

Proyecto de Urbanización de la
Unidad de Ejecución 1 de la
Actuación Integrada 1 del Área
Mixta de Zorrotzaurre.

ANEJO Nº 3. TRAZADO

A03-3. ZONA RIBERA DEUSTO

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1. INTRODUCCIÓN

Para la definición y diseño del proyecto **"Recuperación Integral de Sabino Arana. Tramo: Avenida del Ferrocarril - Autonomía"** se ha utilizado el software de ingeniería civil Mx.

Mx es un sistema pionero en el diseño interactivo que consta de un conjunto de módulos de ordenador que permiten la definición, diseño, dibujo, mediciones y presupuesto de una obra, sea esta un ferrocarril, una carretera, una urbanización, trabajos de rehabilitación y renovación de firmes, obras hidráulicas o trabajos de movimientos de tierra de forma integrada e interactiva.

Se compone de los siguientes módulos:

- MxRoad es una aplicación que permite el diseño eficaz de una solución de carretera desde la introducción de los datos del terreno existente hasta la producción de planos e informes que definen la solución. Durante todo el diseño, hay herramientas disponibles que permiten el análisis o visualización del diseño de forma que puede comprobarse y confirmarse cada paso del proceso del diseño.
- MxRenew es una herramienta informatizada que permite adaptar diseños a firmes existentes a efectos de rehabilitación, refuerzo y ensanche. Ofrece una solución global al complejo problema de la restauración de capas de rodadura.
- MxRail utiliza toda la potencia y flexibilidad de Mx permitiendo diseñar ejes tridimensionales que representan vías de línea sencilla, desvíos sencillos, cruces de rombo, vías de cruce y distribuciones complejas de varias entradas. Se ha desarrollado en conjunción con reputados ingenieros ferroviarios internacionales y se basa en los métodos de diseño tradicionales utilizados en todo el mundo y desarrollados por la industria ferroviaria durante muchos años. MxRail se ha concebido específicamente para el diseño de vías férreas o metro ligero, no obstante, cuando se utiliza junto con otros módulos, el paquete se puede emplear para integrar el diseño de almacenes de estación, terminales de carga y otras instalaciones del ferrocarril.
- MxSite se utiliza para el desarrollo de zonas residenciales, comerciales e industriales. Es ideal tanto para el Diseño 2D y como 3D de carreteras, cruces, fondos de saco, movimientos de tierras, diseño de zonas de aparcamiento, secciones, drenaje, y volúmenes.
- MxUrban es una aplicación para el diseño de mejoras viarias en zonas urbanas. Admite todo tipo de tareas de rehabilitación urbana, desde refuerzos entre las líneas de los bordillos ya existentes hasta la reconstrucción completa tanto de la calle como de las aceras.
- MxDraw se usa para una producción final de planos rápida y eficaz. Se pueden crear presentaciones compuestas para plantas, longitudinales y perfiles transversales.

Con el mismo software se han obtenido los listados que aparecen en el apartado 5 de este mismo anejo. Para un mejor entendimiento de los mismos se dará previamente una breve explicación en los apartados 2, 3 y 4.

2. EXPLICACIONES AL LISTADO DE ALINEACIONES EN PLANTA

El listado de salida del estado de alineaciones en planta de un eje contiene 5 columnas, representando cada una de las mismas lo siguiente:

- NOM : Código interno del ordenador
- CARACTERÍSTICAS : Clasifica el tipo de alineación - circular, curva de transición (clotoide) y recta -, representando los datos que definen cada una de ellas:
 - XC : Abscisa del centro en alineación circular.
 - YC : Ordenada del centro en alineación circular.
 - R : Radio de la alineación circular en metros:
 - ~ (+) giro derecha.
 - ~ (-) giro izquierda.
 - A : Parámetro de la curva de transición (clotoide).
- ACIMUT : Acimut de la alineación recta en grados centesimales.
- DESARROLLO : Longitud parcial en metros de cada alineación.
- P.K : Punto kilométrico, en metros, de los puntos de tangencia de cada alineación.
- X : Abscisa del punto singular en metros.
- Y : Ordenada del punto singular en metros.

3. EXPLICACIONES AL LISTADO DE RASANTES

El listado de salida para la definición del estado de rasantes se compone de 5 columnas, con el siguiente significado:

- NOM : Código interno del ordenador.
- CARACTERÍSTICAS : Clasifica el tipo de alineación (rampa, pendiente y acuerdo vertical), representando los datos que definen cada una de ellas:
 - PENTE: Inclinación de la rasante entre acuerdos verticales:
 - ~ (+) rampa.
 - ~ (-) pendiente.
 - Kv: Parámetro del acuerdo vertical correspondiente:
 - ~ (+) cóncavo.
 - ~ (-) convexo.
 - En los casos correspondientes también ofrece el punto kilométrico (P.K.) y la cota (Z) del punto del acuerdo con pendiente cero.
- DESARROLLO : Longitud del acuerdo vertical, o del tramo en rampa o pendiente comprendido entre acuerdos.
- P.K : Punto kilométrico en metros.
- COTA : Altitud o cota de la rasante.

4. EXPLICACIONES AL LISTADO DE PUNTOS CADA 10 METROS

El listado de salida de la relación de puntos sucesivos del eje contiene 7 columnas, representando los datos que definen el mencionado eje tanto en planta como en alzado. El significado de cada columna es el siguiente:

- PUNTO: Enumeración de los puntos considerados (singulares y cada 10 m)
- X: Abscisa del punto en metros
- Y: Ordenada del punto, en metros.
- COTA: Altitud o cota de la rasante en metros
- P.K.: Punto kilométrico en metros
- ACIMUT: Acimut de la tangente al punto en grados centesimales.
- RADIO: Radio de curvatura instantáneo en el punto considerado.

5. LISTADO DE LAS ALINEACIONES

A continuación se incluyen los listados de las alineaciones en planta, alzado y puntos cada 10 metros de los diferentes ejes que forman parte del proyecto.

Los ejes se han dispuesto en el siguiente orden:

- EJE 11
- EJE 16
- EJE 17
- EJE 18
- EJE 19
- EJE 20
- EJE 21
- EJE 22
- EJE 23
- EJE 24
- EJE BIDEGORRI

Nota : El "EJE 03" pertenece al tramo 2 del proyecto.

EJE 11

ALINEACIONES EN PLANTA

NOMBRE	CHARACTERÍSTICAS	LONGITUD	P.K.	X	Y
1	ACIMUT= 26.61327	132.057	108.187	503775.62709	4790657.30478
2	XC = 503664.73864 YC = 4790851.06422 R = -180.000	5.792	240.244	503829.23818	4790777.98959
			246.036	503831.50397	4790783.31967
LONGITUD TOTAL			137.849		

ALINEACIONES EN ALZADO

PUNTOS TANGENCIA

NOMBRE	CHARACTERÍSTICAS	LONGITUD	P.K.	COTA
1	PENDIENTE= 0.012	36.299	108.187	5.849
2	Kv= 500.000	8.996	144.486	6.285
3	PENDIENTE= 0.030	12.539	153.482	6.474
4	P.K.= 188.5192 Z= 7.1875 Kv= -750.000	44.998	166.021	6.850
5	PENDIENTE= -0.030	13.833	211.019	6.850
6	Kv= 500.000	9.925	224.852	6.435
7	PENDIENTE= -0.010	11.259	234.777	6.236
			246.036	6.122

PUNTOS SINGULARES Y CADA 10 METROS

PUNTO	X	Y	COTA	P.K.	ACIMUT	RADIO
1	503775.627	4790657.305	5.849	108.187	26.6132669	INFINITO
2	503776.363	4790658.962	5.871	110.000	26.6132669	INFINITO
3	503780.423	4790668.101	5.991	120.000	26.6132669	INFINITO
4	503784.483	4790677.239	6.111	130.000	26.6132669	INFINITO
5	503788.542	4790686.378	6.231	140.000	26.6132669	INFINITO
6	503790.363	4790690.478	6.285	144.486	26.6132669	INFINITO
7	503792.189	4790694.589	6.359	148.984	26.6132669	INFINITO
8	503792.602	4790695.517	6.382	150.000	26.6132669	INFINITO
9	503794.015	4790698.699	6.474	153.482	26.6132669	INFINITO
10	503796.662	4790704.656	6.669	160.000	26.6132669	INFINITO
11	503799.106	4790710.158	6.850	166.021	26.6132669	INFINITO
12	503800.721	4790713.795	6.959	170.000	26.6132669	INFINITO
13	503804.781	4790722.934	7.139	180.000	26.6132669	INFINITO
14	503808.240	4790730.719	7.188	188.519	26.6132669	INFINITO
15	503808.841	4790732.073	7.186	190.000	26.6132669	INFINITO
16	503812.900	4790741.211	7.100	200.000	26.6132669	INFINITO
17	503816.960	4790750.350	6.880	210.000	26.6132669	INFINITO
18	503817.374	4790751.282	6.850	211.019	26.6132669	INFINITO
19	503821.020	4790759.489	6.581	220.000	26.6132669	INFINITO
20	503822.990	4790763.923	6.435	224.852	26.6132669	INFINITO
21	503825.004	4790768.458	6.311	229.814	26.6132669	INFINITO
22	503825.080	4790768.628	6.307	230.000	26.6132669	INFINITO
23	503827.019	4790772.994	6.236	234.777	26.6132669	INFINITO
24	503829.139	4790777.767	6.183	240.000	26.6132669	INFINITO
25	503829.238	4790777.990	6.180	240.244	26.6132669	-180.000
26	503831.504	4790783.320	6.122	246.036	24.5647876	-180.000

EJE 16

ALINEACIONES EN PLANTA

NOMBRE	CHARACTERÍSTICAS	LONGITUD	P.K.	X	Y
1	ACIMUT= 104.62303	150.615	0.000	502540.25470	4791858.09837
1	A = 34.64102	12.000	150.615	502690.47295	4791847.17056
2	XC = 502689.19661 YC = 4791746.93900 R = 100.000	20.313	162.615	502702.41960	4791846.06091
2	A = 34.64102	12.000	182.928	502722.14393	4791841.35550
3	ACIMUT= 125.19394	44.426	194.928	502733.30495	4791836.95260
3	A = 20.49389	12.000	239.354	502774.29763	4791819.82638
4	XC = 502766.27008 YC = 4791785.06283 R = 35.000	19.338	251.354	502785.07385	4791814.58262
4	A = 26.70827	20.381	270.692	502797.76887	4791800.32175
4	A = 26.70827	3.567	291.073	502802.92863	4791780.68399
5	XC = 503000.66048 YC = 4791810.77885 R = -200.000	59.026	294.640	502803.50554	4791777.16439
5	A = 63.24555	20.000	353.665	502821.80740	4791721.27294
6	ACIMUT= 167.27764	240.980	373.665	502831.34804	4791703.69775
6	A = 141.42124	20.000	614.645	502949.82953	4791493.85640
7	XC = 502083.94761 YC = 4790993.47473 R = 1000.000	30.429	634.645	502959.60468	4791476.40814
7	A = 141.42122	20.000	665.074	502973.89220	4791449.54338
8	ACIMUT= 170.48805	252.443	685.074	502982.89466	4791431.68418
8	A = 137.84036	20.000	937.517	503095.77378	4791205.88364
9	XC = 503949.99858 YC = 4791621.73617 R = -950.000	222.947	957.517	503104.77936	4791188.02604
9	A = 137.84035	20.000	1180.464	503228.79973	4791003.37363
10	ACIMUT= 154.20755	13.222	1200.464	503241.92403	4790988.28233
10	A = 154.27238	20.000	1213.686	503250.63555	4790978.33586
11	XC = 504152.42778 YC = 4791754.86926 R = -1190.000	250.000	1233.686	503263.85484	4790963.32764
11	A = 154.27238	20.000	1483.686	503448.46131	4790795.42608
12	ACIMUT= 139.76324	70.870	1503.686	503464.65236	4790783.68528
12	A = 99.99965	20.000	1574.556	503522.14195	4790742.24244
13	XC = 503822.65946 YC = 4791142.02058 R = -500.000	26.605	1594.556	503538.44310	4790730.65570
			1621.161	503560.72364	4790716.12197

NOMBRE	CARACTERÍSTICAS	LONGITUD	P.K.	X	Y
13	A = 117.66930	20.000	1641.161	503577.91612	4790705.90478
14	XC = 504481.39903 YC = 4792262.73447 R = -1800.000	52.895	1694.056	503624.04914	4790680.03070
14	A = 93.21769	20.000	1714.056	503641.75808	4790670.73861
15	XC = 503797.86761 YC = 4790983.99540 R = -350.000	14.354	1728.410	503654.73329	4790664.60134
15	A = 83.66601	20.000	1748.410	503673.13618	4790656.77162
16	ACIMUT= 125.00244	40.000	1788.410	503710.09085	4790641.46284
16	A = 67.08166	15.000	1803.410	503723.99564	4790635.83796
17	XC = 503831.84723 YC = 4790915.78087 R = -300.000	17.151	1820.561	503740.16771	4790630.13272
17	A = 67.08167	15.000	1835.561	503754.52397	4790625.78758
18	ACIMUT= 118.17977	48.092	1883.653	503800.66841	4790612.23996
18	A = 92.73574	20.000	1903.653	503819.90090	4790606.75504
19	XC = 503931.40580 YC = 4791022.04609 R = -430.000	145.996	2049.649	503964.57526	4790593.32732
LONGITUD TOTAL			2049.649		

ALINEACIONES EN ALZADO

				PUNTOS TANGENCIA	
NOMBRE	CARACTERÍSTICAS	LONGITUD	P.K.	COTA	
				0.000	12.772
1	PENDIENTE= -0.010	141.024			
				141.024	11.361
2	Kv= -1200.001	36.000			
				177.024	10.461
3	PENDIENTE= -0.040	63.951			
				240.976	7.903
4	Kv= 2500.001	80.000			
				320.976	5.983
5	PENDIENTE= -0.008	159.554			
				480.530	4.707
6	P.K.= 500.5298 Z= 4.6269 Kv= 2500.000	40.000			
				520.530	4.707
7	PENDIENTE= 0.008	144.716			
				665.245	5.865
8	P.K.= 685.2455 Z= 5.9447 Kv= -2500.000	40.000			
				705.245	5.865
9	PENDIENTE= -0.008	134.957			
				840.202	4.785
10	P.K.= 860.2020 Z= 4.7050 Kv= 2500.000	40.000			
				880.202	4.785
11	PENDIENTE= 0.008	84.240			
				964.442	5.459
12	P.K.= 984.4425 Z= 5.5389 Kv= -2500.000	40.000			
				1004.442	5.459
13	PENDIENTE= -0.008	59.240			
				1063.683	4.985
14	P.K.= 1083.6830 Z= 4.9050 Kv= 2500.000	40.000			
				1103.683	4.985
15	PENDIENTE= 0.008	125.366			
				1229.049	5.988
16	P.K.= 1249.0495 Z= 6.0679 Kv= -2500.000	40.000			
				1269.049	5.988
17	PENDIENTE= -0.008	92.159			
				1361.208	5.251
18	P.K.= 1381.2084 Z= 5.1707 Kv= 2500.000	40.000			
				1401.208	5.251
19	PENDIENTE= 0.008	169.827			
				1571.035	6.609
20	P.K.= 1591.0350 Z= 6.6893 Kv= -2500.000	40.000			
				1611.035	6.609
21	PENDIENTE= -0.008	167.240			
				1778.275	5.271
22	P.K.= 1798.2749 Z= 5.1914 Kv= 2500.000	40.000			
				1818.275	5.271
23	PENDIENTE= 0.008	231.375			
				2049.649	7.122

PUNTOS SINGULARES Y CADA 10 METROS

PUNTO	X	Y	COTA	P.K.	ACIMUT	RADIO
1	502540.255	4791858.098	12.772	0.000	104.6230259	INFINITO
2	502550.228	4791857.373	12.672	10.000	104.6230259	INFINITO
3	502560.202	4791856.647	12.572	20.000	104.6230259	INFINITO
4	502570.176	4791855.922	12.472	30.000	104.6230259	INFINITO
5	502580.149	4791855.196	12.372	40.000	104.6230259	INFINITO
6	502590.123	4791854.471	12.272	50.000	104.6230259	INFINITO
7	502600.097	4791853.745	12.172	60.000	104.6230259	INFINITO
8	502610.070	4791853.020	12.072	70.000	104.6230259	INFINITO
9	502620.044	4791852.294	11.972	80.000	104.6230259	INFINITO
10	502630.018	4791851.568	11.872	90.000	104.6230259	INFINITO
11	502639.991	4791850.843	11.772	100.000	104.6230259	INFINITO
12	502649.965	4791850.117	11.672	110.000	104.6230259	INFINITO
13	502659.938	4791849.392	11.572	120.000	104.6230259	INFINITO
14	502669.912	4791848.666	11.472	130.000	104.6230259	INFINITO
15	502679.886	4791847.941	11.372	140.000	104.6230259	INFINITO
16	502680.907	4791847.866	11.361	141.024	104.6230259	INFINITO
17	502689.859	4791847.215	11.238	150.000	104.6230259	INFINITO
18	502690.473	4791847.171	11.227	150.615	104.6230259	INFINITO
19	502698.853	4791846.478	11.046	159.024	106.4987960	142.701
20	502699.823	4791846.375	11.022	160.000	106.9592759	127.866
21	502702.420	4791846.061	10.951	162.615	108.4427444	100.000
22	502709.697	4791844.815	10.722	170.000	113.1440570	100.000
23	502716.516	4791843.135	10.461	177.024	117.6159346	100.000
24	502719.366	4791842.280	10.342	180.000	119.5102547	100.000
25	502722.144	4791841.355	10.225	182.928	121.3742233	100.000
26	502728.752	4791838.837	9.942	190.000	124.5497796	243.511
27	502733.305	4791836.953	9.745	194.928	125.1939419	INFINITO
28	502737.985	4791834.997	9.542	200.000	125.1939419	INFINITO
29	502747.212	4791831.142	9.142	210.000	125.1939419	INFINITO
30	502756.439	4791827.287	8.742	220.000	125.1939419	INFINITO
31	502765.666	4791823.432	8.342	230.000	125.1939419	INFINITO
32	502774.298	4791819.826	7.968	239.354	125.1939419	INFINITO
33	502774.893	4791819.577	7.942	240.000	125.2255361	650.498
34	502775.793	4791819.200	7.903	240.976	125.3931264	259.073
35	502783.918	4791815.289	7.559	250.000	133.7830160	39.453
36	502785.074	4791814.583	7.510	251.354	136.1074129	35.000
37	502791.721	4791809.089	7.215	260.000	151.8331411	35.000
38	502797.461	4791800.942	6.911	270.000	170.0222775	35.000
39	502797.769	4791800.322	6.891	270.692	171.2812522	35.000
40	502800.853	4791791.557	6.647	280.000	184.3454609	64.420
41	502801.084	4791790.609	6.623	280.976	185.2670180	70.644
42	502802.757	4791781.743	6.423	290.000	189.7654276	664.760
43	502802.929	4791780.684	6.401	291.073	189.8168098	INFINITO
44	502803.506	4791777.164	6.333	294.640	189.2491584	-200.000
45	502804.477	4791771.893	6.239	300.000	187.5429304	-200.000
46	502806.666	4791762.137	6.095	310.000	184.3598315	-200.000
47	502809.339	4791752.502	5.991	320.000	181.1767327	-200.000
48	502809.626	4791751.569	5.983	320.976	180.8662195	-200.000
49	502812.491	4791743.012	5.911	330.000	177.9936338	-200.000
50	502816.113	4791733.693	5.831	340.000	174.8105350	-200.000
51	502820.197	4791724.565	5.751	350.000	171.6274361	-200.000
52	502821.807	4791721.273	5.722	353.665	170.4607424	-200.000
53	502824.722	4791715.649	5.671	360.000	168.7636715	-292.713
54	502829.548	4791706.890	5.591	370.000	167.3845499	-1091.323
55	502831.348	4791703.698	5.562	373.665	167.2776436	INFINITO
56	502834.463	4791698.182	5.511	380.000	167.2776436	INFINITO
57	502839.379	4791689.474	5.431	390.000	167.2776436	INFINITO
58	502844.296	4791680.766	5.351	400.000	167.2776436	INFINITO
59	502849.213	4791672.058	5.271	410.000	167.2776436	INFINITO
60	502854.129	4791663.350	5.191	420.000	167.2776436	INFINITO
61	502859.046	4791654.642	5.111	430.000	167.2776436	INFINITO
62	502863.963	4791645.935	5.031	440.000	167.2776436	INFINITO
63	502868.879	4791637.227	4.951	450.000	167.2776436	INFINITO
64	502873.796	4791628.519	4.871	460.000	167.2776436	INFINITO
65	502878.713	4791619.811	4.791	470.000	167.2776436	INFINITO
66	502883.629	4791611.103	4.711	480.000	167.2776436	INFINITO
67	502883.890	4791610.642	4.707	480.530	167.2776436	INFINITO
68	502888.546	4791602.395	4.649	490.000	167.2776436	INFINITO

PUNTO ----- X ----- Y ----- COTA ----- P.K. -- ACIMUT ----- RADIO --

69	502893.462	4791593.687	4.627	500.000	167.2776436	INFINITO
70	502893.723	4791593.226	4.627	500.530	167.2776436	INFINITO
71	502898.379	4791584.980	4.645	510.000	167.2776436	INFINITO
72	502903.296	4791576.272	4.703	520.000	167.2776436	INFINITO
73	502903.556	4791575.810	4.707	520.530	167.2776436	INFINITO
74	502908.212	4791567.564	4.783	530.000	167.2776436	INFINITO
75	502913.129	4791558.856	4.863	540.000	167.2776436	INFINITO
76	502918.046	4791550.148	4.943	550.000	167.2776436	INFINITO
77	502922.962	4791541.440	5.023	560.000	167.2776436	INFINITO
78	502927.879	4791532.733	5.103	570.000	167.2776436	INFINITO
79	502932.796	4791524.025	5.183	580.000	167.2776436	INFINITO
80	502937.712	4791515.317	5.263	590.000	167.2776436	INFINITO
81	502942.629	4791506.609	5.343	600.000	167.2776436	INFINITO
82	502947.546	4791497.901	5.423	610.000	167.2776436	INFINITO
83	502949.830	4791493.856	5.460	614.645	167.2776436	INFINITO
84	502952.461	4791489.193	5.503	620.000	167.3232819	3734.863
85	502957.353	4791480.471	5.583	630.000	167.6528905	1302.510
86	502959.605	4791476.408	5.620	634.645	167.9142623	1000.000
87	502962.178	4791471.712	5.663	640.000	168.2551705	1000.000
88	502966.917	4791462.906	5.743	650.000	168.8917903	1000.000
89	502971.567	4791454.053	5.823	660.000	169.5284100	1000.000
90	502973.892	4791449.543	5.863	665.074	169.8514287	1000.000
91	502973.970	4791449.391	5.865	665.245	169.8622993	1008.649
92	502976.129	4791445.154	5.898	670.000	170.1264095	1326.792
93	502980.625	4791436.222	5.939	680.000	170.4470732	3941.712
94	502982.895	4791431.684	5.945	685.074	170.4880473	INFINITO
95	502982.971	4791431.531	5.945	685.245	170.4880473	INFINITO
96	502985.097	4791427.278	5.940	690.000	170.4880473	INFINITO
97	502989.569	4791418.333	5.901	700.000	170.4880473	INFINITO
98	502991.914	4791413.642	5.865	705.245	170.4880473	INFINITO
99	502994.040	4791409.389	5.827	710.000	170.4880473	INFINITO
100	502998.512	4791400.444	5.747	720.000	170.4880473	INFINITO
101	503002.983	4791391.500	5.667	730.000	170.4880473	INFINITO
102	503007.455	4791382.555	5.587	740.000	170.4880473	INFINITO
103	503011.926	4791373.610	5.507	750.000	170.4880473	INFINITO
104	503016.398	4791364.666	5.427	760.000	170.4880473	INFINITO
105	503020.869	4791355.721	5.347	770.000	170.4880473	INFINITO
106	503025.341	4791346.777	5.267	780.000	170.4880473	INFINITO
107	503029.812	4791337.832	5.187	790.000	170.4880473	INFINITO
108	503034.283	4791328.887	5.107	800.000	170.4880473	INFINITO
109	503038.755	4791319.943	5.027	810.000	170.4880473	INFINITO
110	503043.226	4791310.998	4.947	820.000	170.4880473	INFINITO
111	503047.698	4791302.054	4.867	830.000	170.4880473	INFINITO
112	503052.169	4791293.109	4.787	840.000	170.4880473	INFINITO
113	503052.260	4791292.928	4.785	840.202	170.4880473	INFINITO
114	503056.641	4791284.164	4.726	850.000	170.4880473	INFINITO
115	503061.112	4791275.220	4.705	860.000	170.4880473	INFINITO
116	503061.203	4791275.039	4.705	860.202	170.4880473	INFINITO
117	503065.584	4791266.275	4.724	870.000	170.4880473	INFINITO
118	503070.055	4791257.330	4.783	880.000	170.4880473	INFINITO
119	503070.145	4791257.150	4.785	880.202	170.4880473	INFINITO
120	503074.527	4791248.386	4.863	890.000	170.4880473	INFINITO
121	503078.998	4791239.441	4.943	900.000	170.4880473	INFINITO
122	503083.470	4791230.497	5.023	910.000	170.4880473	INFINITO
123	503087.941	4791221.552	5.103	920.000	170.4880473	INFINITO
124	503092.413	4791212.607	5.183	930.000	170.4880473	INFINITO
125	503095.774	4791205.884	5.244	937.517	170.4880473	INFINITO
126	503096.884	4791203.663	5.263	940.000	170.4777197	-7652.485
127	503101.371	4791194.726	5.343	950.000	170.2269966	-1522.086
128	503104.779	4791188.026	5.404	957.517	169.8179225	-950.000
129	503105.916	4791185.818	5.423	960.000	169.6515378	-950.000
130	503107.963	4791181.876	5.459	964.442	169.3538373	-950.000
131	503110.551	4791176.958	5.497	970.000	168.9814117	-950.000
132	503115.279	4791168.146	5.535	980.000	168.3112856	-950.000
133	503117.410	4791164.248	5.539	984.442	168.0135851	-950.000
134	503120.100	4791159.385	5.533	990.000	167.6411595	-950.000
135	503125.013	4791150.675	5.491	1000.000	166.9710335	-950.000
136	503127.225	4791146.822	5.459	1004.442	166.6733330	-950.000
137	503130.017	4791142.017	5.414	1010.000	166.3009074	-950.000
138	503135.112	4791133.413	5.334	1020.000	165.6307813	-950.000
139	503140.297	4791124.862	5.254	1030.000	164.9606552	-950.000

PUNTO	X	Y	COTA	P.K.	ACIMUT	RADIO
140	503145.572	4791116.367	5.174	1040.000	164.2905292	-950.000
141	503150.937	4791107.927	5.094	1050.000	163.6204031	-950.000
142	503156.389	4791099.544	5.014	1060.000	162.9502770	-950.000
143	503158.420	4791096.472	4.985	1063.683	162.7034726	-950.000
144	503161.930	4791091.220	4.942	1070.000	162.2801509	-950.000
145	503167.558	4791082.954	4.908	1080.000	161.6100249	-950.000
146	503169.652	4791079.925	4.905	1083.683	161.3632204	-950.000
147	503173.272	4791074.748	4.913	1090.000	160.9398988	-950.000
148	503179.073	4791066.602	4.958	1100.000	160.2697727	-950.000
149	503181.231	4791063.618	4.985	1103.683	160.0229683	-950.000
150	503184.959	4791058.518	5.036	1110.000	159.5996466	-950.000
151	503190.930	4791050.496	5.116	1120.000	158.9295206	-950.000
152	503196.985	4791042.538	5.196	1130.000	158.2593945	-950.000
153	503203.124	4791034.644	5.276	1140.000	157.5892684	-950.000
154	503209.345	4791026.814	5.356	1150.000	156.9191423	-950.000
155	503215.648	4791019.051	5.436	1160.000	156.2490162	-950.000
156	503222.033	4791011.355	5.516	1170.000	155.5788902	-950.000
157	503228.498	4791003.726	5.596	1180.000	154.9087641	-950.000
158	503228.800	4791003.374	5.599	1180.464	154.8776765	-950.000
159	503235.037	4790996.161	5.676	1190.000	154.3909866	-1815.769
160	503241.618	4790988.631	5.756	1200.000	154.2079123	-40960.113
161	503241.924	4790988.282	5.759	1200.464	154.2075518	INFINITO
162	503248.207	4790981.109	5.836	1210.000	154.2075518	INFINITO
163	503250.636	4790978.336	5.865	1213.686	154.2075518	INFINITO
164	503254.797	4790973.587	5.916	1220.000	154.1542315	-3769.351
165	503260.777	4790966.795	5.988	1229.049	153.8918655	-1549.121
166	503261.407	4790966.083	5.995	1230.000	153.8515939	-1458.861
167	503263.855	4790963.328	6.021	1233.686	153.6725780	-1190.000
168	503268.067	4790958.624	6.052	1240.000	153.3347895	-1190.000
169	503274.148	4790951.922	6.068	1249.049	152.8506667	-1190.000
170	503274.790	4790951.221	6.068	1250.000	152.7998149	-1190.000
171	503281.574	4790943.874	6.044	1260.000	152.2648403	-1190.000
172	503287.766	4790937.275	5.988	1269.049	151.7807175	-1190.000
173	503288.420	4790936.585	5.980	1270.000	151.7298657	-1190.000
174	503295.326	4790929.353	5.900	1280.000	151.1948911	-1190.000
175	503302.294	4790922.180	5.820	1290.000	150.6599165	-1190.000
176	503309.321	4790915.065	5.740	1300.000	150.1249419	-1190.000
177	503316.408	4790908.010	5.660	1310.000	149.5899673	-1190.000
178	503323.554	4790901.015	5.580	1320.000	149.0549927	-1190.000
179	503330.758	4790894.080	5.500	1330.000	148.5200181	-1190.000
180	503338.021	4790887.205	5.420	1340.000	147.9850435	-1190.000
181	503345.341	4790880.392	5.340	1350.000	147.4500689	-1190.000
182	503352.717	4790873.641	5.260	1360.000	146.9150943	-1190.000
183	503353.613	4790872.829	5.251	1361.208	146.8504454	-1190.000
184	503360.151	4790866.952	5.196	1370.000	146.3801198	-1190.000
185	503367.640	4790860.325	5.171	1380.000	145.8451452	-1190.000
186	503368.549	4790859.529	5.171	1381.208	145.7804962	-1190.000
187	503375.185	4790853.762	5.186	1390.000	145.3101706	-1190.000
188	503382.785	4790847.263	5.241	1400.000	144.7751960	-1190.000
189	503383.707	4790846.482	5.251	1401.208	144.7105470	-1190.000
190	503390.439	4790840.827	5.321	1410.000	144.2402214	-1190.000
191	503398.147	4790834.456	5.401	1420.000	143.7052468	-1190.000
192	503405.908	4790828.150	5.481	1430.000	143.1702722	-1190.000
193	503413.722	4790821.910	5.561	1440.000	142.6352976	-1190.000
194	503421.588	4790815.735	5.641	1450.000	142.1003230	-1190.000
195	503429.505	4790809.627	5.721	1460.000	141.5653484	-1190.000
196	503437.474	4790803.586	5.801	1470.000	141.0303738	-1190.000
197	503445.493	4790797.611	5.881	1480.000	140.4953992	-1190.000
198	503448.461	4790795.426	5.910	1483.686	140.2982111	-1190.000
199	503453.561	4790791.703	5.961	1490.000	140.0137448	-1739.013
200	503461.663	4790785.841	6.041	1500.000	139.7814075	-6457.019
201	503464.652	4790783.685	6.070	1503.686	139.7632372	INFINITO
202	503469.774	4790779.993	6.121	1510.000	139.7632372	INFINITO
203	503477.886	4790774.145	6.201	1520.000	139.7632372	INFINITO
204	503485.998	4790768.298	6.281	1530.000	139.7632372	INFINITO
205	503494.110	4790762.450	6.361	1540.000	139.7632372	INFINITO
206	503502.222	4790756.602	6.441	1550.000	139.7632372	INFINITO
207	503510.334	4790750.754	6.521	1560.000	139.7632372	INFINITO
208	503518.446	4790744.907	6.601	1570.000	139.7632372	INFINITO
209	503519.286	4790744.301	6.609	1571.035	139.7632372	INFINITO
210	503522.142	4790742.242	6.635	1574.556	139.7632372	INFINITO

PUNTO ----- X ----- Y ----- COTA ----- P.K. -- ACIMUT ----- RADIO --

211	503526.560	4790739.061	6.665	1580.000	139.6688965	-1836.852
212	503534.706	4790733.261	6.689	1590.000	139.0040023	-647.494
213	503535.553	4790732.667	6.689	1591.035	138.8988355	-606.828
214	503538.443	4790730.656	6.687	1594.556	138.4900067	-500.000
215	503542.939	4790727.585	6.673	1600.000	137.7968294	-500.000
216	503551.283	4790722.074	6.617	1610.000	136.5235899	-500.000
217	503552.153	4790721.514	6.609	1611.035	136.3918155	-500.000
218	503559.736	4790716.731	6.538	1620.000	135.2503504	-500.000
219	503560.724	4790716.122	6.528	1621.161	135.1025706	-500.000
220	503568.289	4790711.551	6.458	1630.000	134.1567345	-734.431
221	503576.913	4790706.488	6.378	1640.000	133.5198056	-1564.034
222	503577.916	4790705.905	6.368	1641.161	133.4756640	-1800.000
223	503585.572	4790701.487	6.298	1650.000	133.1630317	-1800.000
224	503594.260	4790696.534	6.218	1660.000	132.8093540	-1800.000
225	503602.974	4790691.630	6.138	1670.000	132.4556764	-1800.000
226	503611.716	4790686.774	6.058	1680.000	132.1019987	-1800.000
227	503620.485	4790681.967	5.978	1690.000	131.7483211	-1800.000
228	503624.049	4790680.031	5.945	1694.056	131.6048713	-1800.000
229	503629.282	4790677.212	5.898	1700.000	131.2652182	-806.710
230	503638.138	4790672.567	5.818	1710.000	130.1097486	-418.338
231	503641.758	4790670.739	5.785	1714.056	129.4323094	-350.000
232	503647.101	4790668.133	5.738	1720.000	128.3510882	-350.000
233	503654.733	4790664.601	5.670	1728.410	126.8213546	-350.000
234	503656.186	4790663.954	5.658	1730.000	126.5436684	-380.225
235	503665.372	4790660.003	5.578	1740.000	125.3240731	-832.328
236	503673.136	4790656.772	5.510	1748.410	125.0024408	INFINITO
237	503674.605	4790656.163	5.498	1750.000	125.0024408	INFINITO
238	503683.844	4790652.336	5.418	1760.000	125.0024408	INFINITO
239	503693.082	4790648.509	5.338	1770.000	125.0024408	INFINITO
240	503700.727	4790645.342	5.271	1778.275	125.0024408	INFINITO
241	503702.321	4790644.682	5.258	1780.000	125.0024408	INFINITO
242	503710.091	4790641.463	5.211	1788.410	125.0024408	INFINITO
243	503711.560	4790640.855	5.205	1790.000	124.9845632	-2830.570
244	503719.218	4790637.720	5.191	1798.275	124.3140989	-456.170
245	503720.820	4790637.081	5.192	1800.000	124.0522913	-388.269
246	503723.996	4790635.838	5.197	1803.410	123.4109092	-300.000
247	503730.171	4790633.537	5.219	1810.000	122.0124814	-300.000
248	503737.993	4790630.840	5.271	1818.275	120.2565007	-300.000
249	503739.633	4790630.305	5.285	1820.000	119.8904155	-300.000
250	503740.168	4790630.133	5.290	1820.561	119.7712997	-300.000
251	503749.190	4790627.360	5.365	1830.000	118.3985301	-809.176
252	503754.524	4790625.788	5.410	1835.561	118.1797679	INFINITO
253	503758.783	4790624.537	5.445	1840.000	118.1797679	INFINITO
254	503768.378	4790621.720	5.525	1850.000	118.1797679	INFINITO
255	503777.973	4790618.903	5.605	1860.000	118.1797679	INFINITO
256	503787.568	4790616.086	5.685	1870.000	118.1797679	INFINITO
257	503797.163	4790613.269	5.765	1880.000	118.1797679	INFINITO
258	503800.668	4790612.240	5.794	1883.653	118.1797679	INFINITO
259	503806.760	4790610.457	5.845	1890.000	118.0306734	-1355.006
260	503816.377	4790607.716	5.925	1900.000	117.1907142	-526.093
261	503819.901	4790606.755	5.954	1903.653	116.6992711	-430.000
262	503826.043	4790605.154	6.005	1910.000	115.7595959	-430.000
263	503835.765	4790602.817	6.085	1920.000	114.2790848	-430.000
264	503845.540	4790600.706	6.165	1930.000	112.7985737	-430.000
265	503855.361	4790598.824	6.245	1940.000	111.3180626	-430.000
266	503865.223	4790597.170	6.325	1950.000	109.8375515	-430.000
267	503875.121	4790595.746	6.405	1960.000	108.3570404	-430.000
268	503885.049	4790594.552	6.485	1970.000	106.8765293	-430.000
269	503895.002	4790593.590	6.565	1980.000	105.3960182	-430.000
270	503904.975	4790592.859	6.645	1990.000	103.9155071	-430.000
271	503914.963	4790592.361	6.725	2000.000	102.4349960	-430.000
272	503924.959	4790592.094	6.805	2010.000	100.9544849	-430.000
273	503934.959	4790592.061	6.885	2020.000	99.4739738	-430.000
274	503944.957	4790592.260	6.965	2030.000	97.9934627	-430.000
275	503954.947	4790592.691	7.045	2040.000	96.5129516	-430.000
276	503964.575	4790593.327	7.122	2049.649	95.0843408	-430.000

EJE 17

ALINEACIONES EN PLANTA

NOMBRE	CARACTERÍSTICAS	LONGITUD	P.K.	X	Y
1	XC = 502975.90049 YC = 4791828.84042 R = -175.000	31.131	-0.000	502800.93340	4791825.44651
2	XC = 502215.93385 YC = 4791676.93351 R = 600.000	16.546	31.131	502804.29512	4791794.53886
3	XC = 503004.44083 YC = 4791812.05102 R = -200.000	68.858	47.676	502807.31409	4791778.27164
4	ACIMUT= 167.27775	255.172	116.534	502830.28386	4791713.71817
5	XC = 503195.20878 YC = 4791626.72567 R = -275.000	22.881	371.707	502955.74294	4791491.51801
6	XC = 502823.09883 YC = 4791373.67590 R = 175.000	21.831	394.588	502967.80826	4791472.08415
7	XC = 501198.02125 YC = 4790543.16532 R = 2000.000	18.000	416.419	502978.92819	4791453.31391
8	ACIMUT= 170.49551	24.062	434.419	502987.04742	4791437.24883
9	XC = 502818.90155 YC = 4791326.31665 R = 200.000	20.962	458.481	502997.80417	4791415.72501
10	XC = 503193.45066 YC = 4791466.71952 R = -200.000	20.985	479.443	503006.17610	4791396.51809
11	ACIMUT= 170.48805	183.927	500.428	503014.55852	4791377.29021
12	XC = 503230.97015 YC = 4791279.84633 R = -150.000	21.306	684.356	503096.80104	4791212.77434
13	XC = 502943.21687 YC = 4791080.60262 R = 200.000	22.473	705.662	503107.64732	4791194.45617
14	XC = 503952.61268 YC = 4791623.22229 R = -946.000	30.000	728.135	503119.37670	4791175.30064
15	XC = 502960.92933 YC = 4791048.87038 R = 200.000	19.823	758.135	503133.99797	4791149.10631
16	XC = 503325.20533 YC = 4791214.10655 R = -200.000	30.468	777.959	503143.06733	4791131.48846
17	XC = 503949.94750 YC = 4791621.79910 R = -946.000	88.678	808.426	503157.71413	4791104.80559
18	XC = 503326.97831 YC = 4791126.29392 R = -150.000	19.261	897.105	503209.58462	4791032.91982
			916.366	503222.50837	4791018.65548

ALINEACIONES EN ALZADO

NOMBRE	CARACTERÍSTICAS	LONGITUD	PUNTOS TANGENCIA	
			P.K.	COTA
1	PENDIENTE= -0.026	52.189	-0.000	7.605
2	Kv= 800.001	14.371	52.189	6.249
3	PENDIENTE= -0.008	166.015	66.560	6.004
4	P.K.= 252.6652 Z= 4.5892 Kv= 2500.000	40.090	232.575	4.670
5	PENDIENTE= 0.008	98.329	272.665	4.669
6	Kv= -10000.094	14.561	370.994	5.456
7	PENDIENTE= 0.007	36.445	385.555	5.562
8	P.K.= 437.7055 Z= 5.8516 Kv= -2399.998	31.325	422.000	5.800
9	PENDIENTE= -0.007	33.587	453.326	5.801
10	Kv= -11999.918	18.127	486.912	5.582
11	PENDIENTE= -0.008	87.637	505.040	5.450
12	P.K.= 612.7243 Z= 4.6673 Kv= 2499.997	40.047	592.677	4.748
13	PENDIENTE= 0.008	51.874	632.724	4.747
14	Kv= -4999.977	12.291	684.598	5.162
15	PENDIENTE= 0.006	28.859	696.889	5.246
16	P.K.= 736.8312 Z= 5.4362 Kv= -2000.000	23.831	725.748	5.405
17	PENDIENTE= -0.006	42.064	749.579	5.396
18	Kv= -9999.995	16.385	791.643	5.127
19	PENDIENTE= -0.008	7.619	808.028	5.010
20	P.K.= 835.6784 Z= 4.8683 Kv= 2500.000	40.120	815.648	4.949
21	PENDIENTE= 0.008	36.374	855.768	4.949
22	Kv= -9999.957	17.478	892.142	5.241
23	PENDIENTE= 0.006	14.387	909.620	5.366
24	Kv= 9999.906	17.216	924.007	5.457
25	PENDIENTE= 0.008	44.363	941.222	5.580
26	P.K.= 1004.0071 Z= 6.0091 Kv= -2299.998	36.888	985.585	5.935
27	PENDIENTE= -0.008	90.485	1022.473	5.935
28	P.K.= 1132.2264 Z= 5.1312 Kv= 2399.999	38.478	1112.958	5.209
29	PENDIENTE= 0.008	80.257	1151.436	5.208
			1231.693	5.850

NOMBRE	CHARACTERÍSTICAS	LONGITUD	P.K.	COTA
30	Kv= -9999.972	16.178		
	-----		1247.871	5.967
31	PENDIENTE= 0.006	40.444		
	-----		1288.316	6.225
32	Kv= 10000.096	16.137		
	-----		1304.453	6.341
33	PENDIENTE= 0.008	18.726		
	-----		1323.179	6.491
34	P.K.= 1342.2186 Z= 6.5672 Kv= -2380.003	38.183		
	-----		1361.362	6.490
35	PENDIENTE= -0.008	89.333		
	-----		1450.695	5.772
36	Kv= -9499.957	21.364		
	-----		1472.059	5.576
37	PENDIENTE= -0.010	4.582		
	-----		1476.641	5.529
38	Kv= 9499.976	21.700		
	-----		1498.341	5.330
39	PENDIENTE= -0.008	31.563		
	-----		1529.904	5.077
40	P.K.= 1539.5139 Z= 5.0388 Kv= 1200.000	24.018		
	-----		1553.922	5.125
41	PENDIENTE= 0.012	66.646		
	-----		1620.568	5.926

PUNTOS SINGULARES Y CADA 10 METROS

PUNTO	X	Y	COTA	P.K.	ACIMUT	RADIO
1	502800.933	4791825.447	7.605	0.000	198.7652748	-175.000
2	502801.413	4791815.459	7.345	10.000	195.1274476	-175.000
3	502802.462	4791805.516	7.085	20.000	191.4896203	-175.000
4	502804.077	4791795.649	6.825	30.000	187.8517930	-175.000
5	502804.295	4791794.539	6.796	31.131	187.4403685	600.000
6	502805.969	4791785.829	6.565	40.000	188.3814026	600.000
7	502807.314	4791778.272	6.366	47.676	189.1959019	-200.000
8	502807.720	4791775.984	6.305	50.000	188.4563009	-200.000
9	502808.126	4791773.833	6.249	52.189	187.7594561	-200.000
10	502809.626	4791766.806	6.094	59.375	185.4722269	-200.000
11	502809.768	4791766.197	6.084	60.000	185.2732021	-200.000
12	502811.377	4791759.837	6.004	66.560	183.1849977	-200.000
13	502812.303	4791756.525	5.976	70.000	182.0901032	-200.000
14	502815.319	4791746.991	5.896	80.000	178.9070044	-200.000
15	502818.807	4791737.620	5.816	90.000	175.7239055	-200.000
16	502822.759	4791728.436	5.735	100.000	172.5408066	-200.000
17	502827.165	4791719.460	5.655	110.000	169.3577078	-200.000
18	502830.284	4791713.718	5.602	116.534	167.2777496	INFINITO
19	502831.988	4791710.700	5.575	120.000	167.2777496	INFINITO
20	502836.904	4791701.993	5.494	130.000	167.2777496	INFINITO
21	502841.821	4791693.285	5.414	140.000	167.2777496	INFINITO
22	502846.738	4791684.577	5.333	150.000	167.2777496	INFINITO
23	502851.654	4791675.869	5.253	160.000	167.2777496	INFINITO
24	502856.571	4791667.161	5.173	170.000	167.2777496	INFINITO
25	502861.488	4791658.453	5.092	180.000	167.2777496	INFINITO
26	502866.404	4791649.745	5.012	190.000	167.2777496	INFINITO
27	502871.321	4791641.038	4.932	200.000	167.2777496	INFINITO
28	502876.238	4791632.330	4.851	210.000	167.2777496	INFINITO
29	502881.154	4791623.622	4.771	220.000	167.2777496	INFINITO
30	502886.071	4791614.914	4.691	230.000	167.2777496	INFINITO
31	502887.337	4791612.672	4.670	232.575	167.2777496	INFINITO
32	502890.987	4791606.206	4.621	240.000	167.2777496	INFINITO
33	502895.904	4791597.498	4.591	250.000	167.2777496	INFINITO
34	502897.192	4791595.217	4.589	252.620	167.2777496	INFINITO
35	502897.215	4791595.178	4.589	252.665	167.2777496	INFINITO
36	502900.821	4791588.790	4.600	260.000	167.2777496	INFINITO
37	502905.737	4791580.083	4.649	270.000	167.2777496	INFINITO
38	502907.048	4791577.762	4.669	272.665	167.2777496	INFINITO
39	502910.654	4791571.375	4.728	280.000	167.2777496	INFINITO
40	502915.571	4791562.667	4.808	290.000	167.2777496	INFINITO
41	502920.487	4791553.959	4.888	300.000	167.2777496	INFINITO
42	502925.404	4791545.251	4.968	310.000	167.2777496	INFINITO
43	502930.321	4791536.543	5.048	320.000	167.2777496	INFINITO
44	502935.237	4791527.836	5.128	330.000	167.2777496	INFINITO
45	502940.154	4791519.128	5.208	340.000	167.2777496	INFINITO
46	502945.071	4791510.420	5.288	350.000	167.2777496	INFINITO
47	502949.987	4791501.712	5.368	360.000	167.2777496	INFINITO
48	502954.904	4791493.004	5.448	370.000	167.2777496	INFINITO
49	502955.393	4791492.138	5.456	370.994	167.2777496	INFINITO
50	502955.743	4791491.518	5.461	371.707	167.2777496	-275.000
51	502959.040	4791485.838	5.511	378.275	165.7572140	-275.000
52	502959.929	4791484.359	5.524	380.000	165.3578585	-275.000
53	502962.853	4791479.635	5.562	385.555	164.0717815	-275.000
54	502965.260	4791475.899	5.591	390.000	163.0428775	-275.000
55	502967.808	4791472.084	5.621	394.588	161.9807979	175.000
56	502970.782	4791467.562	5.656	400.000	163.9496431	175.000
57	502975.903	4791458.975	5.722	410.000	167.5874704	175.000
58	502978.928	4791453.314	5.764	416.419	169.9225394	2000.000
59	502980.555	4791450.124	5.787	420.000	170.0365307	2000.000
60	502981.461	4791448.340	5.800	422.000	170.1001983	2000.000
61	502985.068	4791441.200	5.839	430.000	170.3548406	2000.000
62	502987.047	4791437.249	5.849	434.419	170.4955067	INFINITO
63	502988.497	4791434.347	5.852	437.663	170.4955067	INFINITO
64	502988.517	4791434.309	5.852	437.706	170.4955067	INFINITO
65	502989.542	4791432.257	5.850	440.000	170.4955067	INFINITO
66	502994.013	4791423.312	5.820	450.000	170.4955067	INFINITO
67	502995.499	4791420.337	5.801	453.326	170.4955067	INFINITO
68	502997.804	4791415.725	5.767	458.481	170.4955067	200.000

PUNTO	X	Y	COTA	P.K.	ACIMUT	RADIO
69	502998.478	4791414.364	5.757	460.000	170.9789519	200.000
70	503002.654	4791405.279	5.692	470.000	174.1620507	200.000
71	503006.176	4791396.518	5.631	479.443	177.1678555	-200.000
72	503006.372	4791395.997	5.627	480.000	176.9905615	-200.000
73	503008.928	4791389.575	5.582	486.912	174.7902707	-200.000
74	503010.141	4791386.735	5.562	490.000	173.8074626	-200.000
75	503012.612	4791381.294	5.520	495.976	171.9052071	-200.000
76	503014.367	4791377.673	5.490	500.000	170.6243637	-200.000
77	503014.559	4791377.290	5.487	500.428	170.4880473	INFINITO
78	503016.621	4791373.165	5.450	505.040	170.4880473	INFINITO
79	503018.838	4791368.729	5.411	510.000	170.4880473	INFINITO
80	503023.310	4791359.784	5.331	520.000	170.4880473	INFINITO
81	503027.781	4791350.839	5.250	530.000	170.4880473	INFINITO
82	503032.253	4791341.895	5.170	540.000	170.4880473	INFINITO
83	503036.724	4791332.950	5.090	550.000	170.4880473	INFINITO
84	503041.196	4791324.006	5.010	560.000	170.4880473	INFINITO
85	503045.667	4791315.061	4.930	570.000	170.4880473	INFINITO
86	503050.139	4791306.116	4.849	580.000	170.4880473	INFINITO
87	503054.610	4791297.172	4.769	590.000	170.4880473	INFINITO
88	503055.807	4791294.777	4.748	592.677	170.4880473	INFINITO
89	503059.082	4791288.227	4.700	600.000	170.4880473	INFINITO
90	503063.553	4791279.283	4.669	610.000	170.4880473	INFINITO
91	503064.761	4791276.867	4.667	612.700	170.4880473	INFINITO
92	503064.771	4791276.846	4.667	612.724	170.4880473	INFINITO
93	503068.025	4791270.338	4.678	620.000	170.4880473	INFINITO
94	503072.496	4791261.393	4.727	630.000	170.4880473	INFINITO
95	503073.714	4791258.957	4.747	632.724	170.4880473	INFINITO
96	503076.968	4791252.449	4.806	640.000	170.4880473	INFINITO
97	503081.439	4791243.504	4.886	650.000	170.4880473	INFINITO
98	503085.910	4791234.560	4.966	660.000	170.4880473	INFINITO
99	503090.382	4791225.615	5.046	670.000	170.4880473	INFINITO
100	503094.853	4791216.670	5.126	680.000	170.4880473	INFINITO
101	503096.801	4791212.774	5.160	684.356	170.4880473	-150.000
102	503096.910	4791212.558	5.162	684.598	170.3851574	-150.000
103	503099.419	4791207.774	5.203	690.000	168.0925268	-150.000
104	503099.778	4791207.123	5.208	690.743	167.7770244	-150.000
105	503102.867	4791201.811	5.246	696.889	165.1688915	-150.000
106	503104.513	4791199.171	5.263	700.000	163.8483950	-150.000
107	503107.647	4791194.456	5.294	705.662	161.4453573	200.000
108	503110.078	4791190.863	5.318	710.000	162.8261779	200.000
109	503115.380	4791182.386	5.374	720.000	166.0092768	200.000
110	503118.234	4791177.397	5.405	725.748	167.8387718	200.000
111	503119.377	4791175.301	5.417	728.135	168.5987926	-946.000
112	503120.261	4791173.659	5.425	730.000	168.4732993	-946.000
113	503123.529	4791167.660	5.436	736.831	168.0135881	-946.000
114	503123.930	4791166.931	5.436	737.663	167.9576036	-946.000
115	503125.060	4791164.886	5.434	740.000	167.8003397	-946.000
116	503129.743	4791156.530	5.396	749.579	167.1557337	-946.000
117	503129.951	4791156.163	5.393	750.000	167.1273801	-946.000
118	503133.998	4791149.106	5.341	758.135	166.5799138	200.000
119	503134.925	4791147.488	5.329	760.000	167.1734969	200.000
120	503139.636	4791138.669	5.265	770.000	170.3565958	200.000
121	503143.067	4791131.488	5.215	777.959	172.8898678	-200.000
122	503143.920	4791129.634	5.202	780.000	172.2400410	-200.000
123	503148.369	4791120.679	5.138	790.000	169.0569421	-200.000
124	503149.142	4791119.229	5.127	791.643	168.5339214	-200.000
125	503153.175	4791112.099	5.072	799.836	165.9261489	-200.000
126	503153.259	4791111.957	5.071	800.000	165.8738432	-200.000
127	503157.497	4791105.139	5.010	808.028	163.3183763	-200.000
128	503157.714	4791104.806	5.006	808.426	163.1916069	-946.000
129	503158.575	4791103.489	4.994	810.000	163.0857163	-946.000
130	503161.684	4791098.773	4.949	815.648	162.7056478	-946.000
131	503164.098	4791095.152	4.917	820.000	162.4127567	-946.000
132	503169.709	4791086.875	4.875	830.000	161.7397971	-946.000
133	503172.934	4791082.201	4.868	835.678	161.3576668	-946.000
134	503172.951	4791082.177	4.868	835.708	161.3556819	-946.000
135	503175.407	4791078.657	4.872	840.000	161.0668375	-946.000
136	503181.192	4791070.500	4.909	850.000	160.3938779	-946.000
137	503184.568	4791065.823	4.949	855.768	160.0057160	-946.000
138	503187.062	4791062.405	4.983	860.000	159.7209183	-946.000
139	503193.018	4791054.372	5.063	870.000	159.0479587	-946.000

PUNTO ----- X ----- Y ----- COTA ----- P.K. -- ACIMUT ----- RADIO --

140	503199.058	4791046.402	5.144	880.000	158.3749991	-946.000
141	503205.183	4791038.497	5.224	890.000	157.7020395	-946.000
142	503206.505	4791036.812	5.241	892.142	157.5579250	-946.000
143	503209.585	4791032.920	5.280	897.105	157.2239052	-150.000
144	503211.409	4791030.672	5.301	900.000	155.9952074	-150.000
145	503211.972	4791029.995	5.308	900.881	155.6214967	-150.000
146	503217.774	4791023.462	5.366	909.620	151.9125368	-150.000
147	503218.035	4791023.185	5.369	910.000	151.7510756	-150.000
148	503222.508	4791018.655	5.409	916.366	149.0490823	250.000
149	503225.097	4791016.106	5.432	920.000	149.9743655	250.000
150	503227.909	4791013.251	5.457	924.007	150.9946417	250.000
151	503232.028	4791008.898	5.496	930.000	152.5208446	250.000
152	503233.792	4791006.968	5.515	932.614	153.1866070	250.000
153	503236.837	4791003.539	5.549	937.201	154.3545650	-10000.000
154	503238.677	4791001.429	5.570	940.000	154.3367460	-10000.000
155	503239.481	4791000.508	5.580	941.222	154.3289648	-10000.000
156	503245.254	4790993.897	5.650	950.000	154.2730841	-10000.000
157	503251.839	4790986.371	5.730	960.000	154.2094221	-10000.000
158	503258.431	4790978.851	5.811	970.000	154.1457601	-10000.000
159	503264.468	4790971.978	5.884	979.148	154.0875233	250.000
160	503265.030	4790971.337	5.891	980.000	154.3045309	250.000
161	503268.656	4790967.090	5.935	985.585	155.7267493	250.000
162	503271.454	4790963.675	5.966	990.000	156.8510100	250.000
163	503277.568	4790955.762	6.006	1000.000	159.3974891	250.000
164	503277.579	4790955.747	6.006	1000.019	159.4022563	-180.000
165	503279.989	4790952.569	6.009	1004.007	157.9916384	-180.000
166	503280.002	4790952.552	6.009	1004.029	157.9839279	-180.000
167	503283.740	4790947.896	6.001	1010.000	155.8721010	-180.000
168	503290.340	4790940.385	5.954	1020.000	152.3353244	-180.000
169	503291.545	4790939.101	5.941	1021.761	151.7125816	-1186.000
170	503292.035	4790938.585	5.935	1022.473	151.6743577	-1186.000
171	503297.233	4790933.141	5.875	1030.000	151.2703168	-1186.000
172	503304.192	4790925.959	5.794	1040.000	150.7335379	-1186.000
173	503311.211	4790918.837	5.714	1050.000	150.1967590	-1186.000
174	503318.290	4790911.773	5.634	1060.000	149.6599801	-1186.000
175	503325.429	4790904.770	5.553	1070.000	149.1232012	-1186.000
176	503332.626	4790897.828	5.473	1080.000	148.5864223	-1186.000
177	503339.881	4790890.946	5.393	1090.000	148.0496434	-1186.000
178	503347.194	4790884.125	5.313	1100.000	147.5128645	-1186.000
179	503354.565	4790877.367	5.232	1110.000	146.9760856	-1186.000
180	503356.755	4790875.380	5.209	1112.958	146.8173174	-1186.000
181	503361.992	4790870.671	5.162	1120.000	146.4393067	-1186.000
182	503369.475	4790864.038	5.132	1130.000	145.9025278	-1186.000
183	503371.127	4790862.589	5.131	1132.197	145.7845974	-1186.000
184	503371.149	4790862.569	5.131	1132.226	145.7830211	-1186.000
185	503377.014	4790857.468	5.144	1140.000	145.3657489	-1186.000
186	503384.608	4790850.962	5.197	1150.000	144.8289700	-1186.000
187	503385.703	4790850.033	5.208	1151.436	144.7518774	-1186.000
188	503392.257	4790844.520	5.277	1160.000	144.2921912	-1186.000
189	503399.959	4790838.143	5.357	1170.000	143.7554123	-1186.000
190	503407.716	4790831.831	5.437	1180.000	143.2186334	-1186.000
191	503415.525	4790825.585	5.517	1190.000	142.6818545	-1186.000
192	503423.386	4790819.404	5.597	1200.000	142.1450756	-1186.000
193	503431.300	4790813.291	5.677	1210.000	141.6082967	-1186.000
194	503439.264	4790807.244	5.757	1220.000	141.0715178	-1186.000
195	503440.672	4790806.186	5.771	1221.761	140.9770090	-400.000
196	503447.313	4790801.310	5.837	1230.000	139.6656781	-400.000
197	503448.690	4790800.324	5.850	1231.693	139.3961559	-400.000
198	503455.326	4790795.699	5.912	1239.782	138.1087579	-400.000
199	503455.506	4790795.576	5.913	1240.000	138.0741287	-400.000
200	503462.054	4790791.209	5.967	1247.871	136.8213600	-400.000
201	503463.840	4790790.050	5.980	1250.000	136.4825792	-400.000
202	503472.309	4790784.733	6.044	1260.000	134.8910298	-400.000
203	503474.835	4790783.204	6.063	1262.952	134.4211439	600.000
204	503480.856	4790779.541	6.108	1270.000	135.1689196	600.000
205	503489.324	4790774.223	6.172	1280.000	136.2299526	600.000
206	503496.298	4790769.694	6.225	1288.316	137.1122722	600.000
207	503497.703	4790768.764	6.236	1290.000	137.2909855	600.000
208	503503.004	4790765.207	6.280	1296.384	137.9683625	600.000
209	503505.989	4790763.167	6.307	1300.000	138.3520185	600.000
210	503509.648	4790760.630	6.341	1304.453	138.8244528	600.000

PUNTO	X	Y	COTA	P.K.	ACIMUT	RADIO
211	503514.181	4790757.432	6.386	1310.000	139.4130514	600.000
212	503522.276	4790751.561	6.466	1320.000	140.4740844	600.000
213	503524.829	4790749.667	6.491	1323.179	140.8113446	600.000
214	503527.164	4790747.916	6.513	1326.098	141.1211099	-500.000
215	503530.289	4790745.579	6.536	1330.000	140.6243009	-500.000
216	503538.381	4790739.703	6.566	1340.000	139.3510614	-500.000
217	503540.192	4790738.421	6.567	1342.219	139.0685814	-500.000
218	503540.234	4790738.391	6.567	1342.270	139.0619932	-500.000
219	503546.588	4790733.990	6.554	1350.000	138.0778218	-500.000
220	503554.907	4790728.442	6.501	1360.000	136.8045823	-500.000
221	503556.049	4790727.699	6.490	1361.362	136.6311582	-500.000
222	503563.336	4790723.061	6.421	1370.000	135.5313427	-500.000
223	503571.871	4790717.850	6.340	1380.000	134.2581032	-500.000
224	503575.470	4790715.723	6.307	1384.181	133.7257854	-1792.750
225	503580.496	4790712.790	6.260	1390.000	133.5191415	-1792.750
226	503589.156	4790707.789	6.179	1400.000	133.1640335	-1792.750
227	503597.843	4790702.836	6.099	1410.000	132.8089256	-1792.750
228	503606.558	4790697.932	6.019	1420.000	132.4538176	-1792.750
229	503615.300	4790693.077	5.938	1430.000	132.0987097	-1792.750
230	503624.069	4790688.270	5.858	1440.000	131.7436017	-1792.750
231	503632.865	4790683.512	5.777	1450.000	131.3884938	-1792.750
232	503633.478	4790683.183	5.772	1450.695	131.3638030	-1792.750
233	503635.949	4790681.859	5.749	1453.499	131.2642326	-125.000
234	503641.759	4790678.944	5.692	1460.000	127.9534288	-125.000
235	503643.008	4790678.365	5.680	1461.377	127.2519767	-125.000
236	503650.970	4790675.059	5.597	1470.000	122.8604706	-125.000
237	503652.904	4790674.351	5.576	1472.059	121.8116813	-125.000
238	503655.520	4790673.451	5.547	1474.826	120.4024742	300.000
239	503657.241	4790672.874	5.529	1476.641	120.7876193	300.000
240	503660.416	4790671.778	5.495	1480.000	121.5003749	300.000
241	503667.453	4790669.208	5.423	1487.491	123.0900238	300.000
242	503669.795	4790668.308	5.401	1490.000	123.6224408	300.000
243	503675.829	4790665.885	5.345	1496.503	125.0024397	INFINITO
244	503677.527	4790665.182	5.330	1498.341	125.0024397	INFINITO
245	503679.060	4790664.547	5.317	1500.000	125.0024397	INFINITO
246	503688.298	4790660.719	5.237	1510.000	125.0024397	INFINITO
247	503697.537	4790656.892	5.157	1520.000	125.0024397	INFINITO
248	503706.687	4790653.102	5.077	1529.904	125.0024397	INFINITO
249	503706.776	4790653.065	5.077	1530.000	125.0024397	INFINITO
250	503715.565	4790649.424	5.039	1539.514	125.0024397	INFINITO
251	503716.014	4790649.238	5.039	1540.000	125.0024397	INFINITO
252	503717.782	4790648.506	5.041	1541.913	125.0024397	INFINITO
253	503725.253	4790645.411	5.085	1550.000	125.0024397	INFINITO
254	503728.876	4790643.910	5.125	1553.922	125.0024397	INFINITO
255	503730.064	4790643.418	5.141	1555.207	125.0024397	INFINITO
256	503734.509	4790641.626	5.198	1560.000	123.1744512	-83.458
257	503744.142	4790639.038	5.318	1570.000	107.5886835	-27.040
258	503745.343	4790638.922	5.333	1571.207	104.6306088	-25.000
259	503754.044	4790639.822	5.438	1580.000	82.2398582	-25.000
260	503762.860	4790644.400	5.559	1590.000	56.7750673	-25.000
261	503765.655	4790647.035	5.605	1593.845	46.9850995	-25.000
262	503769.279	4790651.998	5.679	1600.000	34.3254702	-40.632
263	503773.632	4790660.820	5.797	1609.845	26.6132686	INFINITO
264	503773.696	4790660.962	5.799	1610.000	26.6132686	INFINITO
265	503777.755	4790670.101	5.919	1620.000	26.6132686	INFINITO
266	503777.986	4790670.620	5.926	1620.568	26.6132686	INFINITO

EJE 18

ALINEACIONES EN PLANTA

NOMBRE	CHARACTERÍSTICAS	LONGITUD	P.K.	X	Y
1	ACIMUT= 198.76528	5.000	0.000	502801.15244	4791814.15408
			5.000	502801.24941	4791809.15502
2	XC = 502741.26070 YC = 4791807.99139 R = 60.000	15.056			
			20.056	502799.65965	4791794.22321
3	XC = 502838.59228 YC = 4791785.04441 R = -40.000	15.708			
			35.764	502799.11068	4791778.62542
4	XC = 503003.68585 YC = 4791811.88566 R = -207.261	73.128			
			108.892	502823.20600	4791709.98244
5	ACIMUT= 167.27766	255.674	364.565	502948.91190	4791487.34590
6	XC = 502818.29428 YC = 4791413.59608 R = 150.000	19.679			
			384.245	502957.43737	4791469.62464
7	XC = 503142.96149 YC = 4791544.32940 R = -200.000	19.216			
			403.461	502965.45957	4791452.17155
8	XC = 501190.44037 YC = 4790530.59310 R = 2000.000	30.652			
			434.113	502979.37474	4791424.86029
9	ACIMUT= 170.48897	43.000	477.113	502998.60148	4791386.39823
10	XC = 503177.49491 YC = 4791475.82494 R = -200.000	20.990			
			498.103	503008.95404	4791368.14962
11	XC = 502840.41318 YC = 4791260.47430 R = 200.000	20.987			
			519.091	503019.30532	4791349.90361
12	ACIMUT= 170.48805	128.643	647.733	503076.82748	4791234.83772
13	XC = 502897.93534 YC = 4791145.40840 R = 200.000	24.503			
			672.236	503086.41556	4791212.30539
14	XC = 503274.89578 YC = 4791279.20238 R = -200.000	27.495			
			699.732	503097.36177	4791187.10638
15	ACIMUT= 169.53546	6.753	706.485	503100.47137	4791181.11197
16	XC = 503233.62188 YC = 4791250.18398 R = -150.000	22.427			
			728.912	503112.24579	4791162.04860
17	XC = 502909.95230 YC = 4791015.15632 R = 250.000	24.984			
			753.896	503125.89186	4791141.13292
18	XC = 503949.91724 YC = 4791621.85965 R = -954.000	136.401			
			890.296	503202.79931	4791028.62208
19	XC = 503007.01369 YC = 4790873.16150 R = 250.000	21.566			
			911.862	503215.46531	4791011.17572

NOMBRE	CARACTERÍSTICAS	LONGITUD	P.K.	X	Y
20	XC = 503340.53628 YC = 4791093.98425 R = -150.000	19.824			
			931.687	503227.46822	4790995.41643
21	XC = 510765.33889 YC = 4797566.60392 R = -10000.000	42.053			
			973.739	503255.16856	4790963.77567
22	XC = 503367.82112 YC = 4791062.81810 R = -150.000	19.693			
			993.432	503269.10336	4790949.88093
23	XC = 503137.47967 YC = 4790799.29805 R = 200.000	19.441			
			1012.873	503283.09633	4790936.39578
24	XC = 504152.42778 YC = 4791754.86925 R = -1194.000	227.416			
			1240.289	503453.76719	4790786.61857
25	ACIMUT= 139.79232	30.832			
			1271.120	503478.76948	4790768.57767
26	XC = 503470.57748 YC = 4790757.22465 R = 14.000	25.038			
			1296.158	503479.89394	4790746.77460
LONGITUD TOTAL			1296.158		

ALINEACIONES EN ALZADO

NOMBRE	CARACTERÍSTICAS	LONGITUD	PUNTOS TANGENCIA	
			P.K.	COTA
			0.000	7.081
1	PENDIENTE= 0.010	2.578		
			2.578	7.106
2	P.K.= 4.5779 Z= 7.1163 Kv= -200.000	8.577		
			11.155	7.008
3	PENDIENTE= -0.033	6.833		
			17.988	6.783
4	Kv= 1000.000	11.756		
			29.744	6.466
5	PENDIENTE= -0.021	6.583		
			36.328	6.327
6	Kv= 1799.996	23.809		
			60.136	5.981
7	PENDIENTE= -0.008	165.841		
			225.978	4.671
8	P.K.= 245.7267 Z= 4.5933 Kv= 2500.001	39.749		
			265.727	4.673
9	PENDIENTE= 0.008	92.541		
			358.268	5.414
10	Kv= -15000.034	19.255		
			377.523	5.555
11	PENDIENTE= 0.007	35.598		
			413.120	5.794
12	P.K.= 429.9113 Z= 5.8508 Kv= -2500.001	36.654		
			449.775	5.772
13	PENDIENTE= -0.008	27.832		
			477.606	5.551
14	Kv= 8000.004	16.147		
			493.753	5.439
15	PENDIENTE= -0.006	9.641		
			503.394	5.382
16	Kv= -7999.955	16.581		
			519.975	5.266
17	PENDIENTE= -0.008	64.830		
			584.804	4.747
18	P.K.= 604.8036 Z= 4.6675 Kv= 2499.998	39.987		
			624.791	4.747
19	PENDIENTE= 0.008	23.410		
			648.201	4.935
20	Kv= -7499.957	21.273		
			669.474	5.074
21	PENDIENTE= 0.005	4.802		
			674.275	5.099
22	Kv= 7999.999	22.769		
			697.044	5.249
23	PENDIENTE= 0.008	18.650		
			715.694	5.398
24	P.K.= 734.1053 Z= 5.4721 Kv= -2300.001	36.724		
			752.418	5.399
25	PENDIENTE= -0.008	56.895		
			809.313	4.946
26	P.K.= 829.2176 Z= 4.8669 Kv= 2499.999	39.831		
			849.144	4.946
27	PENDIENTE= 0.008	38.388		
			887.532	5.252
28	Kv= -9999.943	21.696		
			909.228	5.402
29	PENDIENTE= 0.006	4.337		
			913.565	5.427
30	Kv= 10000.033	21.917		
			935.483	5.578

NOMBRE	-----	CARACTERÍSTICAS	-----	LONGITUD	---	P.K.	---	COTA	-
31		PENDIENTE= 0.008		45.702					
								981.185	5.943
32	P.K.=	998.7687 Z= 6.0136		35.124					
		Kv= -2200.001							
								1016.310	5.944
33		PENDIENTE= -0.008		91.822					
								1108.131	5.212
34	P.K.=	1128.0644 Z= 5.1321		39.917					
		Kv= 2500.000							
								1148.049	5.212
35		PENDIENTE= 0.008		120.280					
								1268.329	6.173
36	P.K.=	1275.5229 Z= 6.2022		18.306					
		Kv= -900.001							
								1286.635	6.134
37		PENDIENTE= -0.012		9.523					
								1296.158	6.016

PUNTOS SINGULARES Y CADA 10 METROS

PUNTO	X	Y	COTA	P.K.	ACIMUT	RADIO
1	502801.152	4791814.154	7.081	0.000	198.7652750	INFINITO
2	502801.201	4791811.655	7.106	2.500	198.7652750	INFINITO
3	502801.202	4791811.577	7.106	2.578	198.7652750	INFINITO
4	502801.241	4791809.577	7.116	4.578	198.7652750	INFINITO
5	502801.249	4791809.155	7.116	5.000	198.7652750	60.000
6	502801.257	4791807.289	7.103	6.866	200.7454222	60.000
7	502801.138	4791804.158	7.043	10.000	204.0704374	60.000
8	502801.053	4791803.006	7.008	11.155	205.2954599	60.000
9	502800.099	4791796.243	6.783	17.988	212.5459782	60.000
10	502799.672	4791794.277	6.719	20.000	214.6807670	60.000
11	502799.660	4791794.223	6.718	20.056	214.7398431	-40.000
12	502798.963	4791790.478	6.607	23.866	208.6752310	-40.000
13	502798.595	4791784.617	6.466	29.744	199.3198217	-40.000
14	502798.598	4791784.361	6.461	30.000	198.9129628	-40.000
15	502799.111	4791778.625	6.339	35.764	189.7394821	-207.261
16	502799.202	4791778.069	6.327	36.328	189.5662945	-207.261
17	502799.833	4791774.451	6.253	40.000	188.4383199	-207.261
18	502801.480	4791766.386	6.115	48.232	185.9097631	-207.261
19	502801.876	4791764.663	6.090	50.000	185.3667393	-207.261
20	502804.388	4791754.985	5.982	60.000	182.2951587	-207.261
21	502804.426	4791754.854	5.981	60.136	182.2532317	-207.261
22	502807.364	4791745.439	5.903	70.000	179.2235780	-207.261
23	502810.798	4791736.048	5.824	80.000	176.1519974	-207.261
24	502814.680	4791726.833	5.745	90.000	173.0804167	-207.261
25	502819.002	4791717.817	5.666	100.000	170.0088361	-207.261
26	502823.206	4791709.982	5.596	108.892	167.2776564	INFINITO
27	502823.751	4791709.017	5.587	110.000	167.2776564	INFINITO
28	502828.668	4791700.310	5.508	120.000	167.2776564	INFINITO
29	502833.584	4791691.602	5.429	130.000	167.2776564	INFINITO
30	502838.501	4791682.894	5.350	140.000	167.2776564	INFINITO
31	502843.417	4791674.186	5.271	150.000	167.2776564	INFINITO
32	502848.334	4791665.478	5.192	160.000	167.2776564	INFINITO
33	502853.251	4791656.770	5.113	170.000	167.2776564	INFINITO
34	502858.167	4791648.063	5.034	180.000	167.2776564	INFINITO
35	502863.084	4791639.355	4.955	190.000	167.2776564	INFINITO
36	502868.001	4791630.647	4.876	200.000	167.2776564	INFINITO
37	502872.917	4791621.939	4.797	210.000	167.2776564	INFINITO
38	502877.834	4791613.231	4.718	220.000	167.2776564	INFINITO
39	502880.773	4791608.026	4.671	225.978	167.2776564	INFINITO
40	502882.751	4791604.523	4.643	230.000	167.2776564	INFINITO
41	502887.667	4791595.815	4.600	240.000	167.2776564	INFINITO
42	502890.483	4791590.829	4.593	245.727	167.2776564	INFINITO
43	502890.545	4791590.720	4.593	245.852	167.2776564	INFINITO
44	502892.584	4791587.108	4.597	250.000	167.2776564	INFINITO
45	502897.501	4791578.400	4.634	260.000	167.2776564	INFINITO
46	502900.316	4791573.413	4.673	265.727	167.2776564	INFINITO
47	502902.417	4791569.692	4.707	270.000	167.2776564	INFINITO
48	502907.334	4791560.984	4.787	280.000	167.2776564	INFINITO
49	502912.251	4791552.276	4.867	290.000	167.2776564	INFINITO
50	502917.167	4791543.568	4.947	300.000	167.2776564	INFINITO
51	502922.084	4791534.861	5.027	310.000	167.2776564	INFINITO
52	502927.001	4791526.153	5.107	320.000	167.2776564	INFINITO
53	502931.917	4791517.445	5.187	330.000	167.2776564	INFINITO
54	502936.834	4791508.737	5.267	340.000	167.2776564	INFINITO
55	502941.751	4791500.029	5.347	350.000	167.2776564	INFINITO
56	502945.816	4791492.830	5.414	358.268	167.2776564	INFINITO
57	502946.667	4791491.321	5.427	360.000	167.2776564	INFINITO
58	502948.912	4791487.346	5.463	364.565	167.2776564	150.000
59	502950.517	4791484.428	5.488	367.895	168.6909277	150.000
60	502951.498	4791482.566	5.503	370.000	169.5841765	150.000
61	502954.788	4791475.802	5.555	377.523	172.7770068	150.000
62	502955.796	4791473.539	5.572	380.000	173.8283084	150.000
63	502957.437	4791469.625	5.600	384.245	175.6298861	-200.000
64	502959.664	4791464.318	5.639	390.000	173.7979705	-200.000
65	502963.892	4791455.257	5.706	400.000	170.6148717	-200.000
66	502965.460	4791452.172	5.729	403.461	169.5132816	2000.000
67	502968.463	4791446.363	5.773	410.000	169.7214325	2000.000
68	502969.890	4791443.588	5.794	413.120	169.8207599	2000.000

PUNTO	X	Y	COTA	P.K.	ACIMUT	RADIO
69	502973.020	4791437.461	5.831	420.000	170.0397424	2000.000
70	502977.492	4791428.617	5.851	429.911	170.3552279	2000.000
71	502977.532	4791428.537	5.851	430.000	170.3580523	2000.000
72	502978.181	4791427.244	5.850	431.448	170.4041291	2000.000
73	502979.375	4791424.860	5.847	434.113	170.4889707	INFINITO
74	502982.007	4791419.594	5.830	440.000	170.4889707	INFINITO
75	502986.378	4791410.851	5.772	449.775	170.4889707	INFINITO
76	502986.478	4791410.650	5.770	450.000	170.4889707	INFINITO
77	502990.950	4791401.705	5.691	460.000	170.4889707	INFINITO
78	502995.421	4791392.760	5.611	470.000	170.4889707	INFINITO
79	502998.601	4791386.398	5.555	477.113	170.4889707	-200.000
80	502998.823	4791385.957	5.551	477.606	170.3318758	-200.000
81	502999.911	4791383.825	5.532	480.000	169.5699756	-200.000
82	503002.595	4791378.820	5.491	485.680	167.7620687	-200.000
83	503004.731	4791375.065	5.462	490.000	166.3868768	-200.000
84	503006.652	4791371.841	5.439	493.753	165.1922617	-200.000
85	503008.954	4791368.150	5.413	498.103	163.8075593	200.000
86	503009.968	4791366.546	5.402	500.000	164.4113407	200.000
87	503011.743	4791363.654	5.382	503.394	165.4915543	200.000
88	503015.057	4791357.940	5.340	510.000	167.5944396	200.000
89	503015.872	4791356.465	5.328	511.684	168.1305291	200.000
90	503019.305	4791349.904	5.273	519.091	170.4880471	INFINITO
91	503019.701	4791349.113	5.266	519.975	170.4880471	INFINITO
92	503019.712	4791349.090	5.266	520.000	170.4880471	INFINITO
93	503024.183	4791340.146	5.186	530.000	170.4880471	INFINITO
94	503028.655	4791331.201	5.106	540.000	170.4880471	INFINITO
95	503033.126	4791322.256	5.026	550.000	170.4880471	INFINITO
96	503037.598	4791313.312	4.946	560.000	170.4880471	INFINITO
97	503042.069	4791304.367	4.866	570.000	170.4880471	INFINITO
98	503046.541	4791295.422	4.786	580.000	170.4880471	INFINITO
99	503048.689	4791291.125	4.747	584.804	170.4880471	INFINITO
100	503051.012	4791286.478	4.711	590.000	170.4880471	INFINITO
101	503055.484	4791277.533	4.672	600.000	170.4880471	INFINITO
102	503057.629	4791273.242	4.668	604.798	170.4880471	INFINITO
103	503057.632	4791273.237	4.668	604.804	170.4880471	INFINITO
104	503059.955	4791268.589	4.673	610.000	170.4880471	INFINITO
105	503064.427	4791259.644	4.714	620.000	170.4880471	INFINITO
106	503066.569	4791255.358	4.747	624.791	170.4880471	INFINITO
107	503068.898	4791250.699	4.789	630.000	170.4880471	INFINITO
108	503073.370	4791241.755	4.869	640.000	170.4880471	INFINITO
109	503076.827	4791234.838	4.931	647.733	170.4880471	200.000
110	503077.036	4791234.419	4.935	648.201	170.6369418	200.000
111	503077.830	4791232.805	4.949	650.000	171.2095615	200.000
112	503081.514	4791224.773	5.012	658.837	174.0226009	200.000
113	503081.973	4791223.704	5.020	660.000	174.3926604	200.000
114	503085.474	4791214.902	5.074	669.474	177.4082601	200.000
115	503085.656	4791214.408	5.077	670.000	177.5757592	200.000
116	503086.416	4791212.305	5.089	672.236	178.2875327	-200.000
117	503087.107	4791210.387	5.099	674.275	177.6384369	-200.000
118	503089.154	4791205.041	5.131	680.000	175.8162072	-200.000
119	503091.327	4791199.815	5.166	685.660	174.0146092	-200.000
120	503093.092	4791195.850	5.196	690.000	172.6331083	-200.000
121	503096.140	4791189.500	5.249	697.044	170.3907815	-200.000
122	503097.362	4791187.106	5.271	699.732	169.5354594	INFINITO
123	503097.485	4791186.868	5.273	700.000	169.5354594	INFINITO
124	503098.548	4791184.819	5.291	702.308	169.5354594	INFINITO
125	503100.103	4791181.822	5.318	705.684	169.5354594	INFINITO
126	503100.471	4791181.112	5.325	706.485	169.5354594	-150.000
127	503102.127	4791178.011	5.353	710.000	168.0434403	-150.000
128	503104.960	4791173.072	5.398	715.694	165.6268242	-150.000
129	503107.227	4791169.411	5.429	720.000	163.7993085	-150.000
130	503112.246	4791162.049	5.466	728.912	160.0170031	250.000
131	503112.883	4791161.167	5.468	730.000	160.2940989	250.000
132	503115.225	4791157.855	5.472	734.056	161.3269427	250.000
133	503115.253	4791157.815	5.472	734.105	161.3394946	250.000
134	503118.560	4791152.935	5.465	740.000	162.8405780	250.000
135	503123.903	4791144.483	5.417	750.000	165.3870571	250.000
136	503125.143	4791142.407	5.399	752.418	166.0027750	250.000
137	503125.892	4791141.133	5.387	753.896	166.3791276	-954.000
138	503128.985	4791135.870	5.339	760.000	165.9717878	-954.000
139	503134.124	4791127.292	5.259	770.000	165.3044715	-954.000

PUNTO ----- X ----- Y ----- COTA ----- P.K. -- ACIMUT ----- RADIO --

140	503139.353	4791118.768	5.180	780.000	164.6371552	-954.000
141	503144.671	4791110.299	5.100	790.000	163.9698389	-954.000
142	503150.077	4791101.887	5.020	800.000	163.3025225	-954.000
143	503155.191	4791094.104	4.946	809.313	162.6810809	-954.000
144	503155.571	4791093.531	4.941	810.000	162.6352062	-954.000
145	503161.153	4791085.234	4.884	820.000	161.9678899	-954.000
146	503166.375	4791077.638	4.867	829.218	161.3527850	-954.000
147	503166.381	4791077.630	4.867	829.228	161.3520885	-954.000
148	503166.821	4791076.996	4.867	830.000	161.3005736	-954.000
149	503172.575	4791068.817	4.890	840.000	160.6332572	-954.000
150	503177.912	4791061.393	4.946	849.144	160.0230961	-954.000
151	503178.415	4791060.700	4.953	850.000	159.9659409	-954.000
152	503184.340	4791052.644	5.033	860.000	159.2986246	-954.000
153	503190.348	4791044.650	5.113	870.000	158.6313083	-954.000
154	503196.440	4791036.720	5.192	880.000	157.9639920	-954.000
155	503201.083	4791030.790	5.252	887.532	157.4613846	-954.000
156	503202.615	4791028.854	5.272	890.000	157.2966756	-954.000
157	503202.799	4791028.622	5.274	890.296	157.2768943	250.000
158	503207.723	4791022.211	5.333	898.380	159.3353312	250.000
159	503208.684	4791020.908	5.344	900.000	159.7478878	250.000
160	503213.999	4791013.365	5.402	909.228	162.0977832	250.000
161	503214.431	4791012.725	5.406	910.000	162.2943669	250.000
162	503215.465	4791011.176	5.417	911.862	162.7686258	-150.000
163	503216.414	4791009.761	5.427	913.565	162.0458315	-150.000
164	503220.140	4791004.516	5.466	920.000	159.3149256	-150.000
165	503222.892	4791000.926	5.496	924.524	157.3948065	-150.000
166	503226.367	4790996.694	5.536	930.000	155.0707938	-150.000
167	503227.468	4790995.416	5.548	931.687	154.3549991	-10000.000
168	503229.963	4790992.555	5.578	935.483	154.3308308	-10000.000
169	503232.934	4790989.152	5.614	940.000	154.3020740	-10000.000
170	503239.515	4790981.623	5.694	950.000	154.2384120	-10000.000
171	503246.104	4790974.100	5.774	960.000	154.1747500	-10000.000
172	503252.700	4790966.585	5.854	970.000	154.1110881	-10000.000
173	503255.169	4790963.776	5.884	973.739	154.0872818	-150.000
174	503259.399	4790959.162	5.934	980.000	151.4302366	-150.000
175	503260.222	4790958.308	5.943	981.185	150.9271813	-150.000
176	503266.545	4790952.169	5.996	990.000	147.1861048	-150.000
177	503269.103	4790949.881	6.007	993.432	145.7294779	200.000
178	503273.058	4790946.330	6.014	998.748	147.4214349	200.000
179	503273.074	4790946.316	6.014	998.769	147.4281850	200.000
180	503273.977	4790945.478	6.013	1000.000	147.8201065	200.000
181	503281.112	4790938.473	5.985	1010.000	151.0032054	200.000
182	503283.096	4790936.396	5.968	1012.873	151.9177216	-1194.000
183	503285.456	4790933.897	5.944	1016.310	151.7344808	-1194.000
184	503287.997	4790931.221	5.914	1020.000	151.5377245	-1194.000
185	503294.926	4790924.011	5.834	1030.000	151.0045421	-1194.000
186	503301.914	4790916.858	5.755	1040.000	150.4713597	-1194.000
187	503308.963	4790909.764	5.675	1050.000	149.9381774	-1194.000
188	503316.070	4790902.730	5.595	1060.000	149.4049950	-1194.000
189	503323.236	4790895.755	5.516	1070.000	148.8718126	-1194.000
190	503330.460	4790888.841	5.436	1080.000	148.3386302	-1194.000
191	503337.742	4790881.987	5.356	1090.000	147.8054478	-1194.000
192	503345.081	4790875.194	5.276	1100.000	147.2722654	-1194.000
193	503351.091	4790869.717	5.212	1108.131	146.8387101	-1194.000
194	503352.477	4790868.464	5.197	1110.000	146.7390830	-1194.000
195	503359.929	4790861.795	5.145	1120.000	146.2059006	-1194.000
196	503365.979	4790856.463	5.132	1128.064	145.7759186	-1194.000
197	503365.998	4790856.446	5.132	1128.090	145.7745513	-1194.000
198	503367.436	4790855.189	5.133	1130.000	145.6727182	-1194.000
199	503374.999	4790848.646	5.161	1140.000	145.1395359	-1194.000
200	503381.125	4790843.426	5.212	1148.049	144.7103925	-1194.000
201	503382.616	4790842.167	5.228	1150.000	144.6063535	-1194.000
202	503390.287	4790835.752	5.307	1160.000	144.0731711	-1194.000
203	503398.011	4790829.401	5.387	1170.000	143.5399887	-1194.000
204	503405.788	4790823.115	5.467	1180.000	143.0068063	-1194.000
205	503413.618	4790816.895	5.547	1190.000	142.4736239	-1194.000
206	503421.500	4790810.740	5.627	1200.000	141.9404415	-1194.000
207	503429.433	4790804.651	5.707	1210.000	141.4072591	-1194.000
208	503437.416	4790798.630	5.787	1220.000	140.8740767	-1194.000
209	503445.450	4790792.675	5.867	1230.000	140.3408944	-1194.000
210	503453.533	4790786.788	5.947	1240.000	139.8077120	-1194.000

PUNTO	X	Y	COTA	P.K.	ACIMUT	RADIO
211	503453.767	4790786.619	5.949	1240.289	139.7923153	INFINITO
212	503461.642	4790780.936	6.027	1250.000	139.7923153	INFINITO
213	503469.752	4790775.085	6.107	1260.000	139.7923153	INFINITO
214	503476.506	4790770.211	6.173	1268.329	139.7923153	INFINITO
215	503477.861	4790769.233	6.185	1270.000	139.7923153	INFINITO
216	503478.769	4790768.578	6.191	1271.120	139.7923153	14.000
217	503481.879	4790765.487	6.202	1275.523	159.8119037	14.000
218	503482.921	4790763.830	6.200	1277.482	168.7191816	14.000
219	503483.904	4790761.515	6.191	1280.000	180.1704663	14.000
220	503484.393	4790754.960	6.134	1286.635	210.3411941	14.000
221	503483.457	4790751.737	6.092	1290.000	225.6433077	14.000
222	503479.894	4790746.775	6.016	1296.158	253.6469333	14.000

EJE 19

ALINEACIONES EN PLANTA

NOMBRE	CARACTERÍSTICAS	LONGITUD	P.K.	X	Y
1	ACIMUT= 251.07721	129.249	0.000	503283.40000	4790936.07405
2	XC = 503195.33913 YC = 4790841.20783 R = -7.000	10.926	129.249	503190.47384	4790846.24062
3	ACIMUT= 151.71264	139.241	140.175	503190.25803	4790836.39302
4	XC = 502705.33522 YC = 4790185.05753 R = 800.000	39.297	279.416	503286.03222	4790735.32200
5	ACIMUT= 154.83979	41.844	318.713	503312.35054	4790706.14523
6	XC = 503832.80606 YC = 4791097.77898 R = -650.000	54.867	360.557	503339.60611	4790674.39522
7	ACIMUT= 149.46603	99.922	415.424	503377.05788	4790634.32067
8	XC = 503507.90169 YC = 4790624.86605 R = -85.000	46.837	515.346	503448.30385	4790564.25996
9	XC = 503399.23028 YC = 4790152.19753 R = 400.000	18.302	562.184	503488.85618	4790542.02723
10	XC = 503573.69370 YC = 4790778.34649 R = -250.000	85.292	580.485	503506.59239	4790537.51996
11	ACIMUT= 95.57991	76.818	665.777	503591.03741	4790528.94882
12	XC = 503643.38866 YC = 4790883.43475 R = -350.000	43.757	742.595	503667.66985	4790534.27802
13	ACIMUT= 87.62089	53.059	786.352	503711.01827	4790540.03086
14	XC = 503761.14472 YC = 4790560.09479 R = -10.000	14.576	839.410	503763.07699	4790550.28325
15	ACIMUT= 394.83006	47.825	853.986	503771.11176	4790560.90599
16	XC = 503755.27174 YC = 4790607.60002 R = -12.000	17.389	901.811	503767.23219	4790608.57345
17	ACIMUT= 302.57908	50.558	919.200	503755.75775	4790619.59017
			969.757	503705.24159	4790621.63781
		LONGITUD TOTAL	969.757		

ALINEACIONES EN ALZADO

				PUNTOS TANGENCIA	
NOMBRE	CARACTERÍSTICAS	LONGITUD	P.K.	COTA	
1	PENDIENTE= -0.025	3.502	0.000	5.965	
2	Kv= -13481.994	1.009	3.502	5.878	
3	PENDIENTE= -0.025	0.002	4.511	5.852	
4	Kv= 6393.996	1.011	4.513	5.852	
5	PENDIENTE= -0.025	47.190	5.524	5.827	
6	Kv= 2499.999	42.499	52.715	4.647	
7	PENDIENTE= -0.008	83.732	95.213	3.946	
8	P.K.= 190.9449 Z= 3.2281 Kv= 1500.000	24.000	178.945	3.276	
9	PENDIENTE= 0.008	1.696	202.945	3.276	
10	P.K.= 216.6405 Z= 3.3377 Kv= -1500.001	24.000	204.640	3.290	
11	PENDIENTE= -0.008	9.241	228.640	3.290	
12	P.K.= 249.8819 Z= 3.1677 Kv= 1500.002	24.000	237.882	3.216	
13	PENDIENTE= 0.008	9.009	261.882	3.216	
14	P.K.= 285.2912 Z= 3.3454 Kv= -1800.001	28.800	270.891	3.288	
15	PENDIENTE= -0.008	0.517	299.691	3.288	
16	P.K.= 312.2086 Z= 3.2357 Kv= 1499.997	24.000	300.209	3.284	
17	PENDIENTE= 0.008	5.745	324.209	3.284	
18	P.K.= 341.9536 Z= 3.3776 Kv= -1499.994	24.000	329.954	3.330	
19	PENDIENTE= -0.008	4.407	353.954	3.330	
20	P.K.= 370.3606 Z= 3.2464 Kv= 1499.997	24.750	358.361	3.294	
21	PENDIENTE= 0.009	32.480	383.111	3.301	
22	P.K.= 419.8404 Z= 3.5947 Kv= -500.000	8.250	415.590	3.577	
23	PENDIENTE= -0.008	33.297	423.840	3.579	
24	P.K.= 469.1373 Z= 3.2643 Kv= 1500.003	24.000	457.137	3.312	
25	PENDIENTE= 0.008	7.933	481.137	3.312	
26	P.K.= 501.0706 Z= 3.4238 Kv= -1500.005	24.000	489.071	3.376	
27	PENDIENTE= -0.008	2.243	513.071	3.376	
			515.313	3.358	

NOMBRE	-----	CARACTERÍSTICAS	-----	LONGITUD	---	P.K.	---	COTA	-
28	P.K.=	524.9134	Z=	3.3194				19.200	
		Kv=	1200.003						
									534.513 3.358
29	PENDIENTE=	0.008		12.987					
									547.500 3.462
30	P.K.=	557.9004	Z=	3.5033				20.800	
		Kv=	-1300.000						
									568.300 3.462
31	PENDIENTE=	-0.008		0.051					
									568.351 3.461
32	P.K.=	578.7512	Z=	3.4197				20.800	
		Kv=	1299.998						
									589.151 3.461
33	PENDIENTE=	0.008		25.303					
									614.454 3.664
34	P.K.=	626.4545	Z=	3.7118				24.000	
		Kv=	-1499.999						
									638.454 3.664
35	PENDIENTE=	-0.008		29.428					
									667.882 3.428
36	P.K.=	674.2821	Z=	3.4027				12.800	
		Kv=	799.998						
									680.682 3.428
37	PENDIENTE=	0.008		5.726					
									686.408 3.474
38	P.K.=	692.8076	Z=	3.4997				13.600	
		Kv=	-799.997						
									700.008 3.467
39	PENDIENTE=	-0.009		20.484					
									720.491 3.283
40	P.K.=	727.6912	Z=	3.2506				13.600	
		Kv=	799.999						
									734.091 3.276
41	PENDIENTE=	0.008		11.388					
									745.479 3.367
42	P.K.=	755.0792	Z=	3.4057				19.200	
		Kv=	-1200.001						
									764.679 3.367
43	PENDIENTE=	-0.008		27.699					
									792.378 3.146
44	P.K.=	797.1783	Z=	3.1265				25.200	
		Kv=	600.000						
									817.578 3.473
45	PENDIENTE=	0.034		39.022					
									856.600 4.800
46	Kv=	-700.000		16.403					
									873.003 5.166
47	PENDIENTE=	0.011		30.214					
									903.217 5.485
48	P.K.=	908.5007	Z=	5.5128				12.531	
		Kv=	-500.000						
									915.748 5.460
49	PENDIENTE=	-0.014		43.755					
									959.503 4.826
50	PENDIENTE=	0.000		10.254					
									969.757 4.826

PUNTOS SINGULARES Y CADA 10 METROS

PUNTO	X	Y	COTA	P.K.	ACIMUT	RADIO
1	503283.400	4790936.074	5.965	0.000	251.0772131	INFINITO
2	503280.882	4790933.640	5.878	3.502	251.0772131	INFINITO
3	503280.157	4790932.939	5.852	4.511	251.0772131	INFINITO
4	503280.155	4790932.937	5.852	4.513	251.0772131	INFINITO
5	503279.792	4790932.586	5.840	5.019	251.0772131	INFINITO
6	503279.428	4790932.234	5.827	5.524	251.0772131	INFINITO
7	503276.210	4790929.124	5.715	10.000	251.0772131	INFINITO
8	503269.021	4790922.173	5.465	20.000	251.0772131	INFINITO
9	503261.831	4790915.223	5.215	30.000	251.0772131	INFINITO
10	503254.641	4790908.272	4.965	40.000	251.0772131	INFINITO
11	503247.452	4790901.322	4.715	50.000	251.0772131	INFINITO
12	503245.500	4790899.435	4.647	52.715	251.0772131	INFINITO
13	503240.262	4790894.372	4.476	60.000	251.0772131	INFINITO
14	503233.072	4790887.421	4.275	70.000	251.0772131	INFINITO
15	503230.222	4790884.666	4.206	73.964	251.0772131	INFINITO
16	503225.882	4790880.471	4.114	80.000	251.0772131	INFINITO
17	503218.693	4790873.520	3.993	90.000	251.0772131	INFINITO
18	503214.945	4790869.897	3.946	95.213	251.0772131	INFINITO
19	503211.503	4790866.570	3.908	100.000	251.0772131	INFINITO
20	503204.313	4790859.620	3.828	110.000	251.0772131	INFINITO
21	503197.124	4790852.669	3.748	120.000	251.0772131	INFINITO
22	503190.474	4790846.241	3.674	129.249	251.0772131	-7.000
23	503189.963	4790845.691	3.668	130.000	244.2476555	-7.000
24	503190.139	4790836.521	3.588	140.000	153.3019758	-7.000
25	503190.258	4790836.393	3.586	140.175	151.7126381	INFINITO
26	503197.016	4790829.261	3.508	150.000	151.7126381	INFINITO
27	503203.894	4790822.002	3.428	160.000	151.7126381	INFINITO
28	503210.773	4790814.744	3.348	170.000	151.7126381	INFINITO
29	503216.925	4790808.251	3.276	178.945	151.7126381	INFINITO
30	503217.651	4790807.485	3.268	180.000	151.7126381	INFINITO
31	503224.529	4790800.226	3.228	190.000	151.7126381	INFINITO
32	503225.179	4790799.540	3.228	190.945	151.7126381	INFINITO
33	503231.408	4790792.968	3.255	200.000	151.7126381	INFINITO
34	503233.433	4790790.830	3.276	202.945	151.7126381	INFINITO
35	503234.600	4790789.599	3.290	204.640	151.7126381	INFINITO
36	503238.286	4790785.709	3.323	210.000	151.7126381	INFINITO
37	503242.853	4790780.889	3.338	216.640	151.7126381	INFINITO
38	503245.164	4790778.450	3.334	220.000	151.7126381	INFINITO
39	503251.107	4790772.178	3.290	228.640	151.7126381	INFINITO
40	503252.043	4790771.191	3.279	230.000	151.7126381	INFINITO
41	503257.464	4790765.470	3.216	237.882	151.7126381	INFINITO
42	503258.921	4790763.933	3.200	240.000	151.7126381	INFINITO
43	503265.718	4790756.760	3.168	249.882	151.7126381	INFINITO
44	503265.799	4790756.674	3.168	250.000	151.7126381	INFINITO
45	503272.677	4790749.415	3.202	260.000	151.7126381	INFINITO
46	503273.972	4790748.049	3.216	261.882	151.7126381	INFINITO
47	503279.556	4790742.157	3.281	270.000	151.7126381	INFINITO
48	503280.169	4790741.510	3.288	270.891	151.7126381	INFINITO
49	503286.032	4790735.322	3.336	279.416	151.7126381	800.000
50	503286.434	4790734.898	3.338	280.000	151.7591332	800.000
51	503290.058	4790731.042	3.345	285.291	152.1801940	800.000
52	503293.261	4790727.591	3.339	290.000	152.5549080	800.000
53	503299.790	4790720.429	3.288	299.691	153.3261104	800.000
54	503299.997	4790720.200	3.285	300.000	153.3506827	800.000
55	503300.136	4790720.045	3.284	300.209	153.3672816	800.000
56	503306.640	4790712.725	3.237	310.000	154.1464574	800.000
57	503308.094	4790711.063	3.236	312.209	154.3222096	800.000
58	503312.351	4790706.145	3.250	318.713	154.8397878	INFINITO
59	503313.189	4790705.168	3.256	320.000	154.8397878	INFINITO
60	503315.930	4790701.975	3.284	324.209	154.8397878	INFINITO
61	503319.672	4790697.616	3.330	329.954	154.8397878	INFINITO
62	503319.703	4790697.581	3.330	330.000	154.8397878	INFINITO
63	503326.216	4790689.993	3.376	340.000	154.8397878	INFINITO
64	503327.489	4790688.511	3.378	341.954	154.8397878	INFINITO
65	503332.730	4790682.405	3.356	350.000	154.8397878	INFINITO
66	503335.305	4790679.405	3.330	353.954	154.8397878	INFINITO
67	503338.176	4790676.062	3.294	358.361	154.8397878	INFINITO
68	503339.243	4790674.818	3.282	360.000	154.8397878	INFINITO

PUNTO ----- X ----- Y ----- COTA ----- P.K. -- ACIMUT ----- RADIO --

69	503339.606	4790674.395	3.278	360.557	154.8397878	-650.000
70	503345.809	4790667.275	3.246	370.000	153.9149023	-650.000
71	503346.048	4790667.005	3.246	370.361	153.8795813	-650.000
72	503346.296	4790666.724	3.246	370.736	153.8428560	-650.000
73	503352.489	4790659.834	3.277	380.000	152.9354873	-650.000
74	503354.591	4790657.540	3.301	383.111	152.6308299	-650.000
75	503359.284	4790652.497	3.359	390.000	151.9560722	-650.000
76	503366.190	4790645.265	3.444	400.000	150.9766572	-650.000
77	503373.207	4790638.140	3.529	410.000	149.9972422	-650.000
78	503377.058	4790634.321	3.575	415.424	149.4660278	INFINITO
79	503377.177	4790634.204	3.577	415.590	149.4660278	INFINITO
80	503380.118	4790631.312	3.595	419.715	149.4660278	INFINITO
81	503380.207	4790631.224	3.595	419.840	149.4660278	INFINITO
82	503380.321	4790631.112	3.595	420.000	149.4660278	INFINITO
83	503383.059	4790628.419	3.579	423.840	149.4660278	INFINITO
84	503387.451	4790624.101	3.529	430.000	149.4660278	INFINITO
85	503394.581	4790617.089	3.449	440.000	149.4660278	INFINITO
86	503401.711	4790610.078	3.369	450.000	149.4660278	INFINITO
87	503406.800	4790605.073	3.312	457.137	149.4660278	INFINITO
88	503408.841	4790603.066	3.292	460.000	149.4660278	INFINITO
89	503415.356	4790596.659	3.264	469.137	149.4660278	INFINITO
90	503415.971	4790596.055	3.265	470.000	149.4660278	INFINITO
91	503423.102	4790589.043	3.304	480.000	149.4660278	INFINITO
92	503423.912	4790588.246	3.312	481.137	149.4660278	INFINITO
93	503429.569	4790582.683	3.376	489.071	149.4660278	INFINITO
94	503430.232	4790582.031	3.383	490.000	149.4660278	INFINITO
95	503437.362	4790575.020	3.423	500.000	149.4660278	INFINITO
96	503438.125	4790574.269	3.424	501.071	149.4660278	INFINITO
97	503444.492	4790568.008	3.397	510.000	149.4660278	INFINITO
98	503446.681	4790565.856	3.376	513.071	149.4660278	INFINITO
99	503448.280	4790564.283	3.358	515.313	149.4660278	INFINITO
100	503448.304	4790564.260	3.358	515.346	149.4660278	-85.000
101	503451.710	4790561.089	3.329	520.000	145.9805085	-85.000
102	503455.488	4790557.950	3.319	524.913	142.3005612	-85.000
103	503459.584	4790554.935	3.330	530.000	138.4908641	-85.000
104	503463.364	4790552.469	3.358	534.513	135.1104940	-85.000
105	503468.126	4790549.747	3.402	540.000	131.0012197	-85.000
106	503474.901	4790546.534	3.462	547.500	125.3836568	-85.000
107	503477.218	4790545.597	3.479	550.000	123.5115753	-85.000
108	503484.708	4790543.092	3.503	557.900	117.5944398	-85.000
109	503486.735	4790542.544	3.502	560.000	116.0219309	-85.000
110	503488.856	4790542.027	3.496	562.184	114.3865428	400.000
111	503494.807	4790540.611	3.462	568.300	115.3600789	400.000
112	503494.856	4790540.599	3.461	568.351	115.3681496	400.000
113	503496.456	4790540.202	3.449	570.000	115.6305723	400.000
114	503504.921	4790537.982	3.420	578.751	117.0233610	400.000
115	503506.125	4790537.650	3.420	580.000	117.2221217	400.000
116	503506.592	4790537.520	3.421	580.485	117.2993254	-250.000
117	503514.979	4790535.339	3.461	589.151	115.0925302	-250.000
118	503515.805	4790535.141	3.468	590.000	114.8763723	-250.000
119	503525.576	4790533.021	3.548	600.000	112.3298933	-250.000
120	503535.425	4790531.293	3.628	610.000	109.7834142	-250.000
121	503539.833	4790530.650	3.664	614.454	108.6490907	-250.000
122	503545.335	4790529.960	3.698	620.000	107.2369351	-250.000
123	503551.757	4790529.311	3.712	626.454	105.5933158	-250.000
124	503555.291	4790529.025	3.708	630.000	104.6904560	-250.000
125	503563.731	4790528.545	3.664	638.454	102.5375409	-250.000
126	503565.276	4790528.488	3.651	640.000	102.1439769	-250.000
127	503575.274	4790528.351	3.571	650.000	99.5974978	-250.000
128	503585.270	4790528.615	3.491	660.000	97.0510187	-250.000
129	503591.037	4790528.949	3.445	665.777	95.5799111	INFINITO
130	503593.137	4790529.095	3.428	667.882	95.5799111	INFINITO
131	503595.250	4790529.242	3.414	670.000	95.5799111	INFINITO
132	503599.522	4790529.539	3.403	674.282	95.5799111	INFINITO
133	503605.226	4790529.936	3.423	680.000	95.5799111	INFINITO
134	503605.907	4790529.983	3.428	680.682	95.5799111	INFINITO
135	503611.618	4790530.380	3.474	686.408	95.5799111	INFINITO
136	503615.202	4790530.629	3.495	690.000	95.5799111	INFINITO
137	503618.003	4790530.824	3.500	692.808	95.5799111	INFINITO
138	503618.402	4790530.852	3.500	693.208	95.5799111	INFINITO
139	503625.178	4790531.323	3.467	700.000	95.5799111	INFINITO

PUNTO	X	Y	COTA	P.K.	ACIMUT	RADIO
140	503625.186	4790531.324	3.467	700.008	95.5799111	INFINITO
141	503635.154	4790532.017	3.377	710.000	95.5799111	INFINITO
142	503645.130	4790532.711	3.287	720.000	95.5799111	INFINITO
143	503645.620	4790532.745	3.283	720.491	95.5799111	INFINITO
144	503652.403	4790533.216	3.251	727.291	95.5799111	INFINITO
145	503652.802	4790533.244	3.251	727.691	95.5799111	INFINITO
146	503655.106	4790533.404	3.254	730.000	95.5799111	INFINITO
147	503659.187	4790533.688	3.276	734.091	95.5799111	INFINITO
148	503665.082	4790534.098	3.323	740.000	95.5799111	INFINITO
149	503667.670	4790534.278	3.344	742.595	95.5799111	-350.000
150	503670.547	4790534.490	3.367	745.479	95.0552141	-350.000
151	503675.051	4790534.870	3.395	750.000	94.2329235	-350.000
152	503680.106	4790535.366	3.406	755.079	93.3090571	-350.000
153	503684.996	4790535.917	3.396	760.000	92.4140099	-350.000
154	503689.638	4790536.504	3.367	764.679	91.5629000	-350.000
155	503694.907	4790537.247	3.325	770.000	90.5950962	-350.000
156	503704.776	4790538.860	3.245	780.000	88.7761826	-350.000
157	503711.018	4790540.031	3.194	786.352	87.6208940	INFINITO
158	503714.598	4790540.736	3.165	790.000	87.6208940	INFINITO
159	503716.931	4790541.195	3.146	792.378	87.6208940	INFINITO
160	503721.641	4790542.123	3.127	797.178	87.6208940	INFINITO
161	503724.410	4790542.668	3.133	800.000	87.6208940	INFINITO
162	503729.294	4790543.630	3.177	804.978	87.6208940	INFINITO
163	503734.221	4790544.600	3.263	810.000	87.6208940	INFINITO
164	503741.657	4790546.065	3.473	817.578	87.6208940	INFINITO
165	503744.033	4790546.533	3.556	820.000	87.6208940	INFINITO
166	503753.844	4790548.465	3.896	830.000	87.6208940	INFINITO
167	503763.077	4790550.283	4.216	839.410	87.6208940	-10.000
168	503763.652	4790550.414	4.236	840.000	83.8660513	-10.000
169	503770.645	4790556.974	4.576	850.000	20.2040752	-10.000
170	503771.112	4790560.906	4.711	853.986	394.8300618	INFINITO
171	503770.900	4790563.512	4.800	856.600	394.8300618	INFINITO
172	503770.624	4790566.900	4.907	860.000	394.8300618	INFINITO
173	503770.234	4790571.686	5.031	864.801	394.8300618	INFINITO
174	503769.813	4790576.867	5.127	870.000	394.8300618	INFINITO
175	503769.569	4790579.860	5.166	873.003	394.8300618	INFINITO
176	503769.001	4790586.835	5.239	880.000	394.8300618	INFINITO
177	503768.190	4790596.802	5.345	890.000	394.8300618	INFINITO
178	503767.379	4790606.769	5.451	900.000	394.8300618	INFINITO
179	503767.232	4790608.573	5.470	901.811	394.8300618	-12.000
180	503767.036	4790609.965	5.485	903.217	387.3703888	-12.000
181	503764.906	4790614.754	5.513	908.501	359.3392158	-12.000
182	503764.289	4790615.517	5.512	909.483	354.1301041	-12.000
183	503763.940	4790615.899	5.511	910.000	351.3851216	-12.000
184	503759.139	4790618.960	5.460	915.748	320.8898193	-12.000
185	503755.758	4790619.590	5.410	919.200	302.5790842	INFINITO
186	503754.958	4790619.623	5.399	920.000	302.5790842	INFINITO
187	503744.966	4790620.028	5.254	930.000	302.5790842	INFINITO
188	503734.975	4790620.433	5.109	940.000	302.5790842	INFINITO
189	503724.983	4790620.838	4.964	950.000	302.5790842	INFINITO
190	503715.487	4790621.223	4.826	959.503	302.5790842	INFINITO
191	503714.991	4790621.243	4.826	960.000	302.5790842	INFINITO
192	503705.242	4790621.638	4.826	969.757	302.5790842	INFINITO

EJE 20

ALINEACIONES EN PLANTA

NOMBRE	CHARACTERÍSTICAS	LONGITUD	P.K.	X	Y
1	XC = 503441.68396 YC = 4790793.09191 R = 60.000	15.789	-0.000	503491.88706	4790760.23390
2	ACIMUT= 253.64693	48.240	15.789	503481.61167	4790748.30599
3	XC = 503453.58916 YC = 4790707.24678 R = -12.000	23.550	64.029	503445.60362	4790716.20397
4	ACIMUT= 128.71009	49.021	87.579	503448.35902	4790696.44652
5	XC = 503710.40129 YC = 4791125.09192 R = -500.000	205.232	136.600	503492.47873	4790675.08108
6	ACIMUT= 102.57908	36.016	341.832	503690.15075	4790625.50217
6	A = 24.99999	13.889	377.849	503726.13736	4790624.04348
7	XC = 503734.90037 YC = 4790668.90384 R = -45.000	39.808	391.738	503740.01072	4790624.19495
7	A = 24.99999	13.889	431.546	503772.72848	4790644.53101
8	ACIMUT= 26.61327	12.121	445.435	503779.00535	4790656.90412
			457.556	503783.92615	4790667.98141
		LONGITUD TOTAL	457.556		

ALINEACIONES EN ALZADO

				PUNTOS TANGENCIA	
NOMBRE	CARACTERÍSTICAS	LONGITUD	P.K.	COTA	
				-0.000	6.338
1	PENDIENTE= -0.020	7.483		7.483	6.188
2	Kv= 1400.000	16.800		24.283	5.953
3	PENDIENTE= -0.008	97.989		122.272	5.169
4	P.K.= 136.6719 Z= 5.1113 Kv= 1800.000	28.800		151.072	5.169
5	PENDIENTE= 0.008	70.362		221.434	5.732
6	P.K.= 235.8340 Z= 5.7894 Kv= -1800.001	28.800		250.234	5.732
7	PENDIENTE= -0.008	95.281		345.515	4.970
8	P.K.= 357.5148 Z= 4.9215 Kv= 1500.001	32.514		378.029	5.062
9	PENDIENTE= 0.014	23.203		401.232	5.379
10	P.K.= 404.6506 Z= 5.4025 Kv= -250.000	4.348		405.579	5.401
11	PENDIENTE= -0.004	1.599		407.178	5.395
12	P.K.= 409.4074 Z= 5.3907 Kv= 599.999	9.433		416.611	5.434
13	PENDIENTE= 0.012	40.945		457.556	5.926

PUNTOS SINGULARES Y CADA 10 METROS

PUNTO	X	Y	COTA	P.K.	ACIMUT	RADIO
1	503491.887	4790760.234	6.338	0.000	236.8942316	60.000
2	503487.410	4790754.244	6.188	7.483	244.8338022	60.000
3	503485.740	4790752.361	6.140	10.000	247.5045612	60.000
4	503481.612	4790748.306	6.046	15.789	253.6469335	INFINITO
5	503481.542	4790748.244	6.045	15.883	253.6469335	INFINITO
6	503478.468	4790745.504	5.994	20.000	253.6469335	INFINITO
7	503475.272	4790742.654	5.953	24.283	253.6469335	INFINITO
8	503471.004	4790738.849	5.907	30.000	253.6469335	INFINITO
9	503463.540	4790732.195	5.827	40.000	253.6469335	INFINITO
10	503456.076	4790725.540	5.747	50.000	253.6469335	INFINITO
11	503448.611	4790718.885	5.667	60.000	253.6469335	INFINITO
12	503445.604	4790716.204	5.635	64.029	253.6469335	-12.000
13	503442.297	4790711.307	5.587	70.000	221.9712581	-12.000
14	503442.991	4790701.618	5.507	80.000	168.9196123	-12.000
15	503448.359	4790696.447	5.446	87.579	128.7100921	INFINITO
16	503450.538	4790695.391	5.427	90.000	128.7100921	INFINITO
17	503459.538	4790691.033	5.347	100.000	128.7100921	INFINITO
18	503468.538	4790686.675	5.267	110.000	128.7100921	INFINITO
19	503477.538	4790682.316	5.187	120.000	128.7100921	INFINITO
20	503479.583	4790681.326	5.169	122.272	128.7100921	INFINITO
21	503486.539	4790677.958	5.124	130.000	128.7100921	INFINITO
22	503492.479	4790675.081	5.111	136.600	128.7100921	-500.000
23	503492.543	4790675.050	5.111	136.672	128.7009458	-500.000
24	503495.544	4790673.610	5.114	140.000	128.2771946	-500.000
25	503504.616	4790669.403	5.161	150.000	127.0039551	-500.000
26	503505.593	4790668.963	5.169	151.072	126.8674808	-500.000
27	503513.770	4790665.379	5.240	160.000	125.7307155	-500.000
28	503523.003	4790661.538	5.320	170.000	124.4574760	-500.000
29	503532.311	4790657.883	5.400	180.000	123.1842364	-500.000
30	503541.690	4790654.415	5.480	190.000	121.9109969	-500.000
31	503551.137	4790651.135	5.560	200.000	120.6377573	-500.000
32	503560.647	4790648.045	5.640	210.000	119.3645178	-500.000
33	503570.217	4790645.146	5.720	220.000	118.0912783	-500.000
34	503571.595	4790644.745	5.732	221.434	117.9086919	-500.000
35	503579.844	4790642.438	5.780	230.000	116.8180387	-500.000
36	503585.484	4790640.948	5.789	235.834	116.0752269	-500.000
37	503589.522	4790639.924	5.785	240.000	115.5447992	-500.000
38	503599.249	4790637.603	5.734	250.000	114.2715596	-500.000
39	503599.477	4790637.551	5.732	250.234	114.2417620	-500.000
40	503609.021	4790635.478	5.654	260.000	112.9983201	-500.000
41	503618.832	4790633.548	5.574	270.000	111.7250805	-500.000
42	503628.681	4790631.815	5.494	280.000	110.4518410	-500.000
43	503638.562	4790630.280	5.414	290.000	109.1786014	-500.000
44	503648.472	4790628.942	5.334	300.000	107.9053619	-500.000
45	503658.407	4790627.803	5.254	310.000	106.6321224	-500.000
46	503668.362	4790626.862	5.174	320.000	105.3588828	-500.000
47	503678.335	4790626.121	5.094	330.000	104.0856433	-500.000
48	503688.320	4790625.580	5.014	340.000	102.8124037	-500.000
49	503690.151	4790625.502	4.999	341.832	102.5790839	INFINITO
50	503693.830	4790625.353	4.970	345.515	102.5790839	INFINITO
51	503698.312	4790625.171	4.940	350.000	102.5790839	INFINITO
52	503705.820	4790624.867	4.922	357.515	102.5790839	INFINITO
53	503708.303	4790624.766	4.924	360.000	102.5790839	INFINITO
54	503710.074	4790624.695	4.928	361.772	102.5790839	INFINITO
55	503718.295	4790624.361	4.973	370.000	102.5790839	INFINITO
56	503726.137	4790624.043	5.059	377.849	102.5790839	INFINITO
57	503726.317	4790624.036	5.062	378.029	102.5774317	-3470.021
58	503728.287	4790623.959	5.089	380.000	102.3433659	-290.515
59	503738.281	4790624.030	5.226	390.000	95.0590556	-51.435
60	503740.011	4790624.195	5.249	391.738	92.7547106	-45.000
61	503748.088	4790625.880	5.362	400.000	81.0657065	-45.000
62	503749.260	4790626.257	5.379	401.232	79.3232768	-45.000
63	503751.303	4790627.000	5.399	403.406	76.2478628	-45.000
64	503752.456	4790627.470	5.402	404.651	74.4863912	-45.000
65	503753.307	4790627.841	5.401	405.579	73.1724489	-45.000
66	503754.754	4790628.520	5.395	407.178	70.9104702	-45.000
67	503756.730	4790629.553	5.391	409.407	67.7570115	-45.000
68	503757.246	4790629.844	5.391	410.000	66.9186004	-45.000

PUNTO	X	Y	COTA	P.K.	ACIMUT	RADIO
69	503758.870	4790630.819	5.396	411.895	64.2381524	-45.000
70	503762.723	4790633.536	5.434	416.611	57.5658346	-45.000
71	503765.305	4790635.729	5.475	420.000	52.7714943	-45.000
72	503771.869	4790643.246	5.595	430.000	38.6243881	-45.000
73	503772.728	4790644.531	5.613	431.546	36.4376388	-45.000
74	503776.760	4790651.955	5.715	440.000	28.1174668	-115.004
75	503779.005	4790656.904	5.780	445.435	26.6132658	INFINITO
76	503780.859	4790661.076	5.835	450.000	26.6132658	INFINITO
77	503783.926	4790667.981	5.926	457.556	26.6132658	INFINITO

EJE 21

ALINEACIONES EN PLANTA

NOMBRE	CHARACTERÍSTICAS	LONGITUD	P.K.	X	Y
1	ACIMUT= 53.60291	75.807	0.000	503365.46280	4790646.02798
			75.807	503422.01256	4790696.51366
2	XC = 503448.65167 YC = 4790666.67479 R = 40.000	22.112	97.919	503441.64829	4790706.05693
LONGITUD TOTAL			97.919		

ALINEACIONES EN ALZADO

PUNTOS TANGENCIA

NOMBRE	CHARACTERÍSTICAS	LONGITUD	P.K.	COTA
1	PENDIENTE= 0.020	0.156	0.000	3.427
			0.156	3.430
2	Kv= 500.000	20.000	20.156	4.230
3	PENDIENTE= 0.060	7.930	28.087	4.706
4	Kv= -500.000	26.000	54.087	5.590
5	PENDIENTE= 0.008	23.523	77.609	5.778
6	P.K.= 81.6092 Z= 5.7944 Kv= -500.000	16.500	94.109	5.638
7	PENDIENTE= -0.025	3.810	97.919	5.543

PUNTOS SINGULARES Y CADA 10 METROS

PUNTO	X	Y	COTA	P.K.	ACIMUT	RADIO
1	503365.463	4790646.028	3.427	0.000	53.6029146	INFINITO
2	503365.580	4790646.132	3.430	0.156	53.6029146	INFINITO
3	503372.923	4790652.688	3.724	10.000	53.6029146	INFINITO
4	503373.039	4790652.792	3.730	10.156	53.6029146	INFINITO
5	503380.382	4790659.348	4.221	20.000	53.6029146	INFINITO
6	503380.499	4790659.452	4.230	20.156	53.6029146	INFINITO
7	503386.415	4790664.733	4.706	28.087	53.6029146	INFINITO
8	503387.842	4790666.007	4.817	30.000	53.6029146	INFINITO
9	503395.302	4790672.667	5.279	40.000	53.6029146	INFINITO
10	503396.112	4790673.391	5.317	41.087	53.6029146	INFINITO
11	503402.761	4790679.327	5.541	50.000	53.6029146	INFINITO
12	503405.810	4790682.048	5.590	54.087	53.6029146	INFINITO
13	503410.221	4790685.987	5.638	60.000	53.6029146	INFINITO
14	503417.681	4790692.646	5.718	70.000	53.6029146	INFINITO
15	503422.013	4790696.514	5.764	75.807	53.6029146	40.000
16	503423.384	4790697.683	5.778	77.609	56.4714186	40.000
17	503425.281	4790699.137	5.792	80.000	60.2765029	40.000
18	503426.606	4790700.051	5.794	81.609	62.8376151	40.000
19	503430.269	4790702.201	5.776	85.859	69.6017014	40.000
20	503434.039	4790703.910	5.724	90.000	76.1919973	40.000
21	503437.934	4790705.212	5.638	94.109	82.7319842	40.000
22	503441.648	4790706.057	5.543	97.919	88.7960279	40.000

EJE 22

ALINEACIONES EN PLANTA

NOMBRE	CHARACTERÍSTICAS	LONGITUD	P.K.	X	Y
1	XC = 503469.08353 YC = 4790547.09576 R = -60.000	18.227	-0.000	503527.04346	4790531.58298
2	ACIMUT= 397.30897	96.131	18.227	503529.02994	4790549.63125
3	XC = 503559.93637 YC = 4790647.15520 R = 35.000	14.439	114.358	503524.96763	4790645.67617
			128.797	503527.30850	4790659.82100
LONGITUD TOTAL			128.797		

ALINEACIONES EN ALZADO

NOMBRE	CHARACTERÍSTICAS	LONGITUD	P.K.	COTA	PUNTOS TANGENCIA
1	PENDIENTE= 0.020	6.638	-0.000	3.540	
2	Kv= 499.998	7.500	6.638	3.672	
3	PENDIENTE= 0.035	25.398	14.138	3.879	
4	Kv= -799.999	16.000	39.536	4.768	
5	PENDIENTE= 0.015	30.234	55.536	5.168	
6	P.K.= 98.5199 Z= 5.7167 Kv= -850.000	25.500	85.770	5.621	
7	PENDIENTE= -0.015	17.528	111.270	5.621	
			128.797	5.358	

PUNTOS SINGULARES Y CADA 10 METROS

PUNTO	X	Y	COTA	P.K.	ACIMUT	RADIO
1	503527.043	4790531.583	3.540	0.000	16.6486970	-60.000
2	503528.402	4790538.077	3.672	6.638	9.6052525	-60.000
3	503528.814	4790541.413	3.751	10.000	6.0383674	-60.000
4	503528.849	4790541.800	3.761	10.388	5.6263789	-60.000
5	503529.063	4790545.543	3.879	14.138	1.6475053	-60.000
6	503529.030	4790549.631	4.022	18.227	397.3089661	INFINITO
7	503528.955	4790551.402	4.084	20.000	397.3089661	INFINITO
8	503528.532	4790561.393	4.434	30.000	397.3089661	INFINITO
9	503528.129	4790570.921	4.768	39.536	397.3089661	INFINITO
10	503528.110	4790571.385	4.784	40.000	397.3089661	INFINITO
11	503527.791	4790578.914	5.008	47.536	397.3089661	INFINITO
12	503527.687	4790581.376	5.065	50.000	397.3089661	INFINITO
13	503527.453	4790586.907	5.168	55.536	397.3089661	INFINITO
14	503527.265	4790591.367	5.235	60.000	397.3089661	INFINITO
15	503526.842	4790601.358	5.385	70.000	397.3089661	INFINITO
16	503526.420	4790611.349	5.535	80.000	397.3089661	INFINITO
17	503526.176	4790617.114	5.621	85.770	397.3089661	INFINITO
18	503525.997	4790621.340	5.674	90.000	397.3089661	INFINITO
19	503525.637	4790629.852	5.717	98.520	397.3089661	INFINITO
20	503525.574	4790631.331	5.715	100.000	397.3089661	INFINITO
21	503525.152	4790641.322	5.639	110.000	397.3089661	INFINITO
22	503525.098	4790642.591	5.621	111.270	397.3089661	INFINITO

PUNTO	X	Y	COTA	P.K.	ACIMUT	RADIO
23	503524.968	4790645.676	5.575	114.358	397.3089661	35.000
24	503525.184	4790651.308	5.490	120.000	7.5711726	35.000
25	503527.309	4790659.821	5.358	128.797	23.5729946	35.000

EJE 23

ALINEACIONES EN PLANTA

NOMBRE	CHARACTERÍSTICAS	LONGITUD	P.K.	X	Y
1	XC = 503501.90804 YC = 4790745.86444 R = -16.533	25.118	0.000	503511.42653	4790759.38310
2	XC = 503441.68396 YC = 4790793.09191 R = 60.000	10.659	25.118	503488.89787	4790756.06696
3	ACIMUT= 253.64692	1.896	35.778	503481.61168	4790748.30600
			37.674	503480.19649	4790747.04433
LONGITUD TOTAL			37.674		

ALINEACIONES EN ALZADO

NOMBRE	CHARACTERÍSTICAS	LONGITUD	P.K.	COTA
1	PENDIENTE= -0.026	22.102	0.000	6.871
2	Kv= 799.998	10.900	22.102	6.292
3	PENDIENTE= -0.013	4.671	33.002	6.080
			37.674	6.021

PUNTOS SINGULARES Y CADA 10 METROS

PUNTO	X	Y	COTA	P.K.	ACIMUT	RADIO
1	503511.427	4790759.383	6.871	0.000	339.0548971	-16.533
2	503502.051	4790762.397	6.609	10.000	300.5500011	-16.533
3	503492.625	4790759.546	6.347	20.000	262.0451050	-16.533
4	503490.965	4790758.258	6.292	22.102	253.9500705	-16.533
5	503488.898	4790756.067	6.218	25.118	242.3371023	60.000
6	503487.357	4790754.183	6.167	27.552	244.9197628	60.000
7	503485.733	4790752.352	6.123	30.000	247.5167354	60.000
8	503483.640	4790750.200	6.080	33.002	250.7024689	60.000
9	503481.612	4790748.306	6.045	35.778	253.6469200	INFINITO
10	503481.429	4790748.143	6.042	36.023	253.6469200	INFINITO
11	503480.721	4790747.512	6.030	36.971	253.6469200	INFINITO
12	503480.196	4790747.044	6.021	37.674	253.6469200	INFINITO

EJE 24

ALINEACIONES EN PLANTA

NOMBRE	CHARACTERÍSTICAS	LONGITUD	P.K.	X	Y
1	ACIMUT= 251.07721	6.807	0.000	503192.30556	4790852.60128
2	XC = 503181.85122 YC = 4790853.62191 R = 8.000	13.136	6.807	503187.41155	4790847.87015
3	ACIMUT= 355.60756	15.190	19.943	503175.71866	4790848.48461
			35.133	503165.96406	4790860.12900
LONGITUD TOTAL			35.133		

ALINEACIONES EN ALZADO

NOMBRE	CHARACTERÍSTICAS	LONGITUD	P.K.	COTA	PUNTOS TANGENCIA
1	PENDIENTE= -0.008	8.451	0.000	3.802	
2	PENDIENTE= 0.023	10.058	8.451	3.735	
3	P.K.= 19.6465 Z= 3.9771 Kv= -50.000	2.981	18.510	3.964	
4	PENDIENTE= -0.037	13.642	21.490	3.943	
			35.133	3.440	

PUNTOS SINGULARES Y CADA 10 METROS

PUNTO	X	Y	COTA	P.K.	ACIMUT	RADIO
1	503192.306	4790852.601	3.802	0.000	251.0772136	INFINITO
2	503189.859	4790850.236	3.775	3.403	251.0772136	INFINITO
3	503187.412	4790847.870	3.748	6.807	251.0772136	8.000
4	503186.121	4790846.856	3.735	8.451	264.1614080	8.000
5	503184.739	4790846.161	3.771	10.000	276.4864621	8.000
6	503176.732	4790847.474	3.964	18.510	344.2033087	8.000
7	503175.913	4790848.261	3.977	19.646	353.2506196	8.000
8	503175.719	4790848.485	3.976	19.943	355.6075556	INFINITO
9	503175.682	4790848.529	3.976	20.000	355.6075556	INFINITO
10	503174.725	4790849.671	3.943	21.490	355.6075556	INFINITO
11	503169.260	4790856.194	3.629	30.000	355.6075556	INFINITO
12	503165.964	4790860.129	3.440	35.133	355.6075556	INFINITO

EJE BIDEGORRI

ALINEACIONES EN PLANTA

NOMBRE	CHARACTERÍSTICAS	LONGITUD	P.K.	X	Y
A001	ACIMUT= 275.59299	128.459	0.000	503072.42992	4791819.69148
			128.459	502953.29627	4791771.63982
A002	XC = 502918.75170 YC = 4791857.28558 R = 92.350	71.953	200.412	502883.15114	4791772.07336
A003	ACIMUT= 325.19394	49.904	250.316	502837.10400	4791791.31126
A004	XC = 502797.43645 YC = 4791696.36446 R = -102.900	8.501	258.818	502829.13337	4791794.26091
A005	XC = 502825.89494 YC = 4791784.25896 R = -10.513	21.337	280.154	502815.49306	4791782.73344
A006	XC = 503018.32338 YC = 4791812.48000 R = -205.000	70.207	350.362	502837.26167	4791716.34647
A007	XC = 503543.84396 YC = 4792091.50173 R = -800.000	20.724	371.086	502847.21607	4791698.17034
A008	ACIMUT= 167.27775	251.264	622.350	502970.75381	4791479.37306
A009	XC = 502535.36138 YC = 4791233.54095 R = 500.000	25.214	647.564	502982.59173	4791457.11423
A010	ACIMUT= 170.48805	285.246	932.810	503110.13835	4791201.97318
A011	XC = 503949.94750 YC = 4791621.79910 R = -938.900	200.000	1132.810	503217.87433	4791033.91980
A012	XC = 502828.01748 YC = 4790720.85169 R = 500.000	18.330	1151.140	503229.08694	4791019.42043
A013	XC = 503389.51472 YC = 4791138.84792 R = -200.000	15.380	1166.520	503238.73586	4791007.44878
A014	XC = 510774.66329 YC = 4797574.77805 R = -9996.000	44.914	1211.433	503268.32006	4790973.65487
A015	XC = 503099.35975 YC = 4790825.07016 R = 225.000	18.664	1230.097	503280.05011	4790959.14474
A016	XC = 503440.66377 YC = 4791078.32214 R = -200.000	24.333	1254.431	503295.70165	4790940.53250
A017	XC = 504152.42777 YC = 4791754.86926 R = -1182.000	93.127	1347.558	503362.45279	4790875.62895
A018	XC = 503402.55305 YC = 4790920.26043 R = -60.000	13.411	1360.969	503373.34315	4790867.85068
A019	XC = 503334.39663 YC = 4790797.97101 R = 80.000	15.909			

NOMBRE ---- CARACTERÍSTICAS --- LONGITUD ----- P.K. ----- X ----- Y -----

-----			1376.878	503386.38050	4790858.77954
A020	XC =	504152.42778	102.906		
	YC =	4791754.86925			
	R =	-1178.900			
-----			1479.783	503467.41729	4790795.40803
A021	ACIMUT=	139.47229	51.857		
-----			1531.640	503509.62159	4790765.27613
A022	XC =	503742.04520	22.881		
	YC =	4791090.82070			
	R =	-400.000			
-----			1554.521	503528.61358	4790752.52062
A023	XC =	504481.39903	150.682		
	YC =	4792262.73445			
	R =	-1785.650			
-----			1705.203	503659.29177	4790677.58917
A024	XC =	503751.37110	17.141		
	YC =	4790855.13183			
	R =	-200.000			
-----			1722.344	503674.82733	4790670.35886
A025	ACIMUT=	125.00244	61.779		
-----			1784.123	503731.90322	4790646.71469
A025	A =	18.00000	15.355		
-----			1799.479	503746.60899	4790642.61968
A026	XC =	503747.21794	17.254		
	YC =	4790663.71089			
	R =	-21.100			
-----			1816.733	503762.18979	4790648.84302
A026	A =	18.00000	15.355		
-----			1832.089	503770.02768	4790661.94250
A027	ACIMUT=	26.61327	11.161		
-----			1843.250	503774.55880	4790672.14259

LONGITUD TOTAL			1843.250		

PUNTOS SINGULARES Y CADA 10 METROS

PUNTO	X	Y	COTA	P.K.	ACIMUT	RADIO
1	503072.430	4791819.691	-	0.000	275.5929867	INFINITO
2	503063.156	4791815.951	-	10.000	275.5929867	INFINITO
3	503053.882	4791812.210	-	20.000	275.5929867	INFINITO
4	503044.608	4791808.470	-	30.000	275.5929867	INFINITO
5	503035.334	4791804.729	-	40.000	275.5929867	INFINITO
6	503026.060	4791800.988	-	50.000	275.5929867	INFINITO
7	503016.786	4791797.248	-	60.000	275.5929867	INFINITO
8	503007.512	4791793.507	-	70.000	275.5929867	INFINITO
9	502998.238	4791789.767	-	80.000	275.5929867	INFINITO
10	502988.964	4791786.026	-	90.000	275.5929867	INFINITO
11	502979.690	4791782.285	-	100.000	275.5929867	INFINITO
12	502970.415	4791778.545	-	110.000	275.5929867	INFINITO
13	502961.141	4791774.804	-	120.000	275.5929867	INFINITO
14	502953.296	4791771.640	-	128.459	275.5929867	92.350
15	502951.863	4791771.075	-	130.000	276.6550864	92.350
16	502942.352	4791768.002	-	140.000	283.5486410	92.350
17	502932.565	4791765.974	-	150.000	290.4421957	92.350
18	502922.615	4791765.016	-	160.000	297.3357503	92.350
19	502912.621	4791765.139	-	170.000	304.2293050	92.350
20	502902.699	4791766.342	-	180.000	311.1228596	92.350
21	502892.964	4791768.609	-	190.000	318.0164143	92.350
22	502883.532	4791771.915	-	200.000	324.9099689	92.350
23	502883.151	4791772.073	-	200.412	325.1939368	INFINITO
24	502874.304	4791775.770	-	210.000	325.1939368	INFINITO
25	502865.077	4791779.624	-	220.000	325.1939368	INFINITO
26	502855.850	4791783.479	-	230.000	325.1939368	INFINITO
27	502846.623	4791787.334	-	240.000	325.1939368	INFINITO
28	502837.396	4791791.189	-	250.000	325.1939368	INFINITO
29	502837.104	4791791.311	-	250.316	325.1939368	-102.900
30	502829.133	4791794.261	-	258.818	319.9343565	-10.513
31	502827.990	4791794.561	-	260.000	312.7738663	-10.513
32	502818.725	4791791.947	-	270.000	252.2192810	-10.513
33	502815.472	4791782.886	-	280.000	191.6646958	-10.513
34	502815.493	4791782.733	-	280.154	190.7295898	-205.000
35	502817.155	4791773.030	-	290.000	187.6720832	-205.000
36	502819.318	4791763.268	-	300.000	184.5666209	-205.000
37	502821.954	4791753.623	-	310.000	181.4611586	-205.000
38	502825.058	4791744.117	-	320.000	178.3556963	-205.000
39	502828.621	4791734.775	-	330.000	175.2502340	-205.000
40	502832.636	4791725.617	-	340.000	172.1447717	-205.000
41	502837.092	4791716.666	-	350.000	169.0393094	-205.000
42	502837.262	4791716.346	-	350.362	168.9269159	-800.000
43	502841.833	4791707.861	-	360.000	168.1599420	-800.000
44	502846.683	4791699.116	-	370.000	167.3641673	-800.000
45	502847.216	4791698.170	-	371.086	167.2777497	INFINITO
46	502851.599	4791690.408	-	380.000	167.2777497	INFINITO
47	502856.515	4791681.700	-	390.000	167.2777497	INFINITO
48	502861.432	4791672.992	-	400.000	167.2777497	INFINITO
49	502866.349	4791664.285	-	410.000	167.2777497	INFINITO
50	502871.265	4791655.577	-	420.000	167.2777497	INFINITO
51	502876.182	4791646.869	-	430.000	167.2777497	INFINITO
52	502881.099	4791638.161	-	440.000	167.2777497	INFINITO
53	502886.015	4791629.453	-	450.000	167.2777497	INFINITO
54	502890.932	4791620.745	-	460.000	167.2777497	INFINITO
55	502895.849	4791612.037	-	470.000	167.2777497	INFINITO
56	502900.765	4791603.330	-	480.000	167.2777497	INFINITO
57	502905.682	4791594.622	-	490.000	167.2777497	INFINITO
58	502910.598	4791585.914	-	500.000	167.2777497	INFINITO
59	502915.515	4791577.206	-	510.000	167.2777497	INFINITO
60	502920.432	4791568.498	-	520.000	167.2777497	INFINITO
61	502925.348	4791559.790	-	530.000	167.2777497	INFINITO
62	502930.265	4791551.083	-	540.000	167.2777497	INFINITO
63	502935.182	4791542.375	-	550.000	167.2777497	INFINITO
64	502940.098	4791533.667	-	560.000	167.2777497	INFINITO
65	502945.015	4791524.959	-	570.000	167.2777497	INFINITO
66	502949.932	4791516.251	-	580.000	167.2777497	INFINITO
67	502954.848	4791507.543	-	590.000	167.2777497	INFINITO
68	502959.765	4791498.835	-	600.000	167.2777497	INFINITO

PUNTO	X	Y	COTA	P.K.	ACIMUT	RADIO
69	502964.682	4791490.128	-	610.000	167.2777497	INFINITO
70	502969.598	4791481.420	-	620.000	167.2777497	INFINITO
71	502970.754	4791479.373	-	622.350	167.2777497	500.000
72	502974.464	4791472.683	-	630.000	168.2517263	500.000
73	502979.158	4791463.854	-	640.000	169.5249659	500.000
74	502982.592	4791457.114	-	647.564	170.4880469	INFINITO
75	502983.681	4791454.935	-	650.000	170.4880469	INFINITO
76	502988.152	4791445.991	-	660.000	170.4880469	INFINITO
77	502992.624	4791437.046	-	670.000	170.4880469	INFINITO
78	502997.095	4791428.102	-	680.000	170.4880469	INFINITO
79	503001.567	4791419.157	-	690.000	170.4880469	INFINITO
80	503006.038	4791410.212	-	700.000	170.4880469	INFINITO
81	503010.510	4791401.268	-	710.000	170.4880469	INFINITO
82	503014.981	4791392.323	-	720.000	170.4880469	INFINITO
83	503019.453	4791383.378	-	730.000	170.4880469	INFINITO
84	503023.924	4791374.434	-	740.000	170.4880469	INFINITO
85	503028.396	4791365.489	-	750.000	170.4880469	INFINITO
86	503032.867	4791356.545	-	760.000	170.4880469	INFINITO
87	503037.339	4791347.600	-	770.000	170.4880469	INFINITO
88	503041.810	4791338.655	-	780.000	170.4880469	INFINITO
89	503046.281	4791329.711	-	790.000	170.4880469	INFINITO
90	503050.753	4791320.766	-	800.000	170.4880469	INFINITO
91	503055.224	4791311.822	-	810.000	170.4880469	INFINITO
92	503059.696	4791302.877	-	820.000	170.4880469	INFINITO
93	503064.167	4791293.932	-	830.000	170.4880469	INFINITO
94	503068.639	4791284.988	-	840.000	170.4880469	INFINITO
95	503073.110	4791276.043	-	850.000	170.4880469	INFINITO
96	503077.582	4791267.099	-	860.000	170.4880469	INFINITO
97	503082.053	4791258.154	-	870.000	170.4880469	INFINITO
98	503086.525	4791249.209	-	880.000	170.4880469	INFINITO
99	503090.996	4791240.265	-	890.000	170.4880469	INFINITO
100	503095.468	4791231.320	-	900.000	170.4880469	INFINITO
101	503099.939	4791222.376	-	910.000	170.4880469	INFINITO
102	503104.411	4791213.431	-	920.000	170.4880469	INFINITO
103	503108.882	4791204.486	-	930.000	170.4880469	INFINITO
104	503110.138	4791201.973	-	932.810	170.4880469	-938.900
105	503113.378	4791195.554	-	940.000	170.0005098	-938.900
106	503117.965	4791186.668	-	950.000	169.3224613	-938.900
107	503122.647	4791177.832	-	960.000	168.6444127	-938.900
108	503127.422	4791169.046	-	970.000	167.9663642	-938.900
109	503132.291	4791160.311	-	980.000	167.2883157	-938.900
110	503137.252	4791151.629	-	990.000	166.6102671	-938.900
111	503142.306	4791143.000	-	1000.000	165.9322186	-938.900
112	503147.451	4791134.425	-	1010.000	165.2541700	-938.900
113	503152.688	4791125.906	-	1020.000	164.5761215	-938.900
114	503158.015	4791117.443	-	1030.000	163.8980730	-938.900
115	503163.431	4791109.037	-	1040.000	163.2200244	-938.900
116	503168.937	4791100.689	-	1050.000	162.5419759	-938.900
117	503174.531	4791092.400	-	1060.000	161.8639273	-938.900
118	503180.214	4791084.172	-	1070.000	161.1858788	-938.900
119	503185.983	4791076.004	-	1080.000	160.5078303	-938.900
120	503191.840	4791067.899	-	1090.000	159.8297817	-938.900
121	503197.782	4791059.856	-	1100.000	159.1517332	-938.900
122	503203.810	4791051.877	-	1110.000	158.4736847	-938.900
123	503209.922	4791043.962	-	1120.000	157.7956361	-938.900
124	503216.118	4791036.113	-	1130.000	157.1175876	-938.900
125	503217.874	4791033.920	-	1132.810	156.9270758	500.000
126	503222.336	4791028.281	-	1140.000	157.8425722	500.000
127	503228.405	4791020.334	-	1150.000	159.1158118	500.000
128	503229.087	4791019.420	-	1151.140	159.2609347	-200.000
129	503234.533	4791012.433	-	1160.000	156.4406432	-200.000
130	503238.736	4791007.449	-	1166.520	154.3653887	-9996.000
131	503241.023	4791004.825	-	1170.000	154.3432229	-9996.000
132	503247.599	4790997.292	-	1180.000	154.2795355	-9996.000
133	503254.183	4790989.765	-	1190.000	154.2158480	-9996.000
134	503260.775	4790982.245	-	1200.000	154.1521606	-9996.000
135	503267.373	4790974.731	-	1210.000	154.0884731	-9996.000
136	503268.320	4790973.655	-	1211.433	154.0793436	225.000
137	503273.853	4790967.116	-	1220.000	156.5031720	225.000
138	503279.992	4790959.223	-	1230.000	159.3325932	225.000
139	503280.050	4790959.145	-	1230.097	159.3601218	-200.000

PUNTO	X	Y	COTA	P.K.	ACIMUT	RADIO
140	503286.145	4790951.341	-	1240.000	156.2079926	-200.000
141	503292.685	4790943.777	-	1250.000	153.0248937	-200.000
142	503295.702	4790940.533	-	1254.431	151.6145483	-1182.000
143	503299.548	4790936.505	-	1260.000	151.3145900	-1182.000
144	503306.502	4790929.319	-	1270.000	150.7759946	-1182.000
145	503313.517	4790922.192	-	1280.000	150.2373992	-1182.000
146	503320.591	4790915.124	-	1290.000	149.6988038	-1182.000
147	503327.725	4790908.117	-	1300.000	149.1602084	-1182.000
148	503334.919	4790901.170	-	1310.000	148.6216130	-1182.000
149	503342.170	4790894.284	-	1320.000	148.0830176	-1182.000
150	503349.480	4790887.460	-	1330.000	147.5444222	-1182.000
151	503356.847	4790880.698	-	1340.000	147.0058268	-1182.000
152	503362.453	4790875.629	-	1347.558	146.5987612	-60.000
153	503364.302	4790874.034	-	1350.000	144.0076233	-60.000
154	503372.501	4790868.329	-	1360.000	133.3972936	-60.000
155	503373.343	4790867.851	-	1360.969	132.3694876	80.000
156	503380.967	4790863.018	-	1370.000	139.5563803	80.000
157	503386.381	4790858.780	-	1376.878	145.0293337	-1178.900
158	503388.757	4790856.754	-	1380.000	144.8607160	-1178.900
159	503396.402	4790850.308	-	1390.000	144.3207043	-1178.900
160	503404.102	4790843.928	-	1400.000	143.7806926	-1178.900
161	503411.856	4790837.613	-	1410.000	143.2406809	-1178.900
162	503419.663	4790831.364	-	1420.000	142.7006692	-1178.900
163	503427.523	4790825.182	-	1430.000	142.1606575	-1178.900
164	503435.435	4790819.066	-	1440.000	141.6206459	-1178.900
165	503443.399	4790813.018	-	1450.000	141.0806342	-1178.900
166	503451.414	4790807.038	-	1460.000	140.5406225	-1178.900
167	503459.479	4790801.126	-	1470.000	140.0006108	-1178.900
168	503467.417	4790795.408	-	1479.783	139.4722927	INFINITO
169	503467.594	4790795.282	-	1480.000	139.4722927	INFINITO
170	503475.732	4790789.472	-	1490.000	139.4722927	INFINITO
171	503483.871	4790783.661	-	1500.000	139.4722927	INFINITO
172	503492.009	4790777.850	-	1510.000	139.4722927	INFINITO
173	503500.148	4790772.040	-	1520.000	139.4722927	INFINITO
174	503508.287	4790766.229	-	1530.000	139.4722927	INFINITO
175	503509.622	4790765.276	-	1531.640	139.4722927	-400.000
176	503516.475	4790760.490	-	1540.000	138.1418079	-400.000
177	503524.803	4790754.955	-	1550.000	136.5502584	-400.000
178	503528.614	4790752.521	-	1554.521	135.8306647	-1785.650
179	503533.252	4790749.604	-	1560.000	135.6353396	-1785.650
180	503541.740	4790744.318	-	1570.000	135.2788197	-1785.650
181	503550.258	4790739.080	-	1580.000	134.9222998	-1785.650
182	503558.806	4790733.889	-	1590.000	134.5657799	-1785.650
183	503567.382	4790728.747	-	1600.000	134.2092600	-1785.650
184	503575.987	4790723.652	-	1610.000	133.8527401	-1785.650
185	503584.620	4790718.606	-	1620.000	133.4962201	-1785.650
186	503593.282	4790713.608	-	1630.000	133.1397002	-1785.650
187	503601.971	4790708.658	-	1640.000	132.7831803	-1785.650
188	503610.688	4790703.758	-	1650.000	132.4266604	-1785.650
189	503619.432	4790698.906	-	1660.000	132.0701405	-1785.650
190	503628.203	4790694.104	-	1670.000	131.7136206	-1785.650
191	503637.001	4790689.350	-	1680.000	131.3571007	-1785.650
192	503645.826	4790684.646	-	1690.000	131.0005808	-1785.650
193	503654.676	4790679.991	-	1700.000	130.6440609	-1785.650
194	503659.292	4790677.589	-	1705.203	130.4585612	-200.000
195	503663.576	4790675.432	-	1710.000	128.9316499	-200.000
196	503672.667	4790671.269	-	1720.000	125.7485510	-200.000
197	503674.827	4790670.359	-	1722.344	125.0024406	INFINITO
198	503681.900	4790667.429	-	1730.000	125.0024406	INFINITO
199	503691.139	4790663.602	-	1740.000	125.0024406	INFINITO
200	503700.378	4790659.774	-	1750.000	125.0024406	INFINITO
201	503709.616	4790655.947	-	1760.000	125.0024406	INFINITO
202	503718.855	4790652.120	-	1770.000	125.0024406	INFINITO
203	503728.094	4790648.293	-	1780.000	125.0024406	INFINITO
204	503731.903	4790646.715	-	1784.123	125.0024406	INFINITO
205	503737.371	4790644.563	-	1790.000	121.6097122	-55.134
206	503746.609	4790642.620	-	1799.479	101.8375479	-21.100
207	503747.130	4790642.611	-	1800.000	100.2653332	-21.100
208	503756.769	4790644.897	-	1810.000	70.0937801	-21.100
209	503762.190	4790648.843	-	1816.733	49.7781596	-21.100
210	503764.317	4790651.318	-	1820.000	40.9705741	-26.802

PUNTO	X	Y	COTA	P.K.	ACIMUT	RADIO
211	503769.175	4790660.035	-	1830.000	27.0419206	-155.111
212	503770.028	4790661.942	-	1832.089	26.6132654	INFINITO
213	503773.239	4790669.172	-	1840.000	26.6132654	INFINITO
214	503774.559	4790672.143	-	1843.250	26.6132654	INFINITO