGÓN HNE-20/B/40 Hormigón HNE-20/B/40, con cemento CEM II/A-D/42,5/SR (UNE 80303:96), en masa o ligeramente armado, colocado en cualquier tipo de obra, incluso fabricación, carga y transporte, totalmente colocado.	249,09	50,38	12.549,15
023	KG ACERO CORRUGADO B-500-S Acero redondo corrugado para armar tipo B-500-S elaborado y colocado.	1.019,55	0,96	978,77
373	UD POZO DE REGISTRO DE AROS DE HORMIGÓN DN1200 Pozo de registro de abastecimiento para válvulas de control de cualquier altura de diámetro interior D=1200 mm, incluso base de hormigón HNE-20, aros de hormigón, cono prefabricado de hormigón, pates y tapa de fundición, totalmente terminado.	4,00	357,84	1.431,36
TOTAL APARTADO 07.07.02 OBRA CIVIL.....				14.959,28
APARTADO 07.07.03 TUBERÍA				
067	ML TUBERÍA FD 100 mm Tubería de fundición dúctil de diámetro interior 100 mm y PFA de 64 bar, revestida interiormente con mortero de cemento y exteriormente con una capa de cinc y otra bituminosa, i/p.p. de junta automática flexible, cinta señalizadora y medios auxiliares, totalmente colocada y probada.	2.870,00	21,07	60.470,90
066	ML TUBERÍA FD 125 mm Tubería de fundición dúctil de diámetro interior 125 mm y PFA de 64 bar, revestida interiormente con mortero de cemento y exteriormente con una capa de cinc y otra bituminosa, i/p.p. de junta automática flexible, cinta señalizadora y medios auxiliares, totalmente colocada y probada.	1.045,00	20,20	21.109,00
086	UD CODO FD 1/4 A 1/32 125 mm Codo de fundición dúctil de 1/4 a 1/32 de diámetro interior 125 mm y PFA 40 bar, con un revestimiento interior y exterior epoxi, incluso p.p. de juntas y medios auxiliares, totalmente colocado y probado.	3,00	77,78	233,34
087	UD CODO FD 1/4 A 1/32 100 mm Codo de fundición dúctil de 1/4 a 1/32 de diámetro interior 100 mm y PFA 40 bar, con un revestimiento interior y exterior epoxi, incluso p.p. de juntas y medios auxiliares, totalmente colocado y probado.	37,00	66,66	2.466,42
TOTAL APARTADO 07.07.03 TUBERÍA.....				84.279,66
APARTADO 07.07.04 VÁLVULAS Y ACCESORIOS				
121	UD TE FD EEB 400 mm PN16/25 SALIDA DN400/80 "T" de fundición dúctil de PFA 16/25 bar, con dos enchufes y derivación con brida para tubería de 400 mm con salida comprendida entre 400 y 80 mm, con un revestimiento interior y exterior epoxi, i/p.p. de junta de unión y medios auxiliares, totalmente colocada y probada.	1,00	669,87	669,87
115.7	UD BRIDA ENCHUFE FD DN<150 mm PN16/25/40 Brida enchufe de fundición dúctil de PFA 16/25/40 bar para tubería de diámetro menor o igual de 150 mm, con un revestimiento interior y exterior epoxi, i/p.p. de junta de unión y medios auxiliares, totalmente colocada y probada.			

PRESUPUESTOS PARCIALES.

ABASTECIMIENTO A VARIOS MUNICIPIOS DE LA RIOJA. SISTEMA CIDACOS

CÓDIGO	RESUMEN	CANTIDAD	PRECIO	IMPORTE
		1,00	104,02	104,02
ECD15016	UD CARRETE DE DESMONTAJE DN=150 mm PN16 Carrete telescópico de desmontaje DN150 PN16, bridas de acero al carbono, virolas de acero inoxidable, protección epoxi, tornillos y tuercas en acero F-114, cincado y posterior baño de cromo-niquel, incluido p.p. de brida enchufe, totalmente instalado y probado en obra.	1,00	200,47	200,47
162	UD MANGUITO FD DN100 A DN250 mm PN16/25 Manguito de fundición dúctil con bridas diámetros de 100 a 250 mm, longitud comprendida entre 0,20 y 1,00 m y PN16/25, incluso p.p. de tornillería y medios auxiliares, totalmente colocado y probado.	1,00	110,14	110,14
235	UD VÁLVULA DE COMPUERTA MANUAL DN150 PN16 Válvula de compuerta de accionamiento manual de diámetro nominal DN=150 mm de 16 bares de presión máxima admisible, con tornillería y juntas, totalmente instalada y probada, incluso volante de accionamiento.	1,00	299,35	299,35
245.1	UD VENTOSA DN=25 mm (1") PN16 Válvula ventosa de tres funciones de 1" (DN=25 mm) y PN 16 bar incluido transporte, juntas, válvula de corte DN=25 mm y PN 16 bar y piezas especiales, totalmente colocada y probada.	3,00	162,21	486,63
245.8	UD VENTOSA DN=25 mm (1") PN25 Válvula ventosa de tres funciones de 1" (DN=25 mm) y PN 25 bar incluido transporte, juntas, válvula de corte DN=25 mm y PN 25 bar y piezas especiales, totalmente colocada y probada.	1,00	173,76	173,76
129.8	UD TE FD EEB 125 mm PN16/25 SALIDA DN125/40 "T" de fundición dúctil de PFA 16/25 bar, con dos enchufes y derivación con brida para tubería de 125 mm y salida comprendida entre 125 y 40 mm, con un revestimiento interior y exterior epoxi, i/p.p. de junta de unión y medios auxiliares, totalmente colocada y probada.	1,00	91,90	91,90
129.9	UD TE FD EEB 100 mm PN16/25 SALIDA DN100/40 "T" de fundición dúctil de PFA 16/25 bar, con dos enchufes y derivación con brida para tubería de 100 mm y salida comprendida entre 100 y 40 mm, con un revestimiento interior y exterior epoxi, i/p.p. de junta de unión y medios auxiliares, totalmente colocada y probada.	3,00	74,87	224,61
114.8	UD REDUCCIÓN FD 50 A 40/25 mm PN16/25 Reducción en fundición dúctil de 50 mm a 40-25 mm con dos bridas PN 16/25 bar, con un revestimiento interior y exterior epoxi, i/p.p. de tornillería y medios auxiliares, totalmente colocada y probada.	4,00	28,54	114,16
TOTAL APARTADO 07.07.04 VÁLVULAS Y ACCESORIOS.....				2.474,91
APARTADO 07.07.05 OBRAS ACCESORIOS Y REPOSICIONES DE SERVICIOS				
056	M3 ZAHORRA ARTIFICIAL Zahorra artificial compactada.	41,87	16,98	710,95
380	M2 REPOSICIÓN DE PAVIMENTO DE HORMIGÓN Reposición de pavimento de hormigón HM-20/B/40/IIa+Qa de 15 cm de espesor, totalmente terminado.	8,00	17,84	142,72
381	M2 REPOSICIÓN DE FIRME DE AGLOMERADO Reposición de firme de aglomerado en caliente en zonas afectadas por las obras.	422,00	4,14	1.747,08
385	M2 REPOSICIÓN DE JARDÍN EXISTENTE Reposición de jardín existente.	62,50	44,62	2.788,75

PRESUPUESTOS PARCIALES.

ABASTECIMIENTO A VARIOS MUNICIPIOS DE LA RIOJA. SISTEMA CIDACOS

CÓDIGO	RESUMEN	CANTIDAD	PRECIO	IMPORTE
388	ML REPOSICIÓN DE ACEQUIA HASTA 1 m ANCHURA Reposición de acequia prefabricada de hormigón hasta 1,00 m de anchura.	5,00	87,65	438,25
	TOTAL APARTADO 07.07.05 OBRAS ACCESORIAS Y REPOSICIONES DE SERVICIOS			5.827,75
	TOTAL SUBCAPÍTULO 07.07 EJE 21: ACOMETIDA BERGASA.....			171.312,81
	SUBCAPÍTULO 07.08 EJE 22: ACOMETIDA TUDELILLA			
	APARTADO 07.08.01 MOVIMIENTO DE TIERRAS			
003	M3 EXCAVACIÓN EN ZANJAS CON AGOTAMIENTO Excavación en zanjas y zonas localizadas, en todo tipo de terrenos incluido terrenos en roca con medios mecánicos, incluso rasanteo, nivelación de la superficie de apoyo, agotamiento y transporte a lugar de empleo o vertedero.	33,90	3,84	130,18
008	M2 DESPEJE Y DESBROCE Despeje y desbroce de capa de tierra vegetal con un espesor medio de 50 cm, incluso corte de árboles, extracción de tocones, nivelación de zona adyacente para el paso de maquinaria, transporte a lugar de acopio independiente para posterior reposición de tierra vegetal tras las obras y despedregado de las parcelas, así como transporte a vertedero de tierras sobrantes.	62,55	0,57	35,65
010	M3 RELLENO ZANJAS, CIMIENTOS Y TRASDOSES DE MATERIAL SELECCIONADO Relleno con material seleccionado en zanjas, cimientos, trasdós de muros, estribos y otras estructuras procedente de la excavación o préstamos incluso carga, transporte y compactación.	26,30	3,32	87,32
011	M3 RELLENO DE ARENA Arena para apoyo y protección de tuberías incluso carga, transporte, colocación, compactación y nivelación.	7,30	12,09	88,26
	TOTAL APARTADO 07.08.01 MOVIMIENTO DE TIERRAS.....			341,41
	APARTADO 07.08.02 TUBERÍAS			
172	ML TUBERÍA PEAD DN=110 mm PN 16 Tubería de polietileno de alta densidad de 110 mm de diámetro exterior y PN=16 bar, colocada en zanja incluso banda de señalización, p.p. de junta de unión colocada, codos, tes, portabridas, así como piezas especiales y medios auxiliares, totalmente colocada.	21,00	18,56	389,76
	TOTAL APARTADO 07.08.02 TUBERÍAS.....			389,76
	APARTADO 07.08.03 VÁLVULAS Y ACCESORIOS			
245.1	UD VENTOSA DN=25 mm (1") PN16 Válvula ventosa de tres funciones de 1" (DN=25 mm) y PN 16 bar incluido transporte, juntas, válvula de corte DN=25 mm y PN 16 bar y piezas especiales, totalmente colocada y probada.	1,00	162,21	162,21
175	UD "T" PEAD DN 140 A 63 mm PN16 "T" de derivación en polietileno de alta densidad de 140 mm de diámetro exterior a 63 mm y PN=16 bar, colocada en zanja incluso p.p. de junta de unión colocada y medios auxiliares, totalmente colocada y probada.	1,00	69,65	69,65
177.1	UD REDUCCIÓN PEAD 63 A 50 mm DIÁMETRO Reducción en polietileno de alta densidad de 63 mm a 50 mm de diámetro, totalmente colocada y probada.	1,00	21,03	21,03
373	UD POZO DE REGISTRO DE AROS DE HORMIGÓN DN1200 Pozo de registro de abastecimiento para válvulas de control de cualquier altura de diámetro interior D=1200 mm, incluso base de hormigón HNE-20, aros de hormigón, cono prefabricado de hormigón, pates y tapa de fundición, totalmente terminado.	1,00	357,84	357,84

PRESUPUESTOS PARCIALES.

ABASTECIMIENTO A VARIOS MUNICIPIOS DE LA RIOJA. SISTEMA CIDACOS

CÓDIGO	RESUMEN	CANTIDAD	PRECIO	IMPORTE
	TOTAL APARTADO 07.08.03 VÁLVULAS Y ACCESORIOS.....			610,73
	APARTADO 07.08.04 OBRAS ACCESORIAS Y REPOSICIONES DE SERVICIOS			
383	ML REPOSICIÓN DE CERRAMIENTO EXISTENTE Reposición de cerramiento existente hasta 2,00 m de altura.	15,00	9,37	140,55
	TOTAL APARTADO 07.08.04 OBRAS ACCESORIAS Y REPOSICIONES DE SERVICIOS.....			140,55
	TOTAL SUBCAPÍTULO 07.08 EJE 22: ACOMETIDA TUDELILLA.....			1.482,45
	SUBCAPÍTULO 07.09 EJE 23: ACOMETIDA VILLAR DE ARNEDO			
	APARTADO 07.09.01 MOVIMIENTO DE TIERRAS			
003	M3 EXCAVACIÓN EN ZANJAS CON AGOTAMIENTO Excavación en zanjas y zonas localizadas, en todo tipo de terrenos incluido terrenos en roca con medios mecánicos, incluso rasanteo, nivelación de la superficie de apoyo, agotamiento y transporte a lugar de empleo o vertedero.	1.894,80	3,84	7.276,03
007	M2 ENTIBACIÓN MÓDULOS METÁLICOS Entibación a dos caras mediante módulos metálicos y articulados, en zonas de protección de zanja, medida la superficie efectiva.	30,00	8,69	260,70
008	M2 DESPEJE Y DESBROCE Despeje y desbroce de capa de tierra vegetal con un espesor medio de 50 cm, incluso corte de árboles, extracción de tocones, nivelación de zona adyacente para el paso de maquinaria, transporte a lugar de acopio independiente para posterior reposición de tierra vegetal tras las obras y despedregado de las parcelas, así como transporte a vertedero de tierras sobrantes.	414,78	0,57	236,42
010	M3 RELLENO ZANJAS, CIMIENTOS Y TRASDOSES DE MATERIAL SELECCIONADO Relleno con material seleccionado en zanjas, cimientos, trasdós de muros, estribos y otras estructuras procedente de la excavación o préstamos incluso carga, transporte y compactación.	1.456,60	3,32	4.835,91
011	M3 RELLENO DE ARENA Arena para apoyo y protección de tuberías incluso carga, transporte, colocación, compactación y nivelación.	424,40	12,09	5.131,00
019	M2 DEMOLICIÓN DE FIRMES Demolición de firmes de cualquier tipo, incluso precorte, carga y transporte a vertedero, posterior perfilado y compactación del terreno.	759,00	2,50	1.897,50
	TOTAL APARTADO 07.09.01 MOVIMIENTO DE TIERRAS.....			19.637,56
	APARTADO 07.09.02 OBRA CIVIL			
023	KG ACERO CORRUGADO B-500-S Acero redondo corrugado para armar tipo B-500-S elaborado y colocado.	861,23	0,96	826,78
030	M3 HORMIGÓN HNE-20/B/40 Hormigón HNE-20/B/40, con cemento CEM III/A-D/42,5/SR (UNE 80303:96), en masa o ligeramente armado, colocado en cualquier tipo de obra, incluso fabricación, carga y transporte, totalmente colocado.	159,82	50,38	8.051,73
373	UD POZO DE REGISTRO DE AROS DE HORMIGÓN DN1200 Pozo de registro de abastecimiento para válvulas de control de cualquier altura de diámetro interior D=1200 mm, incluso base de hormigón HNE-20, aros de hormigón, cono prefabricado de hormigón, pates y tapa de fundición, totalmente terminado.	4,00	357,84	1.431,36
	TOTAL APARTADO 07.09.02 OBRA CIVIL.....			10.309,87

PRESUPUESTOS PARCIALES.

ABASTECIMIENTO A VARIOS MUNICIPIOS DE LA RIOJA. SISTEMA CIDACOS

CÓDIGO	RESUMEN	CANTIDAD	PRECIO	IMPORTE
APARTADO 07.09.03 TUBERÍAS				
067	ML TUBERÍA FD 100 mm Tubería de fundición dúctil de diámetro interior 100 mm y PFA de 64 bar, revestida interiormente con mortero de cemento y exteriormente con una capa de cinc y otra bituminosa, i/p.p. de junta automática flexible, cinta señalizadora y medios auxiliares, totalmente colocada y probada.	1.298,00	21,07	27.348,86
087	UD CODO FD 1/4 A 1/32 100 mm Codo de fundición dúctil de 1/4 a 1/32 de diámetro interior 100 mm y PFA 40 bar, con un revestimiento interior y exterior epoxi, incluso p.p. de juntas y medios auxiliares, totalmente colocado y probado.	26,00	66,66	1.733,16
TOTAL APARTADO 07.09.03 TUBERÍAS.....				29.082,02
APARTADO 07.09.04 VÁLVULAS Y ACCESORIOS				
245.1	UD VENTOSA DN=25 mm (1") PN16 Válvula ventosa de tres funciones de 1" (DN=25 mm) y PN 16 bar incluido transporte, juntas, válvula de corte DN=25 mm y PN 16 bar y piezas especiales, totalmente colocada y probada.	2,00	162,21	324,42
129.9	UD TE FD EEB 100 mm PN16/25 SALIDA DN100/40 "T" de fundición dúctil de PFA 16/25 bar, con dos enchufes y derivación con brida para tubería de 100 mm y salida comprendida entre 100 y 40 mm, con un revestimiento interior y exterior epoxi, i/p.p. de junta de unión y medios auxiliares, totalmente colocada y probada.	2,00	74,87	149,74
114.8	UD REDUCCIÓN FD 50 A 40/25 mm PN16/25 Reducción en fundición dúctil de 50 mm a 40-25 mm con dos bridas PN 16/25 bar, con un revestimiento interior y exterior epoxi, i/p.p. de tornillería y medios auxiliares, totalmente colocada y probada.	2,00	28,54	57,08
237	UD VÁLVULA DE COMPUERTA MANUAL DN100 PN25 Válvula de compuerta de cierre elástico de 100 mm. de diámetro nominal y 25 At. de P.N., de accionamiento manual por volante, de cuerpo de fundición nodular GGG-50, con eje de acero inoxidable al 13 % Cr. con roscas conformadas por laminación en frío, cierre en fundición nodular, tornillería de acero inoxidable, protegida contra la corrosión mediante aplicación de doble capa de pintura epoxy, totalmente colocada y probada. Resto de características según ET.	2,00	361,59	723,18
ECD010025	UD CARRETE DE DESMONTAJE DN=100 mm PN25 Carrete telescópico de desmontaje DN100 PN25, bridas de acero al carbono, virolas de acero inoxidable, protección epoxi, tornillos y tuercas en acero F-114, cincado y posterior baño de cromo-niquel, incluido p.p. de brida enchufe, totalmente instalado y probado en obra.	2,00	295,46	590,92
TOTAL APARTADO 07.09.04 VÁLVULAS Y ACCESORIOS.....				1.845,34
APARTADO 07.09.05 HINCAS				
366	ML HINCA TUBO ACERO 355 mm TIERRAS Hinca de tubo de acero, de 355 mm de diámetro interior, bajo viales, en tierra o roca alterada, incluso p.p. de instalación de tubería de fundición dúctil comprendida entre 250 y 150 mm de diámetro interior y sus anclajes y apoyos; muros de reacción y contención; y todos los elementos necesarios para su montaje y desmontaje.	16,00	300,65	4.810,40
TOTAL APARTADO 07.09.05 HINCAS.....				4.810,40

PRESUPUESTOS PARCIALES.

ABASTECIMIENTO A VARIOS MUNICIPIOS DE LA RIOJA. SISTEMA CIDACOS

CÓDIGO	RESUMEN	CANTIDAD	PRECIO	IMPORTE
APARTADO 07.09.06 OBRAS ACCESORIAS Y REPOSICIONES DE SERVICIOS				
381	M2 REPOSICIÓN DE FIRME DE AGLOMERADO Reposición de firme de aglomerado en caliente en zonas afectadas por las obras.	759,00	4,14	3.142,26
056	M3 ZAHORRA ARTIFICIAL Zahorra artificial compactada.	534,00	16,98	9.067,32
TOTAL APARTADO 07.09.06 OBRAS ACCESORIAS Y REPOSICIONES DE SERVICIOS.....				12.209,58
TOTAL SUBCAPÍTULO 07.09 EJE 23: ACOMETIDA VILLAR DE ARNEDO.....				77.894,77
SUBCAPÍTULO 07.10 ARQUETA REDUCTORA P-410. DERIVACIÓN VILLAR				
APARTADO 07.10.01 OBRA CIVIL				
008	M2 DESPEJE Y DESBROCE Despeje y desbroce de capa de tierra vegetal con un espesor medio de 50 cm, incluso corte de árboles, extracción de tocones, nivelación de zona adyacente para el paso de maquinaria, transporte a lugar de acopio independiente para posterior reposición de tierra vegetal tras las obras y despedregado de las parcelas, así como transporte a vertedero de tierras sobrantes.	34,32	0,57	19,56
002	M3 EXCAVACIÓN EN ZANJAS Excavación en zanjas y zonas localizadas, en todo tipo de terrenos incluido terrenos en roca con medios mecánicos, incluso rasanteo, nivelación de la superficie de apoyo y transporte a lugar de empleo o vertedero.	80,65	3,74	301,63
010	M3 RELLENO ZANJAS, CIMIENTOS Y TRASDOSES DE MATERIAL SELECCIONADO Relleno con material seleccionado en zanjas, cimientos, trasdós de muros, estribos y otras estructuras procedente de la excavación o préstamos incluso carga, transporte y compactación.	8,73	3,32	28,98
028	M3 HORMIGÓN DE LIMPIEZA HL-150 Hormigón de limpieza HL-150, de consistencia plástica, árido de tamaño máximo 40 mm y cemento CEM-II-D/42,5/SR, para saneos y encachados, incluyendo fabricación y transporte totalmente colocado.	3,43	44,76	153,53
031	M3 HORMIGÓN HA-25/B/20/IIa Hormigón HA-25/B/20/IIa, con cemento CEM II/A-D/42,5/SR, incluyendo fabricación, transporte, puesta en obra y vibrado, totalmente ejecutado, incluso curado y juntas.	27,75	53,39	1.481,57
023	KG ACERO CORRUGADO B-500-S Acero redondo corrugado para armar tipo B-500-S elaborado y colocado.	2.152,80	0,96	2.066,69
025	M2 ENCOFRADO RECTO EN PARAMENTOS OCULTOS Encofrado recto en paramentos ocultos, incluso colocación, fijación y desencofrado.	9,76	17,65	172,26
026	M2 ENCOFRADO RECTO EN PARAMENTOS VISTOS 1C Encofrado recto en paramentos vistos a una cara, incluso colocación, fijación y desencofrado.	93,48	21,18	1.979,91
052	ML JUNTAS DE ESTANQUEIDAD DE PVC 32 CM Junta de trabajo interior de policloruro de vinilo (PVC) 100% virgen, con una fuerza máxima de dilatación > 250 % , de 32 cm de ancho, MASTERFLEX 2000 TI-24 de BASF o equivalente, colocada simétricamente en el eje de la losa o muro, incluso solapes y piezas especiales para cruces o ángulos. Medida la longitud ejecutada.	22,80	7,31	166,67

PRESUPUESTOS PARCIALES.

ABASTECIMIENTO A VARIOS MUNICIPIOS DE LA RIOJA. SISTEMA CIDACOS

CÓDIGO	RESUMEN	CANTIDAD	PRECIO	IMPORTE
462	M2 FÁBRICA BLOQUES 40x20x20 cm TIPO SPLIT COLOR Fábrica de bloques de hormigón tipo Split, de medidas 40x20x20 cm color i/relleno de hormigón y colocación de armaduras s/normativa y recibido con mortero de cemento y arena de río 1/6 i/p.p. de piezas especiales para dinteles y materialización de jambas, roturas, nivelados, aplomados, llagueados y limpieza, todo ello según normativa.	77,08	31,80	2.451,14
520	M2 CUBIERTA PANEL SANDWICH (E=50 mm.) Cubierta con panel tipo sandwich espesor 50 cm., con doble chapa prelacada de 0,4 mm de espesor, y aislamiento térmico de poliuretano, fijada con gancho de acero galvanizado, incluso p.p de piezas de remate, totalmente colocada.	29,60	27,03	800,09
519	ML REMATE DE CHAPA PRELACADA CUBIERTA Remate de chapa prelacada en color, para cubrir parte superior de bloque o panel, hasta el panel sandwich de la cubierta por el interior del peto, fijado mediante tacos y/o ganchos anclado a muro y o cubierta, dispuesto según planos.	15,40	22,47	346,04
465.1	M2 PUERTA DOBLE CHAPA ACERO CON LAMAS Puerta de paso hojas abatibles de doble chapa lisa de acero de 1 mm de espesor, con aislamiento interno de fibre de vidrio, engatillada, realizada en dos bandejas, con rigidizadores de tubo rectangular, i/manillas de acero inoxidable y cerradura, con dos o cuatro rejillas de ventilación con malla anti insectos interior, patillas para recibir en fábricas, herrajes de colgar y de seguridad, imprimación antióxido y pintura al esmalte, totalmente colocada incluyendo el recibido de fábricas.	1,76	75,01	132,02
464cf	M2 CARPINTERÍA FIJA ALUMINIO m². Carpintería fija con junquillos para la fijación del vidrio, de aluminio modelo con rotura de puente térmico, Alfil A54RPT de SAPAGROUP con un ancho de marco de 54 mm y con un ancho de hoja de 61 mm, medida del frente de 96,3 mm, con sistema de cámara europea, con espesor de perfil de 1,5 mm, con sistema de cierre por junta central de estanqueidad en EPDM, coplanar exteriormente y con resalte de hoja sobre el marco al interior, para un acristalamiento con altura de galce de 22 mm y anchura hasta 44 mm en marcos y 51 mm en hojas, lacado (entre 60-100 micras) en color estándar (RAL estándar: blanco, gris...), herrajes de colgar, p.p. de cerradura Tesa o similar y costes indirectos. Homologada con Clase 4 en el ensayo de permeabilidad al aire según norma UNE-EN 1026:2000. La transmitancia máxima del marco es de 2,90 W/m² K, y cumple en las zonas A, B, C, D y E, según el CTE/DB-HE 1.	0,48	144,71	69,46
464V3	M2 VIDRIO SEGURIDAD STADIP 44.1 INCOLORO (2B2) m². Acristalamiento de vidrio laminar de seguridad Stadip compuesto por dos vidrios de 4 mm de espesor unidos mediante lámina de butiral de polivinilo incolora de 0,38 mm, clasificado 2B2 según UNE-EN 12600, fijado sobre carpintería con acuíado mediante calzos de apoyo perimetrales y laterales y sellado en frío con silicona neutra, incluso colocación de junquillos, según UNE 85222:1985.	0,48	37,05	17,78
521	M2 CELOSIA FIJA VENTILACIÓN Celosía metálica fija para ventilación, formada por cerco con empanelado de lamas de acero de 60 mm, con abertura mínima de 1 cm entre lamas, malla de 2 mm para evitar entrada de insectos, garras de sujeción a soporte de 10 cm, elaborada en taller y montada en obra, totalmente colocada.	0,48	73,80	35,42
020	KG ACERO S 275 J PERFILES LAMINADOS Acero S 275 J en perfiles laminados elaborado y colocado.	369,42	1,95	720,37
474.1	ML CANALON CHAPA PRELACADA 50cm Canalón de chapa prelacada en color, de 50 cm. de desarrollo fijado mediante ganchos ocultos con tornillo autoroscante 40 cm., incluso p.p. de embocadura de bajante, codos y piezas especiales.	7,40	11,85	87,69

PRESUPUESTOS PARCIALES.

ABASTECIMIENTO A VARIOS MUNICIPIOS DE LA RIOJA. SISTEMA CIDACOS

CÓDIGO	RESUMEN	CANTIDAD	PRECIO	IMPORTE
290B	M2 ESCALERA Y PASARELAS DE ACERO GALVANIZADO. BARANDILLAS GALVANIZ Escalera y pasarelas de acceso de forma según planos, ejecutada en perfiles de acero galvanizado en caliente, incluso barandilla tubular del mismo material, de 90 cm de altura en uno o dos lados, rodapié de seguridad del mismo en uno o dos lados, así como entramado metálico de 30x30x3 en descansillos y peldaños, medida según su proyección en planta. Anclada a los muros y/o solera, instalada.	2,50	81,77	204,43
620	UD APOYOS DE TUBERÍA Y VÁLVULAS SOBRE SOLERA Apoyos de tuberías y válvulas en soleras, mediante dado de hormigón HA-25/P/20/IIa, ligeramente armado y anclado a la solera, así como cintas o eslingas de acero con material de protección de tubería para sujeción de las mismas, incluyendo el hormigón, encofrados, acero, eslingas, material de PE de protección, montado.	9,00	63,07	567,63
474.2	ML BAJANTE DE CHAPA PRELACADA DN110 Bajante de chapa prelacada en color, DN110, fijado mediante ganchos con tornillo autoroscante 20 cm., incluso p.p. de embocadura de bajante, codos y piezas especiales.	3,00	12,29	36,87
290AA	ML ESCALERA TUBULAR GALVANIZADO CON ELEMENTOS ANTICAIDA Formación de escalera tubular de 50 mm de diámetro, de acero galvanizado, incluso protecciones circulares contra caídas según normativa, anclada a la pared y/o muros, totalmente ejecutada.	3,50	53,09	185,82
290	UD PATE POLIPROPILENO Pate de polipropileno de dimensiones 30x25 cm, incluyendo fabricación, transporte a obra, perforación de anclajes y relleno con aportación de material de agarre, completamente colocado.	9,00	5,63	50,67
TOTAL APARTADO 07.10.01 OBRA CIVIL.....				12.076,23
APARTADO 07.10.02 VÁLVULAS Y ACCESORIOS				
114.3	UD BRIDA LISO FD 250 mm PN16/25 Brida lisa de fundición dúctil de PFA 16/25 bar para tubería de 250 mm, con un revestimiento interior y exterior epoxi, i/p.p. de junta de unión y medios auxiliares, totalmente colocada y probada.	1,00	202,81	202,81
115.8	UD BRIDA ENCHUFE FD 300 mm PN40 Brida enchufe de fundición dúctil de PFA 40 bar para tubería de 300 mm, con un revestimiento interior y exterior epoxi, i/p.p. de junta de unión y medios auxiliares, totalmente colocada y probada.	1,00	281,34	281,34
135	UD TE FD EEB 250 mm PN16/25 SALIDA DN250/60 "T" de fundición dúctil de PFA 16/25 bar, con dos enchufes y derivación con brida para tubería de 250 mm y salida comprendida entre 250 y 60 mm, con un revestimiento interior y exterior epoxi, i/p.p. de junta de unión y medios auxiliares, totalmente colocada y probada.	1,00	372,50	372,50
128.1	UD TE FD BBB 200 mm PN40 SALIDA DN200/40 "T" de fundición dúctil de PFA 40 bar, con tres bridas para tubería de 200 mm con salida comprendida entre 200 y 40 mm, con un revestimiento interior y exterior epoxi, i/p.p. de junta de unión y medios auxiliares, totalmente colocada y probada.	1,00	177,89	177,89
134	UD TE FD BBB 250 mm PN16/25 SALIDA DN250/60 "T" de fundición dúctil de PFA 16/25 bar, con tres bridas para tubería de 250 mm con salida comprendida entre 250 y 60 mm, con un revestimiento interior y exterior epoxi, i/p.p. de junta de unión y medios auxiliares, totalmente colocada y probada.	2,00	271,20	542,40
137	UD TE FD BBB 200 mm PN16/25 SALIDA DN200/40 "T" de fundición dúctil de PFA 16 bar, con tres bridas para tubería de 200 mm con salida comprendida entre 200 y 40 mm, con un revestimiento interior y exterior epoxi, i/p.p. de junta de unión y medios auxiliares, totalmente colocada y probada.	2,00	151,94	303,88

PRESUPUESTOS PARCIALES.

ABASTECIMIENTO A VARIOS MUNICIPIOS DE LA RIOJA. SISTEMA CIDACOS

CÓDIGO	RESUMEN	CANTIDAD	PRECIO	IMPORTE
245.2	UD VENTOSA DN=80 (3") mm PN16 Válvula ventosa de tres funciones de DN=80 mm (3") y PN 16 bar incluido transporte, juntas, válvula de corte DN=80 mm y PN 16y piezas especiales, totalmente colocada y probada.	3,00	432,90	1.298,70
104.1	UD REDUCCIÓN FD 300 A 200 mm PN40 Reducción en fundición dúctil de 300 mm a 200 mm con dos bridas PN 40bar, con un revestimiento interior y exterior epoxi, i/p.p. de tornillería y medios auxiliares, totalmente colocada y probada.	1,00	378,05	378,05
162	UD MANGUITO FD DN100 A DN250 mm PN16/25 Manguito de fundición dúctil con bridas diámetros de 100 a 250 mm, longitud comprendida entre 0,20 y 1,00 m y PN16/25, incluso p.p. de tornillería y medios auxiliares, totalmente colocado y probado.	2,00	110,14	220,28
273	UD VÁLVULA ALIVIO DE PRESIÓN 3" PN 16 Válvula de alivio de presión de 3" brida PN 16 bar, incluso válvula de corte de 3", juntas de unión, y tornillería, totalmente colocada y probada.	2,00	1.438,29	2.876,58
109	UD REDUCCIÓN FD 200 A 150/100 mm PN16 Reducción en fundición dúctil de 200 mm a 150-125-100 mm con dos bridas PN 16 bar, con un revestimiento interior y exterior epoxi, i/p.p. de junta de unión y medios auxiliares, totalmente colocada y probada.	2,00	91,37	182,74
232	UD VÁLVULA DE COMPUERTA MANUAL DN200 PN16 Válvula de compuerta de cierre elástico de 200 mm. de diámetro nominal y 16 At. de P.N., de accionamiento manual por volante, de cuerpo de fundición nodular GGG-50, con eje de acero inoxidable al 13 % Cr. con roscas conformadas por laminación en frío, cierre en fundición nodular, tornillería de acero inoxidable, protegida contra la corrosión mediante aplicación de doble capa de pintura epoxy, totalmente colocada y probada. Resto de características según ET.	2,00	514,52	1.029,04
162.2	UD MANGUITO FD DN100 A DN250 mm PN40 Manguito de fundición dúctil con bridas diámetros de 100 a 250 mm, longitud comprendida entre 0,20 y 1,00 m y PN40, incluso p.p. de tornillería y medios auxiliares, totalmente colocado y probado.	4,00	159,85	639,40
084.1	UD CODO FD 1/4 200 mm Codo de fundición dúctil de 1/4 de diámetro interior 200 mm y PFA 40 bar, con revestimiento interior y exterior epoxi, incluso p.p. de juntas y medios auxiliares, totalmente colocado y probado.	2,00	289,60	579,20
230	UD VÁLVULA DE COMPUERTA MANUAL DN200 PN40 Válvula de compuerta de accionamiento manual de diámetro nominal DN=200 mm de 40 bares de presión máxima admisible, con tornillería y juntas, totalmente instalada y probada, incluso volante de accionamiento.	2,00	897,84	1.795,68
142	UD CARRETE DE DESMONTAJE DN=200 mm PN40 Carrete de desmontaje autoportante de PFA 40 bar de D=200 mm, colocado.	2,00	571,48	1.142,96
246	UD FILTRO COLADOR EN Y DN=200 mm PN40 Filtro colador en "Y" de diámetro nominal DN=200 mm y brida PN=40 bar de presión, incluso juntas de unión y tornillería, totalmente instalado.	2,00	1.589,36	3.178,72
256	UD VÁLVULA REDUCTORA DE PRESIÓN DN=200 mm PN40 Válvula reductora de presión de diámetro DN=200 mm y PN 40 bar, incluso juntas de unión y tornillería, totalmente colocada y probada.	2,00	11.150,99	22.301,98

PRESUPUESTOS PARCIALES.

ABASTECIMIENTO A VARIOS MUNICIPIOS DE LA RIOJA. SISTEMA CIDACOS

CÓDIGO	RESUMEN	CANTIDAD	PRECIO	IMPORTE
082	UD CODO FD 1/4 250 mm Codo de fundición dúctil de 1/8 de diámetro interior 250 mm y PFA 40 bar, con revestimiento interior y exterior epoxi, incluso p.p. de juntas y medios auxiliares, totalmente colocado y probado.	2,00	238,06	476,12
114.4	UD BRIDA LISO FD DN<150 mm PN16/25/40 Brida lisa de fundición dúctil de PFA 16/25/40 bar para tubería de diámetro menor o igual de 150 mm, con un revestimiento interior y exterior epoxi, i/p.p. de junta de unión y medios auxiliares, totalmente colocada y probada.	1,00	78,80	78,80
237	UD VÁLVULA DE COMPUERTA MANUAL DN100 PN25 Válvula de compuerta de cierre elástico de 100 mm. de diámetro nominal y 25 At. de P.N., de accionamiento manual por volante, de cuerpo de fundición nodular GGG-50, con eje de acero inoxidable al 13 % Cr. con roscas conformadas por laminación en frío, cierre en fundición nodular, tornillería de acero inoxidable, protegida contra la corrosión mediante aplicación de doble capa de pintura epoxy, totalmente colocada y probada. Resto de características según ET.	1,00	361,59	361,59
ECD010016	UD CARRETE DE DESMONTAJE DN=100 mm PN16 Carrete telescópico de desmontaje DN100 PN16, bridas de acero al carbono, virolas de acero inoxidable, protección epoxi, tornillos y tuercas en acero F-114, cincado y posterior baño de cromo-niquel, incluido p.p. de brida enchufe, totalmente instalado y probado en obra.	1,00	167,93	167,93
115.7	UD BRIDA ENCHUFE FD DN<150 mm PN16/25/40 Brida enchufe de fundición dúctil de PFA 16/25/40 bar para tubería de diámetro menor o igual de 150 mm, con un revestimiento interior y exterior epoxi, i/p.p. de junta de unión y medios auxiliares, totalmente colocada y probada.	1,00	104,02	104,02
TOTAL APARTADO 07.10.02 VÁLVULAS Y ACCESORIOS.....				38.692,61
APARTADO 07.10.03 INSTALACIÓN ELÉCTRICA DE BT				
563.1	ud PANTALLA ESTANCA LED Luminaria estanca WT120C LED80S/840 de Philips o equivalente para montaje en superficie de dimensiones 1515x80, carcasa de policarbonato, óptica de polimetacrilato de metilo, flujo luminoso 8.000 lm, potencia 68 W, Tª color 4000 K, rango de Tª de 10°C a 35°C, protección IP-65 Clase I. Incluso p.p. de canalización y cableado, completamente instalado.	1,00	28,30	28,30
524.1	m LINEA 3x1.5mm2 Cu 0.6/1kV RZ1-K (AS) Línea eléctrica con conductor multipolares 3x1.5mm2 RZ1-K (AS) en canalización existente, incluso conexionado en inicio y final de línea.	15,00	3,34	50,10
571	ud INTERRUPTOR EMPOTRAR SIMO 32 BLANCO. Interruptor empotrar blanco, totalmente instalado.	1,00	9,25	9,25
204	m TUBO DE PVC RÍGIDO DE 25 MM DIÁMETRO Tubo rígido de PVC d=25mm para canalización de conductores, incluso soportes y anclajes a pared, instalado.	25,00	4,17	104,25
TOTAL APARTADO 07.10.03 INSTALACIÓN ELÉCTRICA DE BT.....				191,90
APARTADO 07.10.04 VARIOS				
617.4	PA CONEXIÓN ALIVIOS CON POZO EXTERIOR Y DESAGÜE Partida Alzada de Abono Íntegro para conexión de la salida de los alivios de la nueva caseta de válvulas con pozo exterior y salida a cuneta y/o cauce, incluyendo, excavaciones, tuberías de PEAD DN de salida de alivio, rellenos, ayudas de albañilería, demoliciones, relleno de huecos con morteros sin retracción, anclaje de tuberías, así como todos los medios auxiliares necesarios para la conexión entre ambas tuberías.	1,00	536,70	536,70

PRESUPUESTOS PARCIALES.

ABASTECIMIENTO A VARIOS MUNICIPIOS DE LA RIOJA. SISTEMA CIDACOS

CÓDIGO	RESUMEN	CANTIDAD	PRECIO	IMPORTE
	TOTAL APARTADO 07.10.04 VARIOS			536,70
	TOTAL SUBCAPÍTULO 07.10 ARQUETA REDUCTORA P-410. DERIVACIÓN VILLAR.....			51.497,44
	SUBCAPÍTULO 07.11 BOMBEO AUSEJO Y VALLE DE OCÓN			
	APARTADO 07.11.01 OBRA CIVIL			
008	M2 DESPEJE Y DESBROCE Despeje y desbroce de capa de tierra vegetal con un espesor medio de 50 cm, incluso corte de árboles, extracción de tocones, nivelación de zona adyacente para el paso de maquinaria, transporte a lugar de acopio independiente para posterior reposición de tierra vegetal tras las obras y despedregado de las parcelas, así como transporte a vertedero de tierras sobrantes.	120,00	0,57	68,40
002	M3 EXCAVACIÓN EN ZANJAS Excavación en zanjas y zonas localizadas, en todo tipo de terrenos incluido terrenos en roca con medios mecánicos, incluso rasanteo, nivelación de la superficie de apoyo y transporte a lugar de empleo o vertedero.	183,90	3,74	687,79
010	M3 RELLENO ZANJAS, CIMIENTOS Y TRASDOSES DE MATERIAL SELECCIONADO Relleno con material seleccionado en zanjas, cimientos, trasdós de muros, estribos y otras estructuras procedente de la excavación o préstamos incluso carga, transporte y compactación.	12,18	3,32	40,44
028	M3 HORMIGÓN DE LIMPIEZA HL-150 Hormigón de limpieza HL-150, de consistencia plástica, árido de tamaño máximo 40 mm y cemento CEM-II-D/42,5/SR, para saneos y encachados, incluyendo fabricación y transporte totalmente colocado.	9,90	44,76	443,12
031	M3 HORMIGÓN HA-25/B/20/IIa Hormigón HA-25/B/20/IIa, con cemento CEM II/A-D/42,5/SR, incluyendo fabricación, transporte, puesta en obra y vibrado, totalmente ejecutado, incluso curado y juntas.	59,92	53,39	3.199,13
023	KG ACERO CORRUGADO B-500-S Acero redondo corrugado para armar tipo B-500-S elaborado y colocado.	4.845,44	0,96	4.651,62
025	M2 ENCOFRADO RECTO EN PARAMENTOS OCULTOS Encofrado recto en paramentos ocultos, incluso colocación, fijación y desencofrado.	21,84	17,65	385,48
026	M2 ENCOFRADO RECTO EN PARAMENTOS VISTOS 1C Encofrado recto en paramentos vistos a una cara, incluso colocación, fijación y desencofrado.	122,60	21,18	2.596,67
026.2	M2 ENCOFRADO RECTO EN PILARES VISTOS Encofrado recto en pilares vistos, incluso colocación, fijación y desencofrado.	26,26	27,68	726,88
026.3	M2 ENCOFRADO RECTO EN VIGAS VISTOS Encofrado recto en vigas vistos, incluso colocación, fijación, apuntalamiento o cimbras, y desencofrado.	37,62	29,84	1.122,58
052	ML JUNTAS DE ESTANQUEIDAD DE PVC 32 CM Junta de trabajo interior de policloruro de vinilo (PVC) 100% virgen, con una fuerza máxima de dilatación > 250 % , de 32 cm de ancho, MASTERFLEX 2000 TI-24 de BASF o equivalente, colocada simétricamente en el eje de la losa o muro, incluso solapes y piezas especiales para cruces o ángulos. Medida la longitud ejecutada.	34,00	7,31	248,54

PRESUPUESTOS PARCIALES.

ABASTECIMIENTO A VARIOS MUNICIPIOS DE LA RIOJA. SISTEMA CIDACOS

CÓDIGO	RESUMEN	CANTIDAD	PRECIO	IMPORTE
462	M2 FÁBRICA BLOQUES 40x20x20 cm TIPO SPLIT COLOR Fábrica de bloques de hormigón tipo Split, de medidas 40x20x20 cm color i/relleno de hormigón y colocación de armaduras s/normativa y recibido con mortero de cemento y arena de río 1/6 i/p.p. de piezas especiales para dinteles y materialización de jambas, roturas, nivelados, aplomados, llagueados y limpieza, todo ello según normativa.	100,92	31,80	3.209,26
520	M2 CUBIERTA PANEL SANDWICH (E=50 mm.) Cubierta con panel tipo sandwich espesor 50 cm., con doble chapa prelacada de 0,4 mm de espesor, y aislamiento térmico de poliuretano, fijada con gancho de acero galvanizado, incluso p.p de piezas de remate, totalmente colocada.	71,04	27,03	1.920,21
519	ML REMATE DE CHAPA PRELACADA CUBIERTA Remate de chapa prelacada en color, para cubrir parte superior de bloque o panel, hasta el panel sandwich de la cubierta por el interior del peto, fijado mediante tacos y/o ganchos anclado a muro y o cubierta, dispuesto según planos.	34,00	22,47	763,98
465.1	M2 PUERTA DOBLE CHAPA ACERO CON LAMAS Puerta de paso hojas abatibles de doble chapa lisa de acero de 1 mm de espesor, con aislamiento interno de fibre de vidrio, engatillada, realizada en dos bandejas, con rigidizadores de tubo rectangular, i/manillas de acero inoxidable y cerradura, con dos o cuatro rejillas de ventilación con malla anti insectos interior, patillas para recibir en fábricas, herrajes de colgar y de seguridad, imprimación antióxido y pintura al esmalte, totalmente colocada incluyendo el recibido de fábricas.	2,20	75,01	165,02
464cf	M2 CARPINTERÍA FIJA ALUMINIO m². Carpintería fija con junquillos para la fijación del vidrio, de aluminio modelo con rotura de puente térmico, Alfil A54RPT de SAPAGROUP con un ancho de marco de 54 mm y con un ancho de hoja de 61 mm, medida del frente de 96,3 mm, con sistema de cámara europea, con espesor de perfil de 1,5 mm, con sistema de cierre por junta central de estanqueidad en EPDM, coplanar exteriormente y con resalte de hoja sobre el marco al interior, para un acristalamiento con altura de galce de 22 mm y anchura hasta 44 mm en marcos y 51 mm en hojas, lacado (entre 60-100 micras) en color estándar (RAL estándar: blanco, gris...), herrajes de colgar, p.p. de cerradura Tesa o similar y costes indirectos. Homologada con Clase 4 en el ensayo de permeabilidad al aire según norma UNE-EN 1026:2000. La transmitancia máxima del marco es de 2,90 W/m² K, y cumple en las zonas A, B, C, D y E, según el CTE/DB-HE 1.	1,44	144,71	208,38
464V3	M2 VIDRIO SEGURIDAD STADIP 44.1 INCOLORO (2B2) m². Acristalamiento de vidrio laminar de seguridad Stadip compuesto por dos vidrios de 4 mm de espesor unidos mediante lámina de butiral de polivinilo incolora de 0,38 mm, clasificado 2B2 según UNE-EN 12600, fijado sobre carpintería con acuíado mediante calzos de apoyo perimetrales y laterales y sellado en frío con silicona neutra, incluso colocación de junquillos, según UNE 85222:1985.	1,44	37,05	53,35
521	M2 CELOSIA FIJA VENTILACIÓN Celosía metálica fija para ventilación, formada por cerco con empanelado de lamas de acero de 60 mm, con abertura mínima de 1 cm entre lamas, malla de 2 mm para evitar entrada de insectos, garras de sujeción a soporte de 10 cm, elaborada en taller y montada en obra, totalmente colocada.	0,48	73,80	35,42
020	KG ACERO S 275 J PERFILES LAMINADOS Acero S 275 J en perfiles laminados elaborado y colocado.	2.475,40	1,95	4.827,03
474.1	ML CANALON CHAPA PRELACADA 50cm Canalón de chapa prelacada en color, de 50 cm. de desarrollo fijado mediante ganchos ocultos con tornillo autoroscante 40 cm., incluso p.p. de embocadura de bajante, codos y piezas especiales.	19,20	11,85	227,52

PRESUPUESTOS PARCIALES.

ABASTECIMIENTO A VARIOS MUNICIPIOS DE LA RIOJA. SISTEMA CIDACOS

CÓDIGO	RESUMEN	CANTIDAD	PRECIO	IMPORTE
474.2	ML BAJANTE DE CHAPA PRELACADA DN110 Bajante de chapa prelacada en color, DN110, fijado mediante ganchos con tornillo autoroscante 20 cm., incluso p.p. de embocadura de bajante, codos y piezas especiales.	11,40	12,29	140,11
290B	M2 ESCALERA Y PASARELAS DE ACERO GALVANIZADO. BARANDILLAS GALVANIZ Escalera y pasarelas de acceso de forma segun planos, ejecutada en perfiles de acero galvanizado en caliente, incluso barandilla tubular del mismo material, de 90 cm de altura en uno o dos lados, rodapié de seguridad del mismo en uno o dos lados, así como entramado metálico de 30x30x3 en descansillos y peldaños, medida según su proyección en planta. Anclada a los muros y/o solera, instalada.	3,14	81,77	256,76
620	UD APOYOS DE TUBERÍA Y VÁLVULAS SOBRE SOLERA Apoyos de tuberías y válvulas en soleras, mediante dado de hormigón HA-25/P/20/IIa, ligeramente armado y anclado a la solera, así como cintas o eslingas de acero con material de protección de tubería para sujeción de las mismas, incluyendo el hormigón, encofrados, acero, eslingas, material de PE de protección, montado.	12,00	63,07	756,84
TOTAL APARTADO 07.11.01 OBRA CIVIL.....				26.734,53
APARTADO 07.11.02 EQUIPOS, VÁLVULAS Y ACCESORIOS				
EBMV03	UD BOMBA CENTRIFUGA MULTIETAPA VERTICAL Q=21,59 l/s H=180 mca Bomba centrifuga multietapa vertical tipo CR 95-8-2 A-F-A-E-HQQE de Grundfos o equivalente para bombeo de un caudal de 21,59 l/s y una altura de 180 m.c.a. Aspiración DN50 e impulsión DN50. Cuerpo de fundición, rodete en acero inoxidable. Motor eléctrico asincrono, trifásico, cerrado, de 55kW-4P-50Hz-380-415V-IP-55, estructura de soporte en perfiles de acero electrosoldado. Cuadro controlador y supervisor de bombas según E.T. Resto de características según E.T. de Proyecto. Instalada y probada en obra.	3,00	21.970,43	65.911,29
EBMV04	UD BOMBA CENTRIFUGA MULTIETAPA VERTICAL Q=8,63 l/s H=15 mca Bomba centrifuga multietapa vertical tipo CRE 32-2-1 A-F-A-E-HQQE de Grundfos o equivalente para bombeo de un caudal de 8,63 l/s y una altura de 15 m.c.a. Aspiración DN50 e impulsión DN50. Cuerpo de fundición, rodete en acero inoxidable. Motor eléctrico asincrono, trifásico, cerrado, de 5,5kW-4P-50Hz-380-415V-IP-55, estructura de soporte en perfiles de acero electrosoldado. Cuadro controlador y supervisor de bombas según E.T. Resto de características según E.T. de Proyecto. Instalada y probada en obra.	2,00	7.518,00	15.036,00
245	UD VENTOSA DN=65 mm PN16/25 Válvula ventosa de tres funciones de DN=65 mm y PN 16/25 bar incluido transporte, juntas, válvula de corte DN=65 mm y PN 15/25y piezas especiales, totalmente colocada y probada.	1,00	343,63	343,63
245.2	UD VENTOSA DN=80 (3") mm PN16 Válvula ventosa de tres funciones de DN=80 mm (3") y PN 16 bar incluido transporte, juntas, válvula de corte DN=80 mm y PN 16y piezas especiales, totalmente colocada y probada.	2,00	432,90	865,80
ETI316250	ML TUBERÍA DE INOXIDABLE AISI 316L DN 250 Tubería de acero inoxidable de diámetro DN 250 mm. Construcción: Mediante soldadura. Espesor 2 mm. Material: Acero inoxidable AISI -316 L. Material accesorios acero inoxidable AISI - 316L. Acabado: Decapado. Incluso p.p. de uniones, piezas especiales, bridas, codos, tes, injertos para otras tuberías y p.p. de estructuras y elementos de anclajes a solera y/o muros. Montada y probada.	25,50	104,54	2.665,77
ETI316200	ML TUBERÍA DE INOXIDABLE AISI 316L DN 200 Tubería de acero inoxidable de diámetro DN 200 mm. Construcción: Mediante soldadura. Espesor 2 mm. Material: Acero inoxidable AISI -316 L. Material accesorios acero inoxidable AISI - 316L. Acabado: Decapado. Incluso p.p. de uniones, piezas especiales, bridas, codos, tes, injertos para otras tuberías y p.p. de estructuras y elementos de anclajes a solera y/o muros. Montada y probada.	5,40	61,55	332,37

PRESUPUESTOS PARCIALES.

ABASTECIMIENTO A VARIOS MUNICIPIOS DE LA RIOJA. SISTEMA CIDACOS

CÓDIGO	RESUMEN	CANTIDAD	PRECIO	IMPORTE
ETI316150	ML TUBERÍA DE INOXIDABLE AISI 316L DN 150 Tubería de acero inoxidable de diámetro DN 150 mm. Construcción: Mediante soldadura. Espesor 2 mm. Material: Acero inoxidable AISI -316 L. Material accesorios acero inoxidable AISI - 316L. Acabado: Decapado. Incluso p.p. de uniones, piezas especiales, bridas, codos, tes, injertos para otras tuberías y p.p. de estructuras y elementos de anclajes a solera y/o muros. Montada y probada.	11,20	64,03	717,14
ETI316080	ML TUBERÍA DE INOXIDABLE AISI 316L DN 80 Tubería de acero inoxidable de diámetro DN 80 mm. Construcción: Mediante soldadura. Espesor 2 mm. Material: Acero inoxidable AISI -316 L. Material accesorios acero inoxidable AISI - 316L. Acabado: Decapado. Incluso p.p. de uniones, piezas especiales, bridas, codos, tes, injertos para otras tuberías y p.p. de estructuras y elementos de anclajes a solera y/o muros. Montada y probada.	12,00	42,54	510,48
238	ud VÁLVULA DE COMPUERTA MANUAL DN100 PN16 Válvula de compuerta de cierre elástico de 100 mm. de diámetro nominal y 16 At. de P.N., de accionamiento manual por volante, de cuerpo de fundición nodular GGG-50, con eje de acero inoxidable al 13 % Cr. con roscas conformadas por laminación en frio, cierre en fundición nodular, tornillería de acero inoxidable, protegida contra la corrosión mediante aplicación de doble capa de pintura epoxy, totalmente colocada y probada. Resto de características según ET.	4,00	221,47	885,88
234	UD VÁLVULA DE COMPUERTA MANUAL DN150 PN25 Válvula de compuerta de cierre elástico de 150 mm. de diámetro nominal y 25 At. de P.N., de accionamiento manual por volante, de cuerpo de fundición nodular GGG-50, con eje de acero inoxidable al 13 % Cr. con roscas conformadas por laminación en frio, cierre en fundición nodular, tornillería de acero inoxidable, protegida contra la corrosión mediante aplicación de doble capa de pintura epoxy, totalmente colocada y probada. Resto de características según ET.	1,00	490,62	490,62
237	UD VÁLVULA DE COMPUERTA MANUAL DN100 PN25 Válvula de compuerta de cierre elástico de 100 mm. de diámetro nominal y 25 At. de P.N., de accionamiento manual por volante, de cuerpo de fundición nodular GGG-50, con eje de acero inoxidable al 13 % Cr. con roscas conformadas por laminación en frio, cierre en fundición nodular, tornillería de acero inoxidable, protegida contra la corrosión mediante aplicación de doble capa de pintura epoxy, totalmente colocada y probada. Resto de características según ET.	3,00	361,59	1.084,77
EVCM06516	UD VÁLVULA DE COMPUERTA MANUAL DN65 PN16 Válvula de compuerta de cierre elástico de 65 mm. de diámetro nominal y 16 At. de P.N., de accionamiento manual por volante, de cuerpo de fundición nodular GGG-50, con eje de acero inoxidable al 13 % Cr. con roscas conformadas por laminación en frio, cierre en fundición nodular, tornillería de acero inoxidable, protegida contra la corrosión mediante aplicación de doble capa de pintura epoxy, totalmente colocada y probada. Resto de características según ET.	4,00	98,33	393,32
235	UD VÁLVULA DE COMPUERTA MANUAL DN150 PN16 Válvula de compuerta de accionamiento manual de diámetro nominal DN=150 mm de 16 bares de presión máxima admisible, con tornillería y juntas, totalmente instalada y probada, incluso volante de accionamiento.	2,00	299,35	598,70
EVCM080	UD VÁLVULA DE COMPUERTA MANUAL DN80 PN16 Válvula de compuerta de cierre elástico de 80 mm. de diámetro nominal y 16 At. de P.N., de accionamiento manual por volante, de cuerpo de fundición nodular GGG-50, con eje de acero inoxidable al 13 % Cr. con roscas conformadas por laminación en frio, cierre en fundición nodular, tornillería de acero inoxidable, protegida contra la corrosión mediante aplicación de doble capa de pintura epoxy, totalmente colocada y probada. Resto de características según ET.	5,00	110,47	552,35
240.1	UD VÁLVULA DE COMPUERTA MOTORIZADA DN80 PN25 Válvula de compuerta de cierre elástico de 80 mm. de diámetro nominal y 25 At. de P.N., de accionamiento motorizado, de cuerpo de fundición nodular GGG-50, con eje de acero inoxidable al 13 % Cr. con roscas conformadas por laminación en frio, cierre en fundición nodular, tornillería de acero inoxidable, protegida contra la corrosión mediante aplicación de doble capa de pintura epoxy, totalmente colocada y probada. Resto de características según ET.			

PRESUPUESTOS PARCIALES.

ABASTECIMIENTO A VARIOS MUNICIPIOS DE LA RIOJA. SISTEMA CIDACOS

CÓDIGO	RESUMEN	CANTIDAD	PRECIO	IMPORTE
		1,00	1.851,15	1.851,15
235.1	UD VÁLVULA DE COMPUERTA MOTORIZADA DN150 PN16 Válvula de compuerta de cierre elástico de 150 mm. de diámetro nominal y 16 At de P.N., de accionamiento motorizado, de cuerpo de fundición nodular GGG-50, con eje de acero inoxidable al 13 % Cr. con roscas conformadas por laminación en frío, cierre en fundición nodular, tornillería de acero inoxidable, protegida contra la corrosión mediante aplicación de doble capa de pintura epoxy, totalmente colocada y probada. Resto de características según ET.			
		1,00	2.122,54	2.122,54
EVCMT15025	UD VÁLVULA DE COMPUERTA MOTORIZADA DN150 PN25 Válvula de compuerta de cierre elástico de 150 mm. de diámetro nominal y 25 At de P.N., de accionamiento motorizado, de cuerpo de fundición nodular GGG-50, con eje de acero inoxidable al 13 % Cr. con roscas conformadas por laminación en frío, cierre en fundición nodular, tornillería de acero inoxidable, protegida contra la corrosión mediante aplicación de doble capa de pintura epoxy, totalmente colocada y probada. Resto de características según ET.			
		1,00	2.040,13	2.040,13
141	UD CARRETE DE DESMONTAJE DN=250 mm PN25 Carrete de desmontaje autoportante de PFA 25 bar de D=250 mm, colocado.			
		2,00	484,55	969,10
ECD0065	UD CARRETE DE DESMONTAJE DN=65 mm PN16 Carrete telescópico de desmontaje DN65 PN 16, bridas de acero al carbono, virolas de acero inoxidable, protección epoxy, tornillos y tuercas en acero F-114, cincado y posterior baño de cromo-niquel, incluido p.p. de brida enchufe, totalmente instalado y probado en obra.			
		4,00	247,33	989,32
ECD010016	UD CARRETE DE DESMONTAJE DN=100 mm PN16 Carrete telescópico de desmontaje DN100 PN16, bridas de acero al carbono, virolas de acero inoxidable, protección epoxy, tornillos y tuercas en acero F-114, cincado y posterior baño de cromo-niquel, incluido p.p. de brida enchufe, totalmente instalado y probado en obra.			
		4,00	167,93	671,72
ECD010025	UD CARRETE DE DESMONTAJE DN=100 mm PN25 Carrete telescópico de desmontaje DN100 PN25, bridas de acero al carbono, virolas de acero inoxidable, protección epoxy, tornillos y tuercas en acero F-114, cincado y posterior baño de cromo-niquel, incluido p.p. de brida enchufe, totalmente instalado y probado en obra.			
		3,00	295,46	886,38
ECD15016	UD CARRETE DE DESMONTAJE DN=150 mm PN16 Carrete telescópico de desmontaje DN150 PN16, bridas de acero al carbono, virolas de acero inoxidable, protección epoxy, tornillos y tuercas en acero F-114, cincado y posterior baño de cromo-niquel, incluido p.p. de brida enchufe, totalmente instalado y probado en obra.			
		1,00	200,47	200,47
145	UD CARRETE DE DESMONTAJE DN=150 mm PN25 Carrete telescópico de desmontaje DN150 PN25, bridas de acero al carbono, virolas de acero inoxidable, protección epoxy, tornillos y tuercas en acero F-114, cincado y posterior baño de cromo-niquel, incluido p.p. de brida enchufe, totalmente instalado y probado en obra.			
		1,00	268,45	268,45
EMAV065	UD MANGUITO ANTIVIBRATORIO DN65 PN16 Manguito antivibratorio, con cuerpo de simple onda, PN10/16 de D=65 mm. EPDM y bridas locas zincadas. Resto de características según ET. Colocado.			
		4,00	52,96	211,84
EMAV100	UD MANGUITO ANTIVIBRATORIO DN100 PN16 Manguito antivibratorio, con cuerpo de simple onda, PN10/16 de D=100 mm. EPDM y bridas locas zincadas. Resto de características según ET. Colocado.			
		3,00	74,75	224,25
EMAV0100.1	UD MANGUITO ANTIVIBRATORIO DN100 PN25 Manguito antivibratorio, de fuelle multilamina de acero inoxidable AISI321, PN25 de D=100 mm. Bridas fijas planos de acero al carbono. Tirantes limitadores de acero zincado. Resto de características según ET. Colocado.			

PRESUPUESTOS PARCIALES.

ABASTECIMIENTO A VARIOS MUNICIPIOS DE LA RIOJA. SISTEMA CIDACOS

CÓDIGO	RESUMEN	CANTIDAD	PRECIO	IMPORTE
		3,00	832,28	2.496,84
EVRC065	UD VÁLVULA DE RETENCIÓN DE CLAPETAS DN65 PN16 Válvula de retención de clapeta tipo Wafer, PN 16 y DN-65, con racores de bridas, totalmente instalada. Resto de características según E.T de Proyecto.			
		2,00	213,59	427,18
EVRC100	UD VÁLVULA DE RETENCIÓN DE DISCOS CONCENTRICOS DN100 PN16/25 Suministro y colocación de válvula de retención de discos concéntricos DN-100, PN-16/25, modelo CLASAR de BELGICAST o equivalente. Cuerpo y tapa en fundición nodular GGG-40, obturador en poliuretano, resortes en acero inoxidable, junta de cierre cuerpo-tapa en nitrilo; colocada mediante unión wafer. Resto características según ET de Proyecto. Totalmente equipada, instalada y funcionando.			
		3,00	505,05	1.515,15
EVRC150	UD VÁLVULA DE RETENCIÓN DE CLAPETAS DN150 PN16 Válvula de retención de clapeta tipo Wafer, PN 16 y DN-150, con racores de bridas, totalmente instalada. Resto de características según E.T de Proyecto.			
		1,00	383,59	383,59
EPOLE1000	UD POLIPASTO ELÉCTRICO DE 1.000 KG Polipasto. Servicio: Izado de equipos. Características:- Marca: VINCA, VICINAY o equivalente. Capacidad (kg): 1.000. Tipo de carro: monocarril. Cota mínima del gancho a la viga (mm): 880. Potencia motor elevación (KW): 1,85. Incluye limitador de carga, motor-freno en el carro de traslación. Incluso transporte, montaje, conexiones eléctricas y de control, pruebas de funcionamiento. Resto de características según E.T.			
		1,00	2.244,00	2.244,00
EGTM01	UD GRIFO TOMAMUESTRAS PN16/25 Grifo tomamuestras de 3/4" colocado en tubería de acero inoxidable por picaje, incluida la válvula PN16/25, montada y probada.			
		2,00	24,82	49,64
ECAH18000	UD EQUIPO ANTIARIETE HIDRONEUMÁTICO 18.000 l PN40 Equipo antiariete hidroneumático con membrana, marca Ibaiondo o equivalente modelo 18000 AHN PN40. Consistente en un calderín cilíndrico de 18.000 l, con presión máxima de servicio de 40 bares. Construido en chapa soldada de acero P265GH. Membrana interior de poliuretano calidad alimentaria. Incluso llaves de aislamiento, indicador de nivel del agua, válvula de inflado, manómetro, boca de hombre y brida de conexión de agua DN 250. Acabado exterior granallado Sa 2 1/2, con imprimación de 40 micras de epoxy de dos componentes y acabado con 30 micras de esmalte de poliuretano; acabado interior granallado Sa 2 1/2, con imprimación de 40 micras de epoxy de dos componentes. Incluso bancada con patas de apoyo. Según Directiva 2014/68/UE. Resto de características según E.T. de Proyecto. Totalmente instalado y en funcionamiento, incluso piezas especiales de acoplamiento a la tubería de entrada.			
		2,00	51.622,43	103.244,86
216.2	UD VÁLVULA DE MARIPOSA DN=250 mm PN25 Válvula de mariposa de 250 mm de diámetro y PN25, de accionamiento manual por reductor, incluso mecanismo de accionamiento, maniobra y control, transporte, montaje, juntas, tornillería y pintura totalmente instalada y probada. Resto de características según ET de proyecto.			
		2,00	1.151,01	2.302,02
	TOTAL APARTADO 07.11.02 EQUIPOS, VÁLVULAS Y ACCESORIOS			213.486,75
	APARTADO 07.11.03 INSTRUMENTACIÓN Y CONTROL			
ECELM080	UD CAUDALÍMETRO ELECTROMAGNÉTICO DN 80 mm PN10 Equipo medidor de caudal de DN80 mm. tipo electromagnético y PN=10 atm. con salida 4/20 mA, tensión 220 V y escala 0-240 m ³ /h, totalmente instalado y probado. Incluso transporte, montaje, conexiones eléctricas y pruebas de funcionamiento. Resto de características, según ET.			
		1,00	845,12	845,12
EMANGL01	UD MANÓMETRO DE ESFERA TIPO MUELLE TUBULAR DN100 Manómetro de esfera DN100 tipo muelle tubular con accesorios, sifón, válvula de aislamiento y purga. Incluso instalación y pruebas. Resto de características según E.T de proyecto.			
		4,00	88,26	353,04

PRESUPUESTOS PARCIALES.

ABASTECIMIENTO A VARIOS MUNICIPIOS DE LA RIOJA. SISTEMA CIDACOS

CÓDIGO	RESUMEN	CANTIDAD	PRECIO	IMPORTE
281.1	UD CAUDALÍMETRO ELECTROMAGNÉTICO DN 150 mm PN25 Equipo medidor de caudal de DN250 mm. tipo electromagnético y PN=25 atm. con salida 4/20 mA, tensión 220 V y escala 0-240 m3/h, totalmente instalado y probado. Incluido transporte, montaje, conexiones eléctricas y pruebas de funcionamiento. Resto de características, según ET.	1,00	2.619,99	2.619,99
TOTAL APARTADO 07.11.03 INSTRUMENTACIÓN Y CONTROL.....				3.818,15
APARTADO 07.11.04 INSTALACIÓN ELÉCTRICA DE BT				
ELE022	* ML LÍNEA GENERAL DE ALIMENTACIÓN DE 4x150mm2 Cu 0,6/1 kV (AS) Línea general de alimentación con cuatro conductores unipolares de 1x150mm2 Cu 0.6/1kV RZ1-K(AS) instalada en canalización subterránea bajo tubo d=180mm.	30,00	86,43	2.592,90
ELE031	* UD CUADRO GENERAL BAJA TENSIÓN Cuadro general con apartamento y envolvente de Schneider, formado por envolvente metálico con puertas montado sobre zócalo y conteniendo interruptor general automático NS 250 A regulable, limitador de sobretensiones, analizador de redes, 3 variadores de frecuencia 55 kW, 2 variadores de frecuencia de 5.5 kW, protecciones magnetotérmicas y diferenciales según esquema unifilar, incluso cableado interior, perfiles omega y regletas de conexión. Armario: Preparado para instalar un interruptor general automático de hasta 250A. Ampliable por uno de los costados. Con reserva de espacio de al menos el 50% de la apartamento instalada. Montado y probado.	1,00	32.547,64	32.547,64
BT050	ML BANDEJA AISLANTE 60x150 MM Bandeja perforada de PVC, color gris RAL 7035, de 60x150 mm, resistencia al impacto 5 julios, propiedades eléctricas: aislante, no propagador de la llama, estable frente a los rayos UV y con resistencia a la intemperie y a los agentes químicos, con 1 compartimento, con soporte horizontal, de PVC, color gris RAL 7035.	25,00	42,26	1.056,50
BT060	ML TUBO PVC RIGIDO d=20mm Tubo rígido de PVC d=16mm para canalización de conductores, incluso soportes y anclajes a pared, instalado.	40,00	2,47	98,80
ELAR69868	* ML LÍNEA 3x50/25 mm2 Cu 0.6/1 kV RZ1KZ1-K(AS) Línea multipolar de 3x50/25mm2 RZ1KZ1-K(AS) en canalización existente, incluso conexionado en inicio y final de línea.	51,00	24,23	1.235,73
BT135	* ML LÍNEA 4x4mm2 Cu 0.6/1kV RZ1-K (AS) Línea eléctrica de 4x4 mm2 Cu 0.6/kV RZ1KZ1-K (AS) en canalización existente, con parte proporcional de cajas de derivación.	36,00	4,84	174,24
BT131	* ML LÍNEA 3x4mm2 Cu 0.6/1kV RZ1-K (AS) Línea eléctrica de 3x4mm2 Cu 0.6/kV RZ1-K (AS) en canalización existente, con parte proporcional de cajas de derivación.	1,00	3,74	3,74
EL362	ML LÍNEA 5x2.5mm2 Cu 0.6/1kV RZ1-K (AS) Línea eléctrica con conductor multipolar 5x2.5mm2 RZ1-K (AS) en canalización existente, incluso conexionado en inicio y final de línea.	10,00	2,39	23,90
EL380	ML LÍNEA 3x1.5mm2 Cu 0.6/1kV RZ1-K (AS) Línea eléctrica con conductor multipolares 3x1.5mm2 RZ1-K (AS) en canalización existente, incluso conexionado en inicio y final de línea.	60,00	1,81	108,60
BT130	ML LÍNEA 3x2.5mm2 Cu 0.6/1kV RZ1-K (AS) Línea eléctrica de 3x2.5mm2 Cu 0.6/kV RZ1-K (AS) en canalización existente, con parte proporcional de cajas de derivación.	40,00	3,05	122,00

PRESUPUESTOS PARCIALES.

ABASTECIMIENTO A VARIOS MUNICIPIOS DE LA RIOJA. SISTEMA CIDACOS

CÓDIGO	RESUMEN	CANTIDAD	PRECIO	IMPORTE
ELE0118	UD ARQUETA ELÉCTRICA FÁBRICA 100x100 CM Arqueta de paso de líneas construida en fábrica de ladrillo de 12 cm. de espesor y enfoscado en paredes, dimensiones interiores 100 x 100 y 100 cm. de profundidad, incluso marco y tapa de fundición.	2,00	183,87	367,74
BT150	UD INTERRUPTOR ALUMBRADO Interruptor de alumbrado con mecanismo completo y p/p de conductor, tubo y cajas de derivación.	1,00	20,48	20,48
BT160	UD TOMA DE CORRIENTE Toma de corriente con mecanismo completo y p/p de conductor, tubo y cajas de derivación.	2,00	22,44	44,88
BT190	UD PANTALLA ESTANCA Pantalla estanca WT120C L1500 1xLED60S/840 de Philips o equivalente, instalada y conexionada.	3,00	52,07	156,21
BT220	UD EMERGENCIA 300 LM Emergencia Basic Led serie L de Luznor o equivalente, modelo LL-300-T de 300 lúmenes, instalada y conexionada.	1,00	39,10	39,10
BT210	UD EMERGENCIA 100 LM Emergencia Basic Led serie L de Luznor o equivalente, modelo LLE-100 de 100 lúmenes, instalada y conexionada.	1,00	32,12	32,12
BT230	UD PUESTA A TIERRA DE LA INSTALACION Puesta a tierra de la nave con 65 metros de conductor de cobre desnudo de 35mm2 y 4 picas de acero cobrizado de 2 metros.	1,00	298,93	298,93
BT181	UD LUMINARIA EXTERIOR NAVE Campana industrial BGP 307 T25 1xLED99-4S/740 DM11 de Philips o equivalente, instalada y conexionada.	1,00	71,31	71,31
AL100	UD PALOMILLA BANDERA Palomilla bandera de tubo de acero galvanizado en caliente 50x40x4 mm. con dos anclajes a pared separados 50 cm. y vuelo comprendido entre 30 y 90 cm., galvanizado en caliente, tornillería de enlace de acero galvanizado, incluso obras auxiliares de apertura de huecos para anclajes y recibido en paramentos.	1,00	81,63	81,63
AL110	UD BRAZO SOPORTE RECTO/CURVO Brazo de tubo de acero estirado de 50 mm. de diámetro y 2,5 mm. de espesor, recto sin vuelo o con vuelo entre 0 y 1,5 m. y altura comprendida entre 2,00 y 5,00 m., galvanizado en caliente, tornillería de enlace de acero galvanizado, incluso obras auxiliares de adaptación a palomilla bandera existente o nueva.	1,00	38,55	38,55
BT260	Ud OCA Inspección inicial y certificado de Organismo de Control autorizado.	1,00	300,61	300,61
TOTAL APARTADO 07.11.04 INSTALACIÓN ELÉCTRICA DE BT.....				39.415,61

PRESUPUESTOS PARCIALES.

ABASTECIMIENTO A VARIOS MUNICIPIOS DE LA RIOJA. SISTEMA CIDACOS

CÓDIGO	RESUMEN	CANTIDAD	PRECIO	IMPORTE
APARTADO 07.11.05 VARIOS				
617.4	PA CONEXIÓN ALIVIOS CON POZO EXTERIOR Y DESAGÜE Partida Alzada de Abono Íntegro para conexión de la salida de los alivios de la nueva caseta de válvulas con pozo exterior y salida a cuneta y/o cauce, incluyendo, excavaciones, tuberías de PEAD DN de salida de alivio, rellenos, ayudas de albañilería, demoliciones, relleno de huecos con morteros sin retracción, anclaje de tuberías, así como todos los medios auxiliares necesarios para la conexión entre ambas tuberías.	1,00	536,70	536,70
TOTAL APARTADO 07.11.05 VARIOS				536,70
TOTAL SUBCAPÍTULO 07.11 BOMBEO AUSEJO Y VALLE DE OCÓN.....				283.991,74
SUBCAPÍTULO 07.12 BOMBEO A BERGASA				
APARTADO 07.12.01 OBRA CIVIL				
008	M2 DESPEJE Y DESBROCE Despeje y desbroce de capa de tierra vegetal con un espesor medio de 50 cm, incluso corte de árboles, extracción de tocones, nivelación de zona adyacente para el paso de maquinaria, transporte a lugar de acopio independiente para posterior reposición de tierra vegetal tras las obras y despedregado de las parcelas, así como transporte a vertedero de tierras sobrantes.	36,00	0,57	20,52
002	M3 EXCAVACIÓN EN ZANJAS Excavación en zanjas y zonas localizadas, en todo tipo de terrenos incluido terrenos en roca con medios mecánicos, incluso rasanteo, nivelación de la superficie de apoyo y transporte a lugar de empleo o vertedero.	77,04	3,74	288,13
010	M3 RELLENO ZANJAS, CIMIENTOS Y TRASDOSES DE MATERIAL SELECCIONADO Relleno con material seleccionado en zanjas, cimientos, trasdós de muros, estribos y otras estructuras procedente de la excavación o préstamos incluso carga, transporte y compactación.	7,30	3,32	24,24
028	M3 HORMIGÓN DE LIMPIEZA HL-150 Hormigón de limpieza HL-150, de consistencia plástica, árido de tamaño máximo 40 mm y cemento CEM-II-D/42,5/SR, para saneos y encachados, incluyendo fabricación y transporte totalmente colocado.	3,60	44,76	161,14
031	M3 HORMIGÓN HA-25/B/20/IIa Hormigón HA-25/B/20/IIa, con cemento CEM II/A-D/42,5/SR, incluyendo fabricación, transporte, puesta en obra y vibrado, totalmente ejecutado, incluso curado y juntas.	28,23	53,39	1.507,20
023	KG ACERO CORRUGADO B-500-S Acero redondo corrugado para armar tipo B-500-S elaborado y colocado.	2.316,77	0,96	2.224,10
025	M2 ENCOFRADO RECTO EN PARAMENTOS OCULTOS Encofrado recto en paramentos ocultos, incluso colocación, fijación y desencofrado.	9,60	17,65	169,44
026	M2 ENCOFRADO RECTO EN PARAMENTOS VISTOS 1C Encofrado recto en paramentos vistos a una cara, incluso colocación, fijación y desencofrado.	82,88	21,18	1.755,40
026.2	M2 ENCOFRADO RECTO EN PILARES VISTOS Encofrado recto en pilares vistos, incluso colocación, fijación y desencofrado.	11,40	27,68	315,55
026.3	M2 ENCOFRADO RECTO EN VIGAS VISTOS Encofrado recto en vigas vistos, incluso colocación, fijación, apuntalamiento o cimbras, y desencofrado.	27,00	29,84	805,68

PRESUPUESTOS PARCIALES.

ABASTECIMIENTO A VARIOS MUNICIPIOS DE LA RIOJA. SISTEMA CIDACOS

CÓDIGO	RESUMEN	CANTIDAD	PRECIO	IMPORTE
052	ML JUNTAS DE ESTANQUEIDAD DE PVC 32 CM Junta de trabajo interior de policloruro de vinilo (PVC) 100% virgen, con una fuerza máxima de dilatación > 250 %, de 32 cm de ancho, MASTERFLEX 2000 TI-24 de BASF o equivalente, colocada simétricamente en el eje de la losa o muro, incluso solapes y piezas especiales para cruces o ángulos. Medida la longitud ejecutada.	22,40	7,31	163,74
462	M2 FÁBRICA BLOQUES 40x20x20 cm TIPO SPLIT COLOR Fábrica de bloques de hormigón tipo Split, de medidas 40x20x20 cm color i/relleno de hormigón y colocación de armaduras s/normativa y recibido con mortero de cemento y arena de río 1/6 i/p.p. de piezas especiales para dinteles y materialización de jambas, roturas, nivelados, aplomados, llagueados y limpieza, todo ello según normativa.	66,36	31,80	2.110,25
520	M2 CUBIERTA PANEL SANDWICH (E=50 mm.) Cubierta con panel tipo sandwich espesor 50 cm., con doble chapa prelacada de 0,4 mm de espesor, y aislamiento térmico de poliuretano, fijada con gancho de acero galvanizado, incluso p.p de piezas de remate, totalmente colocada.	31,36	27,03	847,66
519	ML REMATE DE CHAPA PRELACADA CUBIERTA Remate de chapa prelacada en color, para cubrir parte superior de bloque o panel, hasta el panel sandwich de la cubierta por el interior del peto, fijado mediante tacos y/o ganchos anclado a muro y o cubierta, dispuesto según planos.	11,20	22,47	251,66
465.1	M2 PUERTA DOBLE CHAPA ACERO CON LAMAS Puerta de paso hojas abatibles de doble chapa lisa de acero de 1 mm de espesor, con aislamiento interno de fibre de vidrio, engatillada, realizada en dos bandejas, con rigidizadores de tubo rectangular, i/manillas de acero inoxidable y cerradura, con dos o cuatro rejillas de ventilación con malla anti insectos interior, patillas para recibir en fábricas, herrajes de colgar y de seguridad, imprimación antióxido y pintura al esmalte, totalmente colocada incluyendo el recibido de fábricas.	2,20	75,01	165,02
464cf	M2 CARPINTERÍA FIJA ALUMINIO m². Carpintería fija con junquillos para la fijación del vidrio, de aluminio modelo con rotura de puente térmico, Alfil A54RPT de SAPAGROUP con un ancho de marco de 54 mm y con un ancho de hoja de 61 mm, medida del frente de 96,3 mm, con sistema de cámara europea, con espesor de perfil de 1,5 mm, con sistema de cierre por junta central de estanqueidad en EPDM, coplanar exteriormente y con resalte de hoja sobre el marco al interior, para un acristalamiento con altura de galce de 22 mm y anchura hasta 44 mm en marcos y 51 mm en hojas, lacado (entre 60-100 micras) en color estándar (RAL estándar: blanco, gris...), herrajes de colgar, p.p. de cerradura Tesa o similar y costes indirectos. Homologada con Clase 4 en el ensayo de permeabilidad al aire según norma UNE-EN 1026:2000. La transmitancia máxima del marco es de 2,90 W/m² K, y cumple en las zonas A, B, C, D y E, según el CTE/DB-HE 1.	0,48	144,71	69,46
464V3	M2 VIDRIO SEGURIDAD STADIP 44.1 INCOLORO (2B2) m². Acristalamiento de vidrio laminar de seguridad Stadip compuesto por dos vidrios de 4 mm de espesor unidos mediante lámina de butiral de polivinilo incolora de 0,38 mm, clasificado 2B2 según UNE-EN 12600, fijado sobre carpintería con acuñaado mediante calzos de apoyo perimetrales y laterales y sellado en frío con silicona neutra, incluso colocación de junquillos, según UNE 85222:1985.	0,48	37,05	17,78
521	M2 CELOSIA FIJA VENTILACIÓN Celosía metálica fija para ventilación, formada por cerco con empanelado de lamas de acero de 60 mm, con abertura mínima de 1 cm entre lamas, malla de 2 mm para evitar entrada de insectos, garras de sujeción a soporte de 10 cm, elaborada en taller y montada en obra, totalmente colocada.	0,48	73,80	35,42
020	KG ACERO S 275 J PERFILES LAMINADOS Acero S 275 J en perfiles laminados elaborado y colocado.	770,94	1,95	1.503,33

PRESUPUESTOS PARCIALES.

ABASTECIMIENTO A VARIOS MUNICIPIOS DE LA RIOJA. SISTEMA CIDACOS

CÓDIGO	RESUMEN	CANTIDAD	PRECIO	IMPORTE
474.1	ML CANALON CHAPA PRELACADA 50cm Canalón de chapa prelacada en color, de 50 cm. de desarrollo fijado mediante ganchos ocultos con tornillo autoroscante 40 cm., incluso p.p. de embocadura de bajante, codos y piezas especiales.	11,20	11,85	132,72
474.2	ML BAJANTE DE CHAPA PRELACADA DN110 Bajante de chapa prelacada en color, DN110, fijado mediante ganchos con tornillo autoroscante 20 cm., incluso p.p. de embocadura de bajante, codos y piezas especiales.	5,70	12,29	70,05
290B	M2 ESCALERA Y PASARELAS DE ACERO GALVANIZADO. BARANDILLAS GALVANIZ Escalera y pasarelas de acceso de forma segun planos, ejecutada en perfiles de acero galvanizado en caliente, incluso barandilla tubular del mismo material, de 90 cm de altura en uno o dos lados, rodapié de seguridad del mismo en uno o dos lados, así como entramado metálico de 30x30x3 en descansillos y peldaños, medida según su proyección en planta. Anclada a los muros y/o solera, instalada.	3,10	81,77	253,49
620	UD APOYOS DE TUBERÍA Y VÁLVULAS SOBRE SOLERA Apoyos de tuberías y válvulas en soleras, mediante dado de hormigón HA-25/P/20/IIa, ligeramente armado y anclado a la solera, así como cintas o eslingas de acero con material de protección de tubería para sujeción de las mismas, incluyendo el hormigón, encofrados, acero, eslingas, material de PE de protección, montado.	6,00	63,07	378,42
TOTAL APARTADO 07.12.01 OBRA CIVIL.....				13.270,40
APARTADO 07.12.02 EQUIPOS, VÁLVULAS Y ACCESORIOS				
EBMV02	UD BOMBA CENTRIFUGA MULTITAPA VERTICAL Q=6,69 l/s H=90 mca Bomba centrifuga multietapa vertical tipo CR 20-10 A-F-A-E-HQQE de Grundfos o equivalente para bombeo de un caudal de 6,69 l/s y una altura de 90 m.c.a. Aspiración DN50 e impulsión DN50. Cuerpo de función, rodetes en acero inoxidable. Motor eléctrico asincrono, trifásico, cerrado, de 11 kW-4P-50Hz-380-415V-IP-55, estructura de soporte en perfiles de acero electrosoldado. Cuadro controlador y supervisor de bombas según E.T. Resto de características según E.T. de Proyecto. Instalada y probada en obra.	2,00	6.301,61	12.603,22
274.1	UD VÁLVULA ALIVIO DE PRESIÓN 2" PN 25 Válvula de alivio de presión de 2" brida PN 25 bar, incluso incluso válvula de corte de 2", juntas de unión, collarín de toma y tornillería, totalmente colocada y probada.	1,00	1.275,46	1.275,46
245.3	UD VENTOSA DN=50 (2") mm PN25 Válvula ventosa de tres funciones de DN=50 mm (2") y PN 25 bar incluido transporte, juntas, válvula de corte DN=50 mm y PN 25 y piezas especiales, totalmente colocada y probada.	1,00	434,43	434,43
245.1	UD VENTOSA DN=25 mm (1") PN16 Válvula ventosa de tres funciones de 1" (DN=25 mm) y PN 16 bar incluido transporte, juntas, válvula de corte DN=25 mm y PN 16 bar y piezas especiales, totalmente colocada y probada.	1,00	162,21	162,21
ETI316150	ML TUBERÍA DE INOXIDABLE AISI 316L DN 150 Tubería de acero inoxidable de diámetro DN 150 mm. Construcción: Mediante soldadura. Espesor 2 mm. Material: Acero inoxidable AISI -316 L. Material accesorios acero inoxidable AISI - 316L. Acabado: Decapado. Incluso p.p. de uniones, piezas especiales, bridas, codos, tes, injertos para otras tuberías y p.p. de estructuras y elementos de anclajes a solera y/o muros. Montada y probada.	3,20	64,03	204,90
ETI316100	ML TUBERÍA DE INOXIDABLE AISI 316L DN 100 Tubería de acero inoxidable de diámetro DN 100 mm. Construcción: Mediante soldadura. Espesor 1,5 mm. Material: Acero inoxidable AISI -316 L. Material accesorios acero inoxidable AISI - 316L. Acabado: Decapado. Incluso p.p. de uniones, piezas especiales, bridas, codos, tes, injertos para otras tuberías y p.p. de estructuras y elementos de anclajes a solera y/o muros. Montada y probada.	5,40	43,36	234,14

PRESUPUESTOS PARCIALES.

ABASTECIMIENTO A VARIOS MUNICIPIOS DE LA RIOJA. SISTEMA CIDACOS

CÓDIGO	RESUMEN	CANTIDAD	PRECIO	IMPORTE
ETI316065	ML TUBERÍA DE INOXIDABLE AISI 316L DN 65 Tubería de acero inoxidable de diámetro DN 65 mm. Construcción: Mediante soldadura. Espesor 2 mm. Material: Acero inoxidable AISI -316 L. Material accesorios acero inoxidable AISI - 316L. Acabado: Decapado. Incluso p.p. de uniones, piezas especiales, bridas, codos, tes, injertos para otras tuberías y p.p. de estructuras y elementos de anclajes a solera y/o muros. Montada y probada.	4,00	39,24	156,96
242	UD VÁLVULA DE COMPUERTA MANUAL DN50 PN16 Válvula de compuerta de accionamiento manual de diámetro nominal DN=50 mm de 16 bares de presión máxima admisible, con tornillería y juntas, totalmente instalada y probada, incluso volante de accionamiento.	2,00	105,35	210,70
242.1	UD VÁLVULA DE COMPUERTA MANUAL DN50 PN25 Válvula de compuerta de accionamiento manual de diámetro nominal DN=50 mm de 25 bares de presión máxima admisible, con tornillería y juntas, totalmente instalada y probada, incluso volante de accionamiento.	2,00	167,60	335,20
150	UD CARRETE DE DESMONTAJE DN=50 mm PN16 Carrete de desmontaje autoportante de PFA 16 bar de D=50 mm, colocado.	2,00	107,86	215,72
150.1	UD CARRETE DE DESMONTAJE DN=50 mm PN25 Carrete de desmontaje autoportante de PFA 25 bar de D=50 mm, colocado.	2,00	118,34	236,68
EMAV050	UD MANGUITO ANTIVIBRATORIO DN50 PN16 Manguito antivibratorio, con cuerpo de simple onda, PN10/16 de D=50 mm. EPDM y bridas locas zincadas. Resto de características según E.T. Colocado.	2,00	45,43	90,86
EMAV050.1	UD MANGUITO ANTIVIBRATORIO DN50 PN25 Manguito antivibratorio, de fuelle multilamina de acero inoxidable AISI321, PN25 de D=50 mm. Bridas fijas planos de acero al carbono. Tirantes limitadores de acero zincado. Resto de características según E.T. Colocado.	2,00	629,36	1.258,72
EVRC050.1	UD VÁLVULA DE RETENCIÓN DE DISCO PARTIDO DN50 PN25 Válvula de retención de disco partido PN 25 y DN-50, con racores de bridas, totalmente instalada. Resto de características según E.T de Proyecto.	2,00	182,46	364,92
240	UD VÁLVULA DE COMPUERTA MANUAL DN80 PN25 Válvula de compuerta de accionamiento manual de diámetro nominal DN=80 mm de 25 bares de presión máxima admisible, con tornillería y juntas, totalmente instalada y probada, incluso volante de accionamiento.	1,00	238,18	238,18
240.1	UD VÁLVULA DE COMPUERTA MOTORIZADA DN80 PN25 Válvula de compuerta de cierre elástico de 80 mm. de diámetro nominal y 25 At. de P.N., de accionamiento motorizado, de cuerpo de fundición nodular GGG-50, con eje de acero inoxidable al 13 % Cr. con roscas conformadas por laminación en frío, cierre en fundición nodular, tornillería de acero inoxidable, protegida contra la corrosión mediante aplicación de doble capa de pintura epoxy, totalmente colocada y probada. Resto de características según E.T.	1,00	1.851,15	1.851,15
148	UD CARRETE DE DESMONTAJE DN=80 mm PN25 Carrete de desmontaje autoportante de PFA 25 bar de D=80 mm, colocado.	1,00	158,69	158,69
EPOLM500	UD POLIPASTO MANUAL DE 500 KG Polipasto. Servicio: Izado de equipos. Características: Marca: VINCA, VICINAY o equivalente. Capacidad (kg): 500. Tipo de carro: monocarril. Cota mínima del gancho a la viga (mm): 880. Incluso transporte, montaje, pruebas de funcionamiento. Resto de características según E.T.	1,00	388,89	388,89

PRESUPUESTOS PARCIALES.

ABASTECIMIENTO A VARIOS MUNICIPIOS DE LA RIOJA. SISTEMA CIDACOS

CÓDIGO	RESUMEN	CANTIDAD	PRECIO	IMPORTE
	TOTAL APARTADO 07.12.02 EQUIPOS, VÁLVULAS Y ACCESORIOS			20.421,03
	APARTADO 07.12.03 INSTRUMENTACIÓN Y CONTROL			
ECELM080	UD CAUDALÍMETRO ELECTROMAGNÉTICO DN 80 mm PN10 Equipo medidor de caudal de DN80 mm. tipo electromagnético y PN=10 atm. con salida 4/20 mA, tensión 220 V y escala 0-240 m3/h, totalmente instalado y probado. Incluido transporte, montaje, conexiones eléctricas y pruebas de funcionamiento. Resto de características, según ET.	1,00	845,12	845,12
EMANGL01	UD MANÓMETRO DE ESFERA TIPO MUELLE TUBULAR DN100 Manómetro de esfera DN100 tipo muelle tubular con accesorios, sifón, válvula de aislamiento y purga. Incluso instalación y pruebas. Resto de características según E.T de proyecto.	2,00	88,26	176,52
	TOTAL APARTADO 07.12.03 INSTRUMENTACIÓN Y CONTROL.....			1.021,64
	APARTADO 07.12.04 INSTALACIÓN ELÉCTRICA DE BT			
ELE021	ML LÍNEA GENERAL DE ALIMENTACIÓN DE 4x6mm2 Cu 0,6/1 kV (AS) Línea general de alimentación con cuatro conductores unipolares de 1x6mm2 Cu 0.6/1kV RZ1-K(AS) instalada en canalización subterránea bajo tubo d=160mm.	20,00	22,93	458,60
ELE030	UD CUADRO GENERAL BAJA TENSIÓN Cuadro general con apartamento y envolvente de Schneider, formado por envolvente metálico con puertas montado sobre zócalo y conteniendo interruptor general automático NS 40A regulable, limitador de sobretensiones, analizador de redes, variadores de frecuencia 11 kW, protecciones magneto-térmicas y diferenciales según esquema unifilar, incluso cableado interior, perfiles omega y regletas de conexión. Amarillo: - Preparado para instalar un interruptor general automático de hasta 250A. - Ampliable por uno de los costados. - Con reserva de espacio de al menos el 50% de la apartamento instalada.	1,00	9.192,72	9.192,72
BT050	ML BANDEJA AISLANTE 60x150 MM Bandeja perforada de PVC, color gris RAL 7035, de 60x150 mm, resistencia al impacto 5 julios, propiedades eléctricas: aislante, no propagador de la llama, estable frente a los rayos UV y con resistencia a la intemperie y a los agentes químicos, con 1 compartimento, con soporte horizontal, de PVC, color gris RAL 7035.	20,00	42,26	845,20
BT060	ML TUBO PVC RIGIDO d=20mm Tubo rígido de PVC d=16mm para canalización de conductores, incluso soportes y anclajes a pared, instalado.	20,00	2,47	49,40
ELE01333	ML LINEA 4x6mm2 Cu 0.6/1kV RZ1-K (AS) Línea de alimentación con conductores unipolares 4x6 mm2 Cu 0.6/1kV RZ1-K (AS) en canalización existente, incluso conexionado en inicio y final de línea.	21,00	3,40	71,40
EL362	ML LINEA 5x2.5mm2 Cu 0.6/1kV RZ1-K (AS) Línea eléctrica con conductor multipolar 5x2.5mm2 RZ1-K (AS) en canalización existente, incluso conexionado en inicio y final de línea.	10,00	2,39	23,90
EL380	ML LINEA 3x1.5mm2 Cu 0.6/1kV RZ1-K (AS) Línea eléctrica con conductor multipolares 3x1.5mm2 RZ1-K (AS) en canalización existente, incluso conexionado en inicio y final de línea.	60,00	1,81	108,60
BT131	* ML LINEA 3x4mm2 Cu 0.6/1kV RZ1-K (AS) Línea eléctrica de 3x4mm2 Cu 0.6/kV RZ1-K (AS) en canalización existente, con parte proporcional de cajas de derivación.	1,00	3,74	3,74

PRESUPUESTOS PARCIALES.

ABASTECIMIENTO A VARIOS MUNICIPIOS DE LA RIOJA. SISTEMA CIDACOS

CÓDIGO	RESUMEN	CANTIDAD	PRECIO	IMPORTE
BT130	ML LINEA 3x2.5mm2 Cu 0.6/1kV RZ1-K (AS) Línea eléctrica de 3x2.5mm2 Cu 0.6/kV RZ1-K (AS) en canalización existente, con parte proporcional de cajas de derivación.	40,00	3,05	122,00
ELE0118	UD ARQUETA ELÉCTRICA FÁBRICA 100x100 CM Arqueta de paso de líneas construida en fábrica de ladrillo de 12 cm. de espesor y enfoscado en paredes, dimensiones interiores 100 x 100 y 100 cm. de profundidad, incluso marco y tapa de fundición.	2,00	183,87	367,74
BT150	UD INTERRUPTOR ALUMBRADO Interruptor de alumbrado con mecanismo completo y p/p de conductor, tubo y cajas de derivación.	1,00	20,48	20,48
BT160	UD TOMA DE CORRIENTE Toma de corriente con mecanismo completo y p/p de conductor, tubo y cajas de derivación.	2,00	22,44	44,88
BT190	UD PANTALLA ESTANCA Pantalla estanca WT120C L1500 1xLED60S/840 de Philips o equivalente, instalada y conexionada.	2,00	52,07	104,14
BT220	UD EMERGENCIA 300 LM Emergencia Basic Led serie L de Luznor o equivalente, modelo LL-300-T de 300 lúmenes, instalada y conexionada.	1,00	39,10	39,10
BT210	UD EMERGENCIA 100 LM Emergencia Basic Led serie L de Luznor o equivalente, modelo LLE-100 de 100 lúmenes, instalada y conexionada.	1,00	32,12	32,12
BT2301	UD PUESTA A TIERRA DE LA INSTALACION Puesta a tierra de la nave con 65 metros de conductor de cobre desnudo de 35mm2 y 4 picas de acero cobrizado de 2 metros.	1,00	269,45	269,45
BT181	UD LUMINARIA EXTERIOR NAVE Campana industrial BGP 307 T25 1xLED99-4S/740 DM11 de Philips o equivalente, instalada y conexionada.	1,00	71,31	71,31
AL100	UD PALOMILLA BANDERA Palomilla bandera de tubo de acero galvanizado en caliente 50x40x4 mm. con dos anclajes a pared separados 50 cm. y vuelo comprendido entre 30 y 90 cm., galvanizado en caliente, tornillería de enlace de acero galvanizado, incluso obras auxiliares de apertura de huecos para anclajes y recibido en paramentos.	1,00	81,63	81,63
AL110	UD BRAZO SOPORTE RECTO/CURVO Brazo de tubo de acero estirado de 50 mm. de diámetro y 2,5 mm. de espesor, recto sin vuelo o con vuelo entre 0 y 1,5 m. y altura comprendida entre 2,00 y 5,00 m., galvanizado en caliente, tornillería de enlace de acero galvanizado, incluso obras auxiliares de adaptación a palomilla bandera existente o nueva.	1,00	38,55	38,55
BT260	Ud OCA Inspección inicial y certificado de Organismo de Control autorizado.	1,00	300,61	300,61
	TOTAL APARTADO 07.12.04 INSTALACIÓN ELÉCTRICA DE BT.....			12.245,57

PRESUPUESTOS PARCIALES.

ABASTECIMIENTO A VARIOS MUNICIPIOS DE LA RIOJA. SISTEMA CIDACOS

CÓDIGO	RESUMEN	CANTIDAD	PRECIO	IMPORTE
APARTADO 07.12.05 VARIOS				
617.4	PA CONEXIÓN ALIVIOS CON POZO EXTERIOR Y DESAGÜE Partida Alzada de Abono Íntegro para conexión de la salida de los alivios de la nueva caseta de válvulas con pozo exterior y salida a cuneta y/o cauce, incluyendo, excavaciones, tuberías de PEAD DN de salida de alivio, rellenos, ayudas de albañilería, demoliciones, relleno de huecos con morteros sin retracción, anclaje de tuberías, así como todos los medios auxiliares necesarios para la conexión entre ambas tuberías.	1,00	536,70	536,70
TOTAL APARTADO 07.12.05 VARIOS				536,70
TOTAL SUBCAPÍTULO 07.12 BOMBEO A BERGASA.....				47.495,34
SUBCAPÍTULO 07.13 OBRAS AUXILIARES				
0102	ML TRASLADO TUBERÍA PEAD DN=315 mm PN 10 Traslado de tubería PE DN315 PN10 de la derivación de Arnedo para conexión a tubería existente de PEAD DN315, incluso p.p. de elementos de unión, corte para traslado y nuevo soldadura en tramo de 100 m.	100,00	11,97	1.197,00
172.1	ML TUBERÍA PEAD DN=110 mm PN 10 Tubería de polietileno de alta densidad de 110 mm de diámetro exterior y PN=10 bar, colocada en zanja incluso banda de señalización, p.p. de junta de unión colocada, codos, tes, portabridas, así como piezas especiales y medios auxiliares, totalmente colocada.	100,00	15,98	1.598,00
0101	ML COLOCACIÓN DE TUBERÍA AUXILIAR PE DN315 PN10 Colocación de tubería auxiliar de PE DN315 PN10 a tubería existente de PEAD DN315, durante la ejecución de la excavación de la zanja de la nueva conducción, para tramos de 100 m, para mantenimiento de servicio de la tubería existente, incluso elementos de unión de la tubería auxiliar a dicha tubería, del llenado y vaciado del tramo de actuación, y de la tubería auxiliar para su desplazamiento, traslado de la tubería auxiliar a su nueva posición por tramos de 100 m, así como la colocación de los lastres de la tubería auxiliar.	3.219,00	16,32	52.534,08
0103	ML COLOCACIÓN DE TUBERÍA AUXILIAR PE DN160-DN110 PN10 Colocación de tubería auxiliar de PE DN160-DN100 PN10 a tubería existente de PEAD DN160-DN110 y FD150, durante la ejecución de la excavación de la zanja de la nueva conducción, para tramos de 100 m, para mantenimiento de servicio de la tubería existente, incluso elementos de unión de la tubería auxiliar a dicha tubería, del llenado y vaciado del tramo de actuación, y de la tubería auxiliar para su desplazamiento, traslado de la tubería auxiliar a su nueva posición por tramos de 100 m, así como la colocación de los lastres de la tubería auxiliar.	6.163,00	12,80	78.886,40
TOTAL SUBCAPÍTULO 07.13 OBRAS AUXILIARES.....				134.215,48
TOTAL CAPÍTULO 07 RAMAL DESDE ARQUETA P190- ALCANADRE.....				4.524.929,20
CAPÍTULO 08 ACOMETIDAS ENTRADAS A DEPÓSITOS				
SUBCAPÍTULO 08.01 ACOMETIDA A DEPÓSITO DE ARNEDILLO				
APARTADO 08.1.01 OBRA CIVIL				
008	M2 DESPEJE Y DESBROCE Despeje y desbroce de capa de tierra vegetal con un espesor medio de 50 cm, incluso corte de árboles, extracción de tocones, nivelación de zona adyacente para el paso de maquinaria, transporte a lugar de acopio independiente para posterior reposición de tierra vegetal tras las obras y despedregado de las parcelas, así como transporte a vertedero de tierras sobrantes.	9,00	0,57	5,13
002	M3 EXCAVACIÓN EN ZANJAS Excavación en zanjas y zonas localizadas, en todo tipo de terrenos incluido terrenos en roca con medios mecánicos, incluso rasanteo, nivelación de la superficie de apoyo y transporte a lugar de empleo o vertedero.	14,69	3,74	54,94

PRESUPUESTOS PARCIALES.

ABASTECIMIENTO A VARIOS MUNICIPIOS DE LA RIOJA. SISTEMA CIDACOS

CÓDIGO	RESUMEN	CANTIDAD	PRECIO	IMPORTE
010	M3 RELLENO ZANJAS, CIMIENTOS Y TRASDOSES DE MATERIAL SELECCIONADO Relleno con material seleccionado en zanjas, cimientos, trasdós de muros, estribos y otras estructuras procedente de la excavación o préstamos incluso carga, transporte y compactación.	3,45	3,32	11,45
028	M3 HORMIGÓN DE LIMPIEZA HL-150 Hormigón de limpieza HL-150, de consistencia plástica, árido de tamaño máximo 40 mm y cemento CEM-II-D/42,5/SR, para saneos y encachados, incluyendo fabricación y transporte totalmente colocado.	1,09	44,76	48,79
031	M3 HORMIGÓN HA-25/B/20/IIa Hormigón HA-25/B/20/IIa, con cemento CEM II/A-D/42,5/SR, incluyendo fabricación, transporte, puesta en obra y vibrado, totalmente ejecutado, incluso curado y juntas.	7,13	53,39	380,67
023	KG ACERO CORRUGADO B-500-S Acero redondo corrugado para armar tipo B-500-S elaborado y colocado.	585,01	0,96	561,61
025	M2 ENCOFRADO RECTO EN PARAMENTOS OCULTOS Encofrado recto en paramentos ocultos, incluso colocación, fijación y desencofrado.	3,96	17,65	69,89
026	M2 ENCOFRADO RECTO EN PARAMENTOS VISTOS 1C Encofrado recto en paramentos vistos a una cara, incluso colocación, fijación y desencofrado.	26,68	21,18	565,08
052	ML JUNTAS DE ESTANQUEIDAD DE PVC 32 CM Junta de trabajo interior de policloruro de vinilo (PVC) 100% virgen, con una fuerza máxima de dilatación > 250 % , de 32 cm de ancho, MASTERFLEX 2000 TI-24 de BASF o equivalente, colocada simétricamente en el eje de la losa o muro, incluso solapes y piezas especiales para cruces o ángulos. Medida la longitud ejecutada.	11,60	7,31	84,80
462	M2 FÁBRICA BLOQUES 40x20x20 cm TIPO SPLIT COLOR Fábrica de bloques de hormigón tipo Split, de medidas 40x20x20 cm color i/relleno de hormigón y colocación de armaduras s/normativa y recibido con mortero de cemento y arena de río 1/6 i/p.p. de piezas especiales para dinteles y materialización de jambas, roturas, nivelados, aplomados, llagueados y limpieza, todo ello según normativa.	34,94	31,80	1.111,09
520	M2 CUBIERTA PANEL SANDWICH (E=50 mm.) Cubierta con panel tipo sandwich espesor 50 cm., con doble chapa prelacada de 0,4 mm de espesor, y aislamiento térmico de poliuretano, fijada con gancho de acero galvanizado, incluso p.p de piezas de remate, totalmente colocada.	8,40	27,03	227,05
519	ML REMATE DE CHAPA PRELACADA CUBIERTA Remate de chapa prelacada en color, para cubrir parte superior de bloque o panel, hasta el panel sandwich de la cubierta por el interior del peto, fijado mediante tacos y/o ganchos anclado a muro y o cubierta, dispuesto según planos.	8,60	22,47	193,24
465.1	M2 PUERTA DOBLE CHAPA ACERO CON LAMAS Puerta de paso hojas abatibles de doble chapa lisa de acero de 1 mm de espesor, con aislamiento interno de fibra de vidrio, engatillada, realizada en dos bandejas, con rigidizadores de tubo rectangular, i/manillas de acero inoxidable y cerradura, con dos o cuatro rejillas de ventilación con malla anti insectos interior, patillas para recibir en fábricas, herrajes de colgar y de seguridad, imprimación antióxido y pintura al esmalte, totalmente colocada incluyendo el recibido de fábricas.	1,76	75,01	132,02

PRESUPUESTOS PARCIALES.

ABASTECIMIENTO A VARIOS MUNICIPIOS DE LA RIOJA. SISTEMA CIDACOS

CÓDIGO	RESUMEN	CANTIDAD	PRECIO	IMPORTE
464cf	M2 CARPINTERÍA FIJA ALUMINIO m². Carpintería fija con junquillos para la fijación del vidrio, de aluminio modelo con rotura de puente térmico, Alfil A54RPT de SAPAGROUP con un ancho de marco de 54 mm y con un ancho de hoja de 61 mm, medida del frente de 96,3 mm, con sistema de cámara europea, con espesor de perfil de 1,5 mm, con sistema de cierre por junta central de estanqueidad en EPDM, coplanar exteriormente y con resalte de hoja sobre el marco al interior, para un acristalamiento con altura de galce de 22 mm y anchura hasta 44 mm en marcos y 51 mm en hojas, lacado (entre 60-100 micras) en color estándar (RAL estándar: blanco, gris...), herrajes de colgar, p.p. de cerradura Tesa o similar y costes indirectos. Homologada con Clase 4 en el ensayo de permeabilidad al aire según norma UNE-EN 1026:2000. La transmitancia máxima del marco es de 2,90 W/m² K, y cumple en las zonas A, B, C, D y E, según el CTE/DB-HE 1.	0,48	144,71	69,46
464V3	M2 VIDRIO SEGURIDAD STADIP 44.1 INCOLORO (2B2) m². Acristalamiento de vidrio laminar de seguridad Stadip compuesto por dos vidrios de 4 mm de espesor unidos mediante lámina de butiral de polivinilo incolora de 0,38 mm, clasificado 2B2 según UNE-EN 12600, fijado sobre carpintería con acuíado mediante calzos de apoyo perimetrales y laterales y sellado en frío con silicona neutra, incluso colocación de junquillos, según UNE 85222:1985.	0,48	37,05	17,78
521	M2 CELOSIA FIJA VENTILACIÓN Celosía metálica fija para ventilación, formada por cerco con empanelado de lamas de acero de 60 mm, con abertura mínima de 1 cm entre lamas, malla de 2 mm para evitar entrada de insectos, garras de sujeción a soporte de 10 cm, elaborada en taller y montada en obra, totalmente colocada.	0,48	73,80	35,42
020	KG ACERO S 275 J PERFILES LAMINADOS Acero S 275 J en perfiles laminados elaborado y colocado.	72,90	1,95	142,16
474.1	ML CANALON CHAPA PRELACADA 50cm Canalón de chapa prelacada en color, de 50 cm. de desarrollo fijado mediante ganchos ocultos con tornillo autoroscante 40 cm., incluso p.p. de embocadura de bajante, codos y piezas especiales.	3,00	11,85	35,55
474.2	ML BAJANTE DE CHAPA PRELACADA DN110 Bajante de chapa prelacada en color, DN110, fijado mediante ganchos con tornillo autoroscante 20 cm., incluso p.p. de embocadura de bajante, codos y piezas especiales.	2,60	12,29	31,95
290B	M2 ESCALERA Y PASARELAS DE ACERO GALVANIZADO. BARANDILLAS GALVANIZ Escalera y pasarelas de acceso de forma según planos, ejecutada en perfiles de acero galvanizado en caliente, incluso barandilla tubular del mismo material, de 90 cm de altura en uno o dos lados, rodapié de seguridad del mismo en uno o dos lados, así como entramado metálico de 30x30x3 en descansillos y peldaños, medida según su proyección en planta. Anclada a los muros y/o solera, instalada.	1,94	81,77	158,63
620	UD APOYOS DE TUBERÍA Y VÁLVULAS SOBRE SOLERA Apoyos de tuberías y válvulas en soleras, mediante dado de hormigón HA-25/P/20/IIa, ligeramente armado y anclado a la solera, así como cintas o eslingas de acero con material de protección de tubería para sujeción de las mismas, incluyendo el hormigón, encofrados, acero, eslingas, material de PE de protección, montado.	3,00	63,07	189,21
TOTAL APARTADO 08.1.01 OBRA CIVIL.....				4.125,92

PRESUPUESTOS PARCIALES.

ABASTECIMIENTO A VARIOS MUNICIPIOS DE LA RIOJA. SISTEMA CIDACOS

CÓDIGO	RESUMEN	CANTIDAD	PRECIO	IMPORTE
APARTADO 08.1.02 VÁLVULAS Y ACCESORIOS				
115.7	UD BRIDA ENCHUFE FD DN<150 mm PN16/25/40 Brida enchufe de fundición dúctil de PFA 16/25/40 bar para tubería de diámetro menor o igual de 150 mm, con un revestimiento interior y exterior epoxi, i/p.p. de junta de unión y medios auxiliares, totalmente colocada y probada.	2,00	104,02	208,04
132.1	UD TE FD BBB 100 mm PN16/25 SALIDA DN100/40 "T" de fundición dúctil de PFA 16 bar, con tres bridas para tubería de 100 mm con salida comprendida entre 100 y 40 mm, con un revestimiento interior y exterior epoxi, i/p.p. de junta de unión y medios auxiliares, totalmente colocada y probada.	1,00	69,36	69,36
111	UD REDUCCIÓN FD 150 A 125/50 mm PN16/25 Reducción en fundición dúctil de 150 mm a 125-100-80-65-60-50 mm con dos bridas PN 16/25 bar, con un revestimiento interior y exterior epoxi, i/p.p. de junta de unión y medios auxiliares, totalmente colocada y probada.	2,00	97,26	194,52
162	UD MANGUITO FD DN100 A DN250 mm PN16/25 Manguito de fundición dúctil con bridas diámetros de 100 a 250 mm, longitud comprendida entre 0,20 y 1,00 m y PN16/25, incluso p.p. de tornillería y medios auxiliares, totalmente colocado y probado.	3,00	110,14	330,42
251	UD FILTRO COLADOR EN Y DN=100 mm PN16/25 Filtro colador en "Y" de diámetro nominal DN=100 mm y brida PN16/25 bar de presión, incluso juntas de unión y tornillería, totalmente instalado.	1,00	531,47	531,47
266.4	UD VÁLVULA LIMITADORA DE CAUDAL DN=100 mm PN16 Válvula limitadora de caudal de DN=100 mm PN16, incluso juntas de unión y tornillería, totalmente colocada y probada.	1,00	3.931,37	3.931,37
237	UD VÁLVULA DE COMPUERTA MANUAL DN100 PN25 Válvula de compuerta de cierre elástico de 100 mm. de diámetro nominal y 25 At. de P.N., de accionamiento manual por volante, de cuerpo de fundición nodular GGG-50, con eje de acero inoxidable al 13 % Cr. con rosca conformada por laminación en frío, cierre en fundición nodular, tornillería de acero inoxidable, protegida contra la corrosión mediante aplicación de doble capa de pintura epoxy, totalmente colocada y probada. Resto de características según ET.	2,00	361,59	723,18
ECD010016	UD CARRETE DE DESMONTAJE DN=100 mm PN16 Carrete telescópico de desmontaje DN100 PN16, bridas de acero al carbono, virolas de acero inoxidable, protección epoxi, tornillos y tuercas en acero F-114, cincado y posterior baño de cromo-niquel, incluido p.p. de brida enchufe, totalmente instalado y probado en obra.	1,00	167,93	167,93
245.4	UD VENTOSA DN=50 (2") mm PN16 Válvula ventosa de tres funciones de DN=50 mm (2") y PN 16 bar incluido transporte, juntas, válvula de corte DN=50 mm y PN 16 y piezas especiales, totalmente colocada y probada.	1,00	367,64	367,64
087	UD CODO FD 1/4 A 1/32 100 mm Codo de fundición dúctil de 1/4 a 1/32 de diámetro interior 100 mm y PFA 40 bar, con un revestimiento interior y exterior epoxi, incluso p.p. de juntas y medios auxiliares, totalmente colocado y probado.	1,00	66,66	66,66
TOTAL APARTADO 08.1.02 VÁLVULAS Y ACCESORIOS.....				6.590,59

PRESUPUESTOS PARCIALES.

ABASTECIMIENTO A VARIOS MUNICIPIOS DE LA RIOJA. SISTEMA CIDACOS

CÓDIGO	RESUMEN	CANTIDAD	PRECIO	IMPORTE
APARTADO 08.1.03 INSTRUMENTACIÓN Y CONTROL				
300	UD BOYA DE NIVEL DE MÁXIMO Y MÍNIMO Boya de nivel cableada con la válvula de llenado, incluso montaje y pruebas.	2,00	49,74	99,48
ECELM100	UD CAUDALÍMETRO ELECTROMAGNÉTICO DN 100 mm Equipo medidor de caudal de DN 100 mm. tipo electromagnético y PN=10 atm. con salida 4/20 mA, tensión 220 V y escala 0-240 m3/h, totalmente instalado y probado. Incluido transporte, montaje, conexiones eléctricas y pruebas de funcionamiento. Resto de características, según ET.	1,00	951,67	951,67
TOTAL APARTADO 08.1.03 INSTRUMENTACIÓN Y CONTROL.....				1.051,15
APARTADO 08.1.04 INSTALACIÓN ELÉCTRICA DE BT				
563.1	ud PANTALLA ESTANCA LED Luminaria estanca WT120C LED80S/840 de Philips o equivalente para montaje en superficie de dimensiones 151x80, carcasa de policarbonato, óptica de polimetacrilato de metilo, flujo luminoso 8.000 lm, potencia 68 W, Tª color 4000 K, rango de Tª de 10°C a 35°C, protección IP-65 Clase I. Incluso p.p. de canalización y cableado, completamente instalado.	1,00	28,30	28,30
524.1	m LINEA 3x1.5mm2 Cu 0.6/1kV RZ1-K (AS) Línea eléctrica con conductor multipolares 3x 1.5mm2 RZ1-K (AS) en canalización existente, incluso conexionado en inicio y final de línea.	15,00	3,34	50,10
571	ud INTERRUPTOR EMPOTRAR SIMO 32 BLANCO. Interruptor empotrar blanco, totalmente instalado.	1,00	9,25	9,25
204	m TUBO DE PVC RÍGIDO DE 25 MM DIÁMETRO Tubo rígido de PVC d=25mm para canalización de conductores, incluso soportes y anclajes a pared, instalado.	15,00	4,17	62,55
TOTAL APARTADO 08.1.04 INSTALACIÓN ELÉCTRICA DE BT.....				150,20
APARTADO 08.1.05 VARIOS				
618	PA CONEXIÓN RED ELÉCTRICA BT CON DEPÓSITOS EXISTENTES Partida Alzada de Abono Íntegro para conexión de la red eléctrica en BT con depósitos existentes.	1,00	323,15	323,15
617.1	PA CONEXIÓN RED NUEVA CASETA CON DEPÓSITOS EXISTENTES FD DN<300 Partida Alzada de Abono Íntegro para conexión de la red de abastecimiento desde la nueva caseta de válvulas con depósitos existentes, incluyendo, excavaciones, tuberías de fundición de diámetro hasta 300 mm, rellenos, ayudas de albañilería, demoliciones, relleno de huecos con morteros sin retracción, anclaje de tuberías, así como todos los medios auxiliares necesarios para la conexión entre la salida de la nueva caseta de válvula y su salida al depósito.	1,00	1.728,51	1.728,51
TOTAL APARTADO 08.1.05 VARIOS				2.051,66
TOTAL SUBCAPÍTULO 08.01 ACOMETIDA A DEPÓSITO DE ARNEDILLO.....				13.969,52
SUBCAPÍTULO 08.02 ACOMETIDA A DEPÓSITO DE ALFARO				
APARTADO 08.02.01 OBRA CIVIL				
008	M2 DESPEJE Y DESBROCE Despeje y desbroce de capa de tierra vegetal con un espesor medio de 50 cm, incluso corte de árboles, extracción de tocones, nivelación de zona adyacente para el paso de maquinaria, transporte a lugar de acopio independiente para posterior reposición de tierra vegetal tras las obras y despedregado de las parcelas, así como transporte a vertedero de tierras sobrantes.	64,80	0,57	36,94

PRESUPUESTOS PARCIALES.

ABASTECIMIENTO A VARIOS MUNICIPIOS DE LA RIOJA. SISTEMA CIDACOS

CÓDIGO	RESUMEN	CANTIDAD	PRECIO	IMPORTE
002	M3 EXCAVACIÓN EN ZANJAS Excavación en zanjas y zonas localizadas, en todo tipo de terrenos incluido terrenos en roca con medios mecánicos, incluso rasanteo, nivelación de la superficie de apoyo y transporte a lugar de empleo o vertedero.	162,00	3,74	605,88
010	M3 RELLENO ZANJAS, CIMIENTOS Y TRASDOSES DE MATERIAL SELECCIONADO Relleno con material seleccionado en zanjas, cimientos, trasdós de muros, estribos y otras estructuras procedente de la excavación o préstamos incluso carga, transporte y compactación.	13,60	3,32	45,15
028	M3 HORMIGÓN DE LIMPIEZA HL-150 Hormigón de limpieza HL-150, de consistencia plástica, árido de tamaño máximo 40 mm y cemento CEM-II-D/42,5/SR, para saneos y encachados, incluyendo fabricación y transporte totalmente colocado.	6,48	44,76	290,04
031	M3 HORMIGÓN HA-25/B/20/IIa Hormigón HA-25/B/20/IIa, con cemento CEM II/A-D/42,5/SR, incluyendo fabricación, transporte, puesta en obra y vibrado, totalmente ejecutado, incluso curado y juntas.	47,04	53,39	2.511,47
023	KG ACERO CORRUGADO B-500-S Acero redondo corrugado para armar tipo B-500-S elaborado y colocado.	3.790,08	0,96	3.638,48
025	M2 ENCOFRADO RECTO EN PARAMENTOS OCULTOS Encofrado recto en paramentos ocultos, incluso colocación, fijación y desencofrado.	13,92	17,65	245,69
026	M2 ENCOFRADO RECTO EN PARAMENTOS VISTOS 1C Encofrado recto en paramentos vistos a una cara, incluso colocación, fijación y desencofrado.	146,08	21,18	3.093,97
052	ML JUNTAS DE ESTANQUEIDAD DE PVC 32 CM Junta de trabajo interior de policloruro de vinilo (PVC) 100% virgen, con una fuerza máxima de dilatación > 250 % , de 32 cm de ancho, MASTERFLEX 2000 TI-24 de BASF o equivalente, colocada simétricamente en el eje de la losa o muro, incluso solapes y piezas especiales para cruces o ángulos. Medida la longitud ejecutada.	33,20	7,31	242,69
462	M2 FÁBRICA BLOQUES 40x20x20 cm TIPO SPLIT COLOR Fábrica de bloques de hormigón tipo Split, de medidas 40x20x20 cm color i/relleno de hormigón y colocación de armaduras s/normativa y recibido con mortero de cemento y arena de río 1/6 i/p.p. de piezas especiales para dinteles y materialización de jambas, roturas, nivelados, aplomados, llagueados y limpieza, todo ello según normativa.	120,86	31,80	3.843,35
520	M2 CUBIERTA PANEL SANDWICH (E=50 mm.) Cubierta con panel tipo sandwich espesor 50 cm., con doble chapa prelacada de 0,4 mm de espesor, y aislamiento térmico de poliuretano, fijada con gancho de acero galvanizado, incluso p.p de piezas de remate, totalmente colocada.	58,00	27,03	1.567,74
519	ML REMATE DE CHAPA PRELACADA CUBIERTA Remate de chapa prelacada en color, para cubrir parte superior de bloque o panel, hasta el panel sandwich de la cubierta por el interior del peto, fijado mediante tacos y/o ganchos anclado a muro y o cubierta, dispuesto según planos.	21,60	22,47	485,35
465.1	M2 PUERTA DOBLE CHAPA ACERO CON LAMAS Puerta de paso hojas abatibles de doble chapa lisa de acero de 1 mm de espesor, con aislamiento interno de fibre de vidrio, engatillada, realizada en dos bandejas, con rigidizadores de tubo rectangular, i/manillas de acero inoxidable y cerradura, con dos o cuatro rejillas de ventilación con malla anti insectos interior, patillas para recibir en fábricas, herrajes de colgar y de seguridad, imprimación antióxido y pintura al esmalte, totalmente colocada incluyendo el recibido de fábricas.			

PRESUPUESTOS PARCIALES.

ABASTECIMIENTO A VARIOS MUNICIPIOS DE LA RIOJA. SISTEMA CIDACOS

CÓDIGO	RESUMEN	CANTIDAD	PRECIO	IMPORTE
		2,20	75,01	165,02
464cf	M2 CARPINTERÍA FIJA ALUMINIO m². Carpintería fija con junquillos para la fijación del vidrio, de aluminio modelo con rotura de puente térmico, Alfil A54RPT de SAPAGROUP con un ancho de marco de 54 mm y con un ancho de hoja de 61 mm, medida del frente de 96,3 mm, con sistema de cámara europea, con espesor de perfil de 1,5 mm, con sistema de cierre por junta central de estanqueidad en EPDM, coplanar exteriormente y con resalte de hoja sobre el marco al interior, para un acristalamiento con altura de galce de 22 mm y anchura hasta 44 mm en marcos y 51 mm en hojas, lacado (entre 60-100 micras) en color estándar (RAL estándar: blanco, gris...), herrajes de colgar, p.p. de cerradura Tesa o similar y costes indirectos. Homologada con Clase 4 en el ensayo de permeabilidad al aire según norma UNE-EN 1026:2000. La transmitancia máxima del marco es de 2,90 W/m² K, y cumple en las zonas A, B, C, D y E, según el CTE/DB-HE 1.			
		0,96	144,71	138,92
464V3	M2 VIDRIO SEGURIDAD STADIP 44.1 INCOLORO (2B2) m². Acristalamiento de vidrio laminar de seguridad Stadip compuesto por dos vidrios de 4 mm de espesor unidos mediante lámina de butiral de polivinilo incolora de 0,38 mm, clasificado 2B2 según UNE-EN 12600, fijado sobre carpintería con acuíado mediante calzos de apoyo perimetrales y laterales y sellado en frío con silicona neutra, incluso colocación de junquillos, según UNE 85222:1985.			
		0,96	37,05	35,57
521	M2 CELOSIA FIJA VENTILACIÓN Celosía metálica fija para ventilación, formada por cerco con empanelado de lamas de acero de 60 mm, con abertura mínima de 1 cm entre lamas, malla de 2 mm para evitar entrada de insectos, garras de sujeción a soporte de 10 cm, elaborada en taller y montada en obra, totalmente colocada.			
		0,48	73,80	35,42
020	KG ACERO S 275 J PERFILES LAMINADOS Acero S 275 J en perfiles laminados elaborado y colocado.			
		1.696,22	1,95	3.307,63
474.1	ML CANALON CHAPA PRELACADA 50cm Canalón de chapa prelacada en color, de 50 cm. de desarrollo fijado mediante ganchos ocultos con tornillo autoroscante 40 cm., incluso p.p. de embocadura de bajante, codos y piezas especiales.			
		11,60	11,85	137,46
474.2	ML BAJANTE DE CHAPA PRELACADA DN110 Bajante de chapa prelacada en color, DN110, fijado mediante ganchos con tornillo autoroscante 20 cm., incluso p.p. de embocadura de bajante, codos y piezas especiales.			
		6,60	12,29	81,11
290B	M2 ESCALERA Y PASARELAS DE ACERO GALVANIZADO. BARANDILLAS GALVANIZ Escalera y pasarelas de acceso de forma según planos, ejecutada en perfiles de acero galvanizado en caliente, incluso barandilla tubular del mismo material, de 90 cm de altura en uno o dos lados, rodapié de seguridad del mismo en uno o dos lados, así como entramado metálico de 30x30x3 en descansillos y peldaños, medida según su proyección en planta. Anclada a los muros y/o solera, instalada.			
		6,32	81,77	516,79
620	UD APOYOS DE TUBERÍA Y VÁLVULAS SOBRE SOLERA Apoyos de tuberías y válvulas en soleras, mediante dado de hormigón HA-25/P/20/IIa, ligeramente armado y anclado a la solera, así como cintas o eslingas de acero con material de protección de tubería para sujeción de las mismas, incluyendo el hormigón, encofrados, acero, eslingas, material de PE de protección, montado.			
		14,00	63,07	882,98
290	UD PATE POLIPROPILENO Pate de polipropileno de dimensiones 30x25 cm, incluyendo fabricación, transporte a obra, perforación de anclajes y relleno con aportación de material de agarre, completamente colocado.			
		12,00	5,63	67,56
	TOTAL APARTADO 08.02.01 OBRA CIVIL.....			21.975,21

PRESUPUESTOS PARCIALES.

ABASTECIMIENTO A VARIOS MUNICIPIOS DE LA RIOJA. SISTEMA CIDACOS

CÓDIGO	RESUMEN	CANTIDAD	PRECIO	IMPORTE
	APARTADO 08.02.02 VÁLVULAS Y ACCESORIOS			
115.5	UD BRIDA ENCHUFE FD 400 mm PN16/25 Brida enchufe de fundición dúctil de PFA 16/25 bar para tubería de 400 mm, con un revestimiento interior y exterior epoxi, i/p.p. de junta de unión y medios auxiliares, totalmente colocada y probada.	1,00	445,02	445,02
114.6	UD BRIDA LISO FD 400 mm PN16/25 Brida lisa de fundición dúctil de PFA 16/25 bar para tubería de 400 mm, con un revestimiento interior y exterior epoxi, i/p.p. de junta de unión y medios auxiliares, totalmente colocada y probada.	1,00	441,71	441,71
134	UD TE FD BBB 250 mm PN16/25 SALIDA DN250/60 "T" de fundición dúctil de PFA 16/25 bar, con tres bridas para tubería de 250 mm con salida comprendida entre 250 y 60 mm, con un revestimiento interior y exterior epoxi, i/p.p. de junta de unión y medios auxiliares, totalmente colocada y probada.	2,00	271,20	542,40
121.1	UD TE FD BBB 400 mm PN16/25 SALIDA DN400/80 "T" de fundición dúctil de PFA 16/25 bar, con tres bridas para tubería de 400 mm con salida comprendida entre 400 y 80 mm, con un revestimiento interior y exterior epoxi, i/p.p. de junta de unión y medios auxiliares, totalmente colocada y probada.	3,00	669,87	2.009,61
098	UD REDUCCIÓN FD 400 A 350/250 mm PN16/25 Reducción en fundición dúctil de 400 mm a 350-300-250 mm con dos bridas PN 16/25 bar, con un revestimiento interior y exterior epoxi, i/p.p. de junta de unión y medios auxiliares, totalmente colocada y probada.	4,00	380,88	1.523,52
162	UD MANGUITO FD DN100 A DN250 mm PN16/25 Manguito de fundición dúctil con bridas diámetros de 100 a 250 mm, longitud comprendida entre 0,20 y 1,00 m y PN16/25, incluso p.p. de tornillería y medios auxiliares, totalmente colocado y probado.	10,00	110,14	1.101,40
162.1	UD MANGUITO FD DN300 A DN400 mm PN16/25 Manguito de fundición dúctil con bridas diámetros de 300 a 400 mm, longitud comprendida entre 0,20 y 1,00 m y PN16/25, incluso p.p. de tornillería y medios auxiliares, totalmente colocado y probado.	4,00	200,95	803,80
250.1	UD FILTRO COLADOR EN Y DN=250 mm PN16 Filtro colador en "Y" de diámetro nominal DN=250 mm y brida PN=16 bar de presión, incluso juntas de unión y tornillería, totalmente instalado.	2,00	1.246,11	2.492,22
229	UD VÁLVULA DE COMPUERTA MANUAL DN250 PN16 Válvula de compuerta de accionamiento manual de diámetro nominal DN=250 mm de 16 bares de presión máxima admisible, con tornillería y juntas, totalmente instalada y probada, incluso volante de accionamiento.	4,00	825,16	3.300,64
255.1	UD VÁLVULA REDUCTORA DE PRESIÓN DN=250 mm PN16 Válvula reductora de presión de diámetro DN=250 mm y PN 16 bar, incluso juntas de unión y tornillería, totalmente colocada y probada.	2,00	11.070,80	22.141,60
266.2	UD VÁLVULA LIMITADORA DE CAUDAL DN=250 mm PN16 Válvula limitadora de caudal de DN=250 mm PN16, incluso juntas de unión y tornillería, totalmente colocada y probada.	2,00	9.974,34	19.948,68
268.2	UD VÁLVULA DE LLENADO DN=250 mm PN16 CIERRE LENTO Y SOLENOIDE Válvula de llenado de asiento inoxidable, con cierre lento y solenoide de diámetro nominal DN=250 mm y PN=16 bar, totalmente instalado y probado.	2,00	3.880,09	7.760,18

PRESUPUESTOS PARCIALES.

ABASTECIMIENTO A VARIOS MUNICIPIOS DE LA RIOJA. SISTEMA CIDACOS

CÓDIGO	RESUMEN	CANTIDAD	PRECIO	IMPORTE
ECD25016	UD CARRETE DE DESMONTAJE DN=250 mm PN16 Carrete telescópico de desmontaje DN250 PN16, bridas de acero al carbono, virolas de acero inoxidable, protección epoxi, tornillos y tuercas en acero F-114, cincado y posterior baño de cromo-niquel, incluido p.p. de brida enchufe, totalmente instalado y probado en obra.	4,00	398,69	1.594,76
273	UD VÁLVULA ALIVIO DE PRESIÓN 3" PN 16 Válvula de alivio de presión de 3" brida PN 16 bar, incluso válvula de corte de 3", juntas de unión, y tornillería, totalmente colocada y probada.	2,00	1.438,29	2.876,58
245.2	UD VENTOSA DN=80 (3") mm PN16 Válvula ventosa de tres funciones de DN=80 mm (3") y PN 16 bar incluido transporte, juntas, válvula de corte DN=80 mm y PN 16y piezas especiales, totalmente colocada y probada.	3,00	432,90	1.298,70
079	UD CODO FD 1/4 400 mm Codo de fundición dúctil de 1/4 de diámetro interior 400 mm y PFA 30 bar, con revestimiento interior y exterior epoxi, incluso p.p. de juntas y medios auxiliares, totalmente colocado y probado.	4,00	388,90	1.555,60
TOTAL APARTADO 08.02.02 VÁLVULAS Y ACCESORIOS.....				69.836,42
APARTADO 08.02.03 INSTRUMENTACIÓN Y CONTROL				
300	UD BOYA DE NIVEL DE MÁXIMO Y MÍNIMO Boya de nivel cableada con la válvula de llenado, incluso montaje y pruebas.	2,00	49,74	99,48
280.1	UD CAUDALÍMETRO ELECTROMAGNÉTICO DN 250 mm PN10 Equipo medidor de caudal de DN250 mm. tipo electromagnético y PN=10 atm. con salida 4/20 mA, tensión 220 V y escala 0-240 m3/h, totalmente instalado y probado. Incluido transporte, montaje, conexiones eléctricas y pruebas de funcionamiento. Resto de características, según ET.	2,00	1.718,48	3.436,96
EMUSO01	UD MEDIDOR DE NIVEL POR ULTRASONIDOS Medidor de nivel por ultrasonidos. Pértiga en PP con brida. Incluso instalación y pruebas. Resto de características según E.T de proyecto.	1,00	885,87	885,87
TOTAL APARTADO 08.02.03 INSTRUMENTACIÓN Y CONTROL.....				4.422,31
APARTADO 08.02.04 INSTALACIÓN ELÉCTRICA DE BT				
563.1	ud PANTALLA ESTANCA LED Luminaria estanca WT120C LED80S/840 de Philips o equivalente para montaje en superficie de dimensiones 1515x80, carcasa de policarbonato, óptica de polimetacrilato de metilo, flujo luminoso 8.000 lm, potencia 68 W, Tª color 4000 K, rango de Tª de 10°C a 35°C, protección IP-65 Clase I. Incluso p.p. de canalización y cableado, completamente instalado.	2,00	28,30	56,60
524.1	m LINEA 3x1.5mm2 Cu 0.6/1kV RZ1-K (AS) Línea eléctrica con conductor multipolares 3x1.5mm2 RZ1-K (AS) en canalización existente, incluso conexionado en inicio y final de línea.	30,00	3,34	100,20
571	ud INTERRUPTOR EMPOTRAR SIMO 32 BLANCO. Interruptor empotrar blanco, totalmente instalado.	1,00	9,25	9,25
204	m TUBO DE PVC RÍGIDO DE 25 MM DIÁMETRO Tubo rígido de PVC d=25mm para canalización de conductores, incluso soportes y anclajes a pared, instalado.	50,00	4,17	208,50
TOTAL APARTADO 08.02.04 INSTALACIÓN ELÉCTRICA DE BT.....				374,55

PRESUPUESTOS PARCIALES.

ABASTECIMIENTO A VARIOS MUNICIPIOS DE LA RIOJA. SISTEMA CIDACOS

CÓDIGO	RESUMEN	CANTIDAD	PRECIO	IMPORTE
APARTADO 08.02.05 VARIOS				
618	PA CONEXIÓN RED ELÉCTRICA BT CON DEPÓSITOS EXISTENTES Partida Alzada de Abono Íntegro para conexión de la red eléctrica en BT con depósitos existentes.	1,00	323,15	323,15
617.2	PA CONEXIÓN RED NUEVA CASETA CON DEPÓSITOS EXISTENTES FD 300-DN<500 Partida Alzada de Abono Íntegro para conexión de la red de abastecimiento desde la nueva caseta de válvulas con depósitos existentes, incluyendo, excavaciones, tuberías de fundición de diámetro desde 350 a 500 mm, rellenos, ayudas de albañilería, demoliciones, relleno de huecos con morteros sin retracción, anclaje de tuberías, así como todos los medios auxiliares necesarios para la conexión entre la salida de la nueva caseta de válvula y su salida al depósito.	1,00	2.404,89	2.404,89
617.3	PA CONEXIÓN ALIVIOS CON RED VACIADOS DEPÓSITO. Partida Alzada de Abono Íntegro para conexión de la salida de los alivios de la nueva caseta de válvulas con la red de vaciados del depósito, incluyendo, excavaciones, tuberías de PEAD DN de salida de alivio, rellenos, ayudas de albañilería, demoliciones, relleno de huecos con morteros sin retracción, anclaje de tuberías, así como todos los medios auxiliares necesarios para la conexión entre ambas tuberías.	1,00	240,49	240,49
TOTAL APARTADO 08.02.05 VARIOS				2.968,53
TOTAL SUBCAPÍTULO 08.02 ACOMETIDA A DEPÓSITO DE ALFARO.....				99.577,02
SUBCAPÍTULO 08.03 ACOMETIDA A DEPÓSITO DE CALAHORRA				
APARTADO 08.03.01 OBRA CIVIL				
008	M2 DESPEJE Y DESBROCE Despeje y desbroce de capa de tierra vegetal con un espesor medio de 50 cm, incluso corte de árboles, extracción de tocones, nivelación de zona adyacente para el paso de maquinaria, transporte a lugar de acopio independiente para posterior reposición de tierra vegetal tras las obras y despedregado de las parcelas, así como transporte a vertedero de tierras sobrantes.	87,36	0,57	49,80
002	M3 EXCAVACIÓN EN ZANJAS Excavación en zanjas y zonas localizadas, en todo tipo de terrenos incluido terrenos en roca con medios mecánicos, incluso rasanteo, nivelación de la superficie de apoyo y transporte a lugar de empleo o vertedero.	183,28	3,74	685,47
010	M3 RELLENO ZANJAS, CIMIENTOS Y TRASDOSES DE MATERIAL SELECCIONADO Relleno con material seleccionado en zanjas, cimientos, trasdós de muros, estribos y otras estructuras procedente de la excavación o préstamos incluso carga, transporte y compactación.	48,82	3,32	162,08
028	M3 HORMIGÓN DE LIMPIEZA HL-150 Hormigón de limpieza HL-150, de consistencia plástica, árido de tamaño máximo 40 mm y cemento CEM-II-D/42,5/SR, para saneos y encachados, incluyendo fabricación y transporte totalmente colocado.	7,70	44,76	344,65
031	M3 HORMIGÓN HA-25/B/20/IIa Hormigón HA-25/B/20/IIa, con cemento CEM III/A-D/42,5/SR, incluyendo fabricación, transporte, puesta en obra y vibrado, totalmente ejecutado, incluso curado y juntas.	51,99	53,39	2.775,75
023	KG ACERO CORRUGADO B-500-S Acero redondo corrugado para armar tipo B-500-S elaborado y colocado.	4.155,32	0,96	3.989,11
025	M2 ENCOFRADO RECTO EN PARAMENTOS OCULTOS Encofrado recto en paramentos ocultos, incluso colocación, fijación y desencofrado.	16,00	17,65	282,40
026	M2 ENCOFRADO RECTO EN PARAMENTOS VISTOS 1C Encofrado recto en paramentos vistos a una cara, incluso colocación, fijación y desencofrado.			

PRESUPUESTOS PARCIALES.

ABASTECIMIENTO A VARIOS MUNICIPIOS DE LA RIOJA. SISTEMA CIDACOS

CÓDIGO	RESUMEN	CANTIDAD	PRECIO	IMPORTE
052	ML JUNTAS DE ESTANQUEIDAD DE PVC 32 CM Junta de trabajo interior de policloruro de vinilo (PVC) 100% virgen, con una fuerza máxima de dilatación > 250 %, de 32 cm de ancho, MASTERFLEX 2000 TI-24 de BASF o equivalente, colocada simétricamente en el eje de la losa o muro, incluso solapes y piezas especiales para cruces o ángulos. Medida la longitud ejecutada.	72,96	21,18	1.545,29
462	M2 FÁBRICA BLOQUES 40x20x20 cm TIPO SPLIT COLOR Fábrica de bloques de hormigón tipo Split, de medidas 40x20x20 cm color i/relleno de hormigón y colocación de armaduras s/normativa y recibido con mortero de cemento y arena de río 1/6 i/p.p. de piezas especiales para dinteles y materialización de jambas, roturas, nivelados, aplomados, llagueados y limpieza, todo ello según normativa.	38,40	7,31	280,70
520	M2 CUBIERTA PANEL SANDWICH (E=50 mm.) Cubierta con panel tipo sandwich espesor 50 cm., con doble chapa prelacada de 0,4 mm de espesor, y aislamiento térmico de poliuretano, fijada con gancho de acero galvanizado, incluso p.p de piezas de remate, totalmente colocada.	126,44	31,80	4.020,79
519	ML REMATE DE CHAPA PRELACADA CUBIERTA Remate de chapa prelacada en color, para cubrir parte superior de bloque o panel, hasta el panel sandwich de la cubierta por el interior del peto, fijado mediante tacos y/o ganchos anclado a muro y o cubierta, dispuesto según planos.	69,12	27,03	1.868,31
465.1	M2 PUERTA DOBLE CHAPA ACERO CON LAMAS Puerta de paso hojas abatibles de doble chapa lisa de acero de 1 mm de espesor, con aislamiento interno de fibre de vidrio, engatillada, realizada en dos bandejas, con rigidizadores de tubo rectangular, i/manillas de acero inoxidable y cerradura, con dos o cuatro rejillas de ventilación con malla anti insectos interior, patillas para recibir en fábricas, herrajes de colgar y de seguridad, imprimación antióxido y pintura al esmalte, totalmente colocada incluyendo el recibido de fábricas.	24,00	22,47	539,28
464cf	M2 CARPINTERÍA FIJA ALUMINIO m². Carpintería fija con junquillos para la fijación del vidrio, de aluminio modelo con rotura de puente térmico, Afili A54RPT de SAPAGROUP con un ancho de marco de 54 mm y con un ancho de hoja de 61 mm, medida del frente de 96,3 mm, con sistema de cámara europea, con espesor de perfil de 1,5 mm, con sistema de cierre por junta central de estanqueidad en EPDM, coplanar exteriormente y con resalte de hoja sobre el marco al interior, para un acristalamiento con altura de galce de 22 mm y anchura hasta 44 mm en marcos y 51 mm en hojas, lacado (entre 60-100 micras) en color estándar (RAL estándar: blanco, gris...), herrajes de colgar, p.p. de cerradura Tesa o similar y costes indirectos. Homologada con Clase 4 en el ensayo de permeabilidad al aire según norma UNE-EN 1026:2000. La transmitancia máxima del marco es de 2,90 W/m² K, y cumple en las zonas A, B, C, D y E, según el CTE/DB-HE 1.	2,20	75,01	165,02
464V3	M2 VIDRIO SEGURIDAD STADIP 44.1 INCOLORO (2B2) m². Acristalamiento de vidrio laminar de seguridad Stadip compuesto por dos vidrios de 4 mm de espesor unidos mediante lámina de butiral de polivinilo incolora de 0,38 mm, clasificado 2B2 según UNE-EN 12600, fijado sobre carpintería con acuíado mediante calzos de apoyo perimetrales y laterales y sellado en frío con silicona neutra, incluso colocación de junquillos, según UNE 85222:1985.	1,92	144,71	277,84
521	M2 CELOSIA FIJA VENTILACIÓN Celosía metálica fija para ventilación, formada por cerco con empanelado de lamas de acero de 60 mm, con abertura mínima de 1 cm entre lamas, malla de 2 mm para evitar entrada de insectos, garras de sujeción a soporte de 10 cm, elaborada en taller y montada en obra, totalmente colocada.	1,92	37,05	71,14
020	KG ACERO S 275 J PERFILES LAMINADOS Acero S 275 J en perfiles laminados elaborado y colocado.	0,48	73,80	35,42

PRESUPUESTOS PARCIALES.

ABASTECIMIENTO A VARIOS MUNICIPIOS DE LA RIOJA. SISTEMA CIDACOS

CÓDIGO	RESUMEN	CANTIDAD	PRECIO	IMPORTE
474.1	ML CANALON CHAPA PRELACADA 50cm Canalón de chapa prelacada en color, de 50 cm. de desarrollo fijado mediante ganchos ocultos con tornillo autoroscante 40 cm., incluso p.p. de embocadura de bajante, codos y piezas especiales.	2.440,62	1,95	4.759,21
474.2	ML BAJANTE DE CHAPA PRELACADA DN110 Bajante de chapa prelacada en color, DN110, fijado mediante ganchos con tornillo autoroscante 20 cm., incluso p.p. de embocadura de bajante, codos y piezas especiales.	16,40	11,85	194,34
290B	M2 ESCALERA Y PASARELAS DE ACERO GALVANIZADO. BARANDILLAS GALVANIZ Escalera y pasarelas de acceso de forma segun planos, ejecutada en perfiles de acero galvanizado en caliente, incluso barandilla tubular del mismo material, de 90 cm de altura en uno o dos lados, rodapié de seguridad del mismo en uno o dos lados, así como entramado metálico de 30x30x3 en descansillos y peldaños, medida según su proyección en planta. Anclada a los muros y/o solera, instalada.	6,60	12,29	81,11
620	UD APOYOS DE TUBERÍA Y VÁLVULAS SOBRE SOLERA Apoyos de tuberías y válvulas en soleras, mediante dado de hormigón HA-25/P/20/IIa, ligeramente armado y anclado a la solera, así como cintas o eslingas de acero con material de protección de tubería para sujeción de las mismas, incluyendo el hormigón, encofrados, acero, eslingas, material de PE de protección, montado.	5,40	81,77	441,56
290	UD PATE POLIPROPILENO Pate de polipropileno de dimensiones 30x25 cm, incluyendo fabricación, transporte a obra, perforación de anclajes y relleno con aportación de material de agarre, completamente colocado.	14,00	63,07	882,98
290AA	ML ESCALERA TUBULAR GALVANIZADO CON ELEMENTOS ANTICAIDA Formación de escalera tubular de 50 mm de diámetro, de acero galvanizado, incluso protecciones circulares contra caídas según normativa, anclada a la pared y/o muros, totalmente ejecutada.	12,00	5,63	67,56
	TOTAL APARTADO 08.03.01 OBRA CIVIL.....	3,10	53,09	164,58
	APARTADO 08.03.02 VÁLVULAS Y ACCESORIOS			23.684,39
115.4	UD BRIDA ENCHUFE FD 500 mm PN16/25 Brida enchufe de fundición dúctil de PFA 16 bar para tubería de 500 mm, con un revestimiento interior y exterior epoxi, i/p.p. de junta de unión y medios auxiliares, totalmente colocada y probada.	2,00	530,98	1.061,96
115.12	UD BRIDA ENCHUFE FD 300 mm PN16 Brida enchufe de fundición dúctil de PFA 16 bar para tubería de 300 mm, con un revestimiento interior y exterior epoxi, i/p.p. de junta de unión y medios auxiliares, totalmente colocada y probada.	2,00	206,95	413,90
133	UD TE FD BBB 500 mm PN16/25 SALIDA DN500/100 "T" de fundición dúctil de PFA 16/25 bar, con tres bridas para tubería de 500 mm con salida comprendida entre 400 y 100 mm, con un revestimiento interior y exterior epoxi, i/p.p. de junta de unión y medios auxiliares, totalmente colocada y probada.	1,00	844,09	844,09
125	UD TE FD BBB 300 mm PN16/25 SALIDA DN300/40 "T" de fundición dúctil de PFA 16/25 bar, con tres bridas para tubería de 300 mm con salida comprendida entre 300 y 40 mm, con un revestimiento interior y exterior epoxi, i/p.p. de junta de unión y medios auxiliares, totalmente colocada y probada.	7,00	271,32	1.899,24
097	UD REDUCCIÓN FD 500 A 450/350 mm PN16/25 Reducción en fundición dúctil de 500 mm a 450-400-350 mm con dos bridas PN 16/25 bar, con un revestimiento interior y exterior epoxi, i/p.p. de junta de unión y medios auxiliares, totalmente colocada y probada.			

PRESUPUESTOS PARCIALES.

ABASTECIMIENTO A VARIOS MUNICIPIOS DE LA RIOJA. SISTEMA CIDACOS

CÓDIGO	RESUMEN	CANTIDAD	PRECIO	IMPORTE
		1,00	832,31	832,31
162.1	UD MANGUITO FD DN300 A DN400 mm PN16/25 Manguito de fundición dúctil con bridas diámetros de 300 a 400 mm, longitud comprendida entre 0,20 y 1,00 m y PN 16/25, incluso p.p. de tornillería y medios auxiliares, totalmente colocado y probado.	11,00	200,95	2.210,45
255.3	UD VÁLVULA REDUCTORA DE PRESIÓN DN=300 mm PN25 Válvula reductora de presión de diámetro DN=300 mm y PN 25 bar, incluso juntas de unión y tornillería, totalmente colocada y probada.	3,00	14.364,30	43.092,90
268.5	UD VÁLVULA DE LLENADO DN=300 mm PN16 CIERRE LENTO Y SOLENOIDE Válvula de llenado de asiento inoxidable, con cierre lento y solenoide de diámetro nominal DN=300 mm y PN=16 bar, totalmente instalado y probado.	2,00	7.276,41	14.552,82
229.1	UD VÁLVULA DE COMPUERTA MANUAL DN300 PN16 Válvula de compuerta de accionamiento manual de diámetro nominal DN=300 mm de 16 bares de presión máxima admisible, con tornillería y juntas, totalmente instalada y probada, incluso volante de accionamiento.	3,00	1.001,25	3.003,75
229.2	UD VÁLVULA DE COMPUERTA MANUAL DN300 PN25 Válvula de compuerta de accionamiento manual de diámetro nominal DN=300 mm de 25 bares de presión máxima admisible, con tornillería y juntas, totalmente instalada y probada, incluso volante de accionamiento.	2,00	1.579,93	3.159,86
ECD0300	UD CARRETE DE DESMONTAJE DN=300 mm PN16 Carrete telescópico de desmontaje DN300 PN16, bridas de acero al carbono, virolas de acero inoxidable, protección epoxi, tornillos y tuercas en acero F-114, cincado y posterior baño de cromo-níquel, incluido p.p. de brida enchufe, totalmente instalado y probado en obra.	4,00	440,43	1.761,72
ECD0300.1	UD CARRETE DE DESMONTAJE DN=300 mm PN25 Carrete telescópico de desmontaje DN300 PN25, bridas de acero al carbono, virolas de acero inoxidable, protección epoxi, tornillos y tuercas en acero F-114, cincado y posterior baño de cromo-níquel, incluido p.p. de brida enchufe, totalmente instalado y probado en obra.	2,00	536,07	1.072,14
244	UD VENTOSA DN=100 (4") mm PN25 Válvula ventosa de tres funciones de DN=100 mm y PN 25 bar incluido transporte, juntas, válvula de corte DN=100 mm y PN 25 bar y piezas especiales, totalmente colocada y probada.	1,00	510,93	510,93
244.1	UD VENTOSA DN=100 (4") mm PN16 Válvula ventosa de tres funciones de DN=100 mm y PN 16 bar incluido transporte, juntas, válvula de corte DN=100 mm y PN 16 bar y piezas especiales, totalmente colocada y probada.	2,00	903,50	1.807,00
079.1	UD CODO FD 1/4 300 mm Codo de fundición dúctil de 1/4 de diámetro interior 300 mm y PFA 30 bar, con revestimiento interior y exterior epoxi, incluso p.p. de juntas y medios auxiliares, totalmente colocado y probado.	2,00	333,74	667,48
250.2	UD FILTRO COLADOR EN Y DN=300 mm PN25 Filtro colador en "Y" de diámetro nominal DN=300 mm y brida PN=25 bar de presión, incluso juntas de unión y tornillería, totalmente instalado.	2,00	1.769,42	3.538,84
266.5	UD VÁLVULA LIMITADORA DE CAUDAL DN=300 mm PN16 Válvula limitadora de caudal de DN=300 mm PN 16 tipo MULTINAR de Ross o equivalente, eléctrica, incluso juntas de unión y tornillería, conexión eléctrica, totalmente colocada y probada.	2,00	11.601,48	23.202,96

PRESUPUESTOS PARCIALES.

ABASTECIMIENTO A VARIOS MUNICIPIOS DE LA RIOJA. SISTEMA CIDACOS

CÓDIGO	RESUMEN	CANTIDAD	PRECIO	IMPORTE
273.2	UD VÁLVULA ALIVIO DE PRESIÓN 4" PN 16 Válvula de alivio de presión de 4" brida PN 16 bar, incluso válvula de corte de 4", juntas de unión, y tornillería, totalmente colocada y probada.	2,00	1.543,63	3.087,26
062	ML TUBERÍA FD 300 mm Tubería de fundición dúctil de diámetro interior 300 mm y PFA de 49 bar, revestida interiormente con mortero de cemento y exteriormente con una capa de cinc y otra bituminosa, i/p.p. de junta automática flexible, banda de señalización y medios auxiliares, totalmente colocada y probada.	4,80	46,41	222,77
EGTM01	UD GRIFO TOMAMUESTRAS PN16/25 Grifo tomamuestras de 3/4" colocado en tubería de acero inoxidable por picaje, incluida la válvula PN16/25, montada y probada.	2,00	24,82	49,64
EVCMT300	UD VÁLVULA DE COMPUERTA MOTORIZADA DN300 PN16 Válvula de compuerta de cierre elástico de 300 mm. de diámetro nominal y 16 At. de P.N., de accionamiento motorizado, de cuerpo de fundición nodular GGG-50, con eje de acero inoxidable al 13 % Cr. con roscas conformadas por laminación en frío, cierre en fundición nodular, tornillería de acero inoxidable, protegida contra la corrosión mediante aplicación de doble capa de pintura epoxy, totalmente colocada y probada. Resto de características según ET.	2,00	3.315,34	6.630,68
TOTAL APARTADO 08.03.02 VÁLVULAS Y ACCESORIOS.....				113.622,70
APARTADO 08.03.03 INSTRUMENTACIÓN Y CONTROL				
300	UD BOYA DE NIVEL DE MÁXIMO Y MÍNIMO Boya de nivel cableada con la válvula de llenado, incluso montaje y pruebas.	2,00	49,74	99,48
280.2	UD CAUDALÍMETRO ELECTROMAGNÉTICO DN 300 mm PN10 Equipo medidor de caudal de DN300mm. tipo electromagnético y PN=10 atm. con salida 4/20 mA, tensión 220 V y escala 0-240 m3/h, totalmente instalado y probado. Incluido transporte, montaje, conexiones eléctricas y pruebas de funcionamiento. Resto de características, según ET.	2,00	2.144,31	4.288,62
EMUS001	UD MEDIDOR DE NIVEL POR ULTRASONIDOS Medidor de nivel por ultrasonidos. Pértiga en PP con brida. Incluso instalación y pruebas. Resto de características según E.T de proyecto.	2,00	885,87	1.771,74
TOTAL APARTADO 08.03.03 INSTRUMENTACIÓN Y CONTROL.....				6.159,84
APARTADO 08.03.04 INSTALACIÓN ELÉCTRICA DE BT				
563.1	ud PANTALLA ESTANCA LED Luminaria estanca WT120C LED80S/840 de Philips o equivalente para montaje en superficie de dimensiones 1515x80, carcasa de policarbonato, óptica de polimetacrilato de metilo, flujo luminoso 8.000 lm, potencia 68 W, Tª color 4000 K, rango de Tª de 10°C a 35°C, protección IP-65 Clase I. Incluso p.p. de canalización y cableado, completamente instalado.	2,00	28,30	56,60
524.1	m LINEA 3x1.5mm2 Cu 0.6/1kV RZ1-K (AS) Línea eléctrica con conductor multipolares 3x1.5mm2 RZ1-K (AS) en canalización existente, incluso conexionado en inicio y final de línea.	30,00	3,34	100,20
571	ud INTERRUPTOR EMPOTRAR SIMO 32 BLANCO. Interruptor empotrar blanco, totalmente instalado.	1,00	9,25	9,25
204	m TUBO DE PVC RÍGIDO DE 25 MM DIÁMETRO Tubo rígido de PVC d=25mm para canalización de conductores, incluso soportes y anclajes a pared, instalado.	50,00	4,17	208,50

PRESUPUESTOS PARCIALES.

ABASTECIMIENTO A VARIOS MUNICIPIOS DE LA RIOJA. SISTEMA CIDACOS

CÓDIGO	RESUMEN	CANTIDAD	PRECIO	IMPORTE
	TOTAL APARTADO 08.03.04 INSTALACIÓN ELÉCTRICA DE BT.....			374,55
	APARTADO 08.03.05 VARIOS			
618	PA CONEXIÓN RED ELÉCTRICA BT CON DEPÓSITOS EXISTENTES Partida Alzada de Abono Íntegro para conexión de la red eléctrica en BT con depósitos existentes.	1,00	323,15	323,15
617.1	PA CONEXIÓN RED NUEVA CASETA CON DEPÓSITOS EXISTENTES FD DN<300 Partida Alzada de Abono Íntegro para conexión de la red de abastecimiento desde la nueva caseta de válvulas con depósitos existentes, incluyendo, excavaciones, tuberías de fundición de diámetro hasta 300 mm, rellenos, ayudas de albañilería, demoliciones, relleno de huecos con morteros sin retracción, anclaje de tuberías, así como todos los medios auxiliares necesarios para la conexión entre la salida de la nueva caseta de válvula y su salida al depósito.	2,00	1.728,51	3.457,02
617.3	PA CONEXIÓN ALIVIOS CON RED VACIADOS DEPÓSITO. Partida Alzada de Abono Íntegro para conexión de la salida de los alivios de la nueva caseta de válvulas con la red de vaciados del depósito, incluyendo, excavaciones, tuberías de PEAD DN de salida de alivio, rellenos, ayudas de albañilería, demoliciones, relleno de huecos con morteros sin retracción, anclaje de tuberías, así como todos los medios auxiliares necesarios para la conexión entre ambas tuberías.	1,00	240,49	240,49
	TOTAL APARTADO 08.03.05 VARIOS			4.020,66
	TOTAL SUBCAPÍTULO 08.03 ACOMETIDA A DEPÓSITO DE CALAHORRA.....			147.862,14
	SUBCAPÍTULO 08.04 ACOMETIDA A DEPÓSITO VALLE DE OCÓN			
	APARTADO 08.04.01 OBRA CIVIL			
008	M2 DESPEJE Y DESBROCE Despeje y desbroce de capa de tierra vegetal con un espesor medio de 50 cm, incluso corte de árboles, extracción de tocones, nivelación de zona adyacente para el paso de maquinaria, transporte a lugar de acopio independiente para posterior reposición de tierra vegetal tras las obras y despedregado de las parcelas, así como transporte a vertedero de tierras sobrantes.	15,12	0,57	8,62
002	M3 EXCAVACIÓN EN ZANJAS Excavación en zanjas y zonas localizadas, en todo tipo de terrenos incluido terrenos en roca con medios mecánicos, incluso rasanteo, nivelación de la superficie de apoyo y transporte a lugar de empleo o vertedero.	20,41	3,74	76,33
010	M3 RELLENO ZANJAS, CIMIENTOS Y TRASDOSES DE MATERIAL SELECCIONADO Relleno con material seleccionado en zanjas, cimientos, trasdós de muros, estribos y otras estructuras procedente de la excavación o préstamos incluso carga, transporte y compactación.	2,81	3,32	9,33
028	M3 HORMIGÓN DE LIMPEZA HL-150 Hormigón de limpieza HL-150, de consistencia plástica, árido de tamaño máximo 40 mm y cemento CEM-II-D/42,5/SR, para saneos y encachados, incluyendo fabricación y transporte totalmente colocado.	1,43	44,76	64,01
031	M3 HORMIGÓN HA-25/B/20/IIa Hormigón HA-25/B/20/IIa, con cemento CEM II/A-D/42,5/SR, incluyendo fabricación, transporte, puesta en obra y vibrado, totalmente ejecutado, incluso curado y juntas.	9,11	53,39	486,38
023	KG ACERO CORRUGADO B-500-S Acero redondo corrugado para armar tipo B-500-S elaborado y colocado.	745,66	0,96	715,83
025	M2 ENCOFRADO RECTO EN PARAMENTOS OCULTOS Encofrado recto en paramentos ocultos, incluso colocación, fijación y desencofrado.	4,68	17,65	82,60

PRESUPUESTOS PARCIALES.

ABASTECIMIENTO A VARIOS MUNICIPIOS DE LA RIOJA. SISTEMA CIDACOS

CÓDIGO	RESUMEN	CANTIDAD	PRECIO	IMPORTE
026	M2 ENCOFRADO RECTO EN PARAMENTOS VISTOS 1C Encofrado recto en paramentos vistos a una cara, incluso colocación, fijación y desencofrado.	32,20	21,18	682,00
052	ML JUNTAS DE ESTANQUEIDAD DE PVC 32 CM Junta de trabajo interior de policloruro de vinilo (PVC) 100% virgen, con una fuerza máxima de dilatación > 250 % , de 32 cm de ancho, MASTERFLEX 2000 TI-24 de BASF o equivalente, colocada simétricamente en el eje de la losa o muro, incluso solapes y piezas especiales para cruces o ángulos. Medida la longitud ejecutada.	14,00	7,31	102,34
462	M2 FÁBRICA BLOQUES 40x20x20 cm TIPO SPLIT COLOR Fábrica de bloques de hormigón tipo Split, de medidas 40x20x20 cm color i/relleno de hormigón y colocación de armaduras s/normativa y recibido con mortero de cemento y arena de río 1/6 i/p.p. de piezas especiales para dinteles y materialización de jambas, roturas, nivelados, aplomados, llagueados y limpieza, todo ello según normativa.	42,66	31,80	1.356,59
520	M2 CUBIERTA PANEL SANDWICH (E=50 mm.) Cubierta con panel tipo sandwich espesor 50 cm., con doble chapa prelacada de 0,4 mm de espesor, y aislamiento térmico de poliuretano, fijada con gancho de acero galvanizado, incluso p.p de piezas de remate, totalmente colocada.	12,16	27,03	328,68
519	ML REMATE DE CHAPA PRELACADA CUBIERTA Remate de chapa prelacada en color, para cubrir parte superior de bloque o panel, hasta el panel sandwich de la cubierta por el interior del peto, fijado mediante tacos y/o ganchos anclado a muro y o cubierta, dispuesto según planos.	10,20	22,47	229,19
465.1	M2 PUERTA DOBLE CHAPA ACERO CON LAMAS Puerta de paso hojas abatibles de doble chapa lisa de acero de 1 mm de espesor, con aislamiento interno de fibra de vidrio, engatillada, realizada en dos bandejas, con rigidizadores de tubo rectangular, i/manillas de acero inoxidable y cerradura, con dos o cuatro rejillas de ventilación con malla anti insectos interior, patillas para recibir en fábricas, herrajes de colgar y de seguridad, imprimación antióxido y pintura al esmalte, totalmente colocada incluyendo el recibido de fábricas.	1,76	75,01	132,02
464cf	M2 CARPINTERÍA FIJA ALUMINIO m². Carpintería fija con junquillos para la fijación del vidrio, de aluminio modelo con rotura de puente térmico, Alfil A54RPT de SAPAGROUP con un ancho de marco de 54 mm y con un ancho de hoja de 61 mm, medida del frente de 96,3 mm, con sistema de cámara europea, con espesor de perfil de 1,5 mm, con sistema de cierre por junta central de estanqueidad en EPDM, coplanar exteriormente y con resalte de hoja sobre el marco al interior, para un acristalamiento con altura de galce de 22 mm y anchura hasta 44 mm en marcos y 51 mm en hojas, lacado (entre 60-100 micras) en color estándar (RAL estándar: blanco, gris...), herrajes de colgar, p.p. de cerradura Tesa o similar y costes indirectos. Homologada con Clase 4 en el ensayo de permeabilidad al aire según norma UNE-EN 1026:2000. La transmitancia máxima del marco es de 2,90 W/m² K, y cumple en las zonas A, B, C, D y E, según el CTE/DB-HE 1.	0,48	144,71	69,46
464V3	M2 VIDRIO SEGURIDAD STADIP 44.1 INCOLORO (2B2) m². Acristalamiento de vidrio laminar de seguridad Stadip compuesto por dos vidrios de 4 mm de espesor unidos mediante lámina de butiral de polivinilo incolora de 0,38 mm, clasificado 2B2 según UNE-EN 12600, fijado sobre carpintería con acuñado mediante calzos de apoyo perimetrales y laterales y sellado en frío con silicona neutra, incluso colocación de junquillos, según UNE 85222:1985.			
521	M2 CELOSIA FIJA VENTILACIÓN Celosía metálica fija para ventilación, formada por cerco con empanelado de lamas de acero de 60 mm, con abertura mínima de 1 cm entre lamas, malla de 2 mm para evitar entrada de insectos, garras de sujeción a soporte de 10 cm, elaborada en taller y montada en obra, totalmente colocada.	0,48	37,05	17,78
		0,48	73,80	35,42

PRESUPUESTOS PARCIALES.

ABASTECIMIENTO A VARIOS MUNICIPIOS DE LA RIOJA. SISTEMA CIDACOS

CÓDIGO	RESUMEN	CANTIDAD	PRECIO	IMPORTE
020	KG ACERO S 275 J PERFILES LAMINADOS Acero S 275 J en perfiles laminados elaborado y colocado.	448,16	1,95	873,91
474.1	ML CANALON CHAPA PRELACADA 50cm Canalón de chapa prelacada en color, de 50 cm. de desarrollo fijado mediante ganchos ocultos con tornillo autoroscante 40 cm., incluso p.p. de embocadura de bajante, codos y piezas especiales.	3,80	11,85	45,03
474.2	ML BAJANTE DE CHAPA PRELACADA DN110 Bajante de chapa prelacada en color, DN110, fijado mediante ganchos con tornillo autoroscante 20 cm., incluso p.p. de embocadura de bajante, codos y piezas especiales.	2,60	12,29	31,95
290B	M2 ESCALERA Y PASARELAS DE ACERO GALVANIZADO. BARANDILLAS GALVANIZ Escalera y pasarelas de acceso de forma según planos, ejecutada en perfiles de acero galvanizado en caliente, incluso barandilla tubular del mismo material, de 90 cm de altura en uno o dos lados, rodapié de seguridad del mismo en uno o dos lados, así como entramado metálico de 30x30x3 en descansillos y peldaños, medida según su proyección en planta. Anclada a los muros y/o solera, instalada.	1,94	81,77	158,63
620	UD APOYOS DE TUBERÍA Y VÁLVULAS SOBRE SOLERA Apoyos de tuberías y válvulas en soleras, mediante dado de hormigón HA-25/P/20/IIa, ligeramente armado y anclado a la solera, así como cintas o eslingas de acero con material de protección de tubería para sujeción de las mismas, incluyendo el hormigón, encofrados, acero, eslingas, material de PE de protección, montado.	4,00	63,07	252,28
TOTAL APARTADO 08.04.01 OBRA CIVIL.....				5.758,38
APARTADO 08.04.02 VÁLVULAS Y ACCESORIOS				
115.6	UD BRIDA ENCHUFE FD 250 mm PN16/25 Brida enchufe de fundición dúctil de PFA 16/25 bar para tubería de 250 mm, con un revestimiento interior y exterior epoxi, i/p.p. de junta de unión y medios auxiliares, totalmente colocada y probada.	2,00	164,78	329,56
134	UD TE FD BBB 250 mm PN16/25 SALIDA DN250/60 "T" de fundición dúctil de PFA 16/25 bar, con tres bridas para tubería de 250 mm con salida comprendida entre 250 y 60 mm, con un revestimiento interior y exterior epoxi, i/p.p. de junta de unión y medios auxiliares, totalmente colocada y probada.	1,00	271,20	271,20
106	UD REDUCCIÓN FD 250 A 200/125 mm PN16 Reducción en fundición dúctil de 250 mm a 200-150-125 mm con dos bridas PN 25 bar, con un revestimiento interior y exterior epoxi, i/p.p. de junta de unión y medios auxiliares, totalmente colocada y probada.	2,00	110,44	220,88
109	UD REDUCCIÓN FD 200 A 150/100 mm PN16 Reducción en fundición dúctil de 200 mm a 150-125-100 mm con dos bridas PN 16 bar, con un revestimiento interior y exterior epoxi, i/p.p. de junta de unión y medios auxiliares, totalmente colocada y probada.	1,00	91,37	91,37
162	UD MANGUITO FD DN100 A DN250 mm PN16/25 Manguito de fundición dúctil con bridas diámetros de 100 a 250 mm, longitud comprendida entre 0,20 y 1,00 m y PN 16/25, incluso p.p. de tornillería y medios auxiliares, totalmente colocado y probado.	3,00	110,14	330,42
248	UD FILTRO COLADOR EN Y DN=200 mm PN16 Filtro colador en "Y" de diámetro nominal DN=200 mm y brida PN=16 bar de presión, incluso juntas de unión y tornillería, totalmente instalado.	1,00	859,23	859,23

PRESUPUESTOS PARCIALES.

ABASTECIMIENTO A VARIOS MUNICIPIOS DE LA RIOJA. SISTEMA CIDACOS

CÓDIGO	RESUMEN	CANTIDAD	PRECIO	IMPORTE
266.3	UD VÁLVULA LIMITADORA DE CAUDAL DN=200 mm PN16 Válvula limitadora de caudal de DN=200 mm PN16, incluso juntas de unión y tornillería, totalmente colocada y probada.	1,00	8.221,73	8.221,73
143	UD CARRETE DE DESMONTAJE DN=200 mm PN16 Carrete telescópico de desmontaje DN200 PN 16, bridas de acero al carbono, virolas de acero inoxidable, protección epoxi, tornillos y tuercas en acero F-114, cincado y posterior baño de cromo-niquel, incluido p.p. de brida enchufe, totalmente instalado y probado en obra.	1,00	276,45	276,45
ECD15016	UD CARRETE DE DESMONTAJE DN=150 mm PN16 Carrete telescópico de desmontaje DN150 PN16, bridas de acero al carbono, virolas de acero inoxidable, protección epoxi, tornillos y tuercas en acero F-114, cincado y posterior baño de cromo-niquel, incluido p.p. de brida enchufe, totalmente instalado y probado en obra.	1,00	200,47	200,47
245.4	UD VENTOSA DN=50 (2") mm PN16 Válvula ventosa de tres funciones de DN=50 mm (2") y PN 16 bar incluido transporte, juntas, válvula de corte DN=50 mm y PN 16 y piezas especiales, totalmente colocada y probada.	1,00	367,64	367,64
084	UD CODO FD 1/4 200 mm Codo de fundición dúctil de 1/4 de diámetro interior 200 mm y PFA 16 bar, con revestimiento interior y exterior epoxi, incluso p.p. de juntas y medios auxiliares, totalmente colocado y probado.	1,00	258,01	258,01
TOTAL APARTADO 08.04.02 VÁLVULAS Y ACCESORIOS.....				11.426,96
APARTADO 08.04.03 INSTRUMENTACIÓN Y CONTROL				
300	UD BOYA DE NIVEL DE MÁXIMO Y MÍNIMO Boya de nivel cableada con la válvula de llenado, incluso montaje y pruebas.	2,00	49,74	99,48
281	UD CAUDALÍMETRO ELECTROMAGNÉTICO DN 150 mm PN10 Equipo medidor de caudal de DN150 mm. tipo electromagnético y PN=25 atm. con salida 4/20 mA, tensión 220 V y escala 0-240 m3/h, totalmente instalado y probado. Incluido transporte, montaje, conexiones eléctricas y pruebas de funcionamiento. Resto de características, según ET.	1,00	1.201,05	1.201,05
TOTAL APARTADO 08.04.03 INSTRUMENTACIÓN Y CONTROL.....				1.300,53
APARTADO 08.04.05 VARIOS				
618	PA CONEXIÓN RED ELÉCTRICA BT CON DEPÓSITOS EXISTENTES Partida Alzada de Abono Íntegro para conexión de la red eléctrica en BT con depósitos existentes.	1,00	323,15	323,15
617.1	PA CONEXIÓN RED NUEVA CASETA CON DEPÓSITOS EXISTENTES FD DN<300 Partida Alzada de Abono Íntegro para conexión de la red de abastecimiento desde la nueva caseta de válvulas con depósitos existentes, incluyendo, excavaciones, tuberías de fundición de diámetro hasta 300 mm, rellenos, ayudas de albañilería, demoliciones, relleno de huecos con morteros sin retracción, anclaje de tuberías, así como todos los medios auxiliares necesarios para la conexión entre la salida de la nueva caseta de válvula y su salida al depósito.	1,00	1.728,51	1.728,51
TOTAL APARTADO 08.04.05 VARIOS.....				2.051,66
TOTAL SUBCAPÍTULO 08.04 ACOMETIDA A DEPÓSITO VALLE DE OCÓN.....				20.537,53

PRESUPUESTOS PARCIALES.

ABASTECIMIENTO A VARIOS MUNICIPIOS DE LA RIOJA. SISTEMA CIDACOS

CÓDIGO	RESUMEN	CANTIDAD	PRECIO	IMPORTE
SUBCAPÍTULO 08.05 ACOMETIDA A DEPÓSITO DE PRADEJÓN				
APARTADO 08.05.01 OBRA CIVIL				
008	M2 DESPEJE Y DESBROCE Despeje y desbroce de capa de tierra vegetal con un espesor medio de 50 cm, incluso corte de árboles, extracción de tocones, nivelación de zona adyacente para el paso de maquinaria, transporte a lugar de acopio independiente para posterior reposición de tierra vegetal tras las obras y despedregado de las parcelas, así como transporte a vertedero de tierras sobrantes.	29,44	0,57	16,78
002	M3 EXCAVACIÓN EN ZANJAS Excavación en zanjas y zonas localizadas, en todo tipo de terrenos incluido terrenos en roca con medios mecánicos, incluso rasanteo, nivelación de la superficie de apoyo y transporte a lugar de empleo o vertedero.	44,16	3,74	165,16
010	M3 RELLENO ZANJAS, CIMIENTOS Y TRASDOSES DE MATERIAL SELECCIONADO Relleno con material seleccionado en zanjas, cimientos, trasdós de muros, estribos y otras estructuras procedente de la excavación o préstamos incluso carga, transporte y compactación.	-1,63	3,32	-5,41
028	M3 HORMIGÓN DE LIMPIEZA HL-150 Hormigón de limpieza HL-150, de consistencia plástica, árido de tamaño máximo 40 mm y cemento CEM-II-D/42,5/SR, para saneos y encachados, incluyendo fabricación y transporte totalmente colocado.	2,82	44,76	126,22
031	M3 HORMIGÓN HA-25/B/20/IIa Hormigón HA-25/B/20/IIa, con cemento CEM II/A-D/42,5/SR, incluyendo fabricación, transporte, puesta en obra y vibrado, totalmente ejecutado, incluso curado y juntas.	17,81	53,39	950,88
023	KG ACERO CORRUGADO B-500-S Acero redondo corrugado para armar tipo B-500-S elaborado y colocado.	1.386,40	0,96	1.330,94
025	M2 ENCOFRADO RECTO EN PARAMENTOS OCULTOS Encofrado recto en paramentos ocultos, incluso colocación, fijación y desencofrado.	9,92	17,65	175,09
026	M2 ENCOFRADO RECTO EN PARAMENTOS VISTOS 1C Encofrado recto en paramentos vistos a una cara, incluso colocación, fijación y desencofrado.	62,40	21,18	1.321,63
052	ML JUNTAS DE ESTANQUEIDAD DE PVC 32 CM Junta de trabajo interior de policloruro de vinilo (PVC) 100% virgen, con una fuerza máxima de dilatación > 250 %, de 32 cm de ancho, MASTERFLEX 2000 TI-24 de BASF o equivalente, colocada simétricamente en el eje de la losa o muro, incluso solapes y piezas especiales para cruces o ángulos. Medida la longitud ejecutada.	23,20	7,31	169,59
462	M2 FÁBRICA BLOQUES 40x20x20 cm TIPO SPLIT COLOR Fábrica de bloques de hormigón tipo Split, de medidas 40x20x20 cm color i/relleno de hormigón y colocación de armaduras s/normativa y recibido con mortero de cemento y arena de río 1/6 i/p.p. de piezas especiales para dinteles y materialización de jambas, roturas, nivelados, aplomados, llagueados y limpieza, todo ello según normativa.	72,76	31,80	2.313,77
520	M2 CUBIERTA PANEL SANDWICH (E=50 mm.) Cubierta con panel tipo sandwich espesor 50 cm., con doble chapa prelacada de 0,4 mm de espesor, y aislamiento térmico de poliuretano, fijada con gancho de acero galvanizado, incluso p.p de piezas de remate, totalmente colocada.	24,64	27,03	666,02

PRESUPUESTOS PARCIALES.

ABASTECIMIENTO A VARIOS MUNICIPIOS DE LA RIOJA. SISTEMA CIDACOS

CÓDIGO	RESUMEN	CANTIDAD	PRECIO	IMPORTE
519	ML REMATE DE CHAPA PRELACADA CUBIERTA Remate de chapa prelacada en color, para cubrir parte superior de bloque o panel, hasta el panel sandwich de la cubierta por el interior del peto, fijado mediante tacos y/o ganchos anclado a muro y o cubierta, dispuesto según planos.	14,40	22,47	323,57
465.1	M2 PUERTA DOBLE CHAPA ACERO CON LAMAS Puerta de paso hojas abatibles de doble chapa lisa de acero de 1 mm de espesor, con aislamiento interno de fibre de vidrio, engatillada, realizada en dos bandejas, con rigidizadores de tubo rectangular, i/manillas de acero inoxidable y cerradura, con dos o cuatro rejillas de ventilación con malla anti insectos interior, patillas para recibir en fábricas, herrajes de colgar y de seguridad, imprimación antióxido y pintura al esmalte, totalmente colocada incluyendo el recibido de fábricas.	1,76	75,01	132,02
464cf	M2 CARPINTERÍA FIJA ALUMINIO m². Carpintería fija con junquillos para la fijación del vidrio, de aluminio modelo con rotura de puente térmico, Alfil A54RPT de SAPAGROUP con un ancho de marco de 54 mm y con un ancho de hoja de 61 mm, medida del frente de 96,3 mm, con sistema de cámara europea, con espesor de perfil de 1,5 mm, con sistema de cierre por junta central de estanqueidad en EPDM, coplanar exteriormente y con resalte de hoja sobre el marco al interior, para un acristalamiento con altura de galce de 22 mm y anchura hasta 44 mm en marcos y 51 mm en hojas, lacado (entre 60-100 micras) en color estándar (RAL estándar: blanco, gris...), herrajes de colgar, p.p. de cerradura Tesa o similar y costes indirectos. Homologada con Clase 4 en el ensayo de permeabilidad al aire según norma UNE-EN 1026:2000. La transmitancia máxima del marco es de 2,90 W/m² K, y cumple en las zonas A, B, C, D y E, según el CTE/DB-HE 1.	0,48	144,71	69,46
464V3	M2 VIDRIO SEGURIDAD STADIP 44.1 INCOLORO (2B2) m². Acristalamiento de vidrio laminar de seguridad Stadip compuesto por dos vidrios de 4 mm de espesor unidos mediante lámina de butiral de polivinilo incolora de 0,38 mm, clasificado 2B2 según UNE-EN 12600, fijado sobre carpintería con acuñado mediante calzos de apoyo perimetrales y laterales y sellado en frío con silicona neutra, incluso colocación de junquillos, según UNE 85222:1985.	0,48	37,05	17,78
521	M2 CELOSIA FIJA VENTILACIÓN Celosía metálica fija para ventilación, formada por cerco con empanelado de lamas de acero de 60 mm, con abertura mínima de 1 cm entre lamas, malla de 2 mm para evitar entrada de insectos, garras de sujeción a soporte de 10 cm, elaborada en taller y montada en obra, totalmente colocada.	0,48	73,80	35,42
020	KG ACERO S 275 J PERFILES LAMINADOS Acero S 275 J en perfiles laminados elaborado y colocado.	346,56	1,95	675,79
474.1	ML CANALON CHAPA PRELACADA 50cm Canalón de chapa prelacada en color, de 50 cm. de desarrollo fijado mediante ganchos ocultos con tornillo autoroscante 40 cm., incluso p.p. de embocadura de bajante, codos y piezas especiales.	8,80	11,85	104,28
290B	M2 ESCALERA Y PASARELAS DE ACERO GALVANIZADO. BARANDILLAS GALVANIZ Escalera y pasarelas de acceso de forma según planos, ejecutada en perfiles de acero galvanizado en caliente, incluso barandilla tubular del mismo material, de 90 cm de altura en uno o dos lados, rodapié de seguridad del mismo en uno o dos lados, así como entramado metálico de 30x30x3 en descansillos y peldaños, medida según su proyección en planta. Anclada a los muros y/o solera, instalada.	3,83	81,77	313,18
620	UD APOYOS DE TUBERÍA Y VÁLVULAS SOBRE SOLERA Apoyos de tuberías y válvulas en soleras, mediante dado de hormigón HA-25/P/20/IIa, ligeramente armado y anclado a la solera, así como cintas o eslingas de acero con material de protección de tubería para sujeción de las mismas, incluyendo el hormigón, encofrados, acero, eslingas, material de PE de protección, montado.	5,00	63,07	315,35

PRESUPUESTOS PARCIALES.

ABASTECIMIENTO A VARIOS MUNICIPIOS DE LA RIOJA. SISTEMA CIDACOS

CÓDIGO	RESUMEN	CANTIDAD	PRECIO	IMPORTE
474.2	ML BAJANTE DE CHAPA PRELACADA DN110 Bajante de chapa prelacada en color, DN110, fijado mediante ganchos con tornillo autoroscante 20 cm., incluso p.p. de embocadura de bajante, codos y piezas especiales.	6,00	12,29	73,74
TOTAL APARTADO 08.05.01 OBRA CIVIL.....				9.291,26
APARTADO 08.05.02 VÁLVULAS Y ACCESORIOS				
115.6	UD BRIDA ENCHUFE FD 250 mm PN16/25 Brida enchufe de fundición dúctil de PFA 16/25 bar para tubería de 250 mm, con un revestimiento interior y exterior epoxi, i/p.p. de junta de unión y medios auxiliares, totalmente colocada y probada.	2,00	164,78	329,56
134	UD TE FD BBB 250 mm PN16/25 SALIDA DN250/60 "T" de fundición dúctil de PFA 16/25 bar, con tres bridas para tubería de 250 mm con salida comprendida entre 250 y 60 mm, con un revestimiento interior y exterior epoxi, i/p.p. de junta de unión y medios auxiliares, totalmente colocada y probada.	1,00	271,20	271,20
137	UD TE FD BBB 200 mm PN16/25 SALIDA DN200/40 "T" de fundición dúctil de PFA 16 bar, con tres bridas para tubería de 200 mm con salida comprendida entre 200 y 40 mm, con un revestimiento interior y exterior epoxi, i/p.p. de junta de unión y medios auxiliares, totalmente colocada y probada.	2,00	151,94	303,88
245.2	UD VENTOSA DN=80 (3") mm PN16 Válvula ventosa de tres funciones de DN=80 mm (3") y PN 16 bar incluido transporte, juntas, válvula de corte DN=80 mm y PN 16y piezas especiales, totalmente colocada y probada.	2,00	432,90	865,80
106	UD REDUCCIÓN FD 250 A 200/125 mm PN16 Reducción en fundición dúctil de 250 mm a 200-150-125 mm con dos bridas PN 25 bar, con un revestimiento interior y exterior epoxi, i/p.p. de junta de unión y medios auxiliares, totalmente colocada y probada.	2,00	110,44	220,88
162	UD MANGUITO FD DN100 A DN250 mm PN16/25 Manguito de fundición dúctil con bridas diámetros de 100 a 250 mm, longitud comprendida entre 0,20 y 1,00 m y PN 16/25, incluso p.p. de tornillería y medios auxiliares, totalmente colocado y probado.	5,00	110,14	550,70
248	UD FILTRO COLADOR EN Y DN=200 mm PN16 Filtro colador en "Y" de diámetro nominal DN=200 mm y brida PN=16 bar de presión, incluso juntas de unión y tornillería, totalmente instalado.	1,00	859,23	859,23
143	UD CARRETE DE DESMONTAJE DN=200 mm PN16 Carrete telescópico de desmontaje DN200 PN 16, bridas de acero al carbono, virolas de acero inoxidable, protección epoxi, tornillos y tuercas en acero F-114, cincado y posterior baño de cromo-niquel, incluido p.p. de brida enchufe, totalmente instalado y probado en obra.	2,00	276,45	552,90
257	UD VÁLVULA REDUCTORA DE PRESIÓN DN=200 mm PN25 Válvula reductora de presión de diámetro DN=200 mm y PN 25 bar, incluso juntas de unión y tornillería, totalmente colocada y probada.	1,00	5.909,83	5.909,83
273	UD VÁLVULA ALIVIO DE PRESIÓN 3" PN 16 Válvula de alivio de presión de 3" brida PN 16 bar, incluso válvula de corte de 3", juntas de unión, y tornillería, totalmente colocada y probada.	1,00	1.438,29	1.438,29
266.3	UD VÁLVULA LIMITADORA DE CAUDAL DN=200 mm PN16 Válvula limitadora de caudal de DN=200 mm PN16, incluso juntas de unión y tornillería, totalmente colocada y probada.	1,00	8.221,73	8.221,73

PRESUPUESTOS PARCIALES.

ABASTECIMIENTO A VARIOS MUNICIPIOS DE LA RIOJA. SISTEMA CIDACOS

CÓDIGO	RESUMEN	CANTIDAD	PRECIO	IMPORTE
268.3	UD VÁLVULA DE LLENADO DN=200 mm PN16 CIERRE LENTO Y SOLENOIDE Válvula de llenado de asiento inoxidable, con cierre lento y solenoide de diámetro nominal DN=200 mm y PN=16 bar, totalmente instalado y probado.	1,00	3.529,72	3.529,72
232	UD VÁLVULA DE COMPUERTA MANUAL DN200 PN16 Válvula de compuerta de cierre elástico de 200 mm. de diámetro nominal y 16 At. de P.N., de accionamiento manual por volante, de cuerpo de fundición nodular GGG-50, con eje de acero inoxidable al 13 % Cr. con rosca conformadas por laminación en frío, cierre en fundición nodular, tornillería de acero inoxidable, protegida contra la corrosión mediante aplicación de doble capa de pintura epoxy, totalmente colocada y probada. Resto de características según ET.	2,00	514,52	1.029,04
TOTAL APARTADO 08.05.02 VÁLVULAS Y ACCESORIOS.....				24.082,76
APARTADO 08.05.03 INSTRUMENTACIÓN Y CONTROL				
300	UD BOYA DE NIVEL DE MÁXIMO Y MÍNIMO Boya de nivel cableada con la válvula de llenado, incluso montaje y pruebas.	2,00	49,74	99,48
280	UD CAUDALÍMETRO ELECTROMAGNÉTICO DN 200 mm PN10 Equipo medidor de caudal de DN200 mm. tipo electromagnético y PN=10 atm. con salida 4/20 mA, tensión 220 V y escala 0-240 m3/h, totalmente instalado y probado. Incluido transporte, montaje, conexiones eléctricas y pruebas de funcionamiento. Resto de características, según ET.	1,00	1.357,01	1.357,01
TOTAL APARTADO 08.05.03 INSTRUMENTACIÓN Y CONTROL.....				1.456,49
APARTADO 08.05.04 INSTALACIÓN ELÉCTRICA DE BT				
563.1	ud PANTALLA ESTANCA LED Luminaria estanca WT120C LED80S/840 de Philips o equivalente para montaje en superficie de dimensiones 1515x80, carcasa de policarbonato, óptica de polimetacrilato de metilo, flujo luminoso 8.000 lm, potencia 68 W, Tª color 4000 K, rango de Tª de 10°C a 35°C, protección IP-65 Clase I. Incluso p.p. de canalización y cableado, completamente instalado.	1,00	28,30	28,30
524.1	m LINEA 3x1.5mm2 Cu 0.6/1kV RZ1-K (AS) Línea eléctrica con conductor multipolares 3x1.5mm2 RZ1-K (AS) en canalización existente, incluso conexionado en inicio y final de línea.	15,00	3,34	50,10
571	ud INTERRUPTOR EMPOTRAR SIMO 32 BLANCO. Interruptor empotrar blanco, totalmente instalado.	1,00	9,25	9,25
204	m TUBO DE PVC RÍGIDO DE 25 MM DIÁMETRO Tubo rígido de PVC d=25mm para canalización de conductores, incluso soportes y anclajes a pared, instalado.	25,00	4,17	104,25
TOTAL APARTADO 08.05.04 INSTALACIÓN ELÉCTRICA DE BT.....				191,90
APARTADO 08.05.05 VARIOS				
618	PA CONEXIÓN RED ELÉCTRICA BT CON DEPÓSITOS EXISTENTES Partida Alzada de Abono Íntegro para conexión de la red eléctrica en BT con depósitos existentes.	1,00	323,15	323,15
617.1	PA CONEXIÓN RED NUEVA CASETA CON DEPÓSITOS EXISTENTES FD DN<300 Partida Alzada de Abono Íntegro para conexión de la red de abastecimiento desde la nueva caseta de válvulas con depósitos existentes, incluyendo, excavaciones, tuberías de fundición de diámetro hasta 300 mm, rellenos, ayudas de albañilería, demoliciones, relleno de huecos con morteros sin retracción, anclaje de tuberías, así como todos los medios auxiliares necesarios para la conexión entre la salida de la nueva caseta de válvula y su salida al depósito.	1,00	1.728,51	1.728,51

PRESUPUESTOS PARCIALES.

ABASTECIMIENTO A VARIOS MUNICIPIOS DE LA RIOJA. SISTEMA CIDACOS

CÓDIGO	RESUMEN	CANTIDAD	PRECIO	IMPORTE
617.3	PA CONEXIÓN ALIVIOS CON RED VACIADOS DEPÓSITO. Partida Alzada de Abono Íntegro para conexión de la salida de los alivios de la nueva caseta de válvulas con la red de vaciados del depósito, incluyendo, excavaciones, tuberías de PEAD DN de salida de alivio, rellenos, ayudas de albañilería, demoliciones, relleno de huecos con morteros sin retracción, anclaje de tuberías, así como todos los medios auxiliares necesarios para la conexión entre ambas tuberías.	1,00	240,49	240,49
TOTAL APARTADO 08.05.05 VARIOS				2.292,15
TOTAL SUBCAPÍTULO 08.05 ACOMETIDA A DEPÓSITO DE PRADEJÓN				37.314,56
SUBCAPÍTULO 08.06 ACOMETIDA A DEPÓSITO DE ALCANADRE				
APARTADO 08.06.01 OBRA CIVIL				
008	M2 DESPEJE Y DESBROCE Despeje y desbroce de capa de tierra vegetal con un espesor medio de 50 cm, incluso corte de árboles, extracción de tocones, nivelación de zona adyacente para el paso de maquinaria, transporte a lugar de acopio independiente para posterior reposición de tierra vegetal tras las obras y despedregado de las parcelas, así como transporte a vertedero de tierras sobrantes.	13,44	0,57	7,66
002	M3 EXCAVACIÓN EN ZANJAS Excavación en zanjas y zonas localizadas, en todo tipo de terrenos incluido terrenos en roca con medios mecánicos, incluso rasanteo, nivelación de la superficie de apoyo y transporte a lugar de empleo o vertedero.	18,14	3,74	67,84
010	M3 RELLENO ZANJAS, CIMIENTOS Y TRASDOSES DE MATERIAL SELECCIONADO Relleno con material seleccionado en zanjas, cimientos, trasdós de muros, estribos y otras estructuras procedente de la excavación o préstamos incluso carga, transporte y compactación.	2,73	3,32	9,06
028	M3 HORMIGÓN DE LIMPIEZA HL-150 Hormigón de limpieza HL-150, de consistencia plástica, árido de tamaño máximo 40 mm y cemento CEM-II-D/42,5/SR, para saneos y encachados, incluyendo fabricación y transporte totalmente colocado.	1,34	44,76	59,98
031	M3 HORMIGÓN HA-25/B/20/IIa Hormigón HA-25/B/20/IIa, con cemento CEM II/A-D/42,5/SR, incluyendo fabricación, transporte, puesta en obra y vibrado, totalmente ejecutado, incluso curado y juntas.	8,73	53,39	466,09
023	KG ACERO CORRUGADO B-500-S Acero redondo corrugado para armar tipo B-500-S elaborado y colocado.	716,42	0,96	687,76
025	M2 ENCOFRADO RECTO EN PARAMENTOS OCULTOS Encofrado recto en paramentos ocultos, incluso colocación, fijación y desencofrado.	4,56	17,65	80,48
026	M2 ENCOFRADO RECTO EN PARAMENTOS VISTOS 1C Encofrado recto en paramentos vistos a una cara, incluso colocación, fijación y desencofrado.	31,28	21,18	662,51
052	ML JUNTAS DE ESTANQUEIDAD DE PVC 32 CM Junta de trabajo interior de policloruro de vinilo (PVC) 100% virgen, con una fuerza máxima de dilatación > 250 % , de 32 cm de ancho, MASTERFLEX 2000 TI-24 de BASF o equivalente, colocada simétricamente en el eje de la losa o muro, incluso solapes y piezas especiales para cruces o ángulos. Medida la longitud ejecutada.	13,60	7,31	99,42

PRESUPUESTOS PARCIALES.

ABASTECIMIENTO A VARIOS MUNICIPIOS DE LA RIOJA. SISTEMA CIDACOS

CÓDIGO	RESUMEN	CANTIDAD	PRECIO	IMPORTE
462	M2 FÁBRICA BLOQUES 40x20x20 cm TIPO SPLIT COLOR Fábrica de bloques de hormigón tipo Split, de medidas 40x20x20 cm color i/relleno de hormigón y colocación de armaduras s/normativa y recibido con mortero de cemento y arena de río 1/6 i/p.p. de piezas especiales para dinteles y materialización de jambas, roturas, nivelados, aplomados, llagueados y limpieza, todo ello según normativa.	42,42	31,80	1.348,96
520	M2 CUBIERTA PANEL SANDWICH (E=50 mm.) Cubierta con panel tipo sandwich espesor 50 cm., con doble chapa prelacada de 0,4 mm de espesor, y aislamiento térmico de poliuretano, fijada con gancho de acero galvanizado, incluso p.p de piezas de remate, totalmente colocada.	11,44	27,03	309,22
519	ML REMATE DE CHAPA PRELACADA CUBIERTA Remate de chapa prelacada en color, para cubrir parte superior de bloque o panel, hasta el panel sandwich de la cubierta por el interior del peto, fijado mediante tacos y/o ganchos anclado a muro y o cubierta, dispuesto según planos.	9,60	22,47	215,71
465.1	M2 PUERTA DOBLE CHAPA ACERO CON LAMAS Puerta de paso hojas abatibles de doble chapa lisa de acero de 1 mm de espesor, con aislamiento interno de fibra de vidrio, engatillada, realizada en dos bandejas, con rigidizadores de tubo rectangular, i/manillas de acero inoxidable y cerradura, con dos o cuatro rejillas de ventilación con malla anti insectos interior, patillas para recibir en fábricas, herrajes de colgar y de seguridad, imprimación antióxido y pintura al esmalte, totalmente colocada incluyendo el recibido de fábricas.	1,76	75,01	132,02
464cf	M2 CARPINTERÍA FIJA ALUMINIO m². Carpintería fija con junquillos para la fijación del vidrio, de aluminio modelo con rotura de puente térmico, Alfil A54RPT de SAPAGROUP con un ancho de marco de 54 mm y con un ancho de hoja de 61 mm, medida del frente de 96,3 mm, con sistema de cámara europea, con espesor de perfil de 1,5 mm, con sistema de cierre por junta central de estanqueidad en EPDM, coplanar exteriormente y con resalte de hoja sobre el marco al interior, para un acristalamiento con altura de galce de 22 mm y anchura hasta 44 mm en marcos y 51 mm en hojas, lacado (entre 60-100 micras) en color estándar (RAL estándar: blanco, gris...), herrajes de colgar, p.p. de cerradura Tesa o similar y costes indirectos. Homologada con Clase 4 en el ensayo de permeabilidad al aire según norma UNE-EN 1026:2000. La transmitancia máxima del marco es de 2,90 W/m² K, y cumple en las zonas A, B, C, D y E, según el CTE/DB-HE 1.	0,48	144,71	69,46
464V3	M2 VIDRIO SEGURIDAD STADIP 44.1 INCOLORO (2B2) m². Acristalamiento de vidrio laminar de seguridad Stadip compuesto por dos vidrios de 4 mm de espesor unidos mediante lámina de butiral de polivinilo incolora de 0,38 mm, clasificado 2B2 según UNE-EN 12600, fijado sobre carpintería con acuñado mediante calzos de apoyo perimetrales y laterales y sellado en frío con silicona neutra, incluso colocación de junquillos, según UNE 85222:1985.	0,48	37,05	17,78
521	M2 CELOSIA FIJA VENTILACIÓN Celosía metálica fija para ventilación, formada por cerco con empanelado de lamas de acero de 60 mm, con abertura mínima de 1 cm entre lamas, malla de 2 mm para evitar entrada de insectos, garras de sujeción a soporte de 10 cm, elaborada en taller y montada en obra, totalmente colocada.	0,48	73,80	35,42
020	KG ACERO S 275 J PERFILES LAMINADOS Acero S 275 J en perfiles laminados elaborado y colocado.	97,20	1,95	189,54
474.1	ML CANALON CHAPA PRELACADA 50cm Canalón de chapa prelacada en color, de 50 cm. de desarrollo fijado mediante ganchos ocultos con tornillo autoroscante 40 cm., incluso p.p. de embocadura de bajante, codos y piezas especiales.	4,00	11,85	47,40

PRESUPUESTOS PARCIALES.

ABASTECIMIENTO A VARIOS MUNICIPIOS DE LA RIOJA. SISTEMA CIDACOS

CÓDIGO	RESUMEN	CANTIDAD	PRECIO	IMPORTE
474.2	ML BAJANTE DE CHAPA PRELACADA DN110 Bajante de chapa prelacada en color, DN110, fijado mediante ganchos con tornillo autoroscante 20 cm., incluso p.p. de embocadura de bajante, codos y piezas especiales.	2,60	12,29	31,95
290B	M2 ESCALERA Y PASARELAS DE ACERO GALVANIZADO. BARANDILLAS GALVANIZ Escalera y pasarelas de acceso de forma segun planos, ejecutada en perfiles de acero galvanizado en caliente, incluso barandilla tubular del mismo material, de 90 cm de altura en uno o dos lados, rodapié de seguridad del mismo en uno o dos lados, así como entramado metálico de 30x30x3 en descansillos y peldaños, medida según su proyección en planta. Anclada a los muros y/o solera, instalada.	1,94	81,77	158,63
620	UD APOYOS DE TUBERÍA Y VÁLVULAS SOBRE SOLERA Apoyos de tuberías y válvulas en soleras, mediante dado de hormigón HA-25/P/20/IIa, ligeramente armado y anclado a la solera, así como cintas o eslingas de acero con material de protección de tubería para sujeción de las mismas, incluyendo el hormigón, encofrados, acero, eslingas, material de PE de protección, montado.	3,00	63,07	189,21
TOTAL APARTADO 08.06.01 OBRA CIVIL.....				4.886,10
APARTADO 08.06.02 VÁLVULAS Y ACCESORIOS				
115.7	UD BRIDA ENCHUFE FD DN<150 mm PN16/25/40 Brida enchufe de fundición dúctil de PFA 16/25/40 bar para tubería de diámetro menor o igual de 150 mm, con un revestimiento interior y exterior epoxi, i/p.p. de junta de unión y medios auxiliares, totalmente colocada y probada.	2,00	104,02	208,04
114.10	UD REDUCCIÓN FD 125 A 100/50 mm PN16/25 Reducción en fundición dúctil de 125 mm a 80-65-60-50 mm con dos bridas PN 16/25 bar, con un revestimiento interior y exterior epoxi, i/p.p. de tornillería y medios auxiliares, totalmente colocada y probada.	2,00	54,28	108,56
EVC080	UD VÁLVULA DE COMPUERTA MANUAL DN80 PN16 Válvula de compuerta de cierre elástico de 80 mm. de diámetro nominal y 16 At. de P.N., de accionamiento manual por volante, de cuerpo de fundición nodular GGG-50, con eje de acero inoxidable al 13 % Cr. con roscas conformadas por laminación en frío, cierre en fundición nodular, tornillería de acero inoxidable, protegida contra la corrosión mediante aplicación de doble capa de pintura epoxy, totalmente colocada y probada. Resto de características según ET.	1,00	110,47	110,47
164	UD MANGUITO FD 50 A 80 mm PN16 Manguito de fundición dúctil con bridas diámetros de 50 a 80 mm, longitud comprendida entre 0,20 y 1,00 m y PN 16, incluso p.p. de tornillería y medios auxiliares, totalmente colocado y probado.	3,00	53,12	159,36
253	UD FILTRO COLADOR EN Y DN=80 mm PN16 Filtro colador en "Y" de diámetro nominal DN=80 mm y brida PN=16 bar de presión, incluso juntas de unión y tornillería, totalmente instalado.	1,00	381,05	381,05
149	UD CARRETE DE DESMONTAJE DN=80 mm PN16 Carrete de desmontaje autoportante de PFA 16 bar de D=80 mm, colocado.	2,00	128,07	256,14
132.2	UD TE FD BBB 80 mm PN16 SALIDA DN80/40 "T" de fundición dúctil de PFA 16 bar, con tres bridas para tubería de 80 mm con salida comprendida entre 80 y 40 mm, con un revestimiento interior y exterior epoxi, i/p.p. de junta de unión y medios auxiliares, totalmente colocada y probada.	2,00	66,20	132,40
273.1	UD VÁLVULA ALIVIO DE PRESIÓN 2" PN 16 Válvula de alivio de presión de 2" brida PN 16 bar, incluso válvula de corte de 2", juntas de unión, y tornillería, totalmente colocada y probada.			

PRESUPUESTOS PARCIALES.

ABASTECIMIENTO A VARIOS MUNICIPIOS DE LA RIOJA. SISTEMA CIDACOS

CÓDIGO	RESUMEN	CANTIDAD	PRECIO	IMPORTE
245.4	UD VENTOSA DN=50 (2") mm PN16 Válvula ventosa de tres funciones de DN=50 mm (2") y PN 16 bar incluido transporte, juntas, válvula de corte DN=50 mm y PN 16 y piezas especiales, totalmente colocada y probada.	1,00	1.066,29	1.066,29
265	UD VÁLVULA LIMITADORA DE CAUDAL DN=80 mm Válvula limitadora de caudal de DN=80 mm PN16, incluso juntas de unión y tornillería, totalmente colocada y probada.	1,00	367,64	367,64
262	UD VÁLVULA REDUCTORA DE PRESIÓN DN=80 mm PN25 Válvula reductora de presión de diámetro DN=80 mm y PN 25 bar, incluso juntas de unión y tornillería, totalmente colocada y probada.	1,00	4.780,83	4.780,83
240	UD VÁLVULA DE COMPUERTA MANUAL DN80 PN25 Válvula de compuerta de accionamiento manual de diámetro nominal DN=80 mm de 25 bares de presión máxima admisible, con tornillería y juntas, totalmente instalada y probada, incluso volante de accionamiento.	1,00	1.891,18	1.891,18
268.4	UD VÁLVULA DE LLENADO DN=80 mm PN16 CIERRE LENTO Y SOLENOIDE Válvula de llenado de asiento inoxidable, con cierre lento y solenoide de diámetro nominal DN=80 mm y PN=16 bar, totalmente instalado y probado.	1,00	238,18	238,18
TOTAL APARTADO 08.06.02 VÁLVULAS Y ACCESORIOS.....				11.010,92
APARTADO 08.06.03 INSTRUMENTACIÓN Y CONTROL				
300	UD BOYA DE NIVEL DE MÁXIMO Y MÍNIMO Boya de nivel cableada con la válvula de llenado, incluso montaje y pruebas.	2,00	49,74	99,48
ECELM080	UD CAUDALÍMETRO ELECTROMAGNÉTICO DN 80 mm PN10 Equipo medidor de caudal de DN80 mm. tipo electromagnético y PN=10 atm. con salida 4/20 mA, tensión 220 V y escala 0-240 m3/h, totalmente instalado y probado. Incluido transporte, montaje, conexiones eléctricas y pruebas de funcionamiento. Resto de características, según ET.	1,00	845,12	845,12
TOTAL APARTADO 08.06.03 INSTRUMENTACIÓN Y CONTROL.....				944,60
APARTADO 08.06.04 INSTALACIÓN ELÉCTRICA DE BT				
563.1	ud PANTALLA ESTANCA LED Luminaria estanca WT120C LED80S/840 de Philips o equivalente para montaje en superficie de dimensiones 1515x80, carcasa de policarbonato, óptica de polimetacrilato de metilo, flujo luminoso 8.000 lm, potencia 68 W, Tª color 4000 K, rango de Tª de 10°C a 35°C, protección IP-65 Clase I. Incluso p.p. de canalización y cableado, completamente instalado.	1,00	28,30	28,30
524.1	m LINEA 3x1.5mm2 Cu 0.6/1KV RZ1-K (AS) Línea eléctrica con conductor multipolares 3x1.5mm2 RZ1-K (AS) en canalización existente, incluso conexionado en inicio y final de línea.	15,00	3,34	50,10
571	ud INTERRUPTOR EMPOTRAR SIMO 32 BLANCO. Interruptor empotrar blanco, totalmente instalado.	1,00	9,25	9,25
204	m TUBO DE PVC RÍGIDO DE 25 MM DIÁMETRO Tubo rígido de PVC d=25mm para canalización de conductores, incluso soportes y anclajes a pared, instalado.	15,00	4,17	62,55
TOTAL APARTADO 08.06.04 INSTALACIÓN ELÉCTRICA DE BT.....				150,20

PRESUPUESTOS PARCIALES.

ABASTECIMIENTO A VARIOS MUNICIPIOS DE LA RIOJA. SISTEMA CIDACOS

CÓDIGO	RESUMEN	CANTIDAD	PRECIO	IMPORTE
APARTADO 08.06.05 VARIOS				
618	PA CONEXIÓN RED ELÉCTRICA BT CON DEPÓSITOS EXISTENTES Partida Alzada de Abono Íntegro para conexión de la red eléctrica en BT con depósitos existentes.	1,00	323,15	323,15
617.1	PA CONEXIÓN RED NUEVA CASETA CON DEPÓSITOS EXISTENTES FD DN<300 Partida Alzada de Abono Íntegro para conexión de la red de abastecimiento desde la nueva caseta de válvulas con depósitos existentes, incluyendo, excavaciones, tuberías de fundición de diámetro hasta 300 mm, rellenos, ayudas de albañilería, demoliciones, relleno de huecos con morteros sin retracción, anclaje de tuberías, así como todos los medios auxiliares necesarios para la conexión entre la salida de la nueva caseta de válvula y su salida al depósito.	1,00	1.728,51	1.728,51
617.3	PA CONEXIÓN ALIVIOS CON RED VACIADOS DEPÓSITO. Partida Alzada de Abono Íntegro para conexión de la salida de los alivios de la nueva caseta de válvulas con la red de vaciados del depósito, incluyendo, excavaciones, tuberías de PEAD DN de salida de alivio, rellenos, ayudas de albañilería, demoliciones, relleno de huecos con morteros sin retracción, anclaje de tuberías, así como todos los medios auxiliares necesarios para la conexión entre ambas tuberías.	1,00	240,49	240,49
TOTAL APARTADO 08.06.05 VARIOS				2.292,15
TOTAL SUBCAPÍTULO 08.06 ACOMETIDA A DEPÓSITO DE ALCANADRE.....				19.283,97
SUBCAPÍTULO 08.07 ACOMETIDA A DEPÓSITO DE AUSEJO				
APARTADO 08.07.01 OBRA CIVIL				
008	M2 DESPEJE Y DESBROCE Despeje y desbroce de capa de tierra vegetal con un espesor medio de 50 cm, incluso corte de árboles, extracción de tocones, nivelación de zona adyacente para el paso de maquinaria, transporte a lugar de acopio independiente para posterior reposición de tierra vegetal tras las obras y despedregado de las parcelas, así como transporte a vertedero de tierras sobrantes.	10,88	0,57	6,20
002	M3 EXCAVACIÓN EN ZANJAS Excavación en zanjas y zonas localizadas, en todo tipo de terrenos incluido terrenos en roca con medios mecánicos, incluso rasanteo, nivelación de la superficie de apoyo y transporte a lugar de empleo o vertedero.	14,69	3,74	54,94
010	M3 RELLENO ZANJAS, CIMIENTOS Y TRASDOSES DE MATERIAL SELECCIONADO Relleno con material seleccionado en zanjas, cimientos, trasdós de muros, estribos y otras estructuras procedente de la excavación o préstamos incluso carga, transporte y compactación.	2,36	3,32	7,84
028	M3 HORMIGÓN DE LIMPIEZA HL-150 Hormigón de limpieza HL-150, de consistencia plástica, árido de tamaño máximo 40 mm y cemento CEM-II-D/42,5/SR, para saneos y encachados, incluyendo fabricación y transporte totalmente colocado.	1,09	44,76	48,79
031	M3 HORMIGÓN HA-25/B/20/IIa Hormigón HA-25/B/20/IIa, con cemento CEM II/A-D/42,5/SR, incluyendo fabricación, transporte, puesta en obra y vibrado, totalmente ejecutado, incluso curado y juntas.	7,26	53,39	387,61
023	KG ACERO CORRUGADO B-500-S Acero redondo corrugado para armar tipo B-500-S elaborado y colocado.	596,61	0,96	572,75
025	M2 ENCOFRADO RECTO EN PARAMENTOS OCULTOS Encofrado recto en paramentos ocultos, incluso colocación, fijación y desencofrado.	3,96	17,65	69,89
026	M2 ENCOFRADO RECTO EN PARAMENTOS VISTOS 1C Encofrado recto en paramentos vistos a una cara, incluso colocación, fijación y desencofrado.			

PRESUPUESTOS PARCIALES.

ABASTECIMIENTO A VARIOS MUNICIPIOS DE LA RIOJA. SISTEMA CIDACOS

CÓDIGO	RESUMEN	CANTIDAD	PRECIO	IMPORTE
052	ML JUNTAS DE ESTANQUEIDAD DE PVC 32 CM Junta de trabajo interior de policloruro de vinilo (PVC) 100% virgen, con una fuerza máxima de dilatación > 250 % , de 32 cm de ancho, MASTERFLEX 2000 TI-24 de BASF o equivalente, colocada simétricamente en el eje de la losa o muro, incluso solapes y piezas especiales para cruces o ángulos. Medida la longitud ejecutada.	26,68	21,18	565,08
462	M2 FÁBRICA BLOQUES 40x20x20 cm TIPO SPLIT COLOR Fábrica de bloques de hormigón tipo Split, de medidas 40x20x20 cm color i/relleno de hormigón y colocación de armaduras s/normativa y recibido con mortero de cemento y arena de río 1/6 i/p.p. de piezas especiales para dinteles y materialización de jambas, roturas, nivelados, aplomados, llagueados y limpieza, todo ello según normativa.	11,60	7,31	84,80
520	M2 CUBIERTA PANEL SANDWICH (E=50 mm.) Cubierta con panel tipo sandwich espesor 50 cm., con doble chapa prelacada de 0,4 mm de espesor, y aislamiento térmico de poliuretano, fijada con gancho de acero galvanizado, incluso p.p de piezas de remate, totalmente colocada.	34,94	31,80	1.111,09
519	ML REMATE DE CHAPA PRELACADA CUBIERTA Remate de chapa prelacada en color, para cubrir parte superior de bloque o panel, hasta el panel sandwich de la cubierta por el interior del peto, fijado mediante tacos y/o ganchos anclado a muro y o cubierta, dispuesto según planos.	8,40	27,03	227,05
465.1	M2 PUERTA DOBLE CHAPA ACERO CON LAMAS Puerta de paso hojas abatibles de doble chapa lisa de acero de 1 mm de espesor, con aislamiento interno de fibre de vidrio, engatillada, realizada en dos bandejas, con rigidizadores de tubo rectangular, i/manillas de acero inoxidable y cerradura, con dos o cuatro rejillas de ventilación con malla anti insectos interior, patillas para recibir en fábricas, herrajes de colgar y de seguridad, imprimación antióxido y pintura al esmalte, totalmente colocada incluyendo el recibido de fábricas.	1,76	75,01	132,02
464cf	M2 CARPINTERÍA FIJA ALUMINIO m². Carpintería fija con junquillos para la fijación del vidrio, de aluminio modelo con rotura de puente térmico, Alfil A54RPT de SAPAGROUP con un ancho de marco de 54 mm y con un ancho de hoja de 61 mm, medida del frente de 96,3 mm, con sistema de cámara europea, con espesor de perfil de 1,5 mm, con sistema de cierre por junta central de estanqueidad en EPDM, coplanar exteriormente y con resalte de hoja sobre el marco al interior, para un acristalamiento con altura de galce de 22 mm y anchura hasta 44 mm en marcos y 51 mm en hojas, lacado (entre 60-100 micras) en color estándar (RAL estándar: blanco, gris...), herrajes de colgar, p.p. de cerradura Tesa o similar y costes indirectos. Homologada con Clase 4 en el ensayo de permeabilidad al aire según norma UNE-EN 1026:2000. La transmitancia máxima del marco es de 2,90 W/m² K, y cumple en las zonas A, B, C, D y E, según el CTE/DB-HE 1.	0,48	144,71	69,46
464V3	M2 VIDRIO SEGURIDAD STADIP 44.1 INCOLORO (2B2) m². Acristalamiento de vidrio laminar de seguridad Stadip compuesto por dos vidrios de 4 mm de espesor unidos mediante lámina de butiral de polivinilo incolora de 0,38 mm, clasificado 2B2 según UNE-EN 12600, fijado sobre carpintería con acuñado mediante calzos de apoyo perimetrales y laterales y sellado en frío con silicona neutra, incluso colocación de junquillos, según UNE 85222:1985.			
521	M2 CELOSIA FIJA VENTILACIÓN Celosía metálica fija para ventilación, formada por cerco con empanelado de lamas de acero de 60 mm, con abertura mínima de 1 cm entre lamas, malla de 2 mm para evitar entrada de insectos, garras de sujeción a soporte de 10 cm, elaborada en taller y montada en obra, totalmente colocada.	0,48	37,05	17,78
020	KG ACERO S 275 J PERFILES LAMINADOS Acero S 275 J en perfiles laminados elaborado y colocado.	0,48	73,80	35,42

PRESUPUESTOS PARCIALES.

ABASTECIMIENTO A VARIOS MUNICIPIOS DE LA RIOJA. SISTEMA CIDACOS

CÓDIGO	RESUMEN	CANTIDAD	PRECIO	IMPORTE
		72,90	1,95	142,16
474.1	ML CANALON CHAPA PRELACADA 50cm Canalón de chapa prelacada en color, de 50 cm. de desarrollo fijado mediante ganchos ocultos con tornillo autoroscante 40 cm., incluso p.p. de embocadura de bajante, codos y piezas especiales.	3,00	11,85	35,55
474.2	ML BAJANTE DE CHAPA PRELACADA DN110 Bajante de chapa prelacada en color, DN110, fijado mediante ganchos con tornillo autoroscante 20 cm., incluso p.p. de embocadura de bajante, codos y piezas especiales.	2,60	12,29	31,95
290B	M2 ESCALERA Y PASARELAS DE ACERO GALVANIZADO. BARANDILLAS GALVANIZ Escalera y pasarelas de acceso de forma segun planos, ejecutada en perfiles de acero galvanizado en caliente, incluso barandilla tubular del mismo material, de 90 cm de altura en uno o dos lados, rodapié de seguridad del mismo en uno o dos lados, así como entramado metálico de 30x30x3 en descansillos y peldaños, medida según su proyección en planta. Anclada a los muros y/o solera, instalada.	1,94	81,77	158,63
620	UD APOYOS DE TUBERÍA Y VÁLVULAS SOBRE SOLERA Apoyos de tuberías y válvulas en soleras, mediante dado de hormigón HA-25/P/20/IIa, ligeramente armado y anclado a la solera, así como cintas o eslingas de acero con material de protección de tubería para sujeción de las mismas, incluyendo el hormigón, encofrados, acero, eslingas, material de PE de protección, montado.	3,00	63,07	189,21
TOTAL APARTADO 08.07.01 OBRA CIVIL.....				4.141,46
APARTADO 08.07.02 VÁLVULAS Y ACCESORIOS				
115.7	UD BRIDA ENCHUFE FD DN<150 mm PN16/25/40 Brida enchufe de fundición dúctil de PFA 16/25/40 bar para tubería de diámetro menor o igual de 150 mm, con un revestimiento interior y exterior epoxi, i/p.p. de junta de unión y medios auxiliares, totalmente colocada y probada.	2,00	104,02	208,04
132.1	UD TE FD BBB 100 mm PN16/25 SALIDA DN100/40 "T" de fundición dúctil de PFA 16 bar, con tres bridas para tubería de 100 mm con salida comprendida entre 100 y 40 mm, con un revestimiento interior y exterior epoxi, i/p.p. de junta de unión y medios auxiliares, totalmente colocada y probada.	1,00	69,36	69,36
138	UD TE FD BBB 150 mm PN16/25 SALIDA DN150/40 "T" de fundición dúctil de PFA 16 bar, con tres bridas para tubería de 150 mm con salida comprendida entre 150 y 40 mm, con un revestimiento interior y exterior epoxi, i/p.p. de junta de unión y medios auxiliares, totalmente colocada y probada.	1,00	117,45	117,45
111	UD REDUCCIÓN FD 150 A 125/50 mm PN16/25 Reducción en fundición dúctil de 150 mm a 125-100-80-65-60-50 mm con dos bridas PN 16/25 bar, con un revestimiento interior y exterior epoxi, i/p.p. de junta de unión y medios auxiliares, totalmente colocada y probada.	2,00	97,26	194,52
162	UD MANGUITO FD DN100 A DN250 mm PN16/25 Manguito de fundición dúctil con bridas diámetros de 100 a 250 mm, longitud comprendida entre 0,20 y 1,00 m y PN 16/25, incluso p.p. de tornillería y medios auxiliares, totalmente colocado y probado.	4,00	110,14	440,56
251	UD FILTRO COLADOR EN Y DN=100 mm PN16/25 Filtro colador en "Y" de diámetro nominal DN=100 mm y brida PN 16/25 bar de presión, incluso juntas de unión y tornillería, totalmente instalado.	1,00	531,47	531,47
266.4	UD VÁLVULA LIMITADORA DE CAUDAL DN=100 mm PN16 Válvula limitadora de caudal de DN=100 mm PN16, incluso juntas de unión y tornillería, totalmente colocada y probada.			

PRESUPUESTOS PARCIALES.

ABASTECIMIENTO A VARIOS MUNICIPIOS DE LA RIOJA. SISTEMA CIDACOS

CÓDIGO	RESUMEN	CANTIDAD	PRECIO	IMPORTE
ECD010016	UD CARRETE DE DESMONTAJE DN=100 mm PN16 Carrete telescópico de desmontaje DN100 PN16, bridas de acero al carbono, virolas de acero inoxidable, protección epoxi, tornillos y tuercas en acero F-114, cincado y posterior baño de cromo-niquel, incluido p.p. de brida enchufe, totalmente instalado y probado en obra.	1,00	3.931,37	3.931,37
245.4	UD VENTOSA DN=50 (2") mm PN16 Válvula ventosa de tres funciones de DN=50 mm (2") y PN 16 bar incluido transporte, juntas, válvula de corte DN=50 mm y PN 16 y piezas especiales, totalmente colocada y probada.	2,00	167,93	335,86
087	UD CODO FD 1/4 A 1/32 100 mm Codo de fundición dúctil de 1/4 a 1/32 de diámetro interior 100 mm y PFA 40 bar, con un revestimiento interior y exterior epoxi, incluso p.p. de juntas y medios auxiliares, totalmente colocado y probado.	1,00	367,64	367,64
		1,00	66,66	66,66
TOTAL APARTADO 08.07.02 VÁLVULAS Y ACCESORIOS.....				6.262,93
APARTADO 08.07.03 INSTRUMENTACIÓN Y CONTROL				
300	UD BOYA DE NIVEL DE MÁXIMO Y MÍNIMO Boya de nivel cableada con la válvula de llenado, incluso montaje y pruebas.	2,00	49,74	99,48
ECELM100	UD CAUDALÍMETRO ELECTROMAGNÉTICO DN 100 mm Equipo medidor de caudal de DN100 mm. tipo electromagnético y PN=10 atm. con salida 4/20 mA, tensión 220 V y escala 0-240 m3/h, totalmente instalado y probado. Incluido transporte, montaje, conexiones eléctricas y pruebas de funcionamiento. Resto de características, según ET.	1,00	951,67	951,67
TOTAL APARTADO 08.07.03 INSTRUMENTACIÓN Y CONTROL.....				1.051,15
APARTADO 08.07.04 INSTALACIÓN ELÉCTRICA DE BT				
563.1	ud PANTALLA ESTANCA LED Luminaria estanca WT120C LED80S/840 de Philips o equivalente para montaje en superficie de dimensiones 1515x80, carcasa de policarbonato, óptica de polimetacrilato de metilo, flujo luminoso 8.000 lm, potencia 68 W, Tª color 4000 K, rango de Tª de 10°C a 35°C, protección IP-65 Clase I. Incluso p.p. de canalización y cableado, completamente instalado.	1,00	28,30	28,30
524.1	m LINEA 3x1.5mm2 Cu 0.6/1kV RZ1-K (AS) Línea eléctrica con conductor multipolares 3x1.5mm2 RZ1-K (AS) en canalización existente, incluso conexionado en inicio y final de línea.	15,00	3,34	50,10
571	ud INTERRUPTOR EMPOTRAR SIMO 32 BLANCO. Interruptor empotrar blanco, totalmente instalado.	1,00	9,25	9,25
204	m TUBO DE PVC RÍGIDO DE 25 MM DIÁMETRO Tubo rígido de PVC d=25mm para canalización de conductores, incluso soportes y anclajes a pared, instalado.	15,00	4,17	62,55
TOTAL APARTADO 08.07.04 INSTALACIÓN ELÉCTRICA DE BT.....				150,20
APARTADO 08.07.05 VARIOS				
618	PA CONEXIÓN RED ELÉCTRICA BT CON DEPÓSITOS EXISTENTES Partida Alzada de Abono Íntegro para conexión de la red eléctrica en BT con depósitos existentes.	1,00	323,15	323,15

PRESUPUESTOS PARCIALES.

ABASTECIMIENTO A VARIOS MUNICIPIOS DE LA RIOJA. SISTEMA CIDACOS

CÓDIGO	RESUMEN	CANTIDAD	PRECIO	IMPORTE
617.1	PA CONEXIÓN RED NUEVA CASETA CON DEPÓSITOS EXISTENTES FD DN<300 Partida Alzada de Abono Íntegro para conexión de la red de abastecimiento desde la nueva caseta de válvulas con depósitos existentes, incluyendo, excavaciones, tuberías de fundición de diámetro hasta 300 mm, rellenos, ayudas de albanilería, demoliciones, relleno de huecos con morteros sin retracción, anclaje de tuberías, así como todos los medios auxiliares necesarios para la conexión entre la salida de la nueva caseta de válvula y su salida al depósito.	1,00	1.728,51	1.728,51
TOTAL APARTADO 08.07.05 VARIOS				2.051,66
TOTAL SUBCAPÍTULO 08.07 ACOMETIDA A DEPÓSITO DE AUSEJO.....				13.657,40
SUBCAPÍTULO 08.08 ACOMETIDA A DEPÓSITO DE SANTA EULALIA BAJERA				
APARTADO 08.08.01 OBRA CIVIL				
008	M2 DESPEJE Y DESBROCE Despeje y desbroce de capa de tierra vegetal con un espesor medio de 50 cm, incluso corte de árboles, extracción de tocones, nivelación de zona adyacente para el paso de maquinaria, transporte a lugar de acopio independiente para posterior reposición de tierra vegetal tras las obras y despedregado de las parcelas, así como transporte a vertedero de tierras sobrantes.	6,40	0,57	3,65
002	M3 EXCAVACIÓN EN ZANJAS Excavación en zanjas y zonas localizadas, en todo tipo de terrenos incluido terrenos en roca con medios mecánicos, incluso rasanteo, nivelación de la superficie de apoyo y transporte a lugar de empleo o vertedero.	2,24	3,74	8,38
028	M3 HORMIGÓN DE LIMPIEZA HL-150 Hormigón de limpieza HL-150, de consistencia plástica, árido de tamaño máximo 40 mm y cemento CEM-II-D/42,5/SR, para saneos y encachados, incluyendo fabricación y transporte totalmente colocado.	0,64	44,76	28,65
031	M3 HORMIGÓN HA-25/B/20/IIa Hormigón HA-25/B/20/IIa, con cemento CEM II/A-D/42,5/SR, incluyendo fabricación, transporte, puesta en obra y vibrado, totalmente ejecutado, incluso curado y juntas.	1,60	53,39	85,42
023	KG ACERO CORRUGADO B-500-S Acero redondo corrugado para armar tipo B-500-S elaborado y colocado.	112,00	0,96	107,52
025	M2 ENCOFRADO RECTO EN PARAMENTOS OCULTOS Encofrado recto en paramentos ocultos, incluso colocación, fijación y desencofrado.	2,60	17,65	45,89
462	M2 FÁBRICA BLOQUES 40x20x20 cm TIPO SPLIT COLOR Fábrica de bloques de hormigón tipo Split, de medidas 40x20x20 cm color i/relleno de hormigón y colocación de armaduras s/normativa y recibido con mortero de cemento y arena de río 1/6 i/p.p. de piezas especiales para dinteles y materialización de jambas, roturas, nivelados, aplomados, llagueados y limpieza, todo ello según normativa.	17,32	31,80	550,78
464cf	M2 CARPINTERÍA FIJA ALUMINIO m². Carpintería fija con junquillos para la fijación del vidrio, de aluminio modelo con rotura de puente térmico, Alfil A54RPT de SAPAGROUP con un ancho de marco de 54 mm y con un ancho de hoja de 61 mm, medida del frente de 96,3 mm, con sistema de cámara europea, con espesor de perfil de 1,5 mm, con sistema de cierre por junta central de estanqueidad en EPDM, coplanar exteriormente y con resalte de hoja sobre el marco al interior, para un acristalamiento con altura de galce de 22 mm y anchura hasta 44 mm en marcos y 51 mm en hojas, lacado (entre 60-100 micras) en color estándar (RAL estándar: blanco, gris...), herrajes de colgar, p.p. de cerradura Tesa o similar y costes indirectos. Homologada con Clase 4 en el ensayo de permeabilidad al aire según norma UNE-EN 1026:2000. La transmitancia máxima del marco es de 2,90 W/m² K, y cumple en las zonas A, B, C, D y E, según el CTE/DB-HE 1.	0,48	144,71	69,46

PRESUPUESTOS PARCIALES.

ABASTECIMIENTO A VARIOS MUNICIPIOS DE LA RIOJA. SISTEMA CIDACOS

CÓDIGO	RESUMEN	CANTIDAD	PRECIO	IMPORTE
464V3	M2 VIDRIO SEGURIDAD STADIP 44.1 INCOLORO (2B2) m². Acristalamiento de vidrio laminar de seguridad Stadip compuesto por dos vidrios de 4 mm de espesor unidos mediante lámina de butiral de polivinilo incolora de 0,38 mm, clasificado 2B2 según UNE-EN 12600, fijado sobre carpintería con acuíñado mediante calzos de apoyo perimetrales y laterales y sellado en frío con silicona neutra, incluso colocación de junquillos, según UNE 85222:1985.	0,48	37,05	17,78
520	M2 CUBIERTA PANEL SANDWICH (E=50 mm.) Cubierta con panel tipo sandwich espesor 50 cm., con doble chapa prelacada de 0,4 mm de espesor, y aislamiento térmico de poliuretano, fijada con gancho de acero galvanizado, incluso p.p de piezas de remate, totalmente colocada.	6,40	27,03	172,99
521	M2 CELOSIA FIJA VENTILACIÓN Celosía metálica fija para ventilación, formada por cerco con empanelado de lamas de acero de 60 mm, con abertura mínima de 1 cm entre lamas, malla de 2 mm para evitar entrada de insectos, garras de sujeción a soporte de 10 cm, elaborada en taller y montada en obra, totalmente colocada.	0,48	73,80	35,42
465.1	M2 PUERTA DOBLE CHAPA ACERO CON LAMAS Puerta de paso hojas abatibles de doble chapa lisa de acero de 1 mm de espesor, con aislamiento interno de fibra de vidrio, engatillada, realizada en dos bandejas, con rigidizadores de tubo rectangular, i/manillas de acero inoxidable y cerradura, con dos o cuatro rejillas de ventilación con malla anti insectos interior, patillas para recibir en fábricas, herrajes de colgar y de seguridad, imprimación antióxido y pintura al esmalte, totalmente colocada incluyendo el recibido de fábricas.	2,20	75,01	165,02
519	ML REMATE DE CHAPA PRELACADA CUBIERTA Remate de chapa prelacada en color, para cubrir parte superior de bloque o panel, hasta el panel sandwich de la cubierta por el interior del peto, fijado mediante tacos y/o ganchos anclado a muro y o cubierta, dispuesto según planos.	7,20	22,47	161,78
020	KG ACERO S 275 J PERFILES LAMINADOS Acero S 275 J en perfiles laminados elaborado y colocado.	72,90	1,95	142,16
474.1	ML CANALON CHAPA PRELACADA 50cm Canalón de chapa prelacada en color, de 50 cm. de desarrollo fijado mediante ganchos ocultos con tornillo autoroscante 40 cm., incluso p.p. de embocadura de bajante, codos y piezas especiales.	2,80	11,85	33,18
TOTAL APARTADO 08.08.01 OBRA CIVIL.....				1.628,08
APARTADO 08.08.02 VÁLVULAS Y ACCESORIOS				
177.1	UD REDUCCIÓN PEAD 63 A 50 mm DIÁMETRO Reducción en polietileno de alta densidad de 63 mm a 50 mm de diámetro, totalmente colocada y probada.	2,00	21,03	42,06
177.8	UD COLLARÍN DE TOMA PEAD 63 A 25 mm DIÁMETRO Collarín de toma en polietileno de alta densidad de 63 mm a 25 mm de diámetro, totalmente colocada y probada.	2,00	15,24	30,48
245.1	UD VENTOSA DN=25 mm (1") PN16 Válvula ventosa de tres funciones de 1" (DN=25 mm) y PN 16 bar incluido transporte, juntas, válvula de corte DN=25 mm y PN 16 bar y piezas especiales, totalmente colocada y probada.	2,00	162,21	324,42

PRESUPUESTOS PARCIALES.

ABASTECIMIENTO A VARIOS MUNICIPIOS DE LA RIOJA. SISTEMA CIDACOS

CÓDIGO	RESUMEN	CANTIDAD	PRECIO	IMPORTE
EVMMT050	UD VÁLVULA DE MARIPOSA DN=50 mm PN16 MOTORIZADA Válvula de mariposa de 50 mm de diámetro y PN16, motorizada, incluso carrete, mecanismo de accionamiento, maniobra y control, transporte, montaje, juntas, tornillería y pintura totalmente instalada y probada.	1,00	1.208,10	1.208,10
254	UD FILTRO COLADOR EN Y DN=50 mm PN16 Filtro colador en "Y" de diámetro nominal DN=50 mm y brida PN=16 bar de presión, incluso juntas de unión y tornillería, totalmente instalado.	1,00	80,07	80,07
150	UD CARRETE DE DESMONTAJE DN=50 mm PN16 Carrete de desmontaje autoportante de PFA 16 bar de D=50 mm, colocado.	1,00	107,86	107,86
270	UD VÁLVULA DE LLENADO DN=50 mm PN16 APERTURA DIFERIDA Válvula de llenado de asiento inoxidable y apertura diferida de diámetro nominal DN=50 mm y PN=16 bar, totalmente instalado y probado.	1,00	814,44	814,44
242	UD VÁLVULA DE COMPUERTA MANUAL DN50 PN16 Válvula de compuerta de accionamiento manual de diámetro nominal DN=50 mm de 16 bares de presión máxima admisible, con tornillería y juntas, totalmente instalada y probada, incluso volante de accionamiento.	1,00	105,35	105,35
TOTAL APARTADO 08.08.02 VÁLVULAS Y ACCESORIOS.....				2.712,78
APARTADO 08.08.03 INSTRUMENTACIÓN Y CONTROL				
300	UD BOYA DE NIVEL DE MÁXIMO Y MÍNIMO Boya de nivel cableada con la válvula de llenado, incluso montaje y pruebas.	2,00	49,74	99,48
288	UD CONTADOR CON EMISOR DE PULSOS DN=25 mm Contador con emisor de pulsos para tubería de diámetro nominal DN=25 mm, incluso juntas de unión y tornillería, totalmente colocado y probado.	1,00	237,83	237,83
TOTAL APARTADO 08.08.03 INSTRUMENTACIÓN Y CONTROL.....				337,31
APARTADO 08.08.04 INSTALACIÓN ELÉCTRICA DE BT				
563.1	ud PANTALLA ESTANCA LED Luminaria estanca WT120C LED80S/840 de Philips o equivalente para montaje en superficie de dimensiones 1515x80, carcasa de policarbonato, óptica de polimetacrilato de metilo, flujo luminoso 8.000 lm, potencia 68 W, Tª color 4000 K, rango de Tª de 10°C a 35°C, protección IP-65 Clase I. Incluso p.p. de canalización y cableado, completamente instalado.	1,00	28,30	28,30
524.1	m LINEA 3x1.5mm2 Cu 0.6/1kV RZ1-K (AS) Línea eléctrica con conductor multipolares 3x1.5mm2 RZ1-K (AS) en canalización existente, incluso conexionado en inicio y final de línea.	15,00	3,34	50,10
571	ud INTERRUPTOR EMPOTRAR SIMO 32 BLANCO. Interruptor empotrar blanco, totalmente instalado.	1,00	9,25	9,25
204	m TUBO DE PVC RÍGIDO DE 25 MM DIÁMETRO Tubo rígido de PVC d=25mm para canalización de conductores, incluso soportes y anclajes a pared, instalado.	15,00	4,17	62,55
TOTAL APARTADO 08.08.04 INSTALACIÓN ELÉCTRICA DE BT.....				150,20

PRESUPUESTOS PARCIALES.

ABASTECIMIENTO A VARIOS MUNICIPIOS DE LA RIOJA. SISTEMA CIDACOS

CÓDIGO	RESUMEN	CANTIDAD	PRECIO	IMPORTE
APARTADO 08.08.05 VARIOS				
617	PA CONEXIÓN RED NUEVA CASETA CON DEPÓSITOS EXISTENTES PEAD Partida Alzada de Abono Íntegro para conexión de la red de abastecimiento desde la nueva caseta de válvulas con depósitos existentes, incluyendo, excavaciones, tuberías de PEAD de cualquier diámetro, rellenos, ayudas de albañilería, demoliciones, relleno de huecos con morteros sin retracción, anclaje de tuberías, así como todos los medios auxiliares necesarios para la conexión entre la salida de la nueva caseta de válvula y su salida al depósito.	1,00	240,49	240,49
618	PA CONEXIÓN RED ELÉCTRICA BT CON DEPÓSITOS EXISTENTES Partida Alzada de Abono Íntegro para conexión de la red eléctrica en BT con depósitos existentes.	1,00	323,15	323,15
TOTAL APARTADO 08.08.05 VARIOS				563,64
TOTAL SUBCAPÍTULO 08.08 ACOMETIDA A DEPÓSITO DE SANTA EULALIA BAJERA.....				5.392,01
SUBCAPÍTULO 08.09 ACOMETIDA A DEPÓSITO DE SANTA EULALIA SOMERA				
APARTADO 08.09.01 OBRA CIVIL				
008	M2 DESPEJE Y DESBROCE Despeje y desbroce de capa de tierra vegetal con un espesor medio de 50 cm, incluso corte de árboles, extracción de tocones, nivelación de zona adyacente para el paso de maquinaria, transporte a lugar de acopio independiente para posterior reposición de tierra vegetal tras las obras y despedregado de las parcelas, así como transporte a vertedero de tierras sobrantes.	6,40	0,57	3,65
002	M3 EXCAVACIÓN EN ZANJAS Excavación en zanjas y zonas localizadas, en todo tipo de terrenos incluido terrenos en roca con medios mecánicos, incluso rasanteo, nivelación de la superficie de apoyo y transporte a lugar de empleo o vertedero.	2,24	3,74	8,38
028	M3 HORMIGÓN DE LIMPIEZA HL-150 Hormigón de limpieza HL-150, de consistencia plástica, árido de tamaño máximo 40 mm y cemento CEM-II-D/42,5/SR, para saneos y encachados, incluyendo fabricación y transporte totalmente colocado.	0,64	44,76	28,65
031	M3 HORMIGÓN HA-25/B/20/IIa Hormigón HA-25/B/20/IIa, con cemento CEM II/A-D/42,5/SR, incluyendo fabricación, transporte, puesta en obra y vibrado, totalmente ejecutado, incluso curado y juntas.	1,60	53,39	85,42
023	KG ACERO CORRUGADO B-500-S Acero redondo corrugado para armar tipo B-500-S elaborado y colocado.	112,00	0,96	107,52
025	M2 ENCOFRADO RECTO EN PARAMENTOS OCULTOS Encofrado recto en paramentos ocultos, incluso colocación, fijación y desencofrado.	2,60	17,65	45,89
462	M2 FÁBRICA BLOQUES 40x20x20 cm TIPO SPLIT COLOR Fábrica de bloques de hormigón tipo Split, de medidas 40x20x20 cm color i/relleno de hormigón y colocación de armaduras s/normativa y recibido con mortero de cemento y arena de río 1/6 i/p.p. de piezas especiales para dinteles y materialización de jambas, roturas, nivelados, aplomados, llagueados y limpieza, todo ello según normativa.	17,32	31,80	550,78

PRESUPUESTOS PARCIALES.

ABASTECIMIENTO A VARIOS MUNICIPIOS DE LA RIOJA. SISTEMA CIDACOS

CÓDIGO	RESUMEN	CANTIDAD	PRECIO	IMPORTE
464cf	M2 CARPINTERÍA FIJA ALUMINIO m². Carpintería fija con junquillos para la fijación del vidrio, de aluminio modelo con rotura de puente térmico, Alfil A54RPT de SAPAGROUP con un ancho de marco de 54 mm y con un ancho de hoja de 61 mm, medida del frente de 96,3 mm, con sistema de cámara europea, con espesor de perfil de 1,5 mm, con sistema de cierre por junta central de estanqueidad en EPDM, coplanar exteriormente y con resalte de hoja sobre el marco al interior, para un acristalamiento con altura de galce de 22 mm y anchura hasta 44 mm en marcos y 51 mm en hojas, lacado (entre 60-100 micras) en color estándar (RAL estándar: blanco, gris...), herrajes de colgar, p.p. de cerradura Tesa o similar y costes indirectos. Homologada con Clase 4 en el ensayo de permeabilidad al aire según norma UNE-EN 1026:2000. La transmitancia máxima del marco es de 2,90 W/m² K, y cumple en las zonas A, B, C, D y E, según el CTE/DB-HE 1.	0,48	144,71	69,46
464V3	M2 VIDRIO SEGURIDAD STADIP 44.1 INCOLORO (2B2) m². Acristalamiento de vidrio laminar de seguridad Stadip compuesto por dos vidrios de 4 mm de espesor unidos mediante lámina de butiral de polivinilo incolora de 0,38 mm, clasificado 2B2 según UNE-EN 12600, fijado sobre carpintería con acuíado mediante calzos de apoyo perimetrales y laterales y sellado en frío con silicona neutra, incluso colocación de junquillos, según UNE 85222:1985.	0,48	37,05	17,78
520	M2 CUBIERTA PANEL SANDWICH (E=50 mm.) Cubierta con panel tipo sandwich espesor 50 cm., con doble chapa prelacada de 0,4 mm de espesor, y aislamiento térmico de poliuretano, fijada con gancho de acero galvanizado, incluso p.p de piezas de remate, totalmente colocada.	6,40	27,03	172,99
521	M2 CELOSIA FIJA VENTILACIÓN Celosía metálica fija para ventilación, formada por cerco con empanelado de lamas de acero de 60 mm, con abertura mínima de 1 cm entre lamas, malla de 2 mm para evitar entrada de insectos, garras de sujeción a soporte de 10 cm, elaborada en taller y montada en obra, totalmente colocada.	0,48	73,80	35,42
465.1	M2 PUERTA DOBLE CHAPA ACERO CON LAMAS Puerta de paso hojas abatibles de doble chapa lisa de acero de 1 mm de espesor, con aislamiento interno de fibre de vidrio, engatillada, realizada en dos bandejas, con rigidizadores de tubo rectangular, i/manillas de acero inoxidable y cerradura, con dos o cuatro rejillas de ventilación con malla anti insectos interior, patillas para recibir en fábricas, herrajes de colgar y de seguridad, imprimación antióxido y pintura al esmalte, totalmente colocada incluyendo el recibido de fábricas.	2,20	75,01	165,02
519	ML REMATE DE CHAPA PRELACADA CUBIERTA Remate de chapa prelacada en color, para cubrir parte superior de bloque o panel, hasta el panel sandwich de la cubierta por el interior del peto, fijado mediante tacos y/o ganchos anclado a muro y o cubierta, dispuesto según planos.	7,20	22,47	161,78
020	KG ACERO S 275 J PERFILES LAMINADOS Acero S 275 J en perfiles laminados elaborado y colocado.	72,90	1,95	142,16
474.1	ML CANALON CHAPA PRELACADA 50cm Canalón de chapa prelacada en color, de 50 cm. de desarrollo fijado mediante ganchos ocultos con tornillo autoroscante 40 cm., incluso p.p. de embocadura de bajante, codos y piezas especiales.	2,80	11,85	33,18
TOTAL APARTADO 08.09.01 OBRA CIVIL.....				1.628,08

PRESUPUESTOS PARCIALES.

ABASTECIMIENTO A VARIOS MUNICIPIOS DE LA RIOJA. SISTEMA CIDACOS

CÓDIGO	RESUMEN	CANTIDAD	PRECIO	IMPORTE
APARTADO 08.09.02 VÁLVULAS Y ACCESORIOS				
177.1	UD REDUCCIÓN PEAD 63 A 50 mm DIÁMETRO Reducción en polietileno de alta densidad de 63 mm a 50 mm de diámetro, totalmente colocada y probada.	2,00	21,03	42,06
177.8	UD COLLARÍN DE TOMA PEAD 63 A 25 mm DIÁMETRO Collarín de toma en polietileno de alta densidad de 63 mm a 25 mm de diámetro, totalmente colocada y probada.	2,00	15,24	30,48
245.1	UD VENTOSA DN=25 mm (1") PN16 Válvula ventosa de tres funciones de 1" (DN=25 mm) y PN 16 bar incluido transporte, juntas, válvula de corte DN=25 mm y PN 16 bar y piezas especiales, totalmente colocada y probada.	2,00	162,21	324,42
EVMMT050	UD VÁLVULA DE MARIPOSA DN=50 mm PN16 MOTORIZADA Válvula de mariposa de 50 mm de diámetro y PN16, motorizada, incluso carrete, mecanismo de accionamiento, maniobra y control, transporte, montaje, juntas, tornillería y pintura totalmente instalada y probada.	1,00	1.208,10	1.208,10
254	UD FILTRO COLADOR EN Y DN=50 mm PN16 Filtro colador en "Y" de diámetro nominal DN=50 mm y brida PN=16 bar de presión, incluso juntas de unión y tornillería, totalmente instalado.	1,00	80,07	80,07
150	UD CARRETE DE DESMONTAJE DN=50 mm PN16 Carrete de desmontaje autoportante de PFA 16 bar de D=50 mm, colocado.	1,00	107,86	107,86
270	UD VÁLVULA DE LLENADO DN=50 mm PN16 APERTURA DIFERIDA Válvula de llenado de asiento inoxidable y apertura diferida de diámetro nominal DN=50 mm y PN=16 bar, totalmente instalado y probado.	1,00	814,44	814,44
242	UD VÁLVULA DE COMPUERTA MANUAL DN50 PN16 Válvula de compuerta de accionamiento manual de diámetro nominal DN=50 mm de 16 bares de presión máxima admisible, con tornillería y juntas, totalmente instalada y probada, incluso volante de accionamiento.	1,00	105,35	105,35
TOTAL APARTADO 08.09.02 VÁLVULAS Y ACCESORIOS.....				2.712,78
APARTADO 08.09.03 INSTRUMENTACIÓN Y CONTROL				
300	UD BOYA DE NIVEL DE MÁXIMO Y MÍNIMO Boya de nivel cableada con la válvula de llenado, incluso montaje y pruebas.	2,00	49,74	99,48
288	UD CONTADOR CON EMISOR DE PULSOS DN=25 mm Contador con emisor de pulsos para tubería de diámetro nominal DN=25 mm, incluso juntas de unión y tornillería, totalmente colocado y probado.	1,00	237,83	237,83
TOTAL APARTADO 08.09.03 INSTRUMENTACIÓN Y CONTROL.....				337,31
APARTADO 08.09.04 INSTALACIÓN ELÉCTRICA DE BT				
563.1	ud PANTALLA ESTANCA LED Luminaria estanca WT120C LED80S/840 de Philips o equivalente para montaje en superficie de dimensiones 1515x80, carcasa de policarbonato, óptica de polimetacrilato de metilo, flujo luminoso 8.000 lm, potencia 68 W, Tª color 4000 K, rango de Tª de 10°C a 35°C, protección IP-65 Clase I. Incluso p.p. de canalización y cableado, completamente instalado.	1,00	28,30	28,30

PRESUPUESTOS PARCIALES.

ABASTECIMIENTO A VARIOS MUNICIPIOS DE LA RIOJA. SISTEMA CIDACOS

CÓDIGO	RESUMEN	CANTIDAD	PRECIO	IMPORTE
524.1	m LINEA 3x1.5mm2 Cu 0.6/1kV RZ1-K (AS) Línea eléctrica con conductor multipolares 3x1.5mm2 RZ1-K (AS) en canalización existente, incluso conexionado en inicio y final de línea.	15,00	3,34	50,10
571	ud INTERRUPTOR EMPOTRAR SIMO 32 BLANCO. Interruptor empotrar blanco, totalmente instalado.	1,00	9,25	9,25
204	m TUBO DE PVC RÍGIDO DE 25 MM DIÁMETRO Tubo rígido de PVC d=25mm para canalización de conductores, incluso soportes y anclajes a pared, instalado.	15,00	4,17	62,55
TOTAL APARTADO 08.09.04 INSTALACIÓN ELÉCTRICA DE BT.....				150,20
APARTADO 08.09.05 VARIOS				
617	PA CONEXIÓN RED NUEVA CASETA CON DEPÓSITOS EXISTENTES PEAD Partida Alzada de Abono Íntegro para conexión de la red de abastecimiento desde la nueva caseta de válvulas con depósitos existentes, incluyendo, excavaciones, tuberías de PEAD de cualquier diámetro, rellenos, ayudas de albanilería, demoliciones, relleno de huecos con morteros sin retracción, anclaje de tuberías, así como todos los medios auxiliares necesarios para la conexión entre la salida de la nueva caseta de válvula y su salida al depósito.	1,00	240,49	240,49
618	PA CONEXIÓN RED ELÉCTRICA BT CON DEPÓSITOS EXISTENTES Partida Alzada de Abono Íntegro para conexión de la red eléctrica en BT con depósitos existentes.	1,00	323,15	323,15
TOTAL APARTADO 08.09.05 VARIOS				563,64
TOTAL SUBCAPÍTULO 08.09 ACOMETIDA A DEPÓSITO DE SANTA EULALIA SOMERA.....				5.392,01
SUBCAPÍTULO 08.10 ACOMETIDA A DEPÓSITO DE HERCE				
APARTADO 08.10.01 OBRA CIVIL				
008	M2 DESPEJE Y DESBROCE Despeje y desbroce de capa de tierra vegetal con un espesor medio de 50 cm, incluso corte de árboles, extracción de tocones, nivelación de zona adyacente para el paso de maquinaria, transporte a lugar de acopio independiente para posterior reposición de tierra vegetal tras las obras y despedregado de las parcelas, así como transporte a vertedero de tierras sobrantes.	6,40	0,57	3,65
002	M3 EXCAVACIÓN EN ZANJAS Excavación en zanjas y zonas localizadas, en todo tipo de terrenos incluido terrenos en roca con medios mecánicos, incluso rasanteo, nivelación de la superficie de apoyo y transporte a lugar de empleo o vertedero.	2,24	3,74	8,38
028	M3 HORMIGÓN DE LIMPIEZA HL-150 Hormigón de limpieza HL-150, de consistencia plástica, árido de tamaño máximo 40 mm y cemento CEM-II-D/42,5/SR, para saneos y encachados, incluyendo fabricación y transporte totalmente colocado.	0,64	44,76	28,65
031	M3 HORMIGÓN HA-25/B/20/IIa Hormigón HA-25/B/20/IIa, con cemento CEM II/A-D/42,5/SR, incluyendo fabricación, transporte, puesta en obra y vibrado, totalmente ejecutado, incluso curado y juntas.	1,60	53,39	85,42
023	KG ACERO CORRUGADO B-500-S Acero redondo corrugado para armar tipo B-500-S elaborado y colocado.	112,00	0,96	107,52
025	M2 ENCOFRADO RECTO EN PARAMENTOS OCULTOS Encofrado recto en paramentos ocultos, incluso colocación, fijación y desencofrado.	2,60	17,65	45,89

PRESUPUESTOS PARCIALES.

ABASTECIMIENTO A VARIOS MUNICIPIOS DE LA RIOJA. SISTEMA CIDACOS

CÓDIGO	RESUMEN	CANTIDAD	PRECIO	IMPORTE
462	M2 FÁBRICA BLOQUES 40x20x20 cm TIPO SPLIT COLOR Fábrica de bloques de hormigón tipo Split, de medidas 40x20x20 cm color i/relleno de hormigón y colocación de armaduras s/normativa y recibido con mortero de cemento y arena de río 1/6 i/p.p. de piezas especiales para dinteles y materialización de jambas, roturas, nivelados, aplomados, llagueados y limpieza, todo ello según normativa.	17,32	31,80	550,78
464cf	M2 CARPINTERÍA FIJA ALUMINIO m². Carpintería fija con junquillos para la fijación del vidrio, de aluminio modelo con rotura de puente térmico, Alfil A54RPT de SAPAGROUP con un ancho de marco de 54 mm y con un ancho de hoja de 61 mm, medida del frente de 96,3 mm, con sistema de cámara europea, con espesor de perfil de 1,5 mm, con sistema de cierre por junta central de estanqueidad en EPDM, coplanar exteriormente y con resalte de hoja sobre el marco al interior, para un acristalamiento con altura de galce de 22 mm y anchura hasta 44 mm en marcos y 51 mm en hojas, lacado (entre 60-100 micras) en color estándar (RAL estándar: blanco, gris...), herrajes de colgar, p.p. de cerradura Tesa o similar y costes indirectos. Homologada con Clase 4 en el ensayo de permeabilidad al aire según norma UNE-EN 1026:2000. La transmitancia máxima del marco es de 2,90 W/m² K, y cumple en las zonas A, B, C, D y E, según el CTE/DB-HE 1.	0,48	144,71	69,46
464V3	M2 VIDRIO SEGURIDAD STADIP 44.1 INCOLORO (2B2) m². Acristalamiento de vidrio laminar de seguridad Stadip compuesto por dos vidrios de 4 mm de espesor unidos mediante lámina de butiral de polivinilo incolora de 0,38 mm, clasificado 2B2 según UNE-EN 12600, fijado sobre carpintería con acuñado mediante calzos de apoyo perimetrales y laterales y sellado en frío con silicona neutra, incluso colocación de junquillos, según UNE 85222:1985.	0,48	37,05	17,78
520	M2 CUBIERTA PANEL SANDWICH (E=50 mm.) Cubierta con panel tipo sandwich espesor 50 cm., con doble chapa prelacada de 0,4 mm de espesor, y aislamiento térmico de poliuretano, fijada con gancho de acero galvanizado, incluso p.p de piezas de remate, totalmente colocada.	6,40	27,03	172,99
521	M2 CELOSIA FIJA VENTILACIÓN Celosía metálica fija para ventilación, formada por cerco con empanelado de lamas de acero de 60 mm, con abertura mínima de 1 cm entre lamas, malla de 2 mm para eviar entrada de insectos, garras de sujeción a soporte de 10 cm, elaborada en taller y montada en obra, totalmente colocada.	0,48	73,80	35,42
465.1	M2 PUERTA DOBLE CHAPA ACERO CON LAMAS Puerta de paso hojas abatibles de doble chapa lisa de acero de 1 mm de espesor, con aislamiento interno de fibra de vidrio, engatillada, realizada en dos bandejas, con rigidizadores de tubo rectangular, i/manillas de acero inoxidable y cerradura, con dos o cuatro rejillas de ventilación con malla anti insectos interior, patillas para recibir en fábricas, herrajes de colgar y de seguridad, imprimación antióxido y pintura al esmalte, totalmente colocada incluyendo el recibido de fábricas.	2,20	75,01	165,02
519	ML REMATE DE CHAPA PRELACADA CUBIERTA Remate de chapa prelacada en color, para cubrir parte superior de bloque o panel, hasta el panel sandwich de la cubierta por el interior del peto, fijado mediante tacos y/o ganchos anclado a muro y o cubierta, dispuesto según planos.	7,20	22,47	161,78
020	KG ACERO S 275 J PERFILES LAMINADOS Acero S 275 J en perfiles laminados elaborado y colocado.	72,90	1,95	142,16
474.1	ML CANALON CHAPA PRELACADA 50cm Canalón de chapa prelacada en color, de 50 cm. de desarrollo fijado mediante ganchos ocultos con tornillo autoroscante 40 cm., incluso p.p. de embocadura de bajante, codos y piezas especiales.	2,80	11,85	33,18
TOTAL APARTADO 08.10.01 OBRA CIVIL.....				1.628,08

PRESUPUESTOS PARCIALES.

ABASTECIMIENTO A VARIOS MUNICIPIOS DE LA RIOJA. SISTEMA CIDACOS

CÓDIGO	RESUMEN	CANTIDAD	PRECIO	IMPORTE
APARTADO 08.10.02 VÁLVULAS Y ACCESORIOS				
177.2	UD REDUCCIÓN PEAD 75 A 50 mm DIÁMETRO Reducción en polietileno de alta densidad de 75 mm a 50 mm de diámetro, totalmente colocada y probada.	2,00	22,69	45,38
177.9	UD COLLARÍN DE TOMA PEAD 75 A 25 mm DIÁMETRO Collarín de toma en polietileno de alta densidad de 75 mm a 25 mm de diámetro, totalmente colocada y probada.	2,00	16,91	33,82
245.1	UD VENTOSA DN=25 mm (1") PN16 Válvula ventosa de tres funciones de 1" (DN=25 mm) y PN 16 bar incluido transporte, juntas, válvula de corte DN=25 mm y PN 16 bar y piezas especiales, totalmente colocada y probada.	2,00	162,21	324,42
EVMMT050	UD VÁLVULA DE MARIPOSA DN=50 mm PN16 MOTORIZADA Válvula de mariposa de 50 mm de diámetro y PN16, motorizada, incluso carrete, mecanismo de accionamiento, maniobra y control, transporte, montaje, juntas, tornillería y pintura totalmente instalada y probada.	1,00	1.208,10	1.208,10
254	UD FILTRO COLADOR EN Y DN=50 mm PN16 Filtro colador en "Y" de diámetro nominal DN=50 mm y brida PN=16 bar de presión, incluso juntas de unión y tornillería, totalmente instalado.	1,00	80,07	80,07
150	UD CARRETE DE DESMONTAJE DN=50 mm PN16 Carrete de desmontaje autoportante de PFA 16 bar de D=50 mm, colocado.	1,00	107,86	107,86
270	UD VÁLVULA DE LLENADO DN=50 mm PN16 APERTURA DIFERIDA Válvula de llenado de asiento inoxidable y apertura diferida de diámetro nominal DN=50 mm y PN=16 bar, totalmente instalado y probado.	1,00	814,44	814,44
242	UD VÁLVULA DE COMPUERTA MANUAL DN50 PN16 Válvula de compuerta de accionamiento manual de diámetro nominal DN=50 mm de 16 bares de presión máxima admisible, con tornillería y juntas, totalmente instalada y probada, incluso volante de accionamiento.	1,00	105,35	105,35
TOTAL APARTADO 08.10.02 VÁLVULAS Y ACCESORIOS				2.719,44
APARTADO 08.10.03 INSTRUMENTACIÓN Y CONTROL				
300	UD BOYA DE NIVEL DE MÁXIMO Y MÍNIMO Boya de nivel cableada con la válvula de llenado, incluso montaje y pruebas.	2,00	49,74	99,48
288	UD CONTADOR CON EMISOR DE PULSOS DN=25 mm Contador con emisor de pulsos para tubería de diámetro nominal DN=25 mm, incluso juntas de unión y tornillería, totalmente colocado y probado.	1,00	237,83	237,83
TOTAL APARTADO 08.10.03 INSTRUMENTACIÓN Y CONTROL.....				337,31
APARTADO 08.10.04 INSTALACIÓN ELÉCTRICA DE BT				
563.1	ud PANTALLA ESTANCA LED Luminaria estanca WT120C LED80S/840 de Philips o equivalente para montaje en superficie de dimensiones 1515x80, carcasa de policarbonato, óptica de polimetacrilato de metilo, flujo luminoso 8.000 lm, potencia 68 W, Tª color 4000 K, rango de Tª de 10°C a 35°C, protección IP-65 Clase I. Incluso p.p. de canalización y cableado, completamente instalado.	1,00	28,30	28,30

PRESUPUESTOS PARCIALES.

ABASTECIMIENTO A VARIOS MUNICIPIOS DE LA RIOJA. SISTEMA CIDACOS

CÓDIGO	RESUMEN	CANTIDAD	PRECIO	IMPORTE
524.1	m LINEA 3x1.5mm2 Cu 0.6/1kV RZ1-K (AS) Línea eléctrica con conductor multipolares 3x1.5mm2 RZ1-K (AS) en canalización existente, incluso conexionado en inicio y final de línea.	15,00	3,34	50,10
571	ud INTERRUPTOR EMPOTRAR SIMO 32 BLANCO. Interruptor empotrar blanco, totalmente instalado.	1,00	9,25	9,25
204	m TUBO DE PVC RÍGIDO DE 25 MM DIÁMETRO Tubo rígido de PVC d=25mm para canalización de conductores, incluso soportes y anclajes a pared, instalado.	15,00	4,17	62,55
TOTAL APARTADO 08.10.04 INSTALACIÓN ELÉCTRICA DE BT.....				150,20
APARTADO 08.10.05 VARIOS				
617	PA CONEXIÓN RED NUEVA CASETA CON DEPÓSITOS EXISTENTES PEAD Partida Alzada de Abono Íntegro para conexión de la red de abastecimiento desde la nueva caseta de válvulas con depósitos existentes, incluyendo, excavaciones, tuberías de PEAD de cualquier diámetro, rellenos, ayudas de albañilería, demoliciones, relleno de huecos con morteros sin retracción, anclaje de tuberías, así como todos los medios auxiliares necesarios para la conexión entre la salida de la nueva caseta de válvula y su salida al depósito.	1,00	240,49	240,49
618	PA CONEXIÓN RED ELÉCTRICA BT CON DEPÓSITOS EXISTENTES Partida Alzada de Abono Íntegro para conexión de la red eléctrica en BT con depósitos existentes.	1,00	323,15	323,15
TOTAL APARTADO 08.10.05 VARIOS				563,64
TOTAL SUBCAPÍTULO 08.10 ACOMETIDA A DEPÓSITO DE HERCE.....				5.398,67
SUBCAPÍTULO 08.11 ACOMETIDA A DEPÓSITO DE ARNEDO				
APARTADO 08.11.01 OBRA CIVIL				
002	M3 EXCAVACIÓN EN ZANJAS Excavación en zanjas y zonas localizadas, en todo tipo de terrenos incluido terrenos en roca con medios mecánicos, incluso rasanteo, nivelación de la superficie de apoyo y transporte a lugar de empleo o vertedero.	222,29	3,74	831,36
010	M3 RELLENO ZANJAS, CIMIENTOS Y TRASDOSES DE MATERIAL SELECCIONADO Relleno con material seleccionado en zanjas, cimientos, trasdós de muros, estribos y otras estructuras procedente de la excavación o préstamos incluso carga, transporte y compactación.	60,91	3,32	202,22
028	M3 HORMIGÓN DE LIMPIEZA HL-150 Hormigón de limpieza HL-150, de consistencia plástica, árido de tamaño máximo 40 mm y cemento CEM-II-D/42,5/SR, para saneos y enchachados, incluyendo fabricación y transporte totalmente colocado.	0,86	44,76	38,49
031	M3 HORMIGÓN HA-25/B/20/IIa Hormigón HA-25/B/20/IIa, con cemento CEM III/A-D/42,5/SR, incluyendo fabricación, transporte, puesta en obra y vibrado, totalmente ejecutado, incluso curado y juntas.	58,13	53,39	3.103,56
023	KG ACERO CORRUGADO B-500-S Acero redondo corrugado para armar tipo B-500-S elaborado y colocado.	4.733,14	0,96	4.543,81
025	M2 ENCOFRADO RECTO EN PARAMENTOS OCULTOS Encofrado recto en paramentos ocultos, incluso colocación, fijación y desencofrado.	16,64	17,65	293,70

PRESUPUESTOS PARCIALES.

ABASTECIMIENTO A VARIOS MUNICIPIOS DE LA RIOJA. SISTEMA CIDACOS

CÓDIGO	RESUMEN	CANTIDAD	PRECIO	IMPORTE
026	M2 ENCOFRADO RECTO EN PARAMENTOS VISTOS 1C Encofrado recto en paramentos vistos a una cara, incluso colocación, fijación y desencofrado.	145,89	21,18	3.089,95
026.2	M2 ENCOFRADO RECTO EN PILARES VISTOS Encofrado recto en pilares vistos, incluso colocación, fijación y desencofrado.	19,80	27,68	548,06
026.3	M2 ENCOFRADO RECTO EN VIGAS VISTOS Encofrado recto en vigas vistos, incluso colocación, fijación, apuntalamiento o cimbras, y desencofrado.	29,45	29,84	878,79
052	ML JUNTAS DE ESTANQUEIDAD DE PVC 32 CM Junta de trabajo interior de policloruro de vinilo (PVC) 100% virgen, con una fuerza máxima de dilatación > 250 % , de 32 cm de ancho, MASTERFLEX 2000 TI-24 de BASF o equivalente, colocada simétricamente en el eje de la losa o muro, incluso solapes y piezas especiales para cruces o ángulos. Medida la longitud ejecutada.	38,80	7,31	283,63
462	M2 FÁBRICA BLOQUES 40x20x20 cm TIPO SPLIT COLOR Fábrica de bloques de hormigón tipo Split, de medidas 40x20x20 cm color i/relleno de hormigón y colocación de armaduras s/normativa y recibido con mortero de cemento y arena de río 1/6 i/p.p. de piezas especiales para dinteles y materialización de jambas, roturas, nivelados, aplomados, llagueados y limpieza, todo ello según normativa.	140,90	31,80	4.480,62
520	M2 CUBIERTA PANEL SANDWICH (E=50 mm.) Cubierta con panel tipo sandwich espesor 50 cm., con doble chapa prelacada de 0,4 mm de espesor, y aislamiento térmico de poliuretano, fijada con gancho de acero galvanizado, incluso p.p de piezas de remate, totalmente colocada.	66,57	27,03	1.799,39
519	ML REMATE DE CHAPA PRELACADA CUBIERTA Remate de chapa prelacada en color, para cubrir parte superior de bloque o panel, hasta el panel sandwich de la cubierta por el interior del peto, fijado mediante tacos y/o ganchos anclado a muro y o cubierta, dispuesto según planos.	40,00	22,47	898,80
465.1	M2 PUERTA DOBLE CHAPA ACERO CON LAMAS Puerta de paso hojas abatibles de doble chapa lisa de acero de 1 mm de espesor, con aislamiento interno de fibre de vidrio, engatillada, realizada en dos bandejas, con rigidizadores de tubo rectangular, i/manillas de acero inoxidable y cerradura, con dos o cuatro rejillas de ventilación con malla anti insectos interior, patillas para recibir en fábricas, herrajes de colgar y de seguridad, imprimación antióxido y pintura al esmalte, totalmente colocada incluyendo el recibido de fábricas.	2,20	75,01	165,02
464cf	M2 CARPINTERÍA FIJA ALUMINIO m². Carpintería fija con junquillos para la fijación del vidrio, de aluminio modelo con rotura de puente térmico, Alfil A54RPT de SAPAGROUP con un ancho de marco de 54 mm y con un ancho de hoja de 61 mm, medida del frente de 96,3 mm, con sistema de cámara europea, con espesor de perfil de 1,5 mm, con sistema de cierre por junta central de estanqueidad en EPDM, coplanar exteriormente y con resalte de hoja sobre el marco al interior, para un acristalamiento con altura de galce de 22 mm y anchura hasta 44 mm en marcos y 51 mm en hojas, lacado (entre 60-100 micras) en color estándar (RAL estándar: blanco, gris...), herrajes de colgar, p.p. de cerradura Tesa o similar y costes indirectos. Homologada con Clase 4 en el ensayo de permeabilidad al aire según norma UNE-EN 1026:2000. La transmitancia máxima del marco es de 2,90 W/m² K, y cumple en las zonas A, B, C, D y E, según el CTE/DB-HE 1.	1,92	144,71	277,84

PRESUPUESTOS PARCIALES.

ABASTECIMIENTO A VARIOS MUNICIPIOS DE LA RIOJA. SISTEMA CIDACOS

CÓDIGO	RESUMEN	CANTIDAD	PRECIO	IMPORTE
464V3	M2 VIDRIO SEGURIDAD STADIP 44.1 INCOLORO (2B2) m². Acristalamiento de vidrio laminar de seguridad Stadip compuesto por dos vidrios de 4 mm de espesor unidos mediante lámina de butiral de polivinilo incolora de 0,38 mm, clasificado 2B2 según UNE-EN 12600, fijado sobre carpintería con acuíñado mediante calzos de apoyo perimetrales y laterales y sellado en frío con silicona neutra, incluso colocación de junquillos, según UNE 85222:1985.	1,92	37,05	71,14
521	M2 CELOSIA FIJA VENTILACIÓN Celosía metálica fija para ventilación, formada por cerco con empanelado de lamas de acero de 60 mm, con abertura mínima de 1 cm entre lamas, malla de 2 mm para eviar entrada de insectos, garras de sujeción a soporte de 10 cm, elaborada en taller y montada en obra, totalmente colocada.	0,48	73,80	35,42
020	KG ACERO S 275 J PERFILES LAMINADOS Acero S 275 J en perfiles laminados elaborado y colocado.	641,01	1,95	1.249,97
474.1	ML CANALON CHAPA PRELACADA 50cm Canalón de chapa prelacada en color, de 50 cm. de desarrollo fijado mediante ganchos ocultos con tornillo autoroscante 40 cm., incluso p.p. de embocadura de bajante, codos y piezas especiales.	20,00	11,85	237,00
474.2	ML BAJANTE DE CHAPA PRELACADA DN110 Bajante de chapa prelacada en color, DN110, fijado mediante ganchos con tornillo autoroscante 20 cm., incluso p.p. de embocadura de bajante, codos y piezas especiales.	6,60	12,29	81,11
290B	M2 ESCALERA Y PASARELAS DE ACERO GALVANIZADO. BARANDILLAS GALVANIZ Escalera y pasarelas de acceso de forma segun planos, ejecutada en perfiles de acero galvanizado en caliente, incluso barandilla tubular del mismo material, de 90 cm de altura en uno o dos lados, rodapié de seguridad del mismo en uno o dos lados, así como entramado metálico de 30x30x3 en descansillos y peldaños, medida según su proyección en planta. Anclada a los muros y/o solera, instalada.	5,21	81,77	426,02
620	UD APOYOS DE TUBERÍA Y VÁLVULAS SOBRE SOLERA Apoyos de tuberías y válvulas en soleras, mediante dado de hormigón HA-25/P/20/11a, ligeramente armado y anclado a la solera, así como cintas o eslingas de acero con material de protección de tubería para sujeción de las mismas, incluyendo el hormigón, encofrados, acero, eslingas, material de PE de protección, montado.	14,00	63,07	882,98
290	UD PATE POLIPROPILENO Pate de polipropileno de dimensiones 30x25 cm, incluyendo fabricación, transporte a obra, perforación de anclajes y relleno con aportación de material de agarre, completamente colocado.	12,00	5,63	67,56
0100	ML COLOCACIÓN DE TUBERÍA AUXILIAR PE DN315 PN10 Colocación de tubería auxiliar de PE DN315 PN 10 a tubería existente de ficrocemento DN400, durante la ejecución de la excavación de la zanja de la nueva conducción, para tramos de 100 m, para mantenimiento de servicio de la tubería existente, incluso elementos de unión de la tubería auxiliar a dicha tubería, del llenado y vaciado del tramo de actuación, y de la tubería auxiliar para su desplazamiento, traslado de la tubería auxiliar a su nueva posición por tramos de 100 m, así como la colocación de los lastres de la tubería auxiliar.	300,00	16,89	5.067,00
0105	ML TUBERÍA PEAD DN=315 mm PN 10 Tubería de PE DN315 PN10 para conexión a tubería existente de ficrocemento DN400, incluso p.p. de elementos de unión a tubería de ficrocemento DN400.	100,00	23,97	2.397,00
TOTAL APARTADO 08.11.01 OBRA CIVIL.....				31.950,44

PRESUPUESTOS PARCIALES.

ABASTECIMIENTO A VARIOS MUNICIPIOS DE LA RIOJA. SISTEMA CIDACOS

CÓDIGO	RESUMEN	CANTIDAD	PRECIO	IMPORTE
APARTADO 08.11.02 VÁLVULAS Y ACCESORIOS				
115.5	UD BRIDA ENCHUFE FD 400 mm PN16/25 Brida enchufe de fundición dúctil de PFA 16/25 bar para tubería de 400 mm, con un revestimiento interior y exterior epoxi, i/p.p. de junta de unión y medios auxiliares, totalmente colocada y probada.	1,00	445,02	445,02
114.6	UD BRIDA LISO FD 400 mm PN16/25 Brida lisa de fundición dúctil de PFA 16/25 bar para tubería de 400 mm, con un revestimiento interior y exterior epoxi, i/p.p. de junta de unión y medios auxiliares, totalmente colocada y probada.	1,00	441,71	441,71
134	UD TE FD BBB 250 mm PN16/25 SALIDA DN250/60 "T" de fundición dúctil de PFA 16/25 bar, con tres bridas para tubería de 250 mm con salida comprendida entre 250 y 60 mm, con un revestimiento interior y exterior epoxi, i/p.p. de junta de unión y medios auxiliares, totalmente colocada y probada.	2,00	271,20	542,40
121.1	UD TE FD BBB 400 mm PN16/25 SALIDA DN400/80 "T" de fundición dúctil de PFA 16/25 bar, con tres bridas para tubería de 400 mm con salida comprendida entre 400 y 80 mm, con un revestimiento interior y exterior epoxi, i/p.p. de junta de unión y medios auxiliares, totalmente colocada y probada.	3,00	669,87	2.009,61
098	UD REDUCCIÓN FD 400 A 350/250 mm PN16/25 Reducción en fundición dúctil de 400 mm a 350-300-250 mm con dos bridas PN 16/25 bar, con un revestimiento interior y exterior epoxi, i/p.p. de junta de unión y medios auxiliares, totalmente colocada y probada.	4,00	380,88	1.523,52
105	UD REDUCCIÓN FD 300 A 250/150 mm PN16 Reducción en fundición dúctil de 300 mm a 250-200-150 mm con dos bridas PN 16 bar, con un revestimiento interior y exterior epoxi, i/p.p. de junta de unión y medios auxiliares, totalmente colocada y probada.	2,00	204,20	408,40
162	UD MANGUITO FD DN100 A DN250 mm PN16/25 Manguito de fundición dúctil con bridas diámetros de 100 a 250 mm, longitud comprendida entre 0,20 y 1,00 m y PN 16/25, incluso p.p. de tornillería y medios auxiliares, totalmente colocado y probado.	6,00	110,14	660,84
162.1	UD MANGUITO FD DN300 A DN400 mm PN16/25 Manguito de fundición dúctil con bridas diámetros de 300 a 400 mm, longitud comprendida entre 0,20 y 1,00 m y PN 16/25, incluso p.p. de tornillería y medios auxiliares, totalmente colocado y probado.	8,00	200,95	1.607,60
250.1	UD FILTRO COLADOR EN Y DN=250 mm PN16 Filtro colador en "Y" de diámetro nominal DN=250 mm y brida PN=16 bar de presión, incluso juntas de unión y tornillería, totalmente instalado.	2,00	1.246,11	2.492,22
229	UD VÁLVULA DE COMPUERTA MANUAL DN250 PN16 Válvula de compuerta de accionamiento manual de diámetro nominal DN=250 mm de 16 bares de presión máxima admisible, con tornillería y juntas, totalmente instalada y probada, incluso volante de accionamiento.	2,00	825,16	1.650,32
255.1	UD VÁLVULA REDUCTORA DE PRESIÓN DN=250 mm PN16 Válvula reductora de presión de diámetro DN=250 mm y PN 16 bar, incluso juntas de unión y tornillería, totalmente colocada y probada.	2,00	11.070,80	22.141,60
266.2	UD VÁLVULA LIMITADORA DE CAUDAL DN=250 mm PN16 Válvula limitadora de caudal de DN=250 mm PN16, incluso juntas de unión y tornillería, totalmente colocada y probada.	2,00	9.974,34	19.948,68

PRESUPUESTOS PARCIALES.

ABASTECIMIENTO A VARIOS MUNICIPIOS DE LA RIOJA. SISTEMA CIDACOS

CÓDIGO	RESUMEN	CANTIDAD	PRECIO	IMPORTE
268.2	UD VÁLVULA DE LLENADO DN=250 mm PN16 CIERRE LENTO Y SOLENOIDE Válvula de llenado de asiento inoxidable, con cierre lento y solenoide de diámetro nominal DN=250 mm y PN=16 bar, totalmente instalado y probado.	2,00	3.880,09	7.760,18
ECD25016	UD CARRETE DE DESMONTAJE DN=250 mm PN16 Carrete telescópico de desmontaje DN250 PN16, bridas de acero al carbono, virolas de acero inoxidable, protección epoxi, tornillos y tuercas en acero F-114, cincado y posterior baño de cromo-niquel, incluido p.p. de brida enchufe, totalmente instalado y probado en obra.	2,00	398,69	797,38
273	UD VÁLVULA ALIVIO DE PRESIÓN 3" PN 16 Válvula de alivio de presión de 3" brida PN 16 bar, incluso válvula de corte de 3", juntas de unión, y tornillería, totalmente colocada y probada.	2,00	1.438,29	2.876,58
245.2	UD VENTOSA DN=80 (3") mm PN16 Válvula ventosa de tres funciones de DN=80 mm (3") y PN 16 bar incluido transporte, juntas, válvula de corte DN=80 mm y PN 16y piezas especiales, totalmente colocada y probada.	3,00	432,90	1.298,70
079	UD CODO FD 1/4 400 mm Codo de fundición dúctil de 1/4 de diámetro interior 400 mm y PFA 30 bar, con revestimiento interior y exterior epoxi, incluso p.p. de juntas y medios auxiliares, totalmente colocado y probado.	4,00	388,90	1.555,60
082	UD CODO FD 1/4 250 mm Codo de fundición dúctil de 1/8 de diámetro interior 250 mm y PFA 40 bar, con revestimiento interior y exterior epoxi, incluso p.p. de juntas y medios auxiliares, totalmente colocado y probado.	2,00	238,06	476,12
229.1	UD VÁLVULA DE COMPUERTA MANUAL DN300 PN16 Válvula de compuerta de accionamiento manual de diámetro nominal DN=300 mm de 16 bares de presión máxima admisible, con tornillería y juntas, totalmente instalada y probada, incluso volante de accionamiento.	2,00	1.001,25	2.002,50
ECD0300	UD CARRETE DE DESMONTAJE DN=300 mm PN16 Carrete telescópico de desmontaje DN300 PN16, bridas de acero al carbono, virolas de acero inoxidable, protección epoxi, tornillos y tuercas en acero F-114, cincado y posterior baño de cromo-niquel, incluido p.p. de brida enchufe, totalmente instalado y probado en obra.	2,00	440,43	880,86
TOTAL APARTADO 08.11.02 VÁLVULAS Y ACCESORIOS.....				71.519,84
APARTADO 08.11.03 INSTRUMENTACIÓN Y CONTROL				
300	UD BOYA DE NIVEL DE MÁXIMO Y MÍNIMO Boya de nivel cableada con la válvula de llenado, incluso montaje y pruebas.	2,00	49,74	99,48
280.2	UD CAUDALÍMETRO ELECTROMAGNÉTICO DN 300 mm PN10 Equipo medidor de caudal de DN300mm. tipo electromagnético y PN=10 atm. con salida 4/20 mA, tensión 220 V y escala 0-240 m3/h, totalmente instalado y probado. Incluido transporte, montaje, conexiones eléctricas y pruebas de funcionamiento. Resto de características, según E.T.	2,00	2.144,31	4.288,62
EMUS001	UD MEDIDOR DE NIVEL POR ULTRASONIDOS Medidor de nivel por ultrasonidos. Pértiga en PP con brida. Incluso instalación y pruebas. Resto de características según E.T de proyecto.	1,00	885,87	885,87
TOTAL APARTADO 08.11.03 INSTRUMENTACIÓN Y CONTROL.....				5.273,97

PRESUPUESTOS PARCIALES.

ABASTECIMIENTO A VARIOS MUNICIPIOS DE LA RIOJA. SISTEMA CIDACOS

CÓDIGO	RESUMEN	CANTIDAD	PRECIO	IMPORTE
APARTADO 08.11.04 INSTALACIÓN ELÉCTRICA DE BT				
563.1	ud PANTALLA ESTANCA LED Luminaria estanca WT120C LED80S/840 de Philips o equivalente para montaje en superficie de dimensiones 1515x80, carcasa de policarbonato, óptica de polimetacrilato de metilo, flujo luminoso 8.000 lm, potencia 68 W, Tª color 4000 K, rango de Tª de 10°C a 35°C, protección IP-65 Clase I. Incluso p.p. de canalización y cableado, completamente instalado.	2,00	28,30	56,60
524.1	m LINEA 3x1.5mm2 Cu 0.6/1kV RZ1-K (AS) Línea eléctrica con conductor multipolares 3x1.5mm2 RZ1-K (AS) en canalización existente, incluso conexionado en inicio y final de línea.	30,00	3,34	100,20
571	ud INTERRUPTOR EMPOTRAR SIMO 32 BLANCO. Interruptor empotrar blanco, totalmente instalado.	1,00	9,25	9,25
204	m TUBO DE PVC RÍGIDO DE 25 MM DIÁMETRO Tubo rígido de PVC d=25mm para canalización de conductores, incluso soportes y anclajes a pared, instalado.	50,00	4,17	208,50
TOTAL APARTADO 08.11.04 INSTALACIÓN ELÉCTRICA DE BT.....				374,55
APARTADO 08.11.05 VARIOS				
618	PA CONEXIÓN RED ELÉCTRICA BT CON DEPÓSITOS EXISTENTES Partida Alzada de Abono Íntegro para conexión de la red eléctrica en BT con depósitos existentes.	1,00	323,15	323,15
617.2	PA CONEXIÓN RED NUEVA CASETA CON DEPÓSITOS EXISTENTES FD 300<DN<500 Partida Alzada de Abono Íntegro para conexión de la red de abastecimiento desde la nueva caseta de válvulas con depósitos existentes, incluyendo, excavaciones, tuberías de fundición de diámetro desde 350 a 500 mm, rellenos, ayudas de albañilería, demoliciones, relleno de huecos con morteros sin retracción, anclaje de tuberías, así como todos los medios auxiliares necesarios para la conexión entre la salida de la nueva caseta de válvula y su salida al depósito.	1,00	2.404,89	2.404,89
617.3	PA CONEXIÓN ALIVIOS CON RED VACIADOS DEPÓSITO. Partida Alzada de Abono Íntegro para conexión de la salida de los alivios de la nueva caseta de válvulas con la red de vaciados del depósito, incluyendo, excavaciones, tuberías de PEAD DN de salida de alivio, rellenos, ayudas de albañilería, demoliciones, relleno de huecos con morteros sin retracción, anclaje de tuberías, así como todos los medios auxiliares necesarios para la conexión entre ambas tuberías.	1,00	240,49	240,49
TOTAL APARTADO 08.11.05 VARIOS				2.968,53
TOTAL SUBCAPÍTULO 08.11 ACOMETIDA A DEPÓSITO DE ARNEDO.....				112.087,33
SUBCAPÍTULO 08.12 ACOMETIDA A DEPÓSITO DE QUEL				
APARTADO 08.12.01 OBRA CIVIL				
008	M2 DESPEJE Y DESBROCE Despeje y desbroce de capa de tierra vegetal con un espesor medio de 50 cm, incluso corte de árboles, extracción de tocones, nivelación de zona adyacente para el paso de maquinaria, transporte a lugar de acopio independiente para posterior reposición de tierra vegetal tras las obras y despedregado de las parcelas, así como transporte a vertedero de tierras sobrantes.	21,84	0,57	12,45
002	M3 EXCAVACIÓN EN ZANJAS Excavación en zanjas y zonas localizadas, en todo tipo de terrenos incluido terrenos en roca con medios mecánicos, incluso rasanteo, nivelación de la superficie de apoyo y transporte a lugar de empleo o vertedero.	49,14	3,74	183,78

PRESUPUESTOS PARCIALES.

ABASTECIMIENTO A VARIOS MUNICIPIOS DE LA RIOJA. SISTEMA CIDACOS

CÓDIGO	RESUMEN	CANTIDAD	PRECIO	IMPORTE
010	M3 RELLENO ZANJAS, CIMIENTOS Y TRASDOSES DE MATERIAL SELECCIONADO Relleno con material seleccionado en zanjas, cimientos, trasdós de muros, estribos y otras estructuras procedente de la excavación o préstamos incluso carga, transporte y compactación.	7,14	3,32	23,70
028	M3 HORMIGÓN DE LIMPIEZA HL-150 Hormigón de limpieza HL-150, de consistencia plástica, árido de tamaño máximo 40 mm y cemento CEM-II-D/42,5/SR, para saneos y encachados, incluyendo fabricación y transporte totalmente colocado.	2,18	44,76	97,58
031	M3 HORMIGÓN HA-25/B/20/IIa Hormigón HA-25/B/20/IIa, con cemento CEM II/A-D/42,5/SR, incluyendo fabricación, transporte, puesta en obra y vibrado, totalmente ejecutado, incluso curado y juntas.	14,99	53,39	800,32
023	KG ACERO CORRUGADO B-500-S Acero redondo corrugado para armar tipo B-500-S elaborado y colocado.	1.195,90	0,96	1.148,06
025	M2 ENCOFRADO RECTO EN PARAMENTOS OCULTOS Encofrado recto en paramentos ocultos, incluso colocación, fijación y desencofrado.	6,36	17,65	112,25
026	M2 ENCOFRADO RECTO EN PARAMENTOS VISTOS 1C Encofrado recto en paramentos vistos a una cara, incluso colocación, fijación y desencofrado.	68,60	21,18	1.452,95
052	ML JUNTAS DE ESTANQUEIDAD DE PVC 32 CM Junta de trabajo interior de policloruro de vinilo (PVC) 100% virgen, con una fuerza máxima de dilatación > 250 % , de 32 cm de ancho, MASTERFLEX 2000 TI-24 de BASF o equivalente, colocada simétricamente en el eje de la losa o muro, incluso solapes y piezas especiales para cruces o ángulos. Medida la longitud ejecutada.	19,60	7,31	143,28
462	M2 FÁBRICA BLOQUES 40x20x20 cm TIPO SPLIT COLOR Fábrica de bloques de hormigón tipo Split, de medidas 40x20x20 cm color i/relleno de hormigón y colocación de armaduras s/normativa y recibido con mortero de cemento y arena de río 1/6 i/p.p. de piezas especiales para dinteles y materialización de jambas, roturas, nivelados, aplomados, llagueados y limpieza, todo ello según normativa.	65,88	31,80	2.094,98
520	M2 CUBIERTA PANEL SANDWICH (E=50 mm.) Cubierta con panel tipo sandwich espesor 50 cm., con doble chapa prelacada de 0,4 mm de espesor, y aislamiento térmico de poliuretano, fijada con gancho de acero galvanizado, incluso p.p de piezas de remate, totalmente colocada.	17,76	27,03	480,05
519	ML REMATE DE CHAPA PRELACADA CUBIERTA Remate de chapa prelacada en color, para cubrir parte superior de bloque o panel, hasta el panel sandwich de la cubierta por el interior del peto, fijado mediante tacos y/o ganchos anclado a muro y o cubierta, dispuesto según planos.	12,20	22,47	274,13
465.1	M2 PUERTA DOBLE CHAPA ACERO CON LAMAS Puerta de paso hojas abatibles de doble chapa lisa de acero de 1 mm de espesor, con aislamiento interno de fibre de vidrio, engatillada, realizada en dos bandejas, con rigidizadores de tubo rectangular, i/manillas de acero inoxidable y cerradura, con dos o cuatro rejillas de ventilación con malla anti insectos interior, patillas para recibir en fábricas, herrajes de colgar y de seguridad, imprimación antióxido y pintura al esmalte, totalmente colocada incluyendo el recibido de fábricas.	1,76	75,01	132,02

PRESUPUESTOS PARCIALES.

ABASTECIMIENTO A VARIOS MUNICIPIOS DE LA RIOJA. SISTEMA CIDACOS

CÓDIGO	RESUMEN	CANTIDAD	PRECIO	IMPORTE
464cf	M2 CARPINTERÍA FIJA ALUMINIO m². Carpintería fija con junquillos para la fijación del vidrio, de aluminio modelo con rotura de puente térmico, Alfil A54RPT de SAPAGROUP con un ancho de marco de 54 mm y con un ancho de hoja de 61 mm, medida del frente de 96,3 mm, con sistema de cámara europea, con espesor de perfil de 1,5 mm, con sistema de cierre por junta central de estanqueidad en EPDM, coplanar exteriormente y con resalte de hoja sobre el marco al interior, para un acristalamiento con altura de galce de 22 mm y anchura hasta 44 mm en marcos y 51 mm en hojas, lacado (entre 60-100 micras) en color estándar (RAL estándar: blanco, gris...), herrajes de colgar, p.p. de cerradura Tesa o similar y costes indirectos. Homologada con Clase 4 en el ensayo de permeabilidad al aire según norma UNE-EN 1026:2000. La transmitancia máxima del marco es de 2,90 W/m² K, y cumple en las zonas A, B, C, D y E, según el CTE/DB-HE 1.	0,48	144,71	69,46
464V3	M2 VIDRIO SEGURIDAD STADIP 44.1 INCOLORO (2B2) m². Acristalamiento de vidrio laminar de seguridad Stadip compuesto por dos vidrios de 4 mm de espesor unidos mediante lámina de butiral de polivinilo incolora de 0,38 mm, clasificado 2B2 según UNE-EN 12600, fijado sobre carpintería con acuíado mediante calzos de apoyo perimetrales y laterales y sellado en frío con silicona neutra, incluso colocación de junquillos, según UNE 85222:1985.	0,48	37,05	17,78
521	M2 CELOSIA FIJA VENTILACIÓN Celosía metálica fija para ventilación, formada por cerco con empanelado de lamas de acero de 60 mm, con abertura mínima de 1 cm entre lamas, malla de 2 mm para evitar entrada de insectos, garras de sujeción a soporte de 10 cm, elaborada en taller y montada en obra, totalmente colocada.	0,48	73,80	35,42
020	KG ACERO S 275 J PERFILES LAMINADOS Acero S 275 J en perfiles laminados elaborado y colocado.	597,42	1,95	1.164,97
474.1	ML CANALON CHAPA PRELACADA 50cm Canalón de chapa prelacada en color, de 50 cm. de desarrollo fijado mediante ganchos ocultos con tornillo autoroscante 40 cm., incluso p.p. de embocadura de bajante, codos y piezas especiales.	7,40	11,85	87,69
290B	M2 ESCALERA Y PASARELAS DE ACERO GALVANIZADO. BARANDILLAS GALVANIZ Escalera y pasarelas de acceso de forma según planos, ejecutada en perfiles de acero galvanizado en caliente, incluso barandilla tubular del mismo material, de 90 cm de altura en uno o dos lados, rodapié de seguridad del mismo en uno o dos lados, así como entramado metálico de 30x30x3 en descansillos y peldaños, medida según su proyección en planta. Anclada a los muros y/o solera, instalada.	1,94	81,77	158,63
620	UD APOYOS DE TUBERÍA Y VÁLVULAS SOBRE SOLERA Apoyos de tuberías y válvulas en soleras, mediante dado de hormigón HA-25/P/20/11a, ligeramente armado y anclado a la solera, así como cintas o eslingas de acero con material de protección de tubería para sujeción de las mismas, incluyendo el hormigón, encofrados, acero, eslingas, material de PE de protección, montado.	5,00	63,07	315,35
474.2	ML BAJANTE DE CHAPA PRELACADA DN110 Bajante de chapa prelacada en color, DN110, fijado mediante ganchos con tornillo autoroscante 20 cm., incluso p.p. de embocadura de bajante, codos y piezas especiales.	3,00	12,29	36,87
TOTAL APARTADO 08.12.01 OBRA CIVIL.....				8.841,72

PRESUPUESTOS PARCIALES.

ABASTECIMIENTO A VARIOS MUNICIPIOS DE LA RIOJA. SISTEMA CIDACOS

CÓDIGO	RESUMEN	CANTIDAD	PRECIO	IMPORTE
APARTADO 08.12.02 VÁLVULAS Y ACCESORIOS				
115.6	UD BRIDA ENCHUFE FD 250 mm PN16/25 Brida enchufe de fundición dúctil de PFA 16/25 bar para tubería de 250 mm, con un revestimiento interior y exterior epoxi, i/p.p. de junta de unión y medios auxiliares, totalmente colocada y probada.	2,00	164,78	329,56
134	UD TE FD BBB 250 mm PN16/25 SALIDA DN250/60 "T" de fundición dúctil de PFA 16/25 bar, con tres bridas para tubería de 250 mm con salida comprendida entre 250 y 60 mm, con un revestimiento interior y exterior epoxi, i/p.p. de junta de unión y medios auxiliares, totalmente colocada y probada.	1,00	271,20	271,20
138	UD TE FD BBB 150 mm PN16/25 SALIDA DN150/40 "T" de fundición dúctil de PFA 16 bar, con tres bridas para tubería de 150 mm con salida comprendida entre 150 y 40 mm, con un revestimiento interior y exterior epoxi, i/p.p. de junta de unión y medios auxiliares, totalmente colocada y probada.	2,00	117,45	234,90
245.3	UD VENTOSA DN=50 (2") mm PN25 Válvula ventosa de tres funciones de DN=50 mm (2") y PN 25 bar incluido transporte, juntas, válvula de corte DN=50 mm y PN 25 y piezas especiales, totalmente colocada y probada.	1,00	434,43	434,43
245.4	UD VENTOSA DN=50 (2") mm PN16 Válvula ventosa de tres funciones de DN=50 mm (2") y PN 16 bar incluido transporte, juntas, válvula de corte DN=50 mm y PN 16 y piezas especiales, totalmente colocada y probada.	1,00	367,64	367,64
106	UD REDUCCIÓN FD 250 A 200/125 mm PN16 Reducción en fundición dúctil de 250 mm a 200-150-125 mm con dos bridas PN 25 bar, con un revestimiento interior y exterior epoxi, i/p.p. de junta de unión y medios auxiliares, totalmente colocada y probada.	2,00	110,44	220,88
162	UD MANGUITO FD DN100 A DN250 mm PN16/25 Manguito de fundición dúctil con bridas diámetros de 100 a 250 mm, longitud comprendida entre 0,20 y 1,00 m y PN16/25, incluso p.p. de tornillería y medios auxiliares, totalmente colocado y probado.	4,00	110,14	440,56
249	UD FILTRO COLADOR EN Y DN=150 mm PN25 Filtro colador en "Y" de diámetro nominal DN=150 mm y brida PN=25 bar de presión, incluso juntas de unión y tornillería, totalmente instalado.	1,00	798,47	798,47
145	UD CARRETE DE DESMONTAJE DN=150 mm PN25 Carrete telescópico de desmontaje DN150 PN25, bridas de acero al carbono, virolas de acero inoxidable, protección epoxi, tornillos y tuercas en acero F-114, cincado y posterior baño de cromo-niquel, incluido p.p. de brida enchufe, totalmente instalado y probado en obra.	1,00	268,45	268,45
ECD15016	UD CARRETE DE DESMONTAJE DN=150 mm PN16 Carrete telescópico de desmontaje DN150 PN16, bridas de acero al carbono, virolas de acero inoxidable, protección epoxi, tornillos y tuercas en acero F-114, cincado y posterior baño de cromo-niquel, incluido p.p. de brida enchufe, totalmente instalado y probado en obra.	1,00	200,47	200,47
259	UD VÁLVULA REDUCTORA DE PRESIÓN DN=150 mm PN25 Válvula reductora de presión de diámetro DN=150 mm y PN 25 bar, incluso juntas de unión y tornillería, totalmente colocada y probada.	1,00	3.310,28	3.310,28
266.1	UD VÁLVULA LIMITADORA DE CAUDAL DN=150 mm PN16 Válvula limitadora de caudal de DN=150 mm PN16, incluso juntas de unión y tornillería, totalmente colocada y probada.	1,00	7.652,79	7.652,79

PRESUPUESTOS PARCIALES.

ABASTECIMIENTO A VARIOS MUNICIPIOS DE LA RIOJA. SISTEMA CIDACOS

CÓDIGO	RESUMEN	CANTIDAD	PRECIO	IMPORTE
268.1	UD VÁLVULA DE LLENADO DN=150 mm PN16 CIERRE LENTO Y SOLENOIDE Válvula de llenado de asiento inoxidable, con cierre lento y solenoide de diámetro nominal DN=150 mm y PN=16 bar, totalmente instalado y probado.	1,00	2.265,58	2.265,58
234	UD VÁLVULA DE COMPUERTA MANUAL DN150 PN25 Válvula de compuerta de cierre elástico de 150 mm. de diámetro nominal y 25 At. de P.N., de accionamiento manual por volante, de cuerpo de fundición nodular GGG-50, con eje de acero inoxidable al 13 % Cr. con roscas conformadas por laminación en frío, cierre en fundición nodular, tornillería de acero inoxidable, protegida contra la corrosión mediante aplicación de doble capa de pintura epoxy, totalmente colocada y probada. Resto de características según ET.	1,00	490,62	490,62
273.1	UD VÁLVULA ALIVIO DE PRESIÓN 2" PN 16 Válvula de alivio de presión de 2" brida PN 16 bar, incluso válvula de corte de 2", juntas de unión, y tornillería, totalmente colocada y probada.	1,00	1.066,29	1.066,29
235	UD VÁLVULA DE COMPUERTA MANUAL DN150 PN16 Válvula de compuerta de accionamiento manual de diámetro nominal DN=150 mm de 16 bares de presión máxima admisible, con tornillería y juntas, totalmente instalada y probada, incluso volante de accionamiento.	1,00	299,35	299,35
TOTAL APARTADO 08.12.02 VÁLVULAS Y ACCESORIOS.....				18.651,47
APARTADO 08.12.03 INSTRUMENTACIÓN Y CONTROL				
300	UD BOYA DE NIVEL DE MÁXIMO Y MÍNIMO Boya de nivel cableada con la válvula de llenado, incluso montaje y pruebas.	2,00	49,74	99,48
281	UD CAUDALÍMETRO ELECTROMAGNÉTICO DN 150 mm PN10 Equipo medidor de caudal de DN150 mm. tipo electromagnético y PN=25 atm. con salida 4/20 mA, tensión 220 V y escala 0-240 m3/h, totalmente instalado y probado. Incluido transporte, montaje, conexiones eléctricas y pruebas de funcionamiento. Resto de características, según ET.	1,00	1.201,05	1.201,05
TOTAL APARTADO 08.12.03 INSTRUMENTACIÓN Y CONTROL.....				1.300,53
APARTADO 08.12.04 INSTALACIÓN ELÉCTRICA DE BT				
563.1	ud PANTALLA ESTANCA LED Luminaria estanca WT120C LED80S/840 de Philips o equivalente para montaje en superficie de dimensiones 1515x80, carcasa de policarbonato, óptica de polimetacrilato de metilo, flujo luminoso 8.000 lm, potencia 68 W, Tª color 4000 K, rango de Tª de 10°C a 35°C, protección IP-65 Clase I. Incluso p.p. de canalización y cableado, completamente instalado.	1,00	28,30	28,30
524.1	m LINEA 3x1.5mm2 Cu 0.6/1kV RZ1-K (AS) Línea eléctrica con conductor multipolares 3x1.5mm2 RZ1-K (AS) en canalización existente, incluso conexionado en inicio y final de línea.	15,00	3,34	50,10
571	ud INTERRUPTOR EMPOTRAR SIMO 32 BLANCO. Interruptor empotrar blanco, totalmente instalado.	1,00	9,25	9,25
204	m TUBO DE PVC RÍGIDO DE 25 MM DIÁMETRO Tubo rígido de PVC d=25mm para canalización de conductores, incluso soportes y anclajes a pared, instalado.	25,00	4,17	104,25
TOTAL APARTADO 08.12.04 INSTALACIÓN ELÉCTRICA DE BT.....				191,90

PRESUPUESTOS PARCIALES.

ABASTECIMIENTO A VARIOS MUNICIPIOS DE LA RIOJA. SISTEMA CIDACOS

CÓDIGO	RESUMEN	CANTIDAD	PRECIO	IMPORTE
APARTADO 08.12.05 VARIOS				
618	PA CONEXIÓN RED ELÉCTRICA BT CON DEPÓSITOS EXISTENTES Partida Alzada de Abono Íntegro para conexión de la red eléctrica en BT con depósitos existentes.	1,00	323,15	323,15
617.1	PA CONEXIÓN RED NUEVA CASETA CON DEPÓSITOS EXISTENTES FD DN<300 Partida Alzada de Abono Íntegro para conexión de la red de abastecimiento desde la nueva caseta de válvulas con depósitos existentes, incluyendo, excavaciones, tuberías de fundición de diámetro hasta 300 mm, rellenos, ayudas de albañilería, demoliciones, relleno de huecos con morteros sin retracción, anclaje de tuberías, así como todos los medios auxiliares necesarios para la conexión entre la salida de la nueva caseta de válvula y su salida al depósito.	1,00	1.728,51	1.728,51
617.3	PA CONEXIÓN ALIVIOS CON RED VACIADOS DEPÓSITO. Partida Alzada de Abono Íntegro para conexión de la salida de los alivios de la nueva caseta de válvulas con la red de vaciados del depósito, incluyendo, excavaciones, tuberías de PEAD DN de salida de alivio, rellenos, ayudas de albañilería, demoliciones, relleno de huecos con morteros sin retracción, anclaje de tuberías, así como todos los medios auxiliares necesarios para la conexión entre ambas tuberías.	1,00	240,49	240,49
TOTAL APARTADO 08.12.05 VARIOS				2.292,15
TOTAL SUBCAPÍTULO 08.12 ACOMETIDA A DEPÓSITO DE QUEL.....				31.277,77
SUBCAPÍTULO 08.13 ACOMETIDA A DEPÓSITO DE AUTOL				
APARTADO 08.13.01 OBRA CIVIL				
008	M2 DESPEJE Y DESBROCE Despeje y desbroce de capa de tierra vegetal con un espesor medio de 50 cm, incluso corte de árboles, extracción de tocones, nivelación de zona adyacente para el paso de maquinaria, transporte a lugar de acopio independiente para posterior reposición de tierra vegetal tras las obras y despedregado de las parcelas, así como transporte a vertedero de tierras sobrantes.	45,00	0,57	25,65
002	M3 EXCAVACIÓN EN ZANJAS Excavación en zanjas y zonas localizadas, en todo tipo de terrenos incluido terrenos en roca con medios mecánicos, incluso rasanteo, nivelación de la superficie de apoyo y transporte a lugar de empleo o vertedero.	94,50	3,74	353,43
010	M3 RELLENO ZANJAS, CIMIENTOS Y TRASDOSES DE MATERIAL SELECCIONADO Relleno con material seleccionado en zanjas, cimientos, trasdós de muros, estribos y otras estructuras procedente de la excavación o préstamos incluso carga, transporte y compactación.	35,44	3,32	117,66
028	M3 HORMIGÓN DE LIMPIEZA HL-150 Hormigón de limpieza HL-150, de consistencia plástica, árido de tamaño máximo 40 mm y cemento CEM-II-D/42,5/SR, para saneos y encachados, incluyendo fabricación y transporte totalmente colocado.	2,64	44,76	118,17
031	M3 HORMIGÓN HA-25/B/20/IIa Hormigón HA-25/B/20/IIa, con cemento CEM III/A-D/42,5/SR, incluyendo fabricación, transporte, puesta en obra y vibrado, totalmente ejecutado, incluso curado y juntas.	19,15	53,39	1.022,42
023	KG ACERO CORRUGADO B-500-S Acero redondo corrugado para armar tipo B-500-S elaborado y colocado.	1.508,95	0,96	1.448,59
025	M2 ENCOFRADO RECTO EN PARAMENTOS OCULTOS Encofrado recto en paramentos ocultos, incluso colocación, fijación y desencofrado.	7,08	17,65	124,96
026	M2 ENCOFRADO RECTO EN PARAMENTOS VISTOS 1C Encofrado recto en paramentos vistos a una cara, incluso colocación, fijación y desencofrado.			

PRESUPUESTOS PARCIALES.

ABASTECIMIENTO A VARIOS MUNICIPIOS DE LA RIOJA. SISTEMA CIDACOS

CÓDIGO	RESUMEN	CANTIDAD	PRECIO	IMPORTE
052	ML JUNTAS DE ESTANQUEIDAD DE PVC 32 CM Junta de trabajo interior de policloruro de vinilo (PVC) 100% virgen, con una fuerza máxima de dilatación > 250 %, de 32 cm de ancho, MASTERFLEX 2000 TI-24 de BASF o equivalente, colocada simétricamente en el eje de la losa o muro, incluso solapes y piezas especiales para cruces o ángulos. Medida la longitud ejecutada.	74,88	21,18	1.585,96
462	M2 FÁBRICA BLOQUES 40x20x20 cm TIPO SPLIT COLOR Fábrica de bloques de hormigón tipo Split, de medidas 40x20x20 cm color i/relleno de hormigón y colocación de armaduras s/normativa y recibido con mortero de cemento y arena de río 1/6 i/p.p. de piezas especiales para dinteles y materialización de jambas, roturas, nivelados, aplomados, llagueados y limpieza, todo ello según normativa.	21,00	7,31	153,51
520	M2 CUBIERTA PANEL SANDWICH (E=50 mm.) Cubierta con panel tipo sandwich espesor 50 cm., con doble chapa prelacada de 0,4 mm de espesor, y aislamiento térmico de poliuretano, fijada con gancho de acero galvanizado, incluso p.p de piezas de remate, totalmente colocada.	70,08	31,80	2.228,54
519	ML REMATE DE CHAPA PRELACADA CUBIERTA Remate de chapa prelacada en color, para cubrir parte superior de bloque o panel, hasta el panel sandwich de la cubierta por el interior del peto, fijado mediante tacos y/o ganchos anclado a muro y o cubierta, dispuesto según planos.	17,16	27,03	463,83
465.1	M2 PUERTA DOBLE CHAPA ACERO CON LAMAS Puerta de paso hojas abatibles de doble chapa lisa de acero de 1 mm de espesor, con aislamiento interno de fibre de vidrio, engatillada, realizada en dos bandejas, con rigidizadores de tubo rectangular, i/manillas de acero inoxidable y cerradura, con dos o cuatro rejillas de ventilación con malla anti insectos interior, patillas para recibir en fábricas, herrajes de colgar y de seguridad, imprimación antióxido y pintura al esmalte, totalmente colocada incluyendo el recibido de fábricas.	13,60	22,47	305,59
464cf	M2 CARPINTERÍA FIJA ALUMINIO m². Carpintería fija con junquillos para la fijación del vidrio, de aluminio modelo con rotura de puente térmico, Afili A54RPT de SAPAGROUP con un ancho de marco de 54 mm y con un ancho de hoja de 61 mm, medida del frente de 96,3 mm, con sistema de cámara europea, con espesor de perfil de 1,5 mm, con sistema de cierre por junta central de estanqueidad en EPDM, coplanar exteriormente y con resalte de hoja sobre el marco al interior, para un acristalamiento con altura de galce de 22 mm y anchura hasta 44 mm en marcos y 51 mm en hojas, lacado (entre 60-100 micras) en color estándar (RAL estándar: blanco, gris...), herrajes de colgar, p.p. de cerradura Tesa o similar y costes indirectos. Homologada con Clase 4 en el ensayo de permeabilidad al aire según norma UNE-EN 1026:2000. La transmitancia máxima del marco es de 2,90 W/m² K, y cumple en las zonas A, B, C, D y E, según el C TE/DB-HE 1.	1,76	75,01	132,02
464V3	M2 VIDRIO SEGURIDAD STADIP 44.1 INCOLORO (2B2) m². Acristalamiento de vidrio laminar de seguridad Stadip compuesto por dos vidrios de 4 mm de espesor unidos mediante lámina de butiral de polivinilo incolora de 0,38 mm, clasificado 2B2 según UNE-EN 12600, fijado sobre carpintería con acuíado mediante calzos de apoyo perimetrales y laterales y sellado en frío con silicona neutra, incluso colocación de junquillos, según UNE 85222:1985.	0,48	144,71	69,46
521	M2 CELOSIA FIJA VENTILACIÓN Celosía metálica fija para ventilación, formada por cerco con empanelado de lamas de acero de 60 mm, con abertura mínima de 1 cm entre lamas, malla de 2 mm para evitar entrada de insectos, garras de sujeción a soporte de 10 cm, elaborada en taller y montada en obra, totalmente colocada.	0,48	37,05	17,78
020	KG ACERO S 275 J PERFILES LAMINADOS Acero S 275 J en perfiles laminados elaborado y colocado.	0,48	73,80	35,42

PRESUPUESTOS PARCIALES.

ABASTECIMIENTO A VARIOS MUNICIPIOS DE LA RIOJA. SISTEMA CIDACOS

CÓDIGO	RESUMEN	CANTIDAD	PRECIO	IMPORTE
474.1	ML CANALON CHAPA PRELACADA 50cm Canalón de chapa prelacada en color, de 50 cm. de desarrollo fijado mediante ganchos ocultos con tornillo autoroscante 40 cm., incluso p.p. de embocadura de bajante, codos y piezas especiales.	742,88	1,95	1.448,62
290B	M2 ESCALERA Y PASARELAS DE ACERO GALVANIZADO. BARANDILLAS GALVANIZ Escalera y pasarelas de acceso de forma segun planos, ejecutada en perfiles de acero galvanizado en caliente, incluso barandilla tubular del mismo material, de 90 cm de altura en uno o dos lados, rodapié de seguridad del mismo en uno o dos lados, así como entramado metálico de 30x30x3 en descansillos y peldaños, medida según su proyección en planta. Anclada a los muros y/o solera, instalada.	8,40	11,85	99,54
620	UD APOYOS DE TUBERÍA Y VÁLVULAS SOBRE SOLERA Apoyos de tuberías y válvulas en soleras, mediante dado de hormigón HA-25/P/20/IIa, ligeramente armado y anclado a la solera, así como cintas o eslingas de acero con material de protección de tubería para sujeción de las mismas, incluyendo el hormigón, encofrados, acero, eslingas, material de PE de protección, montado.	2,79	81,77	228,14
474.2	ML BAJANTE DE CHAPA PRELACADA DN110 Bajante de chapa prelacada en color, DN110, fijado mediante ganchos con tornillo autoroscante 20 cm., incluso p.p. de embocadura de bajante, codos y piezas especiales.	4,00	63,07	252,28
	TOTAL APARTADO 08.13.01 OBRA CIVIL.....			10.268,44
	APARTADO 08.13.02 VÁLVULAS Y ACCESORIOS			
115.6	UD BRIDA ENCHUFE FD 250 mm PN16/25 Brida enchufe de fundición dúctil de PFA 16/25 bar para tubería de 250 mm, con un revestimiento interior y exterior epoxi, i/p.p. de junta de unión y medios auxiliares, totalmente colocada y probada.	1,00	164,78	164,78
114.3	UD BRIDA LISO FD 250 mm PN16/25 Brida lisa de fundición dúctil de PFA 16/25 bar para tubería de 250 mm, con un revestimiento interior y exterior epoxi, i/p.p. de junta de unión y medios auxiliares, totalmente colocada y probada.	1,00	202,81	202,81
134	UD TE FD BBB 250 mm PN16/25 SALIDA DN250/60 "T" de fundición dúctil de PFA 16/25 bar, con tres bridas para tubería de 250 mm con salida comprendida entre 250 y 60 mm, con un revestimiento interior y exterior epoxi, i/p.p. de junta de unión y medios auxiliares, totalmente colocada y probada.	1,00	271,20	271,20
245.2	UD VENTOSA DN=80 (3") mm PN16 Válvula ventosa de tres funciones de DN=80 mm (3") y PN 16 bar incluido transporte, juntas, válvula de corte DN=80 mm y PN 16y piezas especiales, totalmente colocada y probada.	2,00	432,90	865,80
106	UD REDUCCIÓN FD 250 A 200/125 mm PN16 Reducción en fundición dúctil de 250 mm a 200-150-125 mm con dos bridas PN 25 bar, con un revestimiento interior y exterior epoxi, i/p.p. de junta de unión y medios auxiliares, totalmente colocada y probada.	1,00	110,44	110,44
162	UD MANGUITO FD DN100 A DN250 mm PN16/25 Manguito de fundición dúctil con bridas diámetros de 100 a 250 mm, longitud comprendida entre 0,20 y 1,00 m y PN16/25, incluso p.p. de tornillería y medios auxiliares, totalmente colocado y probado.	4,00	110,14	440,56
250	UD FILTRO COLADOR EN Y DN=150 mm PN16 Filtro colador en "Y" de diámetro nominal DN=150 mm y brida PN=16 bar de presión, incluso juntas de unión y tornillería, totalmente instalado.	1,00	712,91	712,91

PRESUPUESTOS PARCIALES.

ABASTECIMIENTO A VARIOS MUNICIPIOS DE LA RIOJA. SISTEMA CIDACOS

CÓDIGO	RESUMEN	CANTIDAD	PRECIO	IMPORTE
138	UD TE FD BBB 150 mm PN16/25 SALIDA DN150/40 "T" de fundición dúctil de PFA 16 bar, con tres bridas para tubería de 150 mm con salida comprendida entre 150 y 40 mm, con un revestimiento interior y exterior epoxi, i/p.p. de junta de unión y medios auxiliares, totalmente colocada y probada.	2,00	117,45	234,90
260	UD VÁLVULA REDUCTORA DE PRESIÓN DN=150 mm PN16 Válvula reductora de presión de diámetro DN=150 mm y PN 16 bar, incluso juntas de unión y tornillería, totalmente colocada y probada.	1,00	2.738,22	2.738,22
273	UD VÁLVULA ALIVIO DE PRESIÓN 3" PN 16 Válvula de alivio de presión de 3" brida PN 16 bar, incluso válvula de corte de 3", juntas de unión, y tornillería, totalmente colocada y probada.	1,00	1.438,29	1.438,29
266.1	UD VÁLVULA LIMITADORA DE CAUDAL DN=150 mm PN16 Válvula limitadora de caudal de DN=150 mm PN16, incluso juntas de unión y tornillería, totalmente colocada y probada.	1,00	7.652,79	7.652,79
268.1	UD VÁLVULA DE LLENADO DN=150 mm PN16 CIERRE LENTO Y SOLENOIDE Válvula de llenado de asiento inoxidable, con cierre lento y solenoide de diámetro nominal DN=150 mm y PN=16 bar, totalmente instalado y probado.	1,00	2.265,58	2.265,58
109	UD REDUCCIÓN FD 200 A 150/100 mm PN16 Reducción en fundición dúctil de 200 mm a 150-125-100 mm con dos bridas PN 16 bar, con un revestimiento interior y exterior epoxi, i/p.p. de junta de unión y medios auxiliares, totalmente colocada y probada.	1,00	91,37	91,37
143	UD CARRETE DE DESMONTAJE DN=200 mm PN16 Carrete telescópico de desmontaje DN200 PN 16, bridas de acero al carbono, virolas de acero inoxidable, protección epoxi, tornillos y tuercas en acero F-114, cincado y posterior baño de cromo-niquel, incluido p.p. de brida enchufe, totalmente instalado y probado en obra.	1,00	276,45	276,45
232	UD VÁLVULA DE COMPUERTA MANUAL DN200 PN16 Válvula de compuerta de cierre elástico de 200 mm. de diámetro nominal y 16 At. de P.N., de accionamiento manual por volante, de cuerpo de fundición nodular GGG-50, con eje de acero inoxidable al 13 % Cr. con roscas conformadas por laminación en frío, cierre en fundición nodular, tornillería de acero inoxidable, protegida contra la corrosión mediante aplicación de doble capa de pintura epoxy, totalmente colocada y probada. Resto de características según ET.	1,00	514,52	514,52
235	UD VÁLVULA DE COMPUERTA MANUAL DN150 PN16 Válvula de compuerta de accionamiento manual de diámetro nominal DN=150 mm de 16 bares de presión máxima admisible, con tornillería y juntas, totalmente instalada y probada, incluso volante de accionamiento.	1,00	299,35	299,35
ECD15016	UD CARRETE DE DESMONTAJE DN=150 mm PN16 Carrete telescópico de desmontaje DN150 PN16, bridas de acero al carbono, virolas de acero inoxidable, protección epoxi, tornillos y tuercas en acero F-114, cincado y posterior baño de cromo-niquel, incluido p.p. de brida enchufe, totalmente instalado y probado en obra.	1,00	200,47	200,47
TOTAL APARTADO 08.13.02 VÁLVULAS Y ACCESORIOS.....				18.480,44

PRESUPUESTOS PARCIALES.

ABASTECIMIENTO A VARIOS MUNICIPIOS DE LA RIOJA. SISTEMA CIDACOS

CÓDIGO	RESUMEN	CANTIDAD	PRECIO	IMPORTE
APARTADO 08.13.03 INSTRUMENTACIÓN Y CONTROL				
300	UD BOYA DE NIVEL DE MÁXIMO Y MÍNIMO Boya de nivel cableada con la válvula de llenado, incluso montaje y pruebas.	2,00	49,74	99,48
280	UD CAUDALÍMETRO ELECTROMAGNÉTICO DN 200 mm PN10 Equipo medidor de caudal de DN200 mm. tipo electromagnético y PN=10 atm. con salida 4/20 mA, tensión 220 V y escala 0-240 m3/h, totalmente instalado y probado. Incluido transporte, montaje, conexiones eléctricas y pruebas de funcionamiento. Resto de características, según ET.	1,00	1.357,01	1.357,01
TOTAL APARTADO 08.13.03 INSTRUMENTACIÓN Y CONTROL.....				1.456,49
APARTADO 08.13.04 INSTALACIÓN ELÉCTRICA DE BT				
563.1	ud PANTALLA ESTANCA LED Luminaria estanca WT120C LED80S/840 de Philips o equivalente para montaje en superficie de dimensiones 1515x80, carcasa de policarbonato, óptica de polimetacrilato de metilo, flujo luminoso 8.000 lm, potencia 68 W, Tª color 4000 K, rango de Tª de 10°C a 35°C, protección IP-65 Clase I. Incluso p.p. de canalización y cableado, completamente instalado.	1,00	28,30	28,30
524.1	m LINEA 3x1.5mm2 Cu 0.6/1kV RZ1-K (AS) Línea eléctrica con conductor multipolares 3x1.5mm2 RZ1-K (AS) en canalización existente, incluso conexionado en inicio y final de línea.	15,00	3,34	50,10
571	ud INTERRUPTOR EMPOTRAR SIMO 32 BLANCO. Interruptor empotrar blanco, totalmente instalado.	1,00	9,25	9,25
204	m TUBO DE PVC RÍGIDO DE 25 MM DIÁMETRO Tubo rígido de PVC d=25mm para canalización de conductores, incluso soportes y anclajes a pared, instalado.	25,00	4,17	104,25
TOTAL APARTADO 08.13.04 INSTALACIÓN ELÉCTRICA DE BT.....				191,90
APARTADO 08.13.05 VARIOS				
618	PA CONEXIÓN RED ELÉCTRICA BT CON DEPÓSITOS EXISTENTES Partida Alzada de Abono Íntegro para conexión de la red eléctrica en BT con depósitos existentes.	1,00	323,15	323,15
617.1	PA CONEXIÓN RED NUEVA CASETA CON DEPÓSITOS EXISTENTES FD DN<300 Partida Alzada de Abono Íntegro para conexión de la red de abastecimiento desde la nueva caseta de válvulas con depósitos existentes, incluyendo, excavaciones, tuberías de fundición de diámetro hasta 300 mm, rellenos, ayudas de albañilería, demoliciones, relleno de huecos con morteros sin retracción, anclaje de tuberías, así como todos los medios auxiliares necesarios para la conexión entre la salida de la nueva caseta de válvula y su salida al depósito.	1,00	1.728,51	1.728,51
617.3	PA CONEXIÓN ALIVIOS CON RED VACIADOS DEPÓSITO. Partida Alzada de Abono Íntegro para conexión de la salida de los alivios de la nueva caseta de válvulas con la red de vaciados del depósito, incluyendo, excavaciones, tuberías de PEAD DN de salida de alivio, rellenos, ayudas de albañilería, demoliciones, relleno de huecos con morteros sin retracción, anclaje de tuberías, así como todos los medios auxiliares necesarios para la conexión entre ambas tuberías.	1,00	240,49	240,49
TOTAL APARTADO 08.13.05 VARIOS.....				2.292,15
TOTAL SUBCAPÍTULO 08.13 ACOMETIDA A DEPÓSITO DE AUTOL.....				32.689,42

PRESUPUESTOS PARCIALES.

ABASTECIMIENTO A VARIOS MUNICIPIOS DE LA RIOJA. SISTEMA CIDACOS

CÓDIGO	RESUMEN	CANTIDAD	PRECIO	IMPORTE
SUBCAPÍTULO 08.14 ACOMETIDA A DEPÓSITO DE ALDEANUEVA DE EBRO				
APARTADO 08.14.01 OBRA CIVIL				
008	M2 DESPEJE Y DESBROCE Despeje y desbroce de capa de tierra vegetal con un espesor medio de 50 cm, incluso corte de árboles, extracción de tocones, nivelación de zona adyacente para el paso de maquinaria, transporte a lugar de acopio independiente para posterior reposición de tierra vegetal tras las obras y despedregado de las parcelas, así como transporte a vertedero de tierras sobrantes.	27,00	0,57	15,39
002	M3 EXCAVACIÓN EN ZANJAS Excavación en zanjas y zonas localizadas, en todo tipo de terrenos incluido terrenos en roca con medios mecánicos, incluso rasanteo, nivelación de la superficie de apoyo y transporte a lugar de empleo o vertedero.	60,75	3,74	227,21
010	M3 RELLENO ZANJAS, CIMIENTOS Y TRASDOSES DE MATERIAL SELECCIONADO Relleno con material seleccionado en zanjas, cimientos, trasdós de muros, estribos y otras estructuras procedente de la excavación o préstamos incluso carga, transporte y compactación.	16,79	3,32	55,74
028	M3 HORMIGÓN DE LIMPIEZA HL-150 Hormigón de limpieza HL-150, de consistencia plástica, árido de tamaño máximo 40 mm y cemento CEM-II-D/42,5/SR, para saneos y encachados, incluyendo fabricación y transporte totalmente colocado.	2,52	44,76	112,80
031	M3 HORMIGÓN HA-25/B/20/IIa Hormigón HA-25/B/20/IIa, con cemento CEM II/A-D/42,5/SR, incluyendo fabricación, transporte, puesta en obra y vibrado, totalmente ejecutado, incluso curado y juntas.	18,90	53,39	1.009,07
023	KG ACERO CORRUGADO B-500-S Acero redondo corrugado para armar tipo B-500-S elaborado y colocado.	1.493,10	0,96	1.433,38
025	M2 ENCOFRADO RECTO EN PARAMENTOS OCULTOS Encofrado recto en paramentos ocultos, incluso colocación, fijación y desencofrado.	6,84	17,65	120,73
026	M2 ENCOFRADO RECTO EN PARAMENTOS VISTOS 1C Encofrado recto en paramentos vistos a una cara, incluso colocación, fijación y desencofrado.	74,20	21,18	1.571,56
052	ML JUNTAS DE ESTANQUEIDAD DE PVC 32 CM Junta de trabajo interior de policloruro de vinilo (PVC) 100% virgen, con una fuerza máxima de dilatación > 250 %, de 32 cm de ancho, MASTERFLEX 2000 TI-24 de BASF o equivalente, colocada simétricamente en el eje de la losa o muro, incluso solapes y piezas especiales para cruces o ángulos. Medida la longitud ejecutada.	21,20	7,31	154,97
462	M2 FÁBRICA BLOQUES 40x20x20 cm TIPO SPLIT COLOR Fábrica de bloques de hormigón tipo Split, de medidas 40x20x20 cm color i/relleno de hormigón y colocación de armaduras s/normativa y recibido con mortero de cemento y arena de río 1/6 i/p.p. de piezas especiales para dinteles y materialización de jambas, roturas, nivelados, aplomados, llagueados y limpieza, todo ello según normativa.	71,48	31,80	2.273,06
520	M2 CUBIERTA PANEL SANDWICH (E=50 mm.) Cubierta con panel tipo sandwich espesor 50 cm., con doble chapa prelacada de 0,4 mm de espesor, y aislamiento térmico de poliuretano, fijada con gancho de acero galvanizado, incluso p.p de piezas de remate, totalmente colocada.	20,80	27,03	562,22

PRESUPUESTOS PARCIALES.

ABASTECIMIENTO A VARIOS MUNICIPIOS DE LA RIOJA. SISTEMA CIDACOS

CÓDIGO	RESUMEN	CANTIDAD	PRECIO	IMPORTE
519	ML REMATE DE CHAPA PRELACADA CUBIERTA Remate de chapa prelacada en color, para cubrir parte superior de bloque o panel, hasta el panel sandwich de la cubierta por el interior del peto, fijado mediante tacos y/o ganchos anclado a muro y o cubierta, dispuesto según planos.	13,20	22,47	296,60
465.1	M2 PUERTA DOBLE CHAPA ACERO CON LAMAS Puerta de paso hojas abatibles de doble chapa lisa de acero de 1 mm de espesor, con aislamiento interno de fibre de vidrio, engatillada, realizada en dos bandejas, con rigidizadores de tubo rectangular, i/manillas de acero inoxidable y cerradura, con dos o cuatro rejillas de ventilación con malla anti insectos interior, patillas para recibir en fábricas, herrajes de colgar y de seguridad, imprimación antióxido y pintura al esmalte, totalmente colocada incluyendo el recibido de fábricas.	1,76	75,01	132,02
464cf	M2 CARPINTERÍA FIJA ALUMINIO m². Carpintería fija con junquillos para la fijación del vidrio, de aluminio modelo con rotura de puente térmico, Alfil A54RPT de SAPAGROUP con un ancho de marco de 54 mm y con un ancho de hoja de 61 mm, medida del frente de 96,3 mm, con sistema de cámara europea, con espesor de perfil de 1,5 mm, con sistema de cierre por junta central de estanqueidad en EPDM, coplanar exteriormente y con resalte de hoja sobre el marco al interior, para un acristalamiento con altura de galce de 22 mm y anchura hasta 44 mm en marcos y 51 mm en hojas, lacado (entre 60-100 micras) en color estándar (RAL estándar: blanco, gris...), herrajes de colgar, p.p. de cerradura Tesa o similar y costes indirectos. Homologada con Clase 4 en el ensayo de permeabilidad al aire según norma UNE-EN 1026:2000. La transmitancia máxima del marco es de 2,90 W/m² K, y cumple en las zonas A, B, C, D y E, según el CTE/DB-HE 1.	0,48	144,71	69,46
464V3	M2 VIDRIO SEGURIDAD STADIP 44.1 INCOLORO (2B2) m². Acristalamiento de vidrio laminar de seguridad Stadip compuesto por dos vidrios de 4 mm de espesor unidos mediante lámina de butiral de polivinilo incolora de 0,38 mm, clasificado 2B2 según UNE-EN 12600, fijado sobre carpintería con acuñado mediante calzos de apoyo perimetrales y laterales y sellado en frío con silicona neutra, incluso colocación de junquillos, según UNE 85222:1985.	0,48	37,05	17,78
521	M2 CELOSIA FIJA VENTILACIÓN Celosía metálica fija para ventilación, formada por cerco con empanelado de lamas de acero de 60 mm, con abertura mínima de 1 cm entre lamas, malla de 2 mm para evitar entrada de insectos, garras de sujeción a soporte de 10 cm, elaborada en taller y montada en obra, totalmente colocada.	0,48	73,80	35,42
020	KG ACERO S 275 J PERFILES LAMINADOS Acero S 275 J en perfiles laminados elaborado y colocado.	660,36	1,95	1.287,70
474.1	ML CANALON CHAPA PRELACADA 50cm Canalón de chapa prelacada en color, de 50 cm. de desarrollo fijado mediante ganchos ocultos con tornillo autoroscante 40 cm., incluso p.p. de embocadura de bajante, codos y piezas especiales.	7,40	11,85	87,69
290B	M2 ESCALERA Y PASARELAS DE ACERO GALVANIZADO. BARANDILLAS GALVANIZ Escalera y pasarelas de acceso de forma según planos, ejecutada en perfiles de acero galvanizado en caliente, incluso barandilla tubular del mismo material, de 90 cm de altura en uno o dos lados, rodapié de seguridad del mismo en uno o dos lados, así como entramado metálico de 30x30x3 en descansillos y peldaños, medida según su proyección en planta. Anclada a los muros y/o solera, instalada.	2,88	81,77	235,50
620	UD APOYOS DE TUBERÍA Y VÁLVULAS SOBRE SOLERA Apoyos de tuberías y válvulas en soleras, mediante dado de hormigón HA-25/P/20/IIa, ligeramente armado y anclado a la solera, así como cintas o eslingas de acero con material de protección de tubería para sujeción de las mismas, incluyendo el hormigón, encofrados, acero, eslingas, material de PE de protección, montado.	5,00	63,07	315,35

PRESUPUESTOS PARCIALES.

ABASTECIMIENTO A VARIOS MUNICIPIOS DE LA RIOJA. SISTEMA CIDACOS

CÓDIGO	RESUMEN	CANTIDAD	PRECIO	IMPORTE
474.2	ML BAJANTE DE CHAPA PRELACADA DN110 Bajante de chapa prelacada en color, DN110, fijado mediante ganchos con tornillo autoroscante 20 cm., incluso p.p. de embocadura de bajante, codos y piezas especiales.	3,00	12,29	36,87
TOTAL APARTADO 08.14.01 OBRA CIVIL.....				10.050,52
APARTADO 08.14.02 VÁLVULAS Y ACCESORIOS				
115.11	UD BRIDA ENCHUFE FD 250 mm PN40 Brida enchufe de fundición dúctil de PFA 40 bar para tubería de 250 mm, con un revestimiento interior y exterior epoxi, i/p.p. de junta de unión y medios auxiliares, totalmente colocada y probada.	1,00	164,78	164,78
115.6	UD BRIDA ENCHUFE FD 250 mm PN16/25 Brida enchufe de fundición dúctil de PFA 16/25 bar para tubería de 250 mm, con un revestimiento interior y exterior epoxi, i/p.p. de junta de unión y medios auxiliares, totalmente colocada y probada.	1,00	164,78	164,78
126	UD TE FD BBB 250 mm PN40 SALIDA DN250/60 "T" de fundición dúctil de PFA 40 bar, con tres bridas para tubería de 250 mm con salida comprendida entre 250 y 60 mm, con un revestimiento interior y exterior epoxi, i/p.p. de junta de unión y medios auxiliares, totalmente colocada y probada.	1,00	255,60	255,60
138	UD TE FD BBB 150 mm PN16/25 SALIDA DN150/40 "T" de fundición dúctil de PFA 16 bar, con tres bridas para tubería de 150 mm con salida comprendida entre 150 y 40 mm, con un revestimiento interior y exterior epoxi, i/p.p. de junta de unión y medios auxiliares, totalmente colocada y probada.	2,00	117,45	234,90
245.6	UD VENTOSA DN=80 (3") mm PN40 Válvula ventosa de tres funciones de DN=80 mm (3") y PN 40 bar incluido transporte, juntas, válvula de corte DN=80 mm y PN 40 y piezas especiales, totalmente colocada y probada.	1,00	686,57	686,57
245.2	UD VENTOSA DN=80 (3") mm PN16 Válvula ventosa de tres funciones de DN=80 mm (3") y PN 16 bar incluido transporte, juntas, válvula de corte DN=80 mm y PN 16y piezas especiales, totalmente colocada y probada.	1,00	432,90	432,90
107	UD REDUCCIÓN FD 250 A 200/125 mm PN25 Reducción en fundición dúctil de 250 mm a 200-150-125 mm con dos bridas PN 16 bar, con un revestimiento interior y exterior epoxi, i/p.p. de junta de unión y medios auxiliares, totalmente colocada y probada.	1,00	160,89	160,89
107.1	UD REDUCCIÓN FD 250 A 200/125 mm PN40 Reducción en fundición dúctil de 250 mm a 200-150-125 mm con dos bridas PN 40 bar, con un revestimiento interior y exterior epoxi, i/p.p. de junta de unión y medios auxiliares, totalmente colocada y probada.	1,00	199,99	199,99
160	UD MANGUITO FD 100 A 250 mm PN40 Manguito de fundición dúctil con bridas diámetros de 100 a 250 mm, longitud comprendida entre 0,20 y 1,00 m y PN40, incluso p.p. de tornillería y medios auxiliares, totalmente colocado y probado.	1,00	193,76	193,76
162	UD MANGUITO FD DN100 A DN250 mm PN16/25 Manguito de fundición dúctil con bridas diámetros de 100 a 250 mm, longitud comprendida entre 0,20 y 1,00 m y PN16/25, incluso p.p. de tornillería y medios auxiliares, totalmente colocado y probado.	3,00	110,14	330,42
249.1	UD FILTRO COLADOR EN Y DN=150 mm PN40 Filtro colador en "Y" de diámetro nominal DN=150 mm y brida PN=40 bar de presión, incluso juntas de unión y tornillería, totalmente instalado.	1,00	998,53	998,53

PRESUPUESTOS PARCIALES.

ABASTECIMIENTO A VARIOS MUNICIPIOS DE LA RIOJA. SISTEMA CIDACOS

CÓDIGO	RESUMEN	CANTIDAD	PRECIO	IMPORTE
ECD15016	UD CARRETE DE DESMONTAJE DN=150 mm PN16 Carrete telescópico de desmontaje DN150 PN16, bridas de acero al carbono, virolas de acero inoxidable, protección epoxi, tornillos y tuercas en acero F-114, cincado y posterior baño de cromo-níquel, incluido p.p. de brida enchufe, totalmente instalado y probado en obra.	1,00	200,47	200,47
145.1	UD CARRETE DE DESMONTAJE DN=150 mm PN40 Carrete telescópico de desmontaje DN150 PN40, bridas de acero al carbono, virolas de acero inoxidable, protección epoxi, tornillos y tuercas en acero F-114, cincado y posterior baño de cromo-níquel, incluido p.p. de brida enchufe, totalmente instalado y probado en obra.	1,00	325,61	325,61
259.1	UD VÁLVULA REDUCTORA DE PRESIÓN DN=150 mm PN40 Válvula reductora de presión de diámetro DN=150 mm y PN 40 bar, incluso juntas de unión y tornillería, totalmente colocada y probada.	1,00	5.595,23	5.595,23
273	UD VÁLVULA ALIVIO DE PRESIÓN 3" PN 16 Válvula de alivio de presión de 3" brida PN 16 bar, incluso válvula de corte de 3", juntas de unión, y tornillería, totalmente colocada y probada.	1,00	1.438,29	1.438,29
266.1	UD VÁLVULA LIMITADORA DE CAUDAL DN=150 mm PN16 Válvula limitadora de caudal de DN=150 mm PN16, incluso juntas de unión y tornillería, totalmente colocada y probada.	1,00	7.652,79	7.652,79
268.1	UD VÁLVULA DE LLENADO DN=150 mm PN16 CIERRE LENTO Y SOLENOIDE Válvula de llenado de asiento inoxidable, con cierre lento y solenoide de diámetro nominal DN=150 mm y PN=16 bar, totalmente instalado y probado.	1,00	2.265,58	2.265,58
235	UD VÁLVULA DE COMPUERTA MANUAL DN150 PN16 Válvula de compuerta de accionamiento manual de diámetro nominal DN=150 mm de 16 bares de presión máxima admisible, con tornillería y juntas, totalmente instalada y probada, incluso volante de accionamiento.	1,00	299,35	299,35
233	UD VÁLVULA DE COMPUERTA MANUAL DN150 PN40 Válvula de compuerta de accionamiento manual de diámetro nominal DN=150 mm de 40 bares de presión máxima admisible, con tornillería y juntas, totalmente instalada y probada, incluso volante de accionamiento.	1,00	611,31	611,31
TOTAL APARTADO 08.14.02 VÁLVULAS Y ACCESORIOS.....				22.211,75
APARTADO 08.14.03 INSTRUMENTACIÓN Y CONTROL				
300	UD BOYA DE NIVEL DE MÁXIMO Y MÍNIMO Boya de nivel cableada con la válvula de llenado, incluso montaje y pruebas.	2,00	49,74	99,48
281	UD CAUDALÍMETRO ELECTROMAGNÉTICO DN 150 mm PN10 Equipo medidor de caudal de DN150 mm. tipo electromagnético y PN=25 atm. con salida 4/20 mA, tensión 220 V y escala 0-240 m3/h, totalmente instalado y probado. Incluido transporte, montaje, conexiones eléctricas y pruebas de funcionamiento. Resto de características, según ET.	1,00	1.201,05	1.201,05
TOTAL APARTADO 08.14.03 INSTRUMENTACIÓN Y CONTROL.....				1.300,53

PRESUPUESTOS PARCIALES.

ABASTECIMIENTO A VARIOS MUNICIPIOS DE LA RIOJA. SISTEMA CIDACOS

CÓDIGO	RESUMEN	CANTIDAD	PRECIO	IMPORTE
APARTADO 08.14.04 INSTALACIÓN ELÉCTRICA DE BT				
563.1	ud PANTALLA ESTANCA LED Luminaria estanca WT120C LED80S/840 de Philips o equivalente para montaje en superficie de dimensiones 1515x80, carcasa de policarbonato, óptica de polimetacrilato de metilo, flujo luminoso 8.000 lm, potencia 68 W, Tª color 4000 K, rango de Tª de 10°C a 35°C, protección IP-65 Clase I. Incluso p.p. de canalización y cableado, completamente instalado.	1,00	28,30	28,30
524.1	m LINEA 3x1.5mm2 Cu 0.6/1kV RZ1-K (AS) Línea eléctrica con conductor multipolares 3x1.5mm2 RZ1-K (AS) en canalización existente, incluso conexionado en inicio y final de línea.	15,00	3,34	50,10
571	ud INTERRUPTOR EMPOTRAR SIMO 32 BLANCO. Interruptor empotrar blanco, totalmente instalado.	1,00	9,25	9,25
204	m TUBO DE PVC RÍGIDO DE 25 MM DIÁMETRO Tubo rígido de PVC d=25mm para canalización de conductores, incluso soportes y anclajes a pared, instalado.	25,00	4,17	104,25
TOTAL APARTADO 08.14.04 INSTALACIÓN ELÉCTRICA DE BT.....				191,90
APARTADO 08.14.05 VARIOS				
618	PA CONEXIÓN RED ELÉCTRICA BT CON DEPÓSITOS EXISTENTES Partida Alzada de Abono Íntegro para conexión de la red eléctrica en BT con depósitos existentes.	1,00	323,15	323,15
617.1	PA CONEXIÓN RED NUEVA CASETA CON DEPÓSITOS EXISTENTES FD DN<300 Partida Alzada de Abono Íntegro para conexión de la red de abastecimiento desde la nueva caseta de válvulas con depósitos existentes, incluyendo, excavaciones, tuberías de fundición de diámetro hasta 300 mm, rellenos, ayudas de albañilería, demoliciones, relleno de huecos con morteros sin retracción, anclaje de tuberías, así como todos los medios auxiliares necesarios para la conexión entre la salida de la nueva caseta de válvula y su salida al depósito.	1,00	1.728,51	1.728,51
617.3	PA CONEXIÓN ALIVIOS CON RED VACIADOS DEPÓSITO. Partida Alzada de Abono Íntegro para conexión de la salida de los alivios de la nueva caseta de válvulas con la red de vaciados del depósito, incluyendo, excavaciones, tuberías de PEAD DN de salida de alivio, rellenos, ayudas de albañilería, demoliciones, relleno de huecos con morteros sin retracción, anclaje de tuberías, así como todos los medios auxiliares necesarios para la conexión entre ambas tuberías.	1,00	240,49	240,49
TOTAL APARTADO 08.14.05 VARIOS				2.292,15
TOTAL SUBCAPÍTULO 08.14 ACOMETIDA A DEPÓSITO DE ALDEANUEVA DE EBRO.....				36.046,85
SUBCAPÍTULO 08.15 ACOMETIDA A DEPÓSITO DE RINCÓN DE SOTO				
APARTADO 08.15.01 OBRA CIVIL				
008	M2 DESPEJE Y DESBROCE Despeje y desbroce de capa de tierra vegetal con un espesor medio de 50 cm, incluso corte de árboles, extracción de tocones, nivelación de zona adyacente para el paso de maquinaria, transporte a lugar de acopio independiente para posterior reposición de tierra vegetal tras las obras y despedregado de las parcelas, así como transporte a vertedero de tierras sobrantes.	45,00	0,57	25,65
002	M3 EXCAVACIÓN EN ZANJAS Excavación en zanjas y zonas localizadas, en todo tipo de terrenos incluido terrenos en roca con medios mecánicos, incluso rasanteo, nivelación de la superficie de apoyo y transporte a lugar de empleo o vertedero.	153,00	3,74	572,22

PRESUPUESTOS PARCIALES.

ABASTECIMIENTO A VARIOS MUNICIPIOS DE LA RIOJA. SISTEMA CIDACOS

CÓDIGO	RESUMEN	CANTIDAD	PRECIO	IMPORTE
010	M3 RELLENO ZANJAS, CIMIENTOS Y TRASDOSES DE MATERIAL SELECCIONADO Relleno con material seleccionado en zanjas, cimientos, trasdós de muros, estribos y otras estructuras procedente de la excavación o préstamos incluso carga, transporte y compactación.	76,46	3,32	253,85
028	M3 HORMIGÓN DE LIMPIEZA HL-150 Hormigón de limpieza HL-150, de consistencia plástica, árido de tamaño máximo 40 mm y cemento CEM-II-D/42,5/SR, para saneos y encachados, incluyendo fabricación y transporte totalmente colocado.	2,64	44,76	118,17
031	M3 HORMIGÓN HA-25/B/20/IIa Hormigón HA-25/B/20/IIa, con cemento CEM II/A-D/42,5/SR, incluyendo fabricación, transporte, puesta en obra y vibrado, totalmente ejecutado, incluso curado y juntas.	28,66	53,39	1.530,16
023	KG ACERO CORRUGADO B-500-S Acero redondo corrugado para armar tipo B-500-S elaborado y colocado.	2.277,70	0,96	2.186,59
025	M2 ENCOFRADO RECTO EN PARAMENTOS OCULTOS Encofrado recto en paramentos ocultos, incluso colocación, fijación y desencofrado.	9,44	17,65	166,62
026	M2 ENCOFRADO RECTO EN PARAMENTOS VISTOS 1C Encofrado recto en paramentos vistos a una cara, incluso colocación, fijación y desencofrado.	120,64	21,18	2.555,16
052	ML JUNTAS DE ESTANQUEIDAD DE PVC 32 CM Junta de trabajo interior de policloruro de vinilo (PVC) 100% virgen, con una fuerza máxima de dilatación > 250 % , de 32 cm de ancho, MASTERFLEX 2000 TI-24 de BASF o equivalente, colocada simétricamente en el eje de la losa o muro, incluso solapes y piezas especiales para cruces o ángulos. Medida la longitud ejecutada.	21,00	7,31	153,51
462	M2 FÁBRICA BLOQUES 40x20x20 cm TIPO SPLIT COLOR Fábrica de bloques de hormigón tipo Split, de medidas 40x20x20 cm color i/relleno de hormigón y colocación de armaduras s/normativa y recibido con mortero de cemento y arena de río 1/6 i/p.p. de piezas especiales para dinteles y materialización de jambas, roturas, nivelados, aplomados, llagueados y limpieza, todo ello según normativa.	70,08	31,80	2.228,54
520	M2 CUBIERTA PANEL SANDWICH (E=50 mm.) Cubierta con panel tipo sandwich espesor 50 cm., con doble chapa prelacada de 0,4 mm de espesor, y aislamiento térmico de poliuretano, fijada con gancho de acero galvanizado, incluso p.p de piezas de remate, totalmente colocada.	17,16	27,03	463,83
519	ML REMATE DE CHAPA PRELACADA CUBIERTA Remate de chapa prelacada en color, para cubrir parte superior de bloque o panel, hasta el panel sandwich de la cubierta por el interior del peto, fijado mediante tacos y/o ganchos anclado a muro y o cubierta, dispuesto según planos.	13,60	22,47	305,59
465.1	M2 PUERTA DOBLE CHAPA ACERO CON LAMAS Puerta de paso hojas abatibles de doble chapa lisa de acero de 1 mm de espesor, con aislamiento interno de fibre de vidrio, engatillada, realizada en dos bandejas, con rigidizadores de tubo rectangular, i/manillas de acero inoxidable y cerradura, con dos o cuatro rejillas de ventilación con malla anti insectos interior, patillas para recibir en fábricas, herrajes de colgar y de seguridad, imprimación antióxido y pintura al esmalte, totalmente colocada incluyendo el recibido de fábricas.	1,76	75,01	132,02

PRESUPUESTOS PARCIALES.

ABASTECIMIENTO A VARIOS MUNICIPIOS DE LA RIOJA. SISTEMA CIDACOS

CÓDIGO	RESUMEN	CANTIDAD	PRECIO	IMPORTE
464cf	M2 CARPINTERÍA FIJA ALUMINIO m². Carpintería fija con junquillos para la fijación del vidrio, de aluminio modelo con rotura de puente térmico, Alfil A54RPT de SAPAGROUP con un ancho de marco de 54 mm y con un ancho de hoja de 61 mm, medida del frente de 96,3 mm, con sistema de cámara europea, con espesor de perfil de 1,5 mm, con sistema de cierre por junta central de estanqueidad en EPDM, coplanar exteriormente y con resalte de hoja sobre el marco al interior, para un acristalamiento con altura de galce de 22 mm y anchura hasta 44 mm en marcos y 51 mm en hojas, lacado (entre 60-100 micras) en color estándar (RAL estándar: blanco, gris...), herrajes de colgar, p.p. de cerradura Tesa o similar y costes indirectos. Homologada con Clase 4 en el ensayo de permeabilidad al aire según norma UNE-EN 1026:2000. La transmitancia máxima del marco es de 2,90 W/m² K, y cumple en las zonas A, B, C, D y E, según el CTE/DB-HE 1.	0,48	144,71	69,46
464V3	M2 VIDRIO SEGURIDAD STADIP 44.1 INCOLORO (2B2) m². Acristalamiento de vidrio laminar de seguridad Stadip compuesto por dos vidrios de 4 mm de espesor unidos mediante lámina de butiral de polivinilo incolora de 0,38 mm, clasificado 2B2 según UNE-EN 12600, fijado sobre carpintería con acuíado mediante calzos de apoyo perimetrales y laterales y sellado en frío con silicona neutra, incluso colocación de junquillos, según UNE 85222:1985.	0,48	37,05	17,78
521	M2 CELOSIA FIJA VENTILACIÓN Celosía metálica fija para ventilación, formada por cerco con empanelado de lamas de acero de 60 mm, con abertura mínima de 1 cm entre lamas, malla de 2 mm para evitar entrada de insectos, garras de sujeción a soporte de 10 cm, elaborada en taller y montada en obra, totalmente colocada.	0,48	73,80	35,42
020	KG ACERO S 275 J PERFILES LAMINADOS Acero S 275 J en perfiles laminados elaborado y colocado.	285,24	1,95	556,22
474.1	ML CANALON CHAPA PRELACADA 50cm Canalón de chapa prelacada en color, de 50 cm. de desarrollo fijado mediante ganchos ocultos con tornillo autoroscante 40 cm., incluso p.p. de embocadura de bajante, codos y piezas especiales.	8,40	11,85	99,54
290B	M2 ESCALERA Y PASARELAS DE ACERO GALVANIZADO. BARANDILLAS GALVANIZ Escalera y pasarelas de acceso de forma según planos, ejecutada en perfiles de acero galvanizado en caliente, incluso barandilla tubular del mismo material, de 90 cm de altura en uno o dos lados, rodapié de seguridad del mismo en uno o dos lados, así como entramado metálico de 30x30x3 en descansillos y peldaños, medida según su proyección en planta. Anclada a los muros y/o solera, instalada.	3,83	81,77	313,18
620	UD APOYOS DE TUBERÍA Y VÁLVULAS SOBRE SOLERA Apoyos de tuberías y válvulas en soleras, mediante dado de hormigón HA-25/P/20/11a, ligeramente armado y anclado a la solera, así como cintas o eslingas de acero con material de protección de tubería para sujeción de las mismas, incluyendo el hormigón, encofrados, acero, eslingas, material de PE de protección, montado.	5,00	63,07	315,35
474.2	ML BAJANTE DE CHAPA PRELACADA DN110 Bajante de chapa prelacada en color, DN110, fijado mediante ganchos con tornillo autoroscante 20 cm., incluso p.p. de embocadura de bajante, codos y piezas especiales.	6,00	12,29	73,74
TOTAL APARTADO 08.15.01 OBRA CIVIL.....				12.172,60

PRESUPUESTOS PARCIALES.

ABASTECIMIENTO A VARIOS MUNICIPIOS DE LA RIOJA. SISTEMA CIDACOS

CÓDIGO	RESUMEN	CANTIDAD	PRECIO	IMPORTE
APARTADO 08.15.02 VÁLVULAS Y ACCESORIOS				
115.6	UD BRIDA ENCHUFE FD 250 mm PN16/25 Brida enchufe de fundición dúctil de PFA 16/25 bar para tubería de 250 mm, con un revestimiento interior y exterior epoxi, i/p.p. de junta de unión y medios auxiliares, totalmente colocada y probada.	2,00	164,78	329,56
137	UD TE FD BBB 200 mm PN16/25 SALIDA DN200/40 "T" de fundición dúctil de PFA 16 bar, con tres bridas para tubería de 200 mm con salida comprendida entre 200 y 40 mm, con un revestimiento interior y exterior epoxi, i/p.p. de junta de unión y medios auxiliares, totalmente colocada y probada.	2,00	151,94	303,88
245.4	UD VENTOSA DN=50 (2") mm PN16 Válvula ventosa de tres funciones de DN=50 mm (2") y PN 16 bar incluido transporte, juntas, válvula de corte DN=50 mm y PN 16 y piezas especiales, totalmente colocada y probada.	1,00	367,64	367,64
106	UD REDUCCIÓN FD 250 A 200/125 mm PN16 Reducción en fundición dúctil de 250 mm a 200-150-125 mm con dos bridas PN 25 bar, con un revestimiento interior y exterior epoxi, i/p.p. de junta de unión y medios auxiliares, totalmente colocada y probada.	1,00	110,44	110,44
107	UD REDUCCIÓN FD 250 A 200/125 mm PN25 Reducción en fundición dúctil de 250 mm a 200-150-125 mm con dos bridas PN 16 bar, con un revestimiento interior y exterior epoxi, i/p.p. de junta de unión y medios auxiliares, totalmente colocada y probada.	1,00	160,89	160,89
162	UD MANGUITO FD DN100 A DN250 mm PN16/25 Manguito de fundición dúctil con bridas diámetros de 100 a 250 mm, longitud comprendida entre 0,20 y 1,00 m y PN16/25, incluso p.p. de tomillería y medios auxiliares, totalmente colocado y probado.	5,00	110,14	550,70
247	UD FILTRO COLADOR EN Y DN=200 mm PN25 Filtro colador en "Y" de diámetro nominal DN=200 mm y brida PN=25 bar de presión, incluso juntas de unión y tomillería, totalmente instalado.	1,00	1.207,26	1.207,26
144	UD CARRETE DE DESMONTAJE DN=200 mm PN25 Carrete de desmontaje autoportante de PFA 25 bar de D=200 mm, colocado.	1,00	374,14	374,14
143	UD CARRETE DE DESMONTAJE DN=200 mm PN16 Carrete telescópico de desmontaje DN200 PN 16, bridas de acero al carbono, virolas de acero inoxidable, protección epoxi, tornillos y tuercas en acero F-114, cincado y posterior baño de cromo-niquel, incluido p.p. de brida enchufe, totalmente instalado y probado en obra.	1,00	276,45	276,45
260	UD VÁLVULA REDUCTORA DE PRESIÓN DN=150 mm PN16 Válvula reductora de presión de diámetro DN=150 mm y PN 16 bar, incluso juntas de unión y tomillería, totalmente colocada y probada.	1,00	2.738,22	2.738,22
257	UD VÁLVULA REDUCTORA DE PRESIÓN DN=200 mm PN25 Válvula reductora de presión de diámetro DN=200 mm y PN 25 bar, incluso juntas de unión y tomillería, totalmente colocada y probada.	1,00	5.909,83	5.909,83
266.3	UD VÁLVULA LIMITADORA DE CAUDAL DN=200 mm PN16 Válvula limitadora de caudal de DN=200 mm PN16, incluso juntas de unión y tomillería, totalmente colocada y probada.	1,00	8.221,73	8.221,73

PRESUPUESTOS PARCIALES.

ABASTECIMIENTO A VARIOS MUNICIPIOS DE LA RIOJA. SISTEMA CIDACOS

CÓDIGO	RESUMEN	CANTIDAD	PRECIO	IMPORTE
268.3	UD VÁLVULA DE LLENADO DN=200 mm PN16 CIERRE LENTO Y SOLENOIDE Válvula de llenado de asiento inoxidable, con cierre lento y solenoide de diámetro nominal DN=200 mm y PN=16 bar, totalmente instalado y probado.	1,00	3.529,72	3.529,72
231	UD VÁLVULA DE COMPUERTA MANUAL DN200 PN25 Válvula de compuerta de cierre elástico de 200 mm. de diámetro nominal y 25 At. de P.N., de accionamiento manual por volante, de cuerpo de fundición nodular GGG-50, con eje de acero inoxidable al 13 % Cr. con roscas conformadas por laminación en frío, cierre en fundición nodular, tornillería de acero inoxidable, protegida contra la corrosión mediante aplicación de doble capa de pintura epoxy, totalmente colocada y probada. Resto de características según ET.	1,00	861,41	861,41
232	UD VÁLVULA DE COMPUERTA MANUAL DN200 PN16 Válvula de compuerta de cierre elástico de 200 mm. de diámetro nominal y 16 At. de P.N., de accionamiento manual por volante, de cuerpo de fundición nodular GGG-50, con eje de acero inoxidable al 13 % Cr. con roscas conformadas por laminación en frío, cierre en fundición nodular, tornillería de acero inoxidable, protegida contra la corrosión mediante aplicación de doble capa de pintura epoxy, totalmente colocada y probada. Resto de características según ET.	1,00	514,52	514,52
273.1	UD VÁLVULA ALIVIO DE PRESIÓN 2" PN 16 Válvula de alivio de presión de 2" brida PN 16 bar, incluso válvula de corte de 2", juntas de unión, y tornillería, totalmente colocada y probada.	1,00	1.066,29	1.066,29
	TOTAL APARTADO 08.15.02 VÁLVULAS Y ACCESORIOS.....			26.522,68
	APARTADO 08.15.03 INSTRUMENTACIÓN Y CONTROL			
300	UD BOYA DE NIVEL DE MÁXIMO Y MÍNIMO Boya de nivel cableada con la válvula de llenado, incluso montaje y pruebas.	2,00	49,74	99,48
280	UD CAUDALÍMETRO ELECTROMAGNÉTICO DN 200 mm PN10 Equipo medidor de caudal de DN200 mm. tipo electromagnético y PN=10 atm. con salida 4/20 mA, tensión 220 V y escala 0-240 m3/h, totalmente instalado y probado. Incluido transporte, montaje, conexiones eléctricas y pruebas de funcionamiento. Resto de características, según ET.	1,00	1.357,01	1.357,01
	TOTAL APARTADO 08.15.03 INSTRUMENTACIÓN Y CONTROL.....			1.456,49
	APARTADO 08.15.04 INSTALACIÓN ELÉCTRICA DE BT			
563.1	ud PANTALLA ESTANCA LED Luminaria estanca WT120C LED80S/840 de Philips o equivalente para montaje en superficie de dimensiones 1515x80, carcasa de policarbonato, óptica de polimetacrilato de metilo, flujo luminoso 8.000 lm, potencia 68 W, Tª color 4000 K, rango de Tª de 10°C a 35°C, protección IP-65 Clase I. Incluso p.p. de canalización y cableado, completamente instalado.	1,00	28,30	28,30
524.1	m LINEA 3x1.5mm2 Cu 0.6/1kV RZ1-K (AS) Línea eléctrica con conductor multipolares 3x1.5mm2 RZ1-K (AS) en canalización existente, incluso conexionado en inicio y final de línea.	15,00	3,34	50,10
571	ud INTERRUPTOR EMPOTRAR SIMO 32 BLANCO. Interruptor empotrar blanco, totalmente instalado.	1,00	9,25	9,25
204	m TUBO DE PVC RÍGIDO DE 25 MM DIÁMETRO Tubo rígido de PVC d=25mm para canalización de conductores, incluso soportes y anclajes a pared, instalado.	25,00	4,17	104,25
	TOTAL APARTADO 08.15.04 INSTALACIÓN ELÉCTRICA DE BT.....			191,90

PRESUPUESTOS PARCIALES.

ABASTECIMIENTO A VARIOS MUNICIPIOS DE LA RIOJA. SISTEMA CIDACOS

CÓDIGO	RESUMEN	CANTIDAD	PRECIO	IMPORTE
	APARTADO 08.15.05 VARIOS			
618	PA CONEXIÓN RED ELÉCTRICA BT CON DEPÓSITOS EXISTENTES Partida Alzada de Abono Íntegro para conexión de la red eléctrica en BT con depósitos existentes.	1,00	323,15	323,15
617.1	PA CONEXIÓN RED NUEVA CASETA CON DEPÓSITOS EXISTENTES FD DN<300 Partida Alzada de Abono Íntegro para conexión de la red de abastecimiento desde la nueva caseta de válvulas con depósitos existentes, incluyendo, excavaciones, tuberías de fundición de diámetro hasta 300 mm, rellenos, ayudas de albañilería, demoliciones, relleno de huecos con morteros sin retracción, anclaje de tuberías, así como todos los medios auxiliares necesarios para la conexión entre la salida de la nueva caseta de válvula y su salida al depósito.	1,00	1.728,51	1.728,51
617.3	PA CONEXIÓN ALIVIOS CON RED VACIADOS DEPÓSITO. Partida Alzada de Abono Íntegro para conexión de la salida de los alivios de la nueva caseta de válvulas con la red de vaciados del depósito, incluyendo, excavaciones, tuberías de PEAD DN de salida de alivio, rellenos, ayudas de albañilería, demoliciones, relleno de huecos con morteros sin retracción, anclaje de tuberías, así como todos los medios auxiliares necesarios para la conexión entre ambas tuberías.	1,00	240,49	240,49
	TOTAL APARTADO 08.15.05 VARIOS			2.292,15
	TOTAL SUBCAPÍTULO 08.15 ACOMETIDA A DEPÓSITO DE RINCÓN DE SOTO.....			42.635,82
	SUBCAPÍTULO 08.16 ACOMETIDA A DEPÓSITO DE BERGASA			
	APARTADO 08.16.01 OBRA CIVIL			
008	M2 DESPEJE Y DESBROCE Despeje y desbroce de capa de tierra vegetal con un espesor medio de 50 cm, incluso corte de árboles, extracción de tocones, nivelación de zona adyacente para el paso de maquinaria, transporte a lugar de acopio independiente para posterior reposición de tierra vegetal tras las obras y despedregado de las parcelas, así como transporte a vertedero de tierras sobrantes.	13,44	0,57	7,66
002	M3 EXCAVACIÓN EN ZANJAS Excavación en zanjas y zonas localizadas, en todo tipo de terrenos incluido terrenos en roca con medios mecánicos, incluso rasanteo, nivelación de la superficie de apoyo y transporte a lugar de empleo o vertedero.	18,14	3,74	67,84
010	M3 RELLENO ZANJAS, CIMIENTOS Y TRASDOSES DE MATERIAL SELECCIONADO Relleno con material seleccionado en zanjas, cimientos, trasdós de muros, estribos y otras estructuras procedente de la excavación o préstamos incluso carga, transporte y compactación.	2,73	3,32	9,06
028	M3 HORMIGÓN DE LIMPIEZA HL-150 Hormigón de limpieza HL-150, de consistencia plástica, árido de tamaño máximo 40 mm y cemento CEM-II-D/42,5/SR, para saneos y encachados, incluyendo fabricación y transporte totalmente colocado.	1,34	44,76	59,98
031	M3 HORMIGÓN HA-25/B/20/IIa Hormigón HA-25/B/20/IIa, con cemento CEM III/A-D/42,5/SR, incluyendo fabricación, transporte, puesta en obra y vibrado, totalmente ejecutado, incluso curado y juntas.	8,73	53,39	466,09
023	KG ACERO CORRUGADO B-500-S Acero redondo corrugado para armar tipo B-500-S elaborado y colocado.	716,42	0,96	687,76
025	M2 ENCOFRADO RECTO EN PARAMENTOS OCULTOS Encofrado recto en paramentos ocultos, incluso colocación, fijación y desencofrado.	4,56	17,65	80,48
026	M2 ENCOFRADO RECTO EN PARAMENTOS VISTOS 1C Encofrado recto en paramentos vistos a una cara, incluso colocación, fijación y desencofrado.			

PRESUPUESTOS PARCIALES.

ABASTECIMIENTO A VARIOS MUNICIPIOS DE LA RIOJA. SISTEMA CIDACOS

CÓDIGO	RESUMEN	CANTIDAD	PRECIO	IMPORTE
		31,28	21,18	662,51
052	ML JUNTAS DE ESTANQUEIDAD DE PVC 32 CM Junta de trabajo interior de policloruro de vinilo (PVC) 100% virgen, con una fuerza máxima de dilatación > 250 %, de 32 cm de ancho, MASTERFLEX 2000 TI-24 de BASF o equivalente, colocada simétricamente en el eje de la losa o muro, incluso solapes y piezas especiales para cruces o ángulos. Medida la longitud ejecutada.			
		13,60	7,31	99,42
462	M2 FÁBRICA BLOQUES 40x20x20 cm TIPO SPLIT COLOR Fábrica de bloques de hormigón tipo Split, de medidas 40x20x20 cm color i/relleno de hormigón y colocación de armaduras s/normativa y recibido con mortero de cemento y arena de río 1/6 i/p.p. de piezas especiales para dinteles y materialización de jambas, roturas, nivelados, aplomados, llagueados y limpieza, todo ello según normativa.			
		41,08	31,80	1.306,34
520	M2 CUBIERTA PANEL SANDWICH (E=50 mm.) Cubierta con panel tipo sandwich espesor 50 cm., con doble chapa prelacada de 0,4 mm de espesor, y aislamiento térmico de poliuretano, fijada con gancho de acero galvanizado, incluso p.p de piezas de remate, totalmente colocada.			
		10,56	27,03	285,44
519	ML REMATE DE CHAPA PRELACADA CUBIERTA Remate de chapa prelacada en color, para cubrir parte superior de bloque o panel, hasta el panel sandwich de la cubierta por el interior del peto, fijado mediante tacos y/o ganchos anclado a muro y o cubierta, dispuesto según planos.			
		9,20	22,47	206,72
465.1	M2 PUERTA DOBLE CHAPA ACERO CON LAMAS Puerta de paso hojas abatibles de doble chapa lisa de acero de 1 mm de espesor, con aislamiento interno de fibre de vidrio, engatillada, realizada en dos bandejas, con rigidizadores de tubo rectangular, i/manillas de acero inoxidable y cerradura, con dos o cuatro rejillas de ventilación con malla anti insectos interior, patillas para recibir en fábricas, herrajes de colgar y de seguridad, imprimación antióxido y pintura al esmalte, totalmente colocada incluyendo el recibido de fábricas.			
		1,76	75,01	132,02
464cf	M2 CARPINTERÍA FIJA ALUMINIO m². Carpintería fija con junquillos para la fijación del vidrio, de aluminio modelo con rotura de puente térmico, Afili A54RPT de SAPAGROUP con un ancho de marco de 54 mm y con un ancho de hoja de 61 mm, medida del frente de 96,3 mm, con sistema de cámara europea, con espesor de perfil de 1,5 mm, con sistema de cierre por junta central de estanqueidad en EPDM, coplanar exteriormente y con resalte de hoja sobre el marco al interior, para un acristalamiento con altura de galce de 22 mm y anchura hasta 44 mm en marcos y 51 mm en hojas, lacado (entre 60-100 micras) en color estándar (RAL estándar: blanco, gris...), herrajes de colgar, p.p. de cerradura Tesa o similar y costes indirectos. Homologada con Clase 4 en el ensayo de permeabilidad al aire según norma UNE-EN 1026:2000. La transmitancia máxima del marco es de 2,90 W/m² K, y cumple en las zonas A, B, C, D y E, según el C TE/DB-HE 1.			
		0,48	144,71	69,46
464V3	M2 VIDRIO SEGURIDAD STADIP 44.1 INCOLORO (2B2) m². Acristalamiento de vidrio laminar de seguridad Stadip compuesto por dos vidrios de 4 mm de espesor unidos mediante lámina de butiral de polivinilo incolora de 0,38 mm, clasificado 2B2 según UNE-EN 12600, fijado sobre carpintería con acuíado mediante calzos de apoyo perimetrales y laterales y sellado en frío con silicona neutra, incluso colocación de junquillos, según UNE 85222:1985.			
		0,48	37,05	17,78
521	M2 CELOSIA FIJA VENTILACIÓN Celosía metálica fija para ventilación, formada por cerco con empanelado de lamas de acero de 60 mm, con abertura mínima de 1 cm entre lamas, malla de 2 mm para evitar entrada de insectos, garras de sujeción a soporte de 10 cm, elaborada en taller y montada en obra, totalmente colocada.			
		0,48	73,80	35,42
020	KG ACERO S 275 J PERFILES LAMINADOS Acero S 275 J en perfiles laminados elaborado y colocado.			

PRESUPUESTOS PARCIALES.

ABASTECIMIENTO A VARIOS MUNICIPIOS DE LA RIOJA. SISTEMA CIDACOS

CÓDIGO	RESUMEN	CANTIDAD	PRECIO	IMPORTE
		106,92	1,95	208,49
474.1	ML CANALON CHAPA PRELACADA 50cm Canalón de chapa prelacada en color, de 50 cm. de desarrollo fijado mediante ganchos ocultos con tornillo autoroscante 40 cm., incluso p.p. de embocadura de bajante, codos y piezas especiales.			
		4,40	11,85	52,14
474.2	ML BAJANTE DE CHAPA PRELACADA DN110 Bajante de chapa prelacada en color, DN110, fijado mediante ganchos con tornillo autoroscante 20 cm., incluso p.p. de embocadura de bajante, codos y piezas especiales.			
		2,60	12,29	31,95
290B	M2 ESCALERA Y PASARELAS DE ACERO GALVANIZADO. BARANDILLAS GALVANIZ Escalera y pasarelas de acceso de forma segun planos, ejecutada en perfiles de acero galvanizado en caliente, incluso barandilla tubular del mismo material, de 90 cm de altura en uno o dos lados, rodapié de seguridad del mismo en uno o dos lados, así como entramado metálico de 30x30x3 en descansillos y peldaños, medida según su proyección en planta. Anclada a los muros y/o solera, instalada.			
		1,94	81,77	158,63
620	UD APOYOS DE TUBERÍA Y VÁLVULAS SOBRE SOLERA Apoyos de tuberías y válvulas en soleras, mediante dado de hormigón HA-25/P/20/IIa, ligeramente armado y anclado a la solera, así como cintas o eslingas de acero con material de protección de tubería para sujeción de las mismas, incluyendo el hormigón, encofrados, acero, eslingas, material de PE de protección, montado.			
		3,00	63,07	189,21
	TOTAL APARTADO 08.16.01 OBRA CIVIL.....			4.834,40
	APARTADO 08.16.02 VÁLVULAS Y ACCESORIOS			
115.7	UD BRIDA ENCHUFE FD DN<150 mm PN16/25/40 Brida enchufe de fundición dúctil de PFA 16/25/40 bar para tubería de diámetro menor o igual de 150 mm, con un revestimiento interior y exterior epoxi, i/p.p. de junta de unión y medios auxiliares, totalmente colocada y probada.			
		2,00	104,02	208,04
132.1	UD TE FD BBB 100 mm PN16/25 SALIDA DN100/40 "T" de fundición dúctil de PFA 16 bar, con tres bridas para tubería de 100 mm con salida comprendida entre 100 y 40 mm, con un revestimiento interior y exterior epoxi, i/p.p. de junta de unión y medios auxiliares, totalmente colocada y probada.			
		1,00	69,36	69,36
114	UD REDUCCIÓN FD 100 A 80/50 mm PN16/25 Reducción en fundición dúctil de 100 mm a 80-65-60-50 mm con dos bridas PN 16/25 bar, con un revestimiento interior y exterior epoxi, i/p.p. de tornillería y medios auxiliares, totalmente colocada y probada.			
		2,00	50,28	100,56
162	UD MANGUITO FD DN100 A DN250 mm PN16/25 Manguito de fundición dúctil con bridas diámetros de 100 a 250 mm, longitud comprendida entre 0,20 y 1,00 m y PN16/25, incluso p.p. de tornillería y medios auxiliares, totalmente colocado y probado.			
		3,00	110,14	330,42
251	UD FILTRO COLADOR EN Y DN=100 mm PN16/25 Filtro colador en "Y" de diámetro nominal DN=100 mm y brida PN16/25 bar de presión, incluso juntas de unión y tornillería, totalmente instalado.			
		1,00	531,47	531,47
266.4	UD VÁLVULA LIMITADORA DE CAUDAL DN=100 mm PN16 Válvula limitadora de caudal de DN=100 mm PN16, incluso juntas de unión y tornillería, totalmente colocada y probada.			
		1,00	3.931,37	3.931,37

PRESUPUESTOS PARCIALES.

ABASTECIMIENTO A VARIOS MUNICIPIOS DE LA RIOJA. SISTEMA CIDACOS

CÓDIGO	RESUMEN	CANTIDAD	PRECIO	IMPORTE
237	UD VÁLVULA DE COMPUERTA MANUAL DN100 PN25 Válvula de compuerta de cierre elástico de 100 mm. de diámetro nominal y 25 At. de P.N., de accionamiento manual por volante, de cuerpo de fundición nodular GGG-50, con eje de acero inoxidable al 13 % Cr. con roscas conformadas por laminación en frío, cierre en fundición nodular, tornillería de acero inoxidable, protegida contra la corrosión mediante aplicación de doble capa de pintura epoxy, totalmente colocada y probada. Resto de características según ET.	1,00	361,59	361,59
ECD010016	UD CARRETE DE DESMONTAJE DN=100 mm PN16 Carrete telescópico de desmontaje DN100 PN16, bridas de acero al carbono, virolas de acero inoxidable, protección epoxy, tornillos y tuercas en acero F-114, cincado y posterior baño de cromo-niquel, incluido p.p. de brida enchufe, totalmente instalado y probado en obra.	1,00	167,93	167,93
TOTAL APARTADO 08.16.02 VÁLVULAS Y ACCESORIOS.....				5.700,74
APARTADO 08.16.03 INSTRUMENTACIÓN Y CONTROL				
300	UD BOYA DE NIVEL DE MÁXIMO Y MÍNIMO Boya de nivel cableada con la válvula de llenado, incluso montaje y pruebas.	2,00	49,74	99,48
ECELM080	UD CAUDALÍMETRO ELECTROMAGNÉTICO DN 80 mm PN10 Equipo medidor de caudal de DN80 mm. tipo electromagnético y PN=10 atm. con salida 4/20 mA, tensión 220 V y escala 0-240 m3/h, totalmente instalado y probado. Incluido transporte, montaje, conexiones eléctricas y pruebas de funcionamiento. Resto de características, según ET.	1,00	845,12	845,12
TOTAL APARTADO 08.16.03 INSTRUMENTACIÓN Y CONTROL.....				944,60
APARTADO 08.16.04 INSTALACIÓN ELÉCTRICA DE BT				
563.1	ud PANTALLA ESTANCA LED Luminaria estanca WT120C LED80S/840 de Philips o equivalente para montaje en superficie de dimensiones 1515x80, carcasa de policarbonato, óptica de polimetacrilato de metilo, flujo luminoso 8.000 lm, potencia 68 W, Tª color 4000 K, rango de Tª de 10°C a 35°C, protección IP-65 Clase I. Incluso p.p. de canalización y cableado, completamente instalado.	1,00	28,30	28,30
524.1	m LINEA 3x1.5mm2 Cu 0.6/1kV RZ1-K (AS) Línea eléctrica con conductor multipolares 3x1.5mm2 RZ1-K (AS) en canalización existente, incluso conexionado en inicio y final de línea.	15,00	3,34	50,10
571	ud INTERRUPTOR EMPOTRAR SIMO 32 BLANCO. Interruptor empotrar blanco, totalmente instalado.	1,00	9,25	9,25
204	m TUBO DE PVC RÍGIDO DE 25 MM DIÁMETRO Tubo rígido de PVC d=25mm para canalización de conductores, incluso soportes y anclajes a pared, instalado.	15,00	4,17	62,55
TOTAL APARTADO 08.16.04 INSTALACIÓN ELÉCTRICA DE BT.....				150,20
APARTADO 08.16.05 VARIOS				
618	PA CONEXIÓN RED ELÉCTRICA BT CON DEPÓSITOS EXISTENTES Partida Alzada de Abono Íntegro para conexión de la red eléctrica en BT con depósitos existentes.	1,00	323,15	323,15
617.1	PA CONEXIÓN RED NUEVA CASETA CON DEPÓSITOS EXISTENTES FD DN<300 Partida Alzada de Abono Íntegro para conexión de la red de abastecimiento desde la nueva caseta de válvulas con depósitos existentes, incluyendo, excavaciones, tuberías de fundición de diámetro hasta 300 mm, rellenos, ayudas de albañilería, demoliciones, relleno de huecos con morteros sin retracción, anclaje de tuberías, así como todos los medios auxiliares necesarios para la conexión entre la salida de la nueva caseta de válvula y su salida al depósito.	1,00	1.728,51	1.728,51

PRESUPUESTOS PARCIALES.

ABASTECIMIENTO A VARIOS MUNICIPIOS DE LA RIOJA. SISTEMA CIDACOS

CÓDIGO	RESUMEN	CANTIDAD	PRECIO	IMPORTE
TOTAL APARTADO 08.16.05 VARIOS				2.051,66
TOTAL SUBCAPÍTULO 08.16 ACOMETIDA A DEPÓSITO DE BERGASA.....				13.681,60
SUBCAPÍTULO 08.17 ACOMETIDA A DEPÓSITO DE TUDELILLA				
APARTADO 08.17.01 VÁLVULAS Y ACCESORIOS				
115.7	UD BRIDA ENCHUFE FD DN<150 mm PN16/25/40 Brida enchufe de fundición dúctil de PFA 16/25/40 bar para tubería de diámetro menor o igual de 150 mm, con un revestimiento interior y exterior epoxy, i/p.p. de junta de unión y medios auxiliares, totalmente colocada y probada.	1,00	104,02	104,02
EVC080	UD VÁLVULA DE COMPUERTA MANUAL DN80 PN16 Válvula de compuerta de cierre elástico de 80 mm. de diámetro nominal y 16 At. de P.N., de accionamiento manual por volante, de cuerpo de fundición nodular GGG-50, con eje de acero inoxidable al 13 % Cr. con roscas conformadas por laminación en frío, cierre en fundición nodular, tornillería de acero inoxidable, protegida contra la corrosión mediante aplicación de doble capa de pintura epoxy, totalmente colocada y probada. Resto de características según ET.	2,00	110,47	220,94
164	UD MANGUITO FD 50 A 80 mm PN16 Manguito de fundición dúctil con bridas diámetros de 50 a 80 mm, longitud comprendida entre 0,20 y 1,00 m y PN16, incluso p.p. de tornillería y medios auxiliares, totalmente colocado y probado.	3,00	53,12	159,36
253	UD FILTRO COLADOR EN Y DN=80 mm PN16 Filtro colador en "Y" de diámetro nominal DN=80 mm y brida PN=16 bar de presión, incluso juntas de unión y tornillería, totalmente instalado.	1,00	381,05	381,05
149	UD CARRETE DE DESMONTAJE DN=80 mm PN16 Carrete de desmontaje autoportante de PFA 16 bar de D=80 mm, colocado.	2,00	128,07	256,14
132.2	UD TE FD BBB 80 mm PN16 SALIDA DN80/40 "T" de fundición dúctil de PFA 16 bar, con tres bridas para tubería de 80 mm con salida comprendida entre 80 y 40 mm, con un revestimiento interior y exterior epoxy, i/p.p. de junta de unión y medios auxiliares, totalmente colocada y probada.	2,00	66,20	132,40
265	UD VÁLVULA LIMITADORA DE CAUDAL DN=80 mm Válvula limitadora de caudal de DN=80 mm PN16, incluso juntas de unión y tornillería, totalmente colocada y probada.	1,00	4.780,83	4.780,83
268.4	UD VÁLVULA DE LLENADO DN=80 mm PN16 CIERRE LENTO Y SOLENOIDE Válvula de llenado de asiento inoxidable, con cierre lento y solenoide de diámetro nominal DN=80 mm y PN=16 bar, totalmente instalado y probado.	1,00	1.310,78	1.310,78
262.1	UD VÁLVULA REDUCTORA DE PRESIÓN DN=80 mm PN16 Válvula reductora de presión de diámetro DN=80 mm y PN 16 bar, incluso juntas de unión y tornillería, totalmente colocada y probada.	1,00	1.411,69	1.411,69
132.1	UD TE FD BBB 100 mm PN16/25 SALIDA DN100/40 "T" de fundición dúctil de PFA 16 bar, con tres bridas para tubería de 100 mm con salida comprendida entre 100 y 40 mm, con un revestimiento interior y exterior epoxy, i/p.p. de junta de unión y medios auxiliares, totalmente colocada y probada.	1,00	69,36	69,36
245.1	UD VENTOSA DN=25 mm (1") PN16 Válvula ventosa de tres funciones de 1" (DN=25 mm) y PN 16 bar incluido transporte, juntas, válvula de corte DN=25 mm y PN 16 bar y piezas especiales, totalmente colocada y probada.	2,00	162,21	324,42

PRESUPUESTOS PARCIALES.

ABASTECIMIENTO A VARIOS MUNICIPIOS DE LA RIOJA. SISTEMA CIDACOS

CÓDIGO	RESUMEN	CANTIDAD	PRECIO	IMPORTE
275	UD VÁLVULA ALIVIO DE PRESIÓN 1" PN16 Válvula de alivio de presión de 1" NPT roscada y PN 16 bar, incluso juntas de unión, collarín de toma y tornillería, totalmente colocada y probada.	1,00	944,78	944,78
TOTAL APARTADO 08.17.01 VÁLVULAS Y ACCESORIOS.....				10.095,77
APARTADO 08.17.02 INSTRUMENTACIÓN Y CONTROL				
300	UD BOYA DE NIVEL DE MÁXIMO Y MÍNIMO Boya de nivel cableada con la válvula de llenado, incluso montaje y pruebas.	2,00	49,74	99,48
ECELM080	UD CAUDALÍMETRO ELECTROMAGNÉTICO DN 80 mm PN10 Equipo medidor de caudal de DN80 mm. tipo electromagnético y PN=10 atm. con salida 4/20 mA, tensión 220 V y escala 0-240 m3/h, totalmente instalado y probado. Incluido transporte, montaje, conexiones eléctricas y pruebas de funcionamiento. Resto de características, según ET.	1,00	845,12	845,12
TOTAL APARTADO 08.17.02 INSTRUMENTACIÓN Y CONTROL.....				944,60
APARTADO 08.17.03 VARIOS				
617	PA CONEXIÓN RED NUEVA CASETA CON DEPÓSITOS EXISTENTES PEAD Partida Alzada de Abono Íntegro para conexión de la red de abastecimiento desde la nueva caseta de válvulas con depósitos existentes, incluyendo, excavaciones, tuberías de PEAD de cualquier diámetro, rellenos, ayudas de albanilería, demoliciones, relleno de huecos con morteros sin retracción, anclaje de tuberías, así como todos los medios auxiliares necesarios para la conexión entre la salida de la nueva caseta de válvula y su salida al depósito.	1,00	240,49	240,49
TOTAL APARTADO 08.17.03 VARIOS				240,49
TOTAL SUBCAPÍTULO 08.17 ACOMETIDA A DEPÓSITO DE TUDELILLA.....				11.280,86
SUBCAPÍTULO 08.18 ACOMETIDA A DEPÓSITO DE VILLAR DE ARNEDO				
APARTADO 08.18.01 OBRA CIVIL				
008	M2 DESPEJE Y DESBROCE Despeje y desbroce de capa de tierra vegetal con un espesor medio de 50 cm, incluso corte de árboles, extracción de tocones, nivelación de zona adyacente para el paso de maquinaria, transporte a lugar de acopio independiente para posterior reposición de tierra vegetal tras las obras y despedregado de las parcelas, así como transporte a vertedero de tierras sobrantes.	16,32	0,57	9,30
002	M3 EXCAVACIÓN EN ZANJAS Excavación en zanjas y zonas localizadas, en todo tipo de terrenos incluido terrenos en roca con medios mecánicos, incluso rasanteo, nivelación de la superficie de apoyo y transporte a lugar de empleo o vertedero.	20,74	3,74	77,57
010	M3 RELLENO ZANJAS, CIMIENTOS Y TRASDOSES DE MATERIAL SELECCIONADO Relleno con material seleccionado en zanjas, cimientos, trasdós de muros, estribos y otras estructuras procedente de la excavación o préstamos incluso carga, transporte y compactación.	5,01	3,32	16,63
028	M3 HORMIGÓN DE LIMPIEZA HL-150 Hormigón de limpieza HL-150, de consistencia plástica, árido de tamaño máximo 40 mm y cemento CEM-II-D/42,5/SR, para saneos y encachados, incluyendo fabricación y transporte totalmente colocado.	1,56	44,76	69,83
031	M3 HORMIGÓN HA-25/B/20/IIa Hormigón HA-25/B/20/IIa, con cemento CEM II/A-D/42,5/SR, incluyendo fabricación, transporte, puesta en obra y vibrado, totalmente ejecutado, incluso curado y juntas.	9,66	53,39	515,75
023	KG ACERO CORRUGADO B-500-S Acero redondo corrugado para armar tipo B-500-S elaborado y colocado.			

PRESUPUESTOS PARCIALES.

ABASTECIMIENTO A VARIOS MUNICIPIOS DE LA RIOJA. SISTEMA CIDACOS

CÓDIGO	RESUMEN	CANTIDAD	PRECIO	IMPORTE
025	M2 ENCOFRADO RECTO EN PARAMENTOS OCULTOS Encofrado recto en paramentos ocultos, incluso colocación, fijación y desencofrado.	788,29	0,96	756,76
026	M2 ENCOFRADO RECTO EN PARAMENTOS VISTOS 1C Encofrado recto en paramentos vistos a una cara, incluso colocación, fijación y desencofrado.	4,56	17,65	80,48
052	ML JUNTAS DE ESTANQUEIDAD DE PVC 32 CM Junta de trabajo interior de policloruro de vinilo (PVC) 100% virgen, con una fuerza máxima de dilatación > 250 % , de 32 cm de ancho, MASTERFLEX 2000 TI-24 de BASF o equivalente, colocada simétricamente en el eje de la losa o muro, incluso solapes y piezas especiales para cruces o ángulos. Medida la longitud ejecutada.	32,20	21,18	682,00
462	M2 FÁBRICA BLOQUES 40x20x20 cm TIPO SPLIT COLOR Fábrica de bloques de hormigón tipo Split, de medidas 40x20x20 cm color i/relleno de hormigón y colocación de armaduras s/normativa y recibido con mortero de cemento y arena de río 1/6 i/p.p. de piezas especiales para dinteles y materialización de jambas, roturas, nivelados, aplomados, llagueados y limpieza, todo ello según normativa.	15,20	7,31	111,11
520	M2 CUBIERTA PANEL SANDWICH (E=50 mm.) Cubierta con panel tipo sandwich espesor 50 cm., con doble chapa prelacada de 0,4 mm de espesor, y aislamiento térmico de poliuretano, fijada con gancho de acero galvanizado, incluso p.p de piezas de remate, totalmente colocada.	46,36	31,80	1.474,25
519	ML REMATE DE CHAPA PRELACADA CUBIERTA Remate de chapa prelacada en color, para cubrir parte superior de bloque o panel, hasta el panel sandwich de la cubierta por el interior del peto, fijado mediante tacos y/o ganchos anclado a muro y o cubierta, dispuesto según planos.	12,60	27,03	340,58
465.1	M2 PUERTA DOBLE CHAPA ACERO CON LAMAS Puerta de paso hojas abatibles de doble chapa lisa de acero de 1 mm de espesor, con aislamiento interno de fibra de vidrio, engatillada, realizada en dos bandejas, con rigidizadores de tubo rectangular, i/manillas de acero inoxidable y cerradura, con dos o cuatro rejillas de ventilación con malla anti insectos interior, patillas para recibir en fábricas, herrajes de colgar y de seguridad, imprimación antióxido y pintura al esmalte, totalmente colocada incluyendo el recibido de fábricas.	10,20	22,47	229,19
464cf	M2 CARPINTERÍA FIJA ALUMINIO m². Carpintería fija con junquillos para la fijación del vidrio, de aluminio modelo con rotura de puente térmico, Alfil A54RPT de SAPAGROUP con un ancho de marco de 54 mm y con un ancho de hoja de 61 mm, medida del frente de 96,3 mm, con sistema de cámara europea, con espesor de perfil de 1,5 mm, con sistema de cierre por junta central de estanqueidad en EPDM, coplanar exteriormente y con resalte de hoja sobre el marco al interior, para un acristalamiento con altura de galce de 22 mm y anchura hasta 44 mm en marcos y 51 mm en hojas, lacado (entre 60-100 micras) en color estándar (RAL estándar: blanco, gris...), herrajes de colgar, p.p. de cerradura Tesa o similar y costes indirectos. Homologada con Clase 4 en el ensayo de permeabilidad al aire según norma UNE-EN 1026:2000. La transmitancia máxima del marco es de 2,90 W/m² K, y cumple en las zonas A, B, C, D y E, según el CTE/DB-HE 1.	0,48	144,71	69,46
464V3	M2 VIDRIO SEGURIDAD STADIP 44.1 INCOLORO (2B2) m². Acristalamiento de vidrio laminar de seguridad Stadip compuesto por dos vidrios de 4 mm de espesor unidos mediante lámina de butiral de polivinilo incolora de 0,38 mm, clasificado 2B2 según UNE-EN 12600, fijado sobre carpintería con acuíñado mediante calzos de apoyo perimetrales y laterales y sellado en frío con silicona neutra, incluso colocación de junquillos, según UNE 85222:1985.			
		0,48	37,05	17,78

PRESUPUESTOS PARCIALES.

ABASTECIMIENTO A VARIOS MUNICIPIOS DE LA RIOJA. SISTEMA CIDACOS

CÓDIGO	RESUMEN	CANTIDAD	PRECIO	IMPORTE
521	M2 CELOSIA FIJA VENTILACIÓN Celosía metálica fija para ventilación, formada por cerco con empanelado de lamas de acero de 60 mm, con abertura mínima de 1 cm entre lamas, malla de 2 mm para evitar entrada de insectos, garras de sujeción a soporte de 10 cm, elaborada en taller y montada en obra, totalmente colocada.	0,48	73,80	35,42
020	KG ACERO S 275 J PERFILES LAMINADOS Acero S 275 J en perfiles laminados elaborado y colocado.	424,14	1,95	827,07
474.1	ML CANALON CHAPA PRELACADA 50cm Canalón de chapa prelacada en color, de 50 cm. de desarrollo fijado mediante ganchos ocultos con tornillo autoroscante 40 cm., incluso p.p. de embocadura de bajante, codos y piezas especiales.	4,20	11,85	49,77
474.2	ML BAJANTE DE CHAPA PRELACADA DN110 Bajante de chapa prelacada en color, DN110, fijado mediante ganchos con tornillo autoroscante 20 cm., incluso p.p. de embocadura de bajante, codos y piezas especiales.	2,60	12,29	31,95
290B	M2 ESCALERA Y PASARELAS DE ACERO GALVANIZADO. BARANDILLAS GALVANIZ Escalera y pasarelas de acceso de forma según planos, ejecutada en perfiles de acero galvanizado en caliente, incluso barandilla tubular del mismo material, de 90 cm de altura en uno o dos lados, rodapié de seguridad del mismo en uno o dos lados, así como entramado metálico de 30x30x3 en descansillos y peldaños, medida según su proyección en planta. Anclada a los muros y/o solera, instalada.	1,94	81,77	158,63
620	UD APOYOS DE TUBERÍA Y VÁLVULAS SOBRE SOLERA Apoyos de tuberías y válvulas en soleras, mediante dado de hormigón HA-25/P/20/IIa, ligeramente armado y anclado a la solera, así como cintas o eslingas de acero con material de protección de tubería para sujeción de las mismas, incluyendo el hormigón, encofrados, acero, eslingas, material de PE de protección, montado.	3,00	63,07	189,21
TOTAL APARTADO 08.18.01 OBRA CIVIL.....				5.874,76
APARTADO 08.18.02 VÁLVULAS Y ACCESORIOS				
115.7	UD BRIDA ENCHUFE FD DN<150 mm PN16/25/40 Brida enchufe de fundición dúctil de PFA 16/25/40 bar para tubería de diámetro menor o igual de 150 mm, con un revestimiento interior y exterior epoxi, i/p.p. de junta de unión y medios auxiliares, totalmente colocada y probada.	2,00	104,02	208,04
EVCM080	UD VÁLVULA DE COMPUERTA MANUAL DN80 PN16 Válvula de compuerta de cierre elástico de 80 mm. de diámetro nominal y 16 At. de P.N., de accionamiento manual por volante, de cuerpo de fundición nodular GGG-50, con eje de acero inoxidable al 13 % Cr. con roscas conformadas por laminación en frío, cierre en fundición nodular, tornillería de acero inoxidable, protegida contra la corrosión mediante aplicación de doble capa de pintura epoxy, totalmente colocada y probada. Resto de características según ET.	2,00	110,47	220,94
164	UD MANGUITO FD 50 A 80 mm PN16 Manguito de fundición dúctil con bridas diámetros de 50 a 80 mm, longitud comprendida entre 0,20 y 1,00 m y PN 16, incluso p.p. de tornillería y medios auxiliares, totalmente colocado y probado.	3,00	53,12	159,36
253	UD FILTRO COLADOR EN Y DN=80 mm PN16 Filtro colador en "Y" de diámetro nominal DN=80 mm y brida PN=16 bar de presión, incluso juntas de unión y tornillería, totalmente instalado.	1,00	381,05	381,05
149	UD CARRETE DE DESMONTAJE DN=80 mm PN16 Carrete de desmontaje autoportante de PFA 16 bar de D=80 mm, colocado.	2,00	128,07	256,14

PRESUPUESTOS PARCIALES.

ABASTECIMIENTO A VARIOS MUNICIPIOS DE LA RIOJA. SISTEMA CIDACOS

CÓDIGO	RESUMEN	CANTIDAD	PRECIO	IMPORTE
132.2	UD TE FD BBB 80 mm PN16 SALIDA DN80/40 "T" de fundición dúctil de PFA 16 bar, con tres bridas para tubería de 80 mm con salida comprendida entre 80 y 40 mm, con un revestimiento interior y exterior epoxi, i/p.p. de junta de unión y medios auxiliares, totalmente colocada y probada.	2,00	66,20	132,40
265	UD VÁLVULA LIMITADORA DE CAUDAL DN=80 mm Válvula limitadora de caudal de DN=80 mm PN16, incluso juntas de unión y tornillería, totalmente colocada y probada.	1,00	4.780,83	4.780,83
268.4	UD VÁLVULA DE LLENADO DN=80 mm PN16 CIERRE LENTO Y SOLENOIDE Válvula de llenado de asiento inoxidable, con cierre lento y solenoide de diámetro nominal DN=80 mm y PN=16 bar, totalmente instalado y probado.	1,00	1.310,78	1.310,78
262.1	UD VÁLVULA REDUCTORA DE PRESIÓN DN=80 mm PN16 Válvula reductora de presión de diámetro DN=80 mm y PN 16 bar, incluso juntas de unión y tornillería, totalmente colocada y probada.	1,00	1.411,69	1.411,69
132.1	UD TE FD BBB 100 mm PN16/25 SALIDA DN100/40 "T" de fundición dúctil de PFA 16 bar, con tres bridas para tubería de 100 mm con salida comprendida entre 100 y 40 mm, con un revestimiento interior y exterior epoxi, i/p.p. de junta de unión y medios auxiliares, totalmente colocada y probada.	1,00	69,36	69,36
245.1	UD VENTOSA DN=25 mm (1") PN16 Válvula ventosa de tres funciones de 1" (DN=25 mm) y PN 16 bar incluido transporte, juntas, válvula de corte DN=25 mm y PN 16 bar y piezas especiales, totalmente colocada y probada.	2,00	162,21	324,42
114	UD REDUCCIÓN FD 100 A 80/50 mm PN16/25 Reducción en fundición dúctil de 100 mm a 80-65-60-50 mm con dos bridas PN 16/25 bar, con un revestimiento interior y exterior epoxi, i/p.p. de tornillería y medios auxiliares, totalmente colocada y probada.	2,00	50,28	100,56
275	UD VÁLVULA ALIVIO DE PRESIÓN 1" PN16 Válvula de alivio de presión de 1" NPT roscada y PN 16 bar, incluso juntas de unión, collarín de toma y tornillería, totalmente colocada y probada.	1,00	944,78	944,78
087	UD CODO FD 1/4 A 1/32 100 mm Codo de fundición dúctil de 1/4 a 1/32 de diámetro interior 100 mm y PFA 40 bar, con un revestimiento interior y exterior epoxi, incluso p.p. de juntas y medios auxiliares, totalmente colocado y probado.	1,00	66,66	66,66
TOTAL APARTADO 08.18.02 VÁLVULAS Y ACCESORIOS.....				10.367,01
APARTADO 08.18.03 INSTRUMENTACIÓN Y CONTROL				
300	UD BOYA DE NIVEL DE MÁXIMO Y MÍNIMO Boya de nivel cableada con la válvula de llenado, incluso montaje y pruebas.	2,00	49,74	99,48
ECELM080	UD CAUDALÍMETRO ELECTROMAGNÉTICO DN 80 mm PN10 Equipo medidor de caudal de DN80 mm. tipo electromagnético y PN=10 atm. con salida 4/20 mA, tensión 220 V y escala 0-240 m3/h, totalmente instalado y probado. Incluido transporte, montaje, conexiones eléctricas y pruebas de funcionamiento. Resto de características, según ET.	1,00	845,12	845,12
TOTAL APARTADO 08.18.03 INSTRUMENTACIÓN Y CONTROL.....				944,60

PRESUPUESTOS PARCIALES.

ABASTECIMIENTO A VARIOS MUNICIPIOS DE LA RIOJA. SISTEMA CIDACOS

CÓDIGO	RESUMEN	CANTIDAD	PRECIO	IMPORTE
APARTADO 08.18.04 INSTALACIÓN ELÉCTRICA DE BT				
563.1	ud PANTALLA ESTANCA LED Luminaria estanca WT120C LED80S/840 de Philips o equivalente para montaje en superficie de dimensiones 1515x80, carcasa de policarbonato, óptica de polimetacrilato de metilo, flujo luminoso 8.000 lm, potencia 68 W, Tª color 4000 K, rango de Tª de 10°C a 35°C, protección IP-65 Clase I. Incluso p.p. de canalización y cableado, completamente instalado.	1,00	28,30	28,30
524.1	m LINEA 3x1.5mm2 Cu 0.6/1kV RZ1-K (AS) Línea eléctrica con conductor multipolares 3x1.5mm2 RZ1-K (AS) en canalización existente, incluso conexionado en inicio y final de línea.	15,00	3,34	50,10
571	ud INTERRUPTOR EMPOTRAR SIMO 32 BLANCO. Interruptor empotrar blanco, totalmente instalado.	1,00	9,25	9,25
204	m TUBO DE PVC RÍGIDO DE 25 MM DIÁMETRO Tubo rígido de PVC d=25mm para canalización de conductores, incluso soportes y anclajes a pared, instalado.	15,00	4,17	62,55
TOTAL APARTADO 08.18.04 INSTALACIÓN ELÉCTRICA DE BT.....				150,20
APARTADO 08.18.05 VARIOS				
618	PA CONEXIÓN RED ELÉCTRICA BT CON DEPÓSITOS EXISTENTES Partida Alzada de Abono Íntegro para conexión de la red eléctrica en BT con depósitos existentes.	1,00	323,15	323,15
617	PA CONEXIÓN RED NUEVA CASETA CON DEPÓSITOS EXISTENTES PEAD Partida Alzada de Abono Íntegro para conexión de la red de abastecimiento desde la nueva caseta de válvulas con depósitos existentes, incluyendo, excavaciones, tuberías de PEAD de cualquier diámetro, rellenos, ayudas de albañilería, demoliciones, relleno de huecos con morteros sin retracción, anclaje de tuberías, así como todos los medios auxiliares necesarios para la conexión entre la salida de la nueva caseta de válvula y su salida al depósito.	1,00	240,49	240,49
TOTAL APARTADO 08.18.05 VARIOS				563,64
TOTAL SUBCAPÍTULO 08.18 ACOMETIDA A DEPÓSITO DE VILLAR DE ARNEDO.....				17.900,21
TOTAL CAPÍTULO 08 ACOMETIDAS ENTRADAS A DEPÓSITOS				665.984,69

CAPÍTULO 09 ACOMETIDAS ELÉCTRICAS

SUBCAPÍTULO 09.01 ACOMETIDA A.T Y C.T. BOMBEO BERGASA.

ELM003	UD APOYO TIPO CELOSÍA C10-2000, INCLUYENDO HORMIGONADO E IZADO Apoyo de celosía 16C-1000, incluyendo hormigonado e izado, y realización de tierras	3,00	981,14	2.943,42
ELM004	UD APOYO TIPO CELOSÍA C14-500, INCLUYENDO HORMIGONADO E IZADO Apoyo de celosía 14C-500, incluyendo hormigonado e izado, y realización de tierras	1,00	853,92	853,92
ELM005	UD APOYO TIPO CELOSÍA C12-500, INCLUYENDO HORMIGONADO E IZADO Apoyo de celosía 12C-500, incluyendo hormigonado e izado, y realización de tierras	2,00	782,99	1.565,98
ELM0051	UD APOYO TIPO CELOSÍA C10-500, INCLUYENDO HORMIGONADO E IZADO Apoyo de celosía 12C-500, incluyendo hormigonado e izado, y realización de tierras	5,00	705,58	3.527,90
ELM006	UD APOYO TIPO CELOSÍA C10-1000, INCLUYENDO HORMIGONADO E IZADO Apoyo de celosía 10C-1000, incluyendo hormigonado e izado, y realización de tierras	1,00	705,58	705,58

PRESUPUESTOS PARCIALES.

ABASTECIMIENTO A VARIOS MUNICIPIOS DE LA RIOJA. SISTEMA CIDACOS

CÓDIGO	RESUMEN	CANTIDAD	PRECIO	IMPORTE
ELM007	UD APOYO TIPO CELOSÍA C12-1000, INCLUYENDO HORMIGONADO E IZADO Apoyo de celosía 12C-1000, incluyendo hormigonado e izado, y realización de tierras	2,00	782,99	1.565,98
ELM008	UD APOYO TIPO CELOSÍA C12-3000, INCLUYENDO HORMIGONADO E IZADO Apoyo de celosía 12C-3000, incluyendo hormigonado e izado, y realización de tierras	1,00	1.278,38	1.278,38
ELM009	UD APOYO TIPO CELOSÍA C12-4500, INCLUYENDO HORMIGONADO E IZADO Apoyo de celosía 12C-4500, incluyendo hormigonado e izado, y realización de tierras	1,00	1.711,87	1.711,87
ELM016	UD CRUCETA TIPO BOVEDA PARA APOYO DE HORMIGON TIPO BC Suministro e instalación de cruceta tipo bóveda para apoyo de celosía metélica tipo BC.	16,00	442,09	7.073,44
ELM010	UD CRUCETA RECTA PARA APOYO TIPO CELOSÍA TIPO H-35 Suministro e instalación de cruceta recta para apoyo tipo celosía tipo H-35	1,00	293,76	293,76
ELM014	UD CRUCETA DE DERIVACIÓN Suministro e instalación de cruceta de derivación	1,00	299,85	299,85
ELM032-1	UD SOPORTE Y SECCIONALIZADORES DE EXPULSIÓN TIPO UD. SOPORTE Y SECCIONALIZADORES DE EXPULSIÓN TIPO	1,00	831,59	831,59
ELM034	UD SOPORTE Y SECCIONADORES TIPO X/S Suministro e instalación de soporte y seccionadores de expulsión tipo X/S	1,00	642,01	642,01
ELM030	UD CADENA DE AMARRE AISLADORES DE COMPOSITE NIVEL II UD. CADENA DE AMARRE AISLADORES DE COMPOSITE NIVEL II	66,00	111,66	7.369,56
ELM031	UD CADENA DE SUSPENSIÓN AISLADORES DE COMPOSITE NIVEL II UD. CADENA DE SUSPENSIÓN AISLADORES DE COMPOSITE NIVEL II	30,00	87,98	2.639,40
1-46	m COND. UNIP. ALUMIN.-ACERO LA-56 CONDUCTOR UNIPOLAR DE ALUMINIO ACERO LA-56, TOTALMENTE INSTALADO, TENSIONADO Y COLOCADO SEGUN NORMAS DE LA COMPAÑIA SUMINISTRADORA.	6.426,00	1,05	6.747,30
ELM041	UD RED DE TIERRAS TIPO ANILLO DIFUSOR Instalación de red de tierras tipo anillo difusor	2,00	197,31	394,62
ELM040	UD CHAPA ANTIESCALO Instalación de chapa antiescalo	2,00	197,34	394,68
ELM066	UD CENTRO DE TRANSFORMACIÓN DE 25 KVA DE INTEMPERIE SOBRE APOYO Suministro e instalación de Centro de Transformación incluyendo los siguientes conceptos: -Transformador de 25 kVA 20 KV/400 V: 1 ud. -Bajada de trafo a equipo de medida -Puentes de M. T. -Autoválvulas -Puentes de B. T. -Red de tierra de herrajes -Placas de peligro y maniobra	1,00	4.545,06	4.545,06

PRESUPUESTOS PARCIALES.

ABASTECIMIENTO A VARIOS MUNICIPIOS DE LA RIOJA. SISTEMA CIDACOS

CÓDIGO	RESUMEN	CANTIDAD	PRECIO	IMPORTE
ELM212	ML CABLE DE ALUMINIO DE 4(1x240) 12/20 kV HEPRZ-1 Suministro y tendido de cable de aluminio de 4(1x240) 12/20 kV HEPRZ-1	10,00	43,71	437,10
ELM033	UD PASO AEREO-SUBTERRANEO SOBRE TORRE METÁLICA Paso aéreo-subterráneo sobre torre metálica incluyendo los siguientes conceptos: -Seccionadores tipo SELA: 3 uds. -Pararrayos autoválvulas: 3 uds. -Tubo de protección: 1 ud. -Terminaciones de exterior para cable tipo HEPRZ1 1x240 12/20 kV: 3 uds.	1,00	3.198,16	3.198,16
ELM062	UD CAJA DE PROTECCIÓN TIPO CGP-7-250A Suministro e instalación de caja de protección tipo CGP-7-250A, incluso fusibles y terminales	1,00	227,54	227,54
ELM102	UD NUMERACIÓN Y COLOCACIÓN DE PLACAS DE PELIGRO EN LINEA Instalación de la numeración de apoyos y colocación de placas de peligro en línea	17,00	8,44	143,48
ELM060	UD EQUIPO MEDIDA NORMALIZADO POR UNION FENOSA Suministro y montaje de equipo de medida normalizado por IBERDROLA. Incluido bancada de hormigón	1,00	659,89	659,89
ELM106	UD JORNADA DE BRIGADA DE TRABAJOS EN TENSION Jornada de brigada de trabajos en tensión método a contacto para incluyendo los siguientes conceptos: * Apertura de puentes: 6 ud. * Instalación de puevos puentes de M.T: 6 ud. * Conexión de Autoválvulas: 6 ud. * Conexión de Terminaciones de Exterior: 6 ud. * Conexión de derivación aérea simple circuito:2 ud.	1,00	3.070,38	3.070,38
ELM101	UD MONTAJE CRUCETA Y AMARRE DE CABLES 3 FASES TRABAJOS EN TENSION Montaje de cruceta y amarre de cables 3 fases mediante trabajos en tensión método a contacto	1,00	1.200,97	1.200,97
ELM104	UD PROYECTO Y DIRECCIÓN DE OBRA VISADO POR COLEGIO OFICIAL MT Proyecto y dirección de obra visado por Colegio Oficial de Ingenieros Industriales, legalización en consejería de industria, inspección por parte de OCA y realización de croquis de Media Tensión	1,00	2.167,40	2.167,40
400-00	UD P.A. DE DERECHOS DE ENGANCHE PARTIDA ALZADA A JUSTIFICAR EN CONCEPTO DE DERECHOS DE ENGANCHE, ACOMETIDA Y VERIFICACION A SATIFACER A LA COMPAÑIA SUMINISTRADORA.	1,00	452,38	452,38
ELM0526	UD P.A. TRABAJOS DE REFUERZO Y ADECUACIÓN DE LÍNEA EXISTENTE	1,00	11.842,76	11.842,76
	TOTAL SUBCAPÍTULO 09.01 ACOMETIDA A.T Y C.T. BOMBEO BERGASA.....			68.784,36
	SUBCAPÍTULO 09.02 ACOMETIDA A.T Y C.T. BOMBEO VALLE DE OCÓN Y AUSEJO.			
ELM003	UD APOYO TIPO CELOSÍA C10-2000, INCLUYENDO HORMIGONADO E IZADO Apoyo de celosía 16C-1000, incluyendo hormigonado e izado, y realización de tierras	2,00	981,14	1.962,28
ELM0011	UD APOYO TIPO CELOSÍA C16-2000, INCLUYENDO HORMIGONADO E IZADO Apoyo de celosía 16C-2000, incluyendo hormigonado e izado, y realización de tierras	1,00	1.402,24	1.402,24
ELM001	UD APOYO TIPO CELOSÍA C12-2000, INCLUYENDO HORMIGONADO E IZADO Apoyo de celosía 12C-2000, incluyendo hormigonado e izado, y realización de tierras	1,00	1.801,67	1.801,67

PRESUPUESTOS PARCIALES.

ABASTECIMIENTO A VARIOS MUNICIPIOS DE LA RIOJA. SISTEMA CIDACOS

CÓDIGO	RESUMEN	CANTIDAD	PRECIO	IMPORTE
ELM006	UD APOYO TIPO CELOSÍA C10-1000, INCLUYENDO HORMIGONADO E IZADO Apoyo de celosía 10C-1000, incluyendo hormigonado e izado, y realización de tierras	1,00	705,58	705,58
ELM007	UD APOYO TIPO CELOSÍA C12-1000, INCLUYENDO HORMIGONADO E IZADO Apoyo de celosía 12C-1000, incluyendo hormigonado e izado, y realización de tierras	2,00	782,99	1.565,98
ELM0071	UD APOYO TIPO CELOSÍA C16-1000, INCLUYENDO HORMIGONADO E IZADO Apoyo de celosía 16C-1000, incluyendo hormigonado e izado, y realización de tierras	1,00	782,99	782,99
ELM008	UD APOYO TIPO CELOSÍA C12-3000, INCLUYENDO HORMIGONADO E IZADO Apoyo de celosía 12C-3000, incluyendo hormigonado e izado, y realización de tierras	1,00	1.278,38	1.278,38
ELM0091	UD APOYO TIPO CELOSÍA C14-4500, INCLUYENDO HORMIGONADO E IZADO Apoyo de celosía 14C-4500, incluyendo hormigonado e izado, y realización de tierras	1,00	2.060,22	2.060,22
ELM016	UD CRUCETA TIPO BOVEDA PARA APOYO DE HORMIGON TIPO BC Suministro e instalación de cruceta tipo bóveda para apoyo de celosía metélica tipo BC.	8,00	442,09	3.536,72
ELM010	UD CRUCETA RECTA PARA APOYO TIPO CELOSÍA TIPO H-35 Suministro e instalación de cruceta recta para apoyo tipo celosía tipo H-35	1,00	293,76	293,76
ELM014	UD CRUCETA DE DERIVACIÓN Suministro e instalación de cruceta de derivación	1,00	299,85	299,85
ELM032-1	UD SOPORTE Y SECCIONALIZADORES DE EXPULSIÓN TIPO UD. SOPORTE Y SECCIONALIZADORES DE EXPULSIÓN TIPO	1,00	831,59	831,59
ELM034	UD SOPORTE Y SECCIONADORES TIPO X/S Suministro e instalación de soporte y seccionadores de expulsión tipo X/S	1,00	642,01	642,01
ELM030	UD CADENA DE AMARRE AISLADORES DE COMPOSITE NIVEL II UD. CADENA DE AMARRE AISLADORES DE COMPOSITE NIVEL II	54,00	111,66	6.029,64
1-46	m COND. UNIP. ALUMIN.-ACERO LA-56 CONDUCTOR UNIPOLAR DE ALUMINIO ACERO LA-56, TOTALMENTE INSTALADO, TENSIONADO Y COLOCADO SEGUN NORMAS DE LA COMPAÑIA SUMINISTRADORA.	3.516,00	1,05	3.691,80
ELM041	UD RED DE TIERRAS TIPO ANILLO DIFUSOR Instalación de red de tierras tipo anillo difusor	2,00	197,31	394,62
ELM040	UD CHAPA ANTIESCALO Instalación de chapa antiescalo	2,00	197,34	394,68

PRESUPUESTOS PARCIALES.

ABASTECIMIENTO A VARIOS MUNICIPIOS DE LA RIOJA. SISTEMA CIDACOS

CÓDIGO	RESUMEN	CANTIDAD	PRECIO	IMPORTE
ELM068	UD CENTRO DE TRANSFORMACIÓN DE 160 KVA DE INTEMPERIE SOBRE APOYO Suministro e instalación de Centro de Transformación incluyendo los siguientes conceptos: -Transformador de 160 kVA 20 KV/400 V: 1 ud. -Bajada de trazo a equipo de medida -Puentes de M. T. -Autoválvulas -Puentes de B. T. -Red de tierra de herrajes -Placas de peligro y maniobra	1,00	22.018,39	22.018,39
ELM033	UD PASO AEREO-SUBTERRANEO SOBRE TORRE METÁLICA Paso aéreo-subterráneo sobre torre metálica incluyendo los siguientes conceptos: -Seccionadores tipo SELA: 3 uds. -Pararrayos autoválvulas: 3 uds. -Tubo de protección: 1 ud. -Terminaciones de exterior para cable tipo HEPRZ1 1x240 12/20 kV: 3 uds.	1,00	3.198,16	3.198,16
ELM212	ML CABLE DE ALUMINIO DE 4(1x240) 12/20 kV HEPRZ-1 Suministro y tendido de cable de aluminio de 4(1x240) 12/20 kV HEPRZ-1	10,00	43,71	437,10
ELM062	UD CAJA DE PROTECCIÓN TIPO CGP-7-250A Suministro e instalación de caja de protección tipo CGP-7-250A, incluso fusibles y terminales	1,00	227,54	227,54
ELM102	UD NUMERACIÓN Y COLOCACIÓN DE PLACAS DE PELIGRO EN LINEA Instalación de la numeración de apoyos y colocación de placas de peligro en línea	10,00	8,44	84,40
ELM060	UD EQUIPO MEDIDA NORMALIZADO POR UNION FENOSA Suministro y montaje de equipo de medida normalizado por IBERDROLA. Incluido bancada de hormigón	1,00	659,89	659,89
ELM106	UD JORNADA DE BRIGADA DE TRABAJOS EN TENSION Jornada de brigada de trabajos en tensión método a contacto para incluyendo los siguientes conceptos: * Apertura de puentes: 6 ud. * Instalación de nuevos puentes de M.T: 6 ud. * Conexión de Autoválvulas: 6 ud. * Conexión de Terminaciones de Exterior: 6 ud. * Conexión de derivación aérea simple circuito:2 ud.	1,00	3.070,38	3.070,38
ELM101	UD MONTAJE CRUCETA Y AMARRE DE CABLES 3 FASES TRABAJOS EN TENSION Montaje de cruceta y amarre de cables 3 fases mediante trabajos en tensión método a contacto	1,00	1.200,97	1.200,97
ELM104	UD PROYECTO Y DIRECCIÓN DE OBRA VISADO POR COLEGIO OFICIAL MT Proyecto y dirección de obra visado por Colegio Oficial de Ingenieros Industriales, legalización en consejería de industria, inspección por parte de OCA y realización de crokis de Media Tensión	1,00	2.167,40	2.167,40
400-00	UD P.A. DE DERECHOS DE ENGANCHE PARTIDA ALZADA A JUSTIFICAR EN CONCEPTO DE DERECHOS DE ENGANCHE, ACOMETIDA Y VERIFICACION A SATIFACER A LA COMPAÑIA SUMINISTRADORA.	1,00	452,38	452,38
ELM0526	UD P.A. TRABAJOS DE REFUERZO Y ADECUACIÓN DE LINEA EXISTENTE	1,00	11.842,76	11.842,76
TOTAL SUBCAPÍTULO 09.02 ACOMETIDA A.T Y C.T. BOMBEO VALLE DE OCÓN Y AUSEJO.....				73.033,38

PRESUPUESTOS PARCIALES.

ABASTECIMIENTO A VARIOS MUNICIPIOS DE LA RIOJA. SISTEMA CIDACOS

CÓDIGO	RESUMEN	CANTIDAD	PRECIO	IMPORTE
SUBCAPÍTULO 09.03 ELECTRICIDAD EN REDUCTORA DE PRESIÓN (P260) A RINCÓN-ALFARO				
KS01	ud Panel solar fotovoltaico 200Wp 12V, incluido acumulador monobloc Panel solar fotovoltaico 200Wp, 12V, con estructura soporte para 1 módulo fotovoltaico, regulador de carga tecnología PWM 20 Amp, 12V, acumulador monobloc 185Ah C-100, 12V e inversor de onda senoidal pura 500 W, 12Vcc/220Vca, totalmente colocado y probado.	1,00	1.253,86	1.253,86
TOTAL SUBCAPÍTULO 09.03 ELECTRICIDAD EN REDUCTORA DE PRESIÓN (P260) A RINCÓN-ALFARO.....				1.253,86
SUBCAPÍTULO 09.04 ACOMETIDA REDUCTORA DE PRESIÓN ALTO DE QUEL-ALCANADRE (P190)				
596	m Línea aérea en BT sobre apoyos de hormigón Tendido de línea aérea, formada por conductores aislados RZ, RZ 0,6/1KV 3x50 mm² AL + 1x54,6 mm² alm, sobre apoyos de hormigón . Alzado, tensado y retencionado de conductores. Incluso transporte y devolución de bobina y material sobrante a almacén	88,00	157,55	13.864,40
609	ud Poste de hormigón armado de 630 daN de esfuerzo útil y 9 m Poste de hormigón armado de 630 daN de esfuerzo útil en punta y 9 metros de altura . Herrajes para el fijado de conductor. Incluso excavación, izado y anclaje de poste, colocación de herrajes, acopio y transporte de elementos, etc.	2,00	534,47	1.068,94
610	ud Poste de hormigón armado de 400 daN de esfuerzo útil y 9 m Poste de hormigón armado de 400 daN de esfuerzo útil en punta y 9 metros de altura . Herrajes para el fijado de conductor. Incluso excavación, izado y anclaje de poste, colocación de herrajes, acopio y transporte de elementos, etc.	1,00	481,80	481,80
612	ud Caja general de protección, equipada con portafusibles Caja general de protección, equipada con portafusibles Incluso fijación de caja, conexionado, etc., totalmente instalada.	1,00	181,45	181,45
339	ud Caja de protección y medida para 1 contador trifásico más reloj Caja de protección y medida para 1 contador trifásico más reloj. Montado con panel de montaje y bases portafusibles con soporte de caja para poste de hormigón incluso fijación de caja, totalmente instalado y conexionado.	1,00	208,53	208,53
TOTAL SUBCAPÍTULO 09.04 ACOMETIDA REDUCTORA DE PRESIÓN ALTO DE QUEL-ALCANADRE (P190)...				15.805,12
SUBCAPÍTULO 09.05 ELECTRICIDAD EN REDUCTORA DE PRESIÓN (P410) A VILLAR-PRADE-ALCAN				
KS01	ud Panel solar fotovoltaico 200Wp 12V, incluido acumulador monobloc Panel solar fotovoltaico 200Wp, 12V, con estructura soporte para 1 módulo fotovoltaico, regulador de carga tecnología PWM 20 Amp, 12V, acumulador monobloc 185Ah C-100, 12V e inversor de onda senoidal pura 500 W, 12Vcc/220Vca, totalmente colocado y probado.	1,00	1.253,86	1.253,86
TOTAL SUBCAPÍTULO 09.05 ELECTRICIDAD EN REDUCTORA DE PRESIÓN (P410) A				1.253,86
SUBCAPÍTULO 09.06 ACOMETIDA ETAP AT				
ELM003	UD APOYO TIPO CELOSÍA C10-2000, INCLUYENDO HORMIGONADO E IZADO Apoyo de celosía 16C-1000, incluyendo hormigonado e izado, y realización de tierras	1,00	981,14	981,14
ELM001	UD APOYO TIPO CELOSÍA C12-2000, INCLUYENDO HORMIGONADO E IZADO Apoyo de celosía 12C-2000, incluyendo hormigonado e izado, y realización de tierras	1,00	1.801,67	1.801,67
ELM006	UD APOYO TIPO CELOSÍA C10-1000, INCLUYENDO HORMIGONADO E IZADO Apoyo de celosía 10C-1000, incluyendo hormigonado e izado, y realización de tierras	1,00	705,58	705,58
ELM016	UD CRUCETA TIPO BOVEDA PARA APOYO DE HORMIGON TIPO BC Suministro e instalación de cruceta tipo bóveda para apoyo de celosía metálica tipo BC.	2,00	442,09	884,18

PRESUPUESTOS PARCIALES.

ABASTECIMIENTO A VARIOS MUNICIPIOS DE LA RIOJA. SISTEMA CIDACOS

CÓDIGO	RESUMEN	CANTIDAD	PRECIO	IMPORTE
ELM010	UD CRUCETA RECTA PARA APOYO TIPO CELOSÍA TIPO H-35 Suministro e instalación de cruceta recta para apoyo tipo celosía tipo H-35	1,00	293,76	293,76
ELM014	UD CRUCETA DE DERIVACIÓN Suministro e instalación de cruceta de derivación	1,00	299,85	299,85
ELM032-1	UD SOPORTE Y SECCIONALIZADORES DE EXPULSIÓN TIPO UD. SOPORTE Y SECCIONALIZADORES DE EXPULSIÓN TIPO	1,00	831,59	831,59
ELM034	UD SOPORTE Y SECCIONADORES TIPO X/S Suministro e instalación de soporte y seccionadores de expulsión tipo X/S	1,00	642,01	642,01
ELM030	UD CADENA DE AMARRE AISLADORES DE COMPOSITE NIVEL II UD. CADENA DE AMARRE AISLADORES DE COMPOSITE NIVEL II	18,00	111,66	2.009,88
1-46	m COND. UNIP. ALUMIN.-ACERO LA-56 CONDUCTOR UNIPOLAR DE ALUMINIO ACERO LA-56, TOTALMENTE INSTALADO, TENSIONADO Y COLOCADO SEGUN NORMAS DE LA COMPAÑIA SUMINISTRADORA.	414,00	1,05	434,70
ELM041	UD RED DE TIERRAS TIPO ANILLO DIFUSOR Instalación de red de tierras tipo anillo difusor	2,00	197,31	394,62
ELM040	UD CHAPA ANTIESCALO Instalación de chapa antiescalo	2,00	197,34	394,68
ELM102	UD NUMERACIÓN Y COLOCACIÓN DE PLACAS DE PELIGRO EN LINEA Instalación de la numeración de apoyos y colocación de placas de peligro en línea	4,00	8,44	33,76
ELM106	UD JORNADA DE BRIGADA DE TRABAJOS EN TENSION Jornada de brigada de trabajos en tensión método a contacto para incluyendo los siguientes conceptos: * Apertura de puentes: 6 ud. * Instalación de puevos puentes de M.T: 6 ud. * Conexión de Autoválvulas: 6 ud. * Conexión de Terminaciones de Exterior: 6 ud. * Conexión de derivación aérea simple circuito:2 ud.	1,00	3.070,38	3.070,38
ELM101	UD MONTAJE CRUCETA Y AMARRE DE CABLES 3 FASES TRABAJOS EN TENSION Montaje de cruceta y amarre de cables 3 fases mediante trabajos en tensión método a contacto	1,00	1.200,97	1.200,97
ELM033	UD PASO AEREO-SUBTERRANEO SOBRE TORRE METÁLICA Paso aéreo-subterráneo sobre torre metálica incluyendo los siguientes conceptos: -Seccionadores tipo SELA: 3 uds. -Pararrayos autoválvulas: 3 uds. -Tubo de protección: 1 ud. -Terminaciones de exterior para cable tipo HEPRZ1 1x240 12/20 kV: 3 uds.	1,00	3.198,16	3.198,16
ELM200	ML ZANJA PARA LÍNEA DE MEDIA TENSION (0,6x0,9 m) Zanja para línea subterránea de media tensión (0,6x0,9 m)	30,00	33,50	1.005,00
ELM215	ML CABLE DE ALUMINIO DE 3(1x95) 12/20 kV HEPRZ-1 CABLE DE ALUMINIO DE 3(1x95) 12/20 kV HEPRZ-1			

PRESUPUESTOS PARCIALES.

ABASTECIMIENTO A VARIOS MUNICIPIOS DE LA RIOJA. SISTEMA CIDACOS

CÓDIGO	RESUMEN	CANTIDAD	PRECIO	IMPORTE
ELM201	ML CANALIZACION 2 TUBOS PLATICO ROJO DE 160 MM Canalización 2 tubos plástico rojo de 160 mm, incluida cinta señalización de cables	30,00	28,06	841,80
ELM214	UD SUMINISTRO Y MONTAJE DE TERMINACIONES DE INTERIOR Suministro y Montaje de Terminaciones de interior enchufables-acodadas	3,00	276,79	830,37
ELM104	UD PROYECTO Y DIRECCIÓN DE OBRA VISADO POR COLEGIO OFICIAL MT Proyecto y dirección de obra visado por Colegio Oficial de Ingenieros Industriales, legalización en consejería de industria, inspección por parte de OCA y realización de crokis de Media Tensión	1,00	2.167,40	2.167,40
400-00	UD P.A. DE DERECHOS DE ENGANCHE PARTIDA ALZADA A JUSTIFICAR EN CONCEPTO DE DERECHOS DE ENGANCHE, ACOMETIDA Y VERIFICACION A SATIFACER A LA COMPAÑIA SUMINISTRADORA.	1,00	452,38	452,38
ELM0526	UD P.A. TRABAJOS DE REFUERZO Y ADECUACIÓN DE LÍNEA EXISTENTE	1,00	11.842,76	11.842,76
TOTAL SUBCAPÍTULO 09.06 ACOMETIDA ETAP AT.....				35.165,04
SUBCAPÍTULO 09.07 ACOMETIDA AZUD AT				
ELM003	UD APOYO TIPO CELOSÍA C10-2000, INCLUYENDO HORMIGONADO E IZADO Apoyo de celosía 16C-1000, incluyendo hormigonado e izado, y realización de tierras	2,00	981,14	1.962,28
ELM0051	UD APOYO TIPO CELOSÍA C10-500, INCLUYENDO HORMIGONADO E IZADO Apoyo de celosía 12C-500, incluyendo hormigonado e izado, y realización de tierras	1,00	705,58	705,58
ELM006	UD APOYO TIPO CELOSÍA C10-1000, INCLUYENDO HORMIGONADO E IZADO Apoyo de celosía 10C-1000, incluyendo hormigonado e izado, y realización de tierras	1,00	705,58	705,58
ELM016	UD CRUCETA TIPO BOVEDA PARA APOYO DE HORMIGON TIPO BC Suministro e instalación de cruceta tipo bóveda para apoyo de celosía metálica tipo BC.	3,00	442,09	1.326,27
ELM010	UD CRUCETA RECTA PARA APOYO TIPO CELOSÍA TIPO H-35 Suministro e instalación de cruceta recta para apoyo tipo celosía tipo H-35	1,00	293,76	293,76
ELM014	UD CRUCETA DE DERIVACIÓN Suministro e instalación de cruceta de derivación	1,00	299,85	299,85
ELM032-1	UD SOPORTE Y SECCIONALIZADORES DE EXPULSIÓN TIPO UD. SOPORTE Y SECCIONALIZADORES DE EXPULSIÓN TIPO	1,00	831,59	831,59
ELM034	UD SOPORTE Y SECCIONADORES TIPO X/S Suministro e instalación de soporte y seccionadores de expulsión tipo X/S	1,00	642,01	642,01
ELM030	UD CADENA DE AMARRE AISLADORES DE COMPOSITE NIVEL II UD. CADENA DE AMARRE AISLADORES DE COMPOSITE NIVEL II	24,00	111,66	2.679,84
1-46	m COND. UNIP. ALUMIN.-ACERO LA-56 CONDUCTOR UNIPOLAR DE ALUMINIO ACERO LA-56, TOTALMENTE INSTALADO, TENSIONADO Y COLOCADO SEGUN NORMAS DE LA COMPAÑIA SUMINISTRADORA.	366,00	1,05	384,30

PRESUPUESTOS PARCIALES.

ABASTECIMIENTO A VARIOS MUNICIPIOS DE LA RIOJA. SISTEMA CIDACOS

CÓDIGO	RESUMEN	CANTIDAD	PRECIO	IMPORTE
ELM041	UD RED DE TIERRAS TIPO ANILLO DIFUSOR Instalación de red de tierras tipo anillo difusor	2,00	197,31	394,62
ELM040	UD CHAPA ANTIESCALO Instalación de chapa antiescalo	2,00	197,34	394,68
ELM066	UD CENTRO DE TRANSFORMACIÓN DE 25 KVA DE INTEMPERIE SOBRE APOYO Suministro e instalación de Centro de Transformación incluyendo los siguientes conceptos: -Transformador de 25 kVA 20 KV/400 V: 1 ud. -Bajada de trafo a equipo de medida -Puentes de M.T. -Autoválvulas -Puentes de B.T. -Red de tierra de herrajes -Placas de peligro y maniobra	1,00	4.545,06	4.545,06
ELM212	ML CABLE DE ALUMINIO DE 4(1x240) 12/20 kV HEPRZ-1 Suministro y tendido de cable de aluminio de 4(1x240) 12/20 kV HEPRZ-1	30,00	43,71	1.311,30
ELM062	UD CAJA DE PROTECCIÓN TIPO CGP-7-250A Suministro e instalación de caja de protección tipo CGP-7-250A, incluso fusibles y terminales	1,00	227,54	227,54
ELM102	UD NUMERACIÓN Y COLOCACIÓN DE PLACAS DE PELIGRO EN LINEA Instalación de la numeración de apoyos y colocación de placas de peligro en línea	5,00	8,44	42,20
ELM060	UD EQUIPO MEDIDA NORMALIZADO POR UNION FENOSA Suministro y montaje de equipo de medida normalizado por IBERDROLA. Incluido bancada de hormigón	1,00	659,89	659,89
ELM106	UD JORNADA DE BRIGADA DE TRABAJOS EN TENSION Jornada de brigada de trabajos en tensión método a contacto para incluyendo los siguientes conceptos: * Apertura de puentes: 6 ud. * Instalación de puevos puentes de M.T: 6 ud. * Conexión de Autoválvulas: 6 ud. * Conexión de Terminaciones de Exterior: 6 ud. * Conexión de derivación aérea simple circuito:2 ud.	1,00	3.070,38	3.070,38
ELM101	UD MONTAJE CRUCETA Y AMARRE DE CABLES 3 FASES TRABAJOS EN TENSION Montaje de cruceta y amarre de cables 3 fases mediante trabajos en tensión método a contacto	1,00	1.200,97	1.200,97
ELM104	UD PROYECTO Y DIRECCIÓN DE OBRA VISADO POR COLEGIO OFICIAL MT Proyecto y dirección de obra visado por Colegio Oficial de Ingenieros Industriales, legalización en consejería de industria, inspección por parte de OCA y realización de crokis de Media Tensión	1,00	2.167,40	2.167,40
400-00	UD P.A. DE DERECHOS DE ENGANCHE PARTIDA ALZADA A JUSTIFICAR EN CONCEPTO DE DERECHOS DE ENGANCHE, ACOMETIDA Y VERIFICACION A SATIFACER A LA COMPAÑIA SUMINISTRADORA.	1,00	452,38	452,38
ELM05261	UD P.A. TRABAJOS DE REFUERZO Y ADECUACIÓN DE LINEA EXISTENTE	1,00	11.844,13	11.844,13
TOTAL SUBCAPÍTULO 09.07 ACOMETIDA AZUD AT.....				36.141,61
TOTAL CAPÍTULO 09 ACOMETIDAS ELÉCTRICAS.....				231.437,23

PRESUPUESTOS PARCIALES.

ABASTECIMIENTO A VARIOS MUNICIPIOS DE LA RIOJA. SISTEMA CIDACOS

CÓDIGO	RESUMEN	CANTIDAD	PRECIO	IMPORTE
CAPÍTULO 10 TELEMANDO Y TELECONTROL				
410	ud Centro de control de telemando y telecontrol del Sistema Cidacos Centro de control del Sistema Cidacos de abastecimiento, totalmente instalado y puesto a punto compuesto por: -2 PC de centro de control con procesador de primera marca con procesador Intel Core i9-9880H o equivalente, 16 GB RAM, unidad de back-up DVD-RW, Ethernet 10/100, garantía 2 años y ratón ergonómicos e inalámbricos, monitor de 22". CD-RW, tarjeta de red, módem de línea 56k, impresora A3 color y B/N, sistema operativo Windows profesional de última generación con licencia, paquete de Microsoft Office con licencia, totalmente instalado y probado. -Licencias de Software. - 2 servidores redundantes. Configuración RAIS-5. - 2 Switch de comunicación redundantes. - 1 ordenador supervisor de telecontrol de las remotas. - System Builder hasta 20 RTU's. -Módulo DPN-3 MASTER/SLAVE SUPPORT con mejora de la aplicación TOOLBOX proporcionando soporte para el DPN3. -RIX-2 CENTRAL SOFTWARE. -Armario de conexiones con Router y concentrador de red.	1,00	10.660,10	10.660,10
EQSAI5000	UD UNIDAD SUM. AUTON. ENERGIA 5000 VA 1 HORA Unidad de suministro autónomo de energía, con potencia de salida de 5000 VA y autonomía de 1 hora. Tensión nominal de entrada: 230 V - 50 Hz. Tensión nominal de salida: 230 V - 50 Hz. Sistema on-line. Montado y probado.	1,00	2.032,34	2.032,34
EQTLP060	UD PANTALLA OLED 4K DE 77 PULGADAS Televisor OLED 4K de 77". Instalada en pared, conexiones y probada.	1,00	1.723,83	1.723,83
411	m Canalización con 2 tubos de PVC de 90 mm y banda señalización Realización de canalización con 2 tubos de PVC y diámetro de 90 mm sobre canalización abierta para colector de agua, incluido suministro de material y mandrilado de conductos y banda de señalización.	122.667,00	2,82	345.920,94
412	ud Arquetas de empalme tipo H de dimensiones exteriores 104x94x97cm Arquetas de empalme tipo H de dimensiones exteriores 104x94x97 cm, incluso tapa, totalmente colocada.	140,00	366,50	51.310,00
413	m Suministro e instalación de cable de 16 fo monomodo con armadura Suministro e instalación de cable de 16 fo monomodo con armadura de acero por conducto de 90 mm.	122.912,33	1,66	204.034,47
414	ud Realización de torpedo de empalme de paso (8/16 fo) con entrada Realización de torpedo de empalme de paso (8/16 fo) con entrada de 2 cables, incluido material y preparación de extremos.	70,00	213,15	14.920,50
415	ud Realización de torpedo de empalme de segregación (8/16 fo) con e Realización de torpedo de empalme de segregación (8/16 fo) con entrada de 3 cables, incluido material y preparación de extremos.	16,00	325,03	5.200,48
435.1	UD CUADROS PARA PLC 2000 x 800 x 400 mm Equipamiento y componentes para estación de automatización y control de ozonización, formada por autómata programable con configuración según planos y Anejo de Telecontrol en ED, SD, EA y SA (no incluidas), con bastidor de expansión y fuente de alimentación 220 VCA, comunicaciones por tarjeta ETHERNET, instalada en armario metálico de dimensiones 2000 x 800 x 400 mm, protecciones contra sobretensiones y separadores galvánicos, totalmente instalado, incluso programación de los algoritmos de automatización y puesta en servicio.	3,00	5.346,22	16.038,66

PRESUPUESTOS PARCIALES.

ABASTECIMIENTO A VARIOS MUNICIPIOS DE LA RIOJA. SISTEMA CIDACOS

CÓDIGO	RESUMEN	CANTIDAD	PRECIO	IMPORTE
435.2	UD CUADROS PARA PLC 1200 x 800 x 400 mm Equipamiento y componentes para estación de automatización y control de ozonización, formada por autómata programable con configuración según planos y Anejo de Telecontrol en ED, SD, EA y SA (no incluidas), con bastidor de expansión y fuente de alimentación 220 VCA, comunicaciones por tarjeta ETHERNET, instalada en armario metálico de dimensiones 1200 x 800 x 400 mm, protecciones contra sobretensiones y separadores galvánicos, totalmente instalado, incluso programación de los algoritmos de automatización y puesta en servicio.	3,00	4.271,98	12.815,94
EQSAI1000	UD UNIDAD SUM. AUTON. ENERGIA 1000 VA 1 HORA Unidad de suministro autónomo de energía, con potencia de salida de 1000 VA y autonomía de 1 hora. Tensión nominal de entrada: 230 V - 50 Hz. Tensión nominal de salida: 230 V - 50 Hz. Sistema on-line. Montado y probado.	6,00	1.424,08	8.544,48
421	ud Módulo de 32 entradas digitales Suministro y montaje de módulo de 32 entradas digitales.	22,00	150,31	3.306,82
422	ud Módulo de 16 salidas digitales Suministro de módulo de 16 salidas digitales.	16,00	150,31	2.404,96
423	ud Módulo 8 Entradas analógicas 4-20mA; 2 DO ML; Suministro de módulo 8 Entradas analógicas 4-20mA; 2 DO ML.	14,00	222,45	3.114,30
424	ud Módulo 8 Salidas analógicas 4-20mA Suministro de módulo 8 Salidas analógicas 4-20 mA.	11,00	215,70	2.372,70
420	ud Batería de 3AH para controlador de estación remota Suministro de batería de 3AH para controlador de estación remota.	1,00	14,27	14,27
427	ud Sensor para válvula de corte Sensor para válvula de corte motorizada, cableado, instalado y probado.	7,00	909,33	6.365,31
428	ud Sensor para válvula de regulación Sensor para válvula de regulación motorizada, cableado, instalado y probado.	17,00	652,50	11.092,50
431	ud Módulo de comunicación HART Módulo de comunicación HART.	23,00	340,45	7.830,35
436	ud Programación de PLC y panel sinóptico Programación de PLC y panel sinóptico, incluso programa de control de adquisición de datos (SCADA), incluyendo licencia de uso, programación de la aplicación y puesta en marcha.	1,00	25.069,00	25.069,00
418	ud Puesta en marcha, documentación y curso de formación Puesta en marcha y pruebas globales del conjunto, documentación de referencia y curso de formación.	1,00	13.520,26	13.520,26
ETCM1000A	UD ESTACIÓN LOCAL TELECONTROL AZUD Estación local de telecontrol tipo S4W DUAL 8-0-0 - 1000I - 0MXES - GSM-ETH de Sofrel Lacroix o equivalente, formado por cajetín compacto ampliable con módulos de comunicación y de entradas/salidas. Módem 3G y un puerto Ethernet 100 Mbits/s, así como 2 puertos USB, entradas digitales DI / AI y salidas DO, pilotos de servicio LED, batería de alimentación de 12 Vcc-12Ah de plomo gelificado. Módulo de comunicación RS485, fuente de alimentación 230 CAC/24Vdc 40W. Pantalla táctil de 7 ". Antena GSM/GPRS-2/3 bibanda c dB. Totalmente instalada y probada. Resto de características según ET de proyecto.	1,00	1.722,22	1.722,22

PRESUPUESTOS PARCIALES.

ABASTECIMIENTO A VARIOS MUNICIPIOS DE LA RIOJA. SISTEMA CIDACOS

CÓDIGO	RESUMEN	CANTIDAD	PRECIO	IMPORTE
ETCM1000B	UD ESTACIÓN LOCAL TELECONTROL BOMBEO BERGASA Estación local de telecontrol tipo S4W MEDIUM 12-2-4 - 1000I - 2MXES - GSM-ETH de Sofrel Lacroix o equivalente, formado por cajetín compacto ampliable con módulos de comunicación y de entradas/salidas. Módem 3G y un puerto Ethernet 100 Mbits/s, así como 2 puertos USB, entradas digitales DI / AI y salidas DO, pilotos de servicio LED, batería de alimentación de 12 Vcc-12Ah de plomo gelificado. Módulo de comunicación RS485, fuente de alimentación 230 CAC/24Vdc 40 W. Antena GSM/GPRS-2/3 bibanda c dB. Totalmente instalada y probada. Resto de características según ET de proyecto.	1,00	2.047,87	2.047,87
ETCM1000D	UD ESTACIÓN LOCAL TELECONTROL DEPÓSITOS Y ARQUETAS Estación local de telecontrol tipo S4W SMAL 8-2-2 - 500I - 0MXES - GSM-ETH de Sofrel Lacroix o equivalente, formado por cajetín compacto ampliable con módulos de comunicación y de entradas/salidas. Módem 3G y un puerto Ethernet 100 Mbits/s, así como 2 puertos USB, entradas digitales DI / AI y salidas DO, pilotos de servicio LED, batería de alimentación de 12 Vcc-12Ah de plomo gelificado. Módulo de comunicación RS485, extensión a 10 módulos, módulo 4AI-4-20mA, fuente de alimentación 230 CAC/24Vdc 40 W. Antena GSM/GPRS-2/3 bibanda c dB. Totalmente instalada y probada. Resto de características según ET de proyecto.	20,00	1.972,68	39.453,60
ETCM1000E	UD ESTACIÓN LOCAL TELECONTROL BOMBEO VALLE DE OCON-AUSEJO Estación local de telecontrol tipo S4W MEDIUM 12-2-4 - 1000I - 2MXES - GSM-ETH de Sofrel Lacroix o equivalente, formado por cajetín compacto ampliable con módulos de comunicación y de entradas/salidas. Módem 3G y un puerto Ethernet 100 Mbits/s, así como 2 puertos USB, entradas digitales DI / AI y salidas DO, pilotos de servicio LED, batería de alimentación de 12 Vcc-12Ah de plomo gelificado. Módulo de comunicación RS485, fuente de alimentación 230 CAC/24Vdc 40 W. Antena GSM/GPRS-2/3 bibanda c dB. Totalmente instalada y probada. Resto de características según ET de proyecto.	1,00	3.097,01	3.097,01
ETCM1000F	UD SOFTWARE TELEGESTIÓN DE TODOS LOS PUNTOS Software Sofrel PC Win2 o equivalente de puesto de control de telegestión de hasta 50 estaciones remotas (RTU+DL), software SG4000 servidor VPN-50 ER s4/s500, incluso llave de protección de hardware (USB), montado y probado.	1,00	6.777,59	6.777,59
ETCM1000G	UD SUMINISTRO Y MONTAJE DE DETECTOR VOLUMÉTRICO Suministro y montaje de detector volumétrico doble tecnología 37x3 o 61x5. Doble tecnología infrarrojo/microondas. Alcance 61x5m o 37x3m (cortina). Anti-enmascaramiento por infrarrojo activo. Autochequeo. Defensa contra insectos de margen cero, incluso cableado, pequeño material y accesorios. Totalmente instalado, conectado y funcionando.	22,00	231,61	5.095,42
TOTAL CAPÍTULO 10 TELEMANDO Y TELECONTROL				806.485,92
CAPÍTULO 11 MEDIDAS CORRECTORAS Y MEDIOAMBIENTALES				
400	M2 SEMBRADO DE TALUDES EN ZONAS DE VARIACIÓN DE NIVEL Sembrado de taludes en zonas de variación de nivel y reposición de cubierta vegetal.	15.048,22	1,37	20.616,06
401	UD ARBOL Plantación de árbol según especificaciones técnicas, en hoyos de 0,60x0,60x0,60 m, incluso riego y mantenimiento durante un año y parte proporcional de marras.	40,00	24,62	984,80
402	M2 PLANTACIÓN DE ESPECIES ARBUSTIVAS DE 40-60 CM Plantación de especies arbustivas de 40-60 cm, incluso riego y mantenimiento durante un año y parte proporcional de marras.	219.095,33	1,87	409.708,27
403	M3 RELLENO DE TIERRA VEGETAL EN PLANTACIONES Relleno de tierra vegetal en reposición de cultivos, plantaciones y cubrimiento de vertederos, procedente de la excavación o préstamos, incluso carga, transporte y extendido.	49.785,11	1,31	65.218,49
TOTAL CAPÍTULO 11 MEDIDAS CORRECTORAS Y MEDIOAMBIENTALES				496.527,62

PRESUPUESTOS PARCIALES.

ABASTECIMIENTO A VARIOS MUNICIPIOS DE LA RIOJA. SISTEMA CIDACOS

CÓDIGO	RESUMEN	CANTIDAD	PRECIO	IMPORTE
CAPÍTULO 12 SEGURIDAD Y SALUD				
E2010	PA SEGURIDAD Y SALUD DURANTE LAS OBRAS Partida alzada a justificar de acuerdo con el Anejo nº 15 para Seguridad y Salud durante las obras.	1,00	311.697,08	311.697,08
TOTAL CAPÍTULO 12 SEGURIDAD Y SALUD.....				311.697,08
CAPÍTULO 13 GESTIÓN DE RESIDUOS EN FASE DE CONTRUCCIÓN				
GR001	M3 GESTIÓN DE RESIDUOS DE TIERRAS Y PIEDRAS (17 05 04) Canon de gestión de residuos de tierras y tierras (17 05 04).	230.090,88	1,75	402.659,04
GR005	M3 GESTIÓN DE RESIDUOS NATURALEZA PÉTREA Canon de gestión de residuos de naturaleza pétreo (17 01 01, 17 01 02, 17 01 03, 17 01 07, 17 09 04).	3.232,95	3,02	9.763,51
GR010	M3 GESTIÓN DE RESIDUOS NATURALEZA NO PÉTREA Canon de gestión de residuos de naturaleza no pétreo (17 03 02, 17 02 01, 17 04 05, 17 02 03, 17 02 02, 17 08 02).	3.235,93	6,77	21.907,25
GR029	M3 GESTIÓN DE RESIDUOS PELIGROSOS Transporte y gestión de residuos peligrosos en Gestor Autorizado.	0,16	33,08	5,29
GR030	UD BALSAS DE LAVADO DE CUBAS DE HORMIGÓN Construcción de balsas de lavado de cubas de hormigón, incluso p/p. de retira y Gestión a Gestor autorizado.	3,00	164,43	493,29
GR031	UD PUNTO LIMPIO PARA RPs Montaje y desmontaje de punto limpio para residuos peligrosos.	1,00	187,87	187,87
TOTAL CAPÍTULO 13 GESTIÓN DE RESIDUOS EN FASE DE CONTRUCCIÓN.....				435.016,25
TOTAL PRESUPUESTO DE EJECUCIÓN MATERIAL.....				33.943.379,74



5. RESUMEN DE PRESUPUESTO

RESUMEN DE PRESUPUESTO

ABASTECIMIENTO A VARIOS MUNICIPIOS DE LA RIOJA. SISTEMA CIDACOS

CAPITULO	RESUMEN	EUROS
01	CAPTACIÓN (AZUD) Y CONDUCCIÓN A ETAP.....	5.067.711,74
-01.01	-OBRA CIVIL CAPTACIÓN.....	433.007,79
-01.02	-EQUIPOS ELECTROMECÁNICOS CAPTACIÓN.....	302.141,16
-01.03	-EJE 1: CONDUCCIÓN GRAVEDAD DE CAPTACIÓN - ETAP.....	4.310.381,35
-01.04	-INSTALACIONES ELÉCTRICA BT.....	22.181,44
02	ESTACIÓN DE TRATAMIENTO DE AGUA POTABLE (ETAP).....	6.725.051,20
-02.01	-OBRA CIVIL ETAP.....	4.142.221,62
-02.02	-EQUIPOS ELECTROMECÁNICOS ETAP.....	2.070.615,64
-02.03	-INSTALACIONES ELÉCTRICAS ETAP.....	329.368,54
-02.04	-ACCESOS.....	6.664,38
-02.05	-IMPULSION AGUAS SUCIAS.....	41.464,68
-02.06	-COLECTOR AGUAS SUCIAS.....	134.716,34
03	RAMAL PRINCIPAL: ETAP - ARQUETA P190.....	7.283.767,06
-03.01	-EJE 3: ETAP - ACOMETIDA ARNEDO.....	3.466.241,25
-03.02	-EJE 4: ACOMETIDA ARNEDO - P190.....	2.883.576,50
-03.03	-EJES 14 Y 24: ACOMETIDA SANTA EULALIA S Y B.....	35.239,07
-03.04	-EJE 15: ACOMETIDA HERCE.....	46.922,73
-03.05	-EJE 16: ACOMETIDA ARNEDO.....	374.697,59
-03.06	-EJE 17: ACOMETIDA QUEL.....	198.301,65
-03.07	-DERIVACIÓN ARNEDO Y VÁLVULA ANTIINUNDACIÓN DN500.....	91.825,40
-03.08	-ARQUETA DERIVACIÓN P-190.....	186.962,87
04	IMPULSIÓN A ARNEDILLO.....	215.850,90
-04.01	-EJE 2: IMPULSIÓN ETAP - ARNEDILLO.....	194.459,37
-04.02	-BOMBEO ETAP - ARNEDILLO.....	21.391,53
05	RAMAL DESDE ARQUETA P190 - CALAHORRA.....	2.090.346,46
-05.01	-EJE 7: P190 - CALAHORRA.....	2.066.279,42
-05.02	-ARQUETA ANTIINUNDACIÓN DN300.....	24.067,04
06	RAMAL DESDE ARQUETA P190 - ALFARO.....	5.088.574,39
-06.01	-EJE 5: P-190 - DERIVACIÓN ALDEANUEVA DE EBRO.....	2.085.217,41
-06.02	-EJE 6: DERIVACIÓN ALDEANUEVA DE EBRO - DEPÓSITO DE ALFARO.....	2.414.565,62
-06.03	-EJE 18: ACOMETIDA AUTOL.....	325.387,32
-06.04	-EJE 19: ACOMETIDA ALDEANUEVA DE EBRO.....	35.239,03
-06.05	-EJE 20: ACOMETIDA RINCÓN DE SOTO.....	131.865,73
-06.06	-DERIVACIÓN RINCÓN. ARQUETA VÁLVULAS DE RETENCIÓN P-260.....	96.299,28
07	RAMAL DESDE ARQUETA P190- ALCANADRE.....	4.524.929,20
-07.01	-EJE 8: P-190 - DERIVACIÓN HACIA TUDELILLA (P-350).....	1.212.075,23
-07.02	-EJE 9: P-350 - ETAP VALLE DE OCÓN.....	628.735,96
-07.03	-EJE 10: P-350 - DERIVACIÓN A VILLAR DE ARNEDO (P-410).....	553.193,69
-07.04	-EJE 11: P-410 - DEPÓSITO DE PRADEJÓN.....	317.404,22
-07.05	-EJE 12: DERIVACIÓN PRADEJÓN (P-430) - DEPÓSITO DE ALCANADRE.....	693.597,25
-07.06	-EJE 13: IMPULSIÓN A AUSEJO.....	352.032,82
-07.07	-EJE 21: ACOMETIDA BERGASA.....	171.312,81
-07.08	-EJE 22: ACOMETIDA TUDELILLA.....	1.482,45
-07.09	-EJE 23: ACOMETIDA VILLAR DE ARNEDO.....	77.894,77
-07.10	-ARQUETA REDUCTORA P-410. DERIVACIÓN VILLAR.....	51.497,44
-07.11	-BOMBEO AUSEJO Y VALLE DE OCÓN.....	283.991,74
-07.12	-BOMBEO A BERGASA.....	47.495,34
-07.13	-OBRAS AUXILIARES.....	134.215,48
08	ACOMETIDAS ENTRADAS A DEPÓSITOS.....	665.984,69
-08.01	-ACOMETIDA A DEPÓSITO DE ARNEDILLO.....	13.969,52
-08.02	-ACOMETIDA A DEPÓSITO DE ALFARO.....	99.577,02
-08.03	-ACOMETIDA A DEPÓSITO DE CALAHORRA.....	147.862,14
-08.04	-ACOMETIDA A DEPÓSITO VALLE DE OCÓN.....	20.537,53
-08.05	-ACOMETIDA A DEPÓSITO DE PRADEJÓN.....	37.314,56
-08.06	-ACOMETIDA A DEPÓSITO DE ALCANADRE.....	19.283,97
-08.07	-ACOMETIDA A DEPÓSITO DE AUSEJO.....	13.657,40
-08.08	-ACOMETIDA A DEPÓSITO DE SANTA EULALIA BAJERA.....	5.392,01
-08.09	-ACOMETIDA A DEPÓSITO DE SANTA EULALIA SOMERA.....	5.392,01
-08.10	-ACOMETIDA A DEPÓSITO DE HERCE.....	5.398,67
-08.11	-ACOMETIDA A DEPÓSITO DE ARNEDO.....	112.087,33
-08.12	-ACOMETIDA A DEPÓSITO DE QUEL.....	31.277,77
-08.13	-ACOMETIDA A DEPÓSITO DE AUTOL.....	32.689,42

RESUMEN DE PRESUPUESTO

ABASTECIMIENTO A VARIOS MUNICIPIOS DE LA RIOJA. SISTEMA CIDACOS

CAPITULO	RESUMEN	EUROS
-08.14	-ACOMETIDA A DEPÓSITO DE ALDEANUEVA DE EBRO.....	36.046,85
-08.15	-ACOMETIDA A DEPÓSITO DE RINCÓN DE SOTO.....	42.635,82
-08.16	-ACOMETIDA A DEPÓSITO DE BERGASA.....	13.681,60
-08.17	-ACOMETIDA A DEPÓSITO DE TUDELILLA.....	11.280,86
-08.18	-ACOMETIDA A DEPÓSITO DE VILLAR DE ARNEDO.....	17.900,21
09	ACOMETIDAS ELÉCTRICAS.....	231.437,23
-09.01	-ACOMETIDA A.T Y C.T. BOMBEO BERGASA.....	68.784,36
-09.02	-ACOMETIDA A.T Y C.T. BOMBEO VALLE DE OCÓN Y AUSEJO.....	73.033,38
-09.03	-ELECTRICIDAD EN REDUCTORA DE PRESIÓN (P260) A RINCÓN-ALFARO.....	1.253,86
-09.04	-ACOMETIDA REDUCTORA DE PRESIÓN ALTO DE QUEL-ALCANADRE (P190).....	15.805,12
-09.05	-ELECTRICIDAD EN REDUCTORA DE PRESIÓN (P410) A VILLAR-PRADE-ALCAN.....	1.253,86
-09.06	-ACOMETIDA ETAP AT.....	35.165,04
-09.07	-ACOMETIDA AZUD AT.....	36.141,61
10	TELEMANDO Y TELECONTROL.....	806.485,92
11	MEDIDAS CORRECTORAS Y MEDIOAMBIENTALES.....	496.527,62
12	SEGURIDAD Y SALUD.....	311.697,08
13	GESTIÓN DE RESIDUOS EN FASE DE CONTRUCCIÓN.....	435.016,25
	TOTAL EJECUCIÓN MATERIAL	33.943.379,74
	13,00% Gastos generales.....	4.412.639,37
	6,00% Beneficio industrial.....	2.036.602,78
	VALOR ESTIMADO DEL PROYECTO	40.392.621,89
	Asciende el Valor Estimado del Proyecto a la expresada cantidad de CUARENTA MILLONES TRESCIENTOS NOVENTA Y DOS MIL SEISCIENTOS VEINTIUN EUROS con OCHENTA Y NUEVE CÉNTIMOS	
	21,00% I.V.A.....	8.482.450,60
	TOTAL PRESUPUESTO BASE DE LICITACIÓN	48.875.072,49
	Asciende el Presupuesto Base de Licitación a la expresada cantidad de CUARENTA Y OCHO MILLONES OCHOCIENTOS SETENTA Y CINCO MIL SESENTA Y DOS EUROS con CUARENTA Y NUEVE CÉNTIMOS	
	VºBº: El Director del Proyecto:	Logroño, junio de 2020 El Ingeniero Autor del Proyecto:
	Fdo: Ángel Castillo González Consortio de Aguas y Residuos de La Rioja	Fdo: Oscar F. González Vega ING. CAMINOS, CANALES Y PUERTOS Colegiado N° 10.755