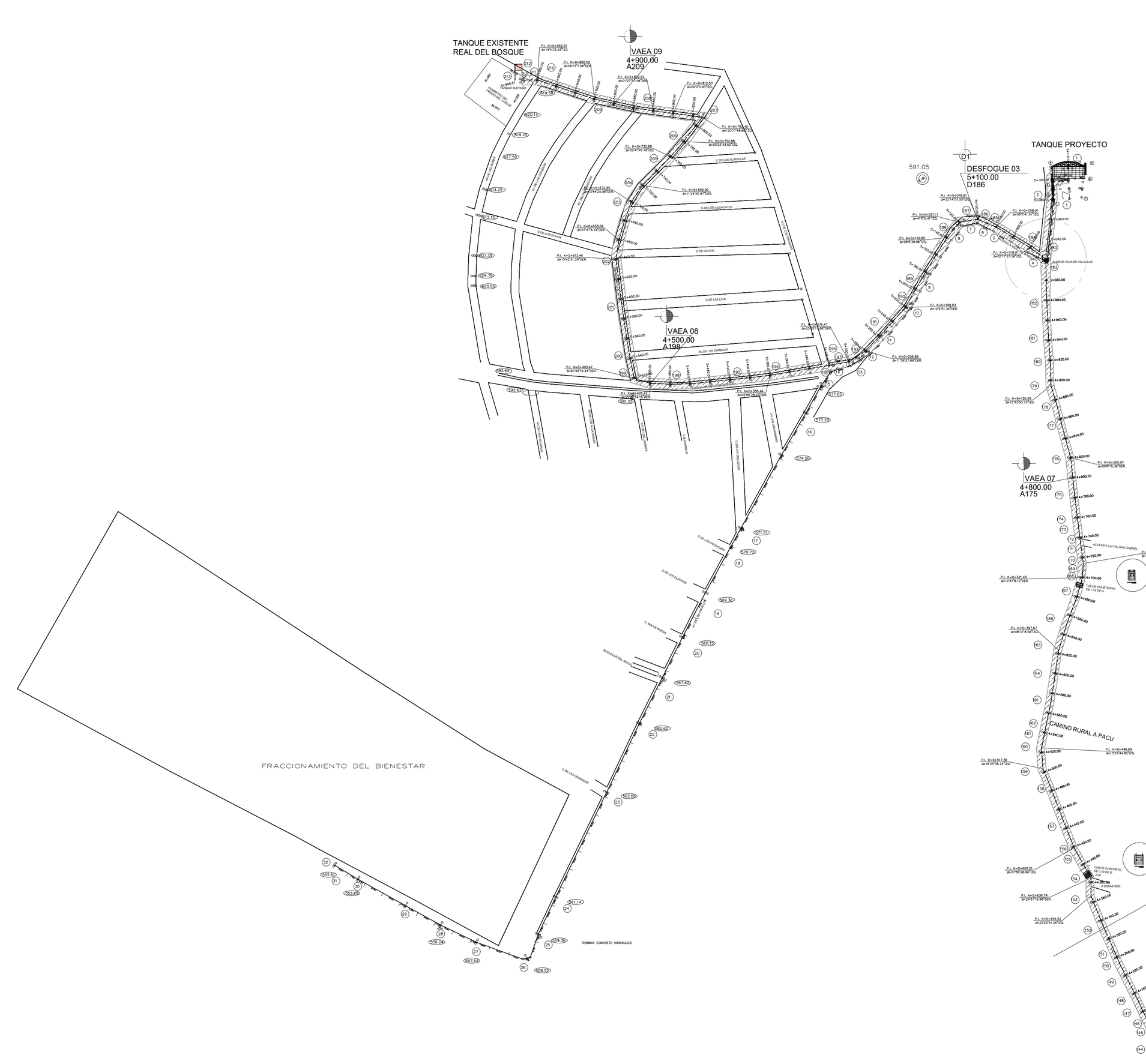
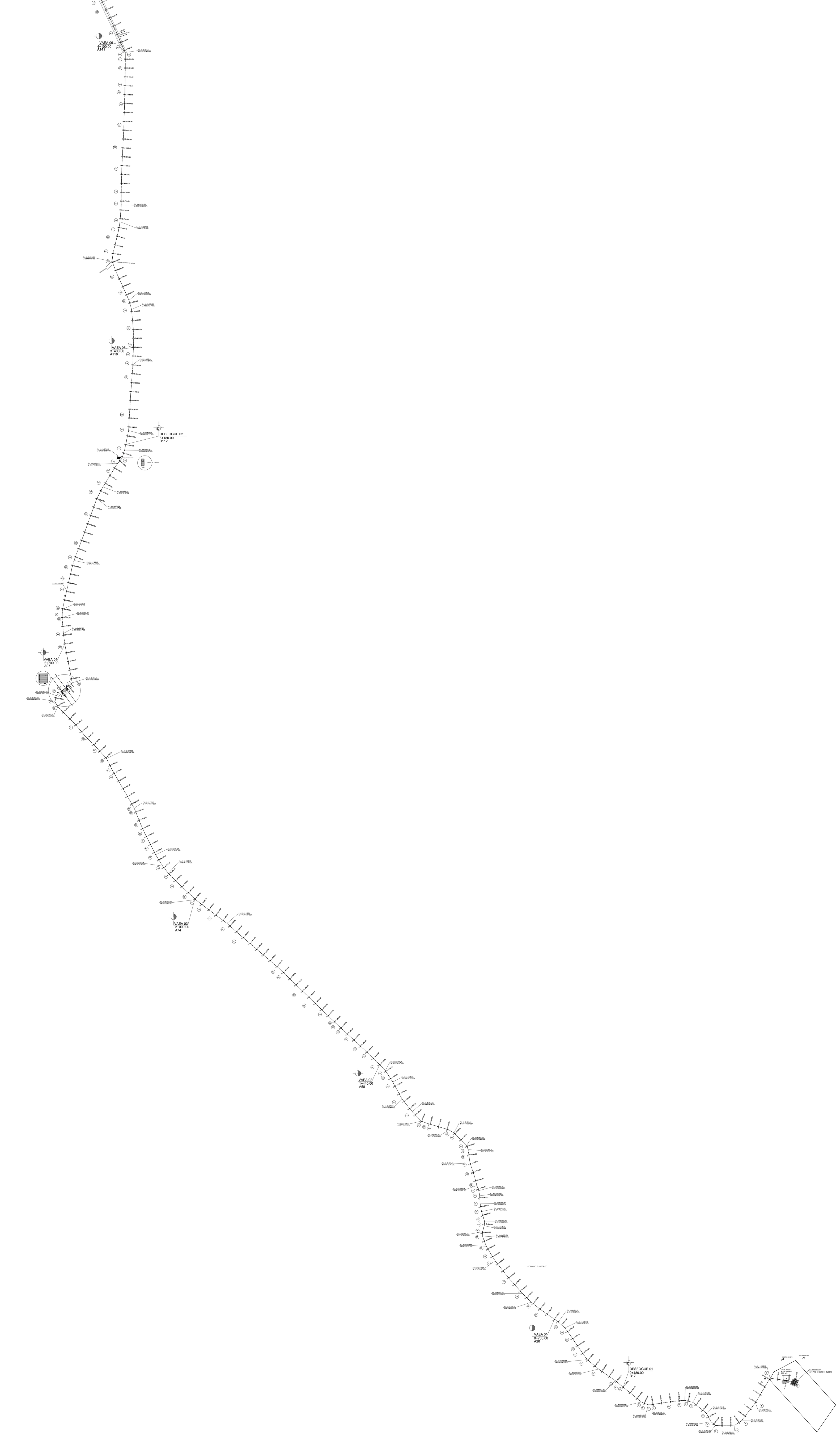
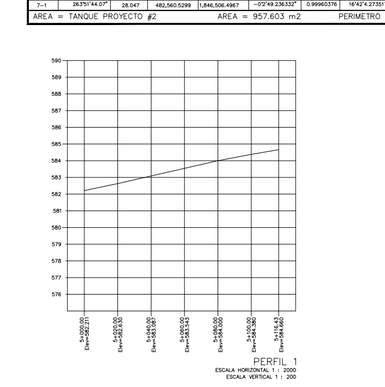
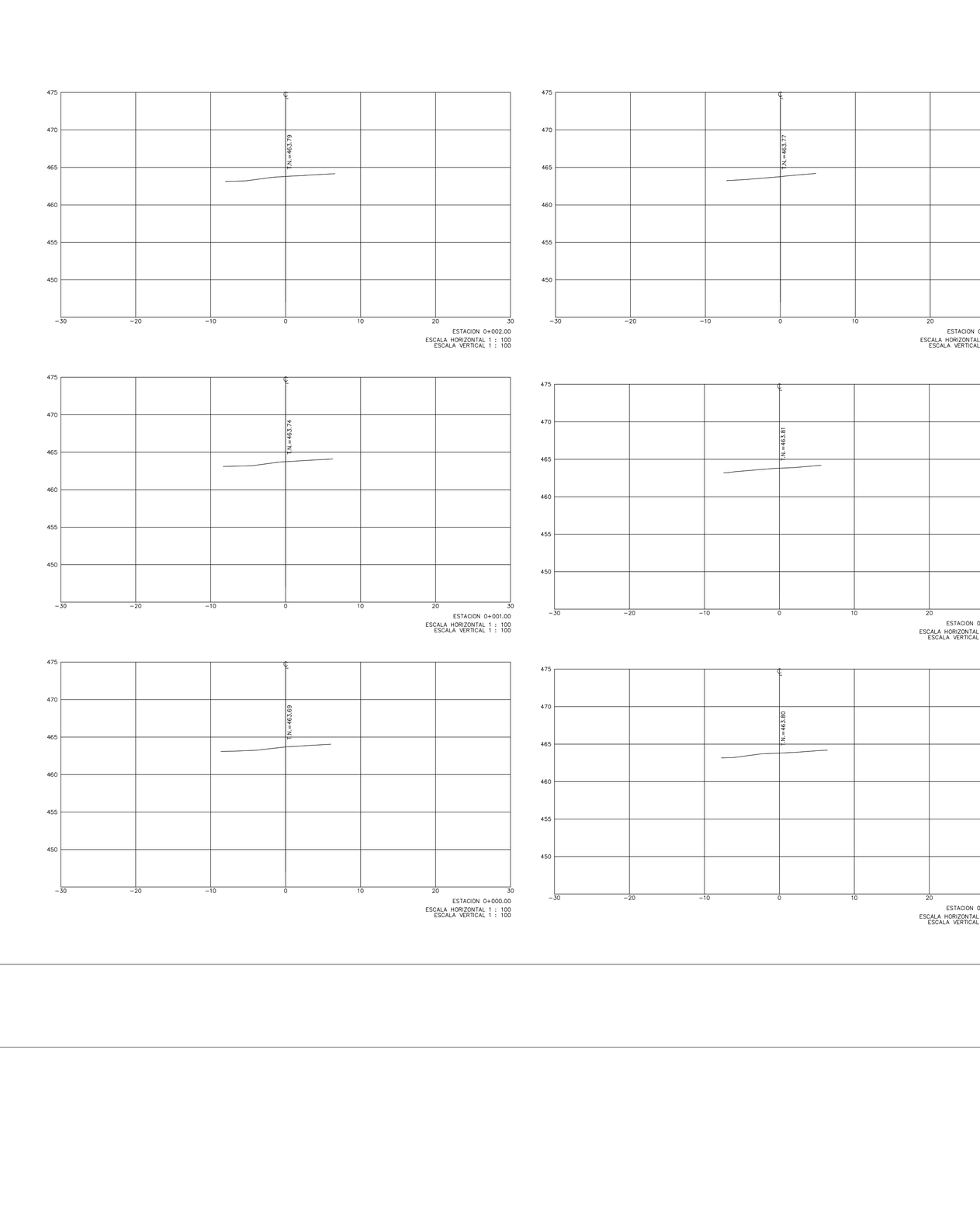




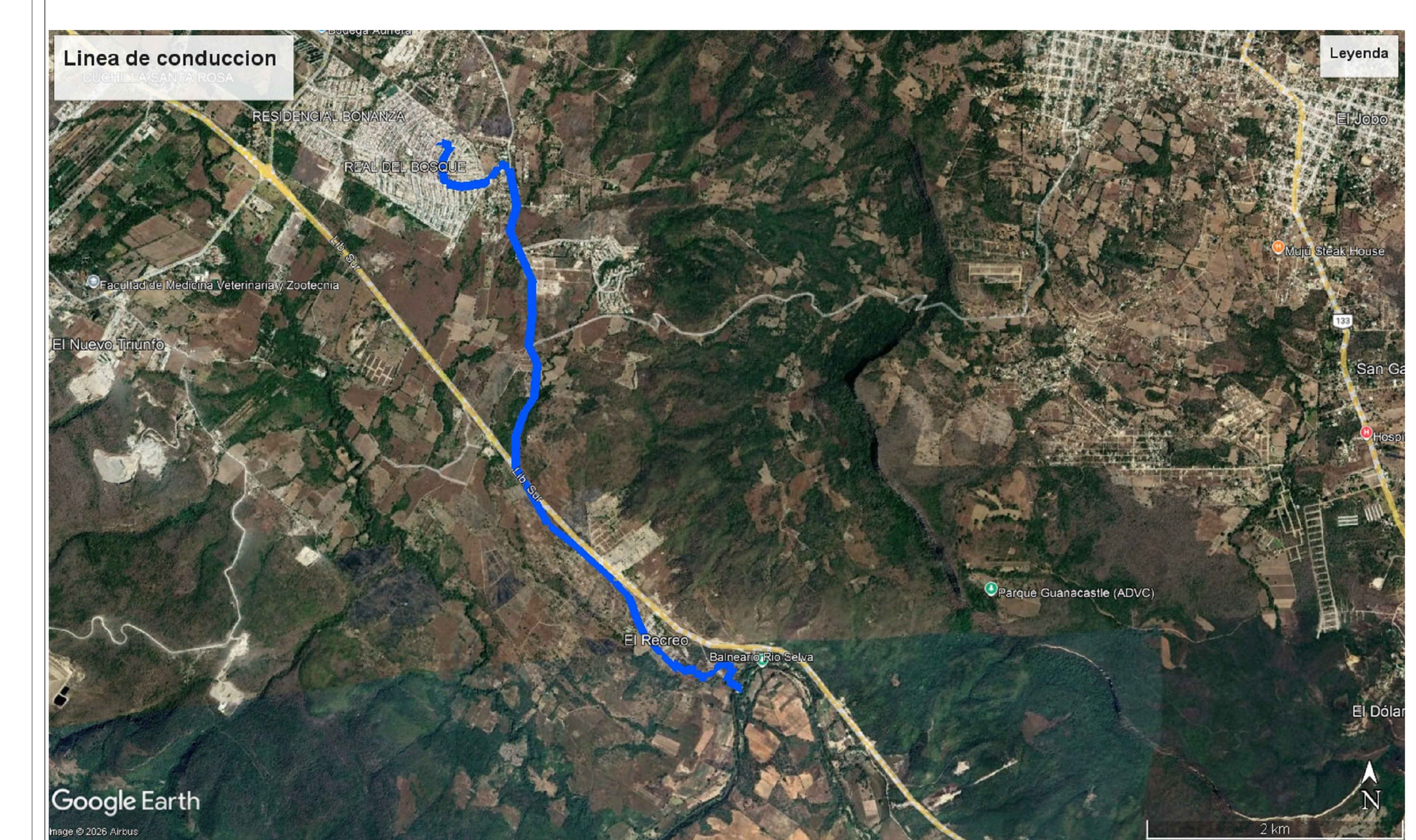
CUADRO DE CONSTRUCCION								
LADO EST–PV	AZIMUT	DISTANCIA (MTS.)	COORDENADAS UTM ESTE (X)	NORTE (Y)	CONVERGENCIA	FACTOR DE ESC. LINEAL	LATITUD	LONGITUD
1–2	03°5'12.88"	5.618	482,532.6432	1,846,503.4978	−0°2'49.506658"	0.99960377	16°42'4.175180" N	93°9'49.833254" W
2–3	358°7'48.68"	7.601	482,532.9457	1,846,509.1079	−0°2'49.504267"	0.99960377	16°42'4.357758" N	93°9'49.823194" W
3–4	355°5'5.70"	19.980	482,532.6977	1,846,516.7045	−0°2'49.507411"	0.99960377	16°42'4.604968" N	93°9'49.831779" W
4–5	87°21'19.33"	32.510	482,530.9859	1,846,536.6110	−0°2'49.525957"	0.99960377	16°42'5.252744" N	93°9'49.890137" W
5–6	186°11'8.90"	16.434	482,563.4612	1,846,538.1110	−0°2'49.210951"	0.99960376	16°42'5.302428" N	93°9'48.793560" W
6–7	184°20'40.14"	15.320	482,561.6904	1,846,521.7725	−0°2'49.226551"	0.99960376	16°42'4.770673" N	93°9'48.852904" W
7–1	263°51'44.07"	28.047	482,560.5299	1,846,506.4967	−0°2'49.236332"	0.99960376	16°42'4.273517" N	93°9'48.891669" W
AREA = TANQUE PROYECTO #2				AREA = 957.603 m2			PERIMETRO = 125.510 m	



CUADRO DE CONSTRUCCION								
LADO EST–PV	AZIMUT	DISTANCIA (MTS.)	COORDENADAS UTM ESTE (X)	NORTE (Y)	CONVERGENCIA	FACTOR DE ESC. LINEAL	LATITUD	LONGITUD
1–2	278°46'38.65"	57.171	484,201.0000	1,842,549.0000	−0°2'32.969394"	0.99960309	16°39'55.525381" N	93°8'53.397616" W
2–3	210°49'7.53"	64.176	484,144.4990	1,842,557.7240	−0°2'33.517216"	0.99960311	16°39'55.807923" N	93°8'55.305388" W
3–4	217°30'59.62"	51.486	484,111.6200	1,842,502.6100	−0°2'33.830691"	0.99960312	16°39'54.013533" N	93°8'56.414042" W
4–5	235°56'19.12"	18.028	484,080.2654	1,842,461.7723	−0°2'34.130651"	0.99960313	16°39'52.683778" N	93°8'57.471584" W
5–6	269°23'55.14"	43.986	484,065.3300	1,842,451.6750	−0°2'34.274356"	0.99960314	16°39'52.354813" N	93°8'57.975567" W
6–7	309°56'55.41"	13.146	484,021.3466	1,842,451.2134	−0°2'34.700146"	0.99960316	16°39'52.338718" N	93°8'59.460488" W
7–8	331°26'1.02"	21.902	484,011.2690	1,842,459.6541	−0°2'34.798464"	0.99960316	16°39'52.613162" N	93°8'59.800934" W
8–9	308°40'43.26"	39.147	484,000.7962	1,842,478.8896	−0°2'34.901569"	0.99960317	16°39'53.238892" N	93°9'0.155000" W
9–10	283°10'23.51"	18.640	483,970.2352	1,842,503.3549	−0°2'35.199634"	0.99960318	16°39'54.034327" N	93°9'1.187399" W
10–11	266°36'36.73"	14.153	483,952.0856	1,842,507.6029	−0°2'35.375736"	0.99960318	16°39'54.172126" N	93°9'1.800262" W
11–12	262°51'30.66"	25.361	483,937.9574	1,842,506.7660	−0°2'35.512449"	0.99960319	16°39'54.144546" N	93°9'2.277228" W
12–13	260°45'59.77"	35.468	483,912.7931	1,842,503.6132	−0°2'35.755807"	0.99960320	16°39'54.041323" N	93°9'3.126727" W
13–14	268°38'44.24"	7.868	483,877.7843	1,842,497.9220	−0°2'36.094249"	0.99960321	16°39'53.855254" N	93°9'4.308524" W
14–15	288°49'7.73"	7.657	483,869.9186	1,842,497.7361	−0°2'36.170387"	0.99960322	16°39'53.849008" N	93°9'4.574075" W
15–16	295°22'19.07"	9.078	483,862.6713	1,842,500.2059	−0°2'36.240776"	0.99960322	16°39'53.929206" N	93°9'4.818817" W
16–17	308°52'46.40"	55.209	483,854.4687	1,842,504.0959	−0°2'36.320542"	0.99960322	16°39'54.055596" N	93°9'5.095847" W
17–18	311°20'32.21"	9.061	483,811.4900	1,842,538.7500	−0°2'36.739776"	0.99960324	16°39'55.182295" N	93°9'6.547754" W
18–19	309°1'22.54"	11.697	483,804.6872	1,842,544.7353	−0°2'36.806181"	0.99960324	16°39'55.376909" N	93°9'6.777580" W
19–20	304°41'10.18"	45.833	483,795.6000	1,842,552.1000	−0°2'36.894827"	0.99960325	16°39'55.616356" N	93°9'7.084565" W
20–21	309°41'45.92"	33.463	483,757.9124	1,842,578.1827	−0°2'37.262080"	0.99960326	16°39'56.464238" N	93°9'8.357622" W
21–22	324°22'43.93"	21.672	483,732.1644	1,842,599.5561	−0°2'37.513313"	0.99960327	16°39'57.159161" N	93°9'9.227462" W
22–23	325°46'57.84"	15.575	483,719.5419	1,842,617.1733	−0°2'37.637124"	0.99960328	16°39'57.732169" N	93°9'9.654072" W
23–24	325°38'11.48"	25.146	483,710.7837	1,842,630.0523	−0°2'37.723092"	0.99960328	16°39'58.151076" N	93°9'9.950095" W
24–25	324°2'6.22"	24.654	483,696.5900	1,842,650.8100	−0°2'37.862405"	0.99960329	16°39'58.826248" N	93°9'10.429832" W
25–26	312°1'36.57"	20.172	483,682.1110	1,842,670.7643	−0°2'38.004410"	0.99960329	16°39'59.475265" N	93°9'10.919180" W
26–27	305°5'32.95"	49.779	483,667.1268	1,842,684.2689	−0°2'38.150727"	0.99960330	16°39'59.914376" N	93°9'11.425422" W
27–28	308°31'17.65"	25.616	483,626.3964	1,842,712.8866	−0°2'38.547719"	0.99960331	16°40'0.844675" N	93°9'12.801286" W
28–29	314°37'4.27"	28.258	483,606.3550	1,842,728.8406	−0°2'38.743236"	0.99960332	16°40'1.363369" N	93°9'13.478331" W
29–30	318°14'1.43"	44.368	483,586.2409	1,842,748.6882	−0°2'38.939815"	0.99960333	16°40'2.008772" N	93°9'14.157935" W
30–31	321°31'10.66"	51.438	483,556.6879	1,842,781.7806	−0°2'39.229009"	0.99960334	16°40'3.084967" N	93°9'15.156557" W
31–32	328°26'56.17"	17.581	483,524.6810	1,842,822.0471	−0°2'39.542633"	0.99960336	16°40'4.394566" N	93°9'16.238217" W
32–33	329°16'59.69"	20.648	483,515.4814	1,842,837.0295	−0°2'39.633092"	0.99960336	16°40'4.881912" N	93°9'16.549204" W
33–34	338°47'0.61"	22.539	483,504.9345	1,842,854.7807	−0°2'39.736853"	0.99960336	16°40'5.459329" N	93°9'16.905752" W
34–35	358°4'37.62"	11.855	483,496.7778	1,842,875.7920	−0°2'39.817769"	0.99960337	16°40'6.142900" N	93°9'17.181687" W
35–36	15°33'16.46"	14.096	483,496.3800	1,842,887.6400	−0°2'39.822708"	0.99960337	16°40'6.528463" N	93°9'17.195428" W
36–37	03°33'57.29"	10.290	483,500.1600	1,842,901.2200	−0°2'39.787347"	0.99960337	16°40'6.970496" N	93°9'17.068162" W
37–38	342°41'50.93"	22.519	483,500.8000	1,842,911.4900	−0°2'39.782091"	0.99960337	16°40'7.304732" N	93°9'17.046822" W
38–39	350°1'42.55"	18.956	483,494.1024	1,842,932.9900	−0°2'39.848924"	0.99960337	16°40'8.004245" N	93°9'17.273507" W
39–40	357°41'1.43"	16.896	483,490.8200	1,842,951.6600	−0°2'39.882425"	0.99960337	16°40'8.611745" N	93°9'17.384818" W
40–41	349°44'23.47"	11.652	483,489.9555	1,842,968.5341	−0°2'39.892346"	0.99960337	16°40'9.160862" N	93°9'17.414448" W
41–42	340°3'30.12"	12.384	483,487.8800	1,842,980.0000	−0°2'39.913498"	0.99960337	16°40'9.533948" N	93°9'17.484820" W
42–43	344°39'25.72"	29.428	483,483.6564	1,842,991.6411	−0°2'39.955470"	0.99960337	16°40'9.912682" N	93°9'17.627722" W
43–44	341°6'58.17"	23.822	483,475.8700	1,843,020.0200	−0°2'40.033485"	0.99960338	16°40'10.836028" N	93°9'17.891351" W
44–45	351°26'30.92"	14.862	483,468.1599	1,843,042.5601	−0°2'40.110227"	0.99960338	16°40'11.569363" N	93°9'18.152251" W
45–46	352°37'59.65"	15.516	483,465.9483	1,843,057.2564	−0°2'40.132996"	0.99960338	16°40'12.047573" N	93°9'18.227305" W
46–47	340°9'28.13"	10.308	483,463.9589	1,843,072.6439	−0°2'40.153678"	0.99960338	16°40'12.548283" N	93°9'18.294876" W
47–48	314°18'29.71"	39.827	483,460.4600	1,843,082.3400	−0°2'40.188456"	0.99960338	16°40'12.863737" N	93°9'18.413259" W
48–49	301°22'46.74"	13.336	483,431.9600	1,843,110.1600	−0°2'40.467044"	0.99960339	16°40'13.768370" N	93°9'19.376214" W
49–50	286°36'56.20"	48.711	483,420.5746	1,843,117.1042	−0°2'40.577955"	0.99960340	16°40'13.994068" N	93°9'19.760795" W
50–51	289°13'4.78"	7.986	483,373.8971	1,843,131.0332	−0°2'41.031329"	0.99960342	16°40'14.446180" N	93°9'21.337101" W
51–52	291°14'55.05"	8.668	483,366.3565	1,843,133.6617	−0°2'41.104605"	0.99960342	16°40'14.531530" N	93°9'21.591756" W
52–53	316°15'22.50"	29.327	483,358.2774	1,843,136.8033	−0°2'41.183145"	0.99960342	16°40'14.633561" N	93°9'21.864607" W
53–54	320°58'56.74"	36.240	483,338.0000	1,843,157.9900	−0°2'41.381503"	0.99960343	16°40'15.322531" N	93°9'22.549781" W
54–55	331°14'19.58"	44.153	483,315.1849	1,843,186.1466	−0°2'41.605090"	0.99960344	16°40'16.238258" N	93°9'23.320815" W
55–56	327°15'54.04"	18.892	483,293.9404	1,843,224.8523	−0°2'41.814453"	0.99960345	16°40'17.497326" N	93°9'24.039107" W
56–57	326°41'44.35"	11.787	483,283.7242	1,843,240.7443	−0°2'41.914882"	0.99960346	16°40'18.014242" N	93°9'24.384451" W
57–58	315°44'22.19"	21.158	483,277.2519	1,843,250.5958	−0°2'41.978489"	0.99960346	16°40'18.334677" N	93°9'24.603233" W
58–59	314°29'50.29"	36.491	483,262.4854	1,843,265.7484	−0°2'42.122927"	0.99960346	16°40'18.827418" N	93°9'25.102189" W
59–60	313°41'11.79"	25.049	483,236.4568	1,843,291.3243	−0°2'42.377427"	0.99960347	16°40'19.659073" N	93°9'25.981660" W
60–61	312°29'15.64"	31.072	483,218.3435	1,843,308.6256	−0°2'42.554492"	0.99960348	16°40'20.221652" N	93°9'26.593672" W
61–62	312°51'18.58"	27.283	483,195.4305	1,843,329.6125	−0°2'42.778397"	0.99960349	16°40'20.904045" N	93°9'27.367835" W
62–63	313°8'33.98"	14.403	483,175.4302	1,843,348.1687	−0°2'42.973864"	0.99960350	16°40'21.507413" N	93°9'28.043591" W
63–64	313°59'19.99"	6.444	483,164.9210	1,843,358.0178	−0°2'43.076585"	0.99960350	16°40'21.827665" N	93°9'28.398674" W
64–65	313°59'19.99"	29.403	483,160.2846	1,843,362.4934	−0°2'43.121915"	0.99960351	16°40'21.973194" N	93°9'28.555329" W
65–66	313°59'19.99"	40.749	483,139.1297	1,843,382.9145	−0°2'43.328750"	0.99960352	16°40'22.637220" N	93°9'29.270121" W
66–67	313°59'19.99"	32.811	483,109.8118	1,843,411.2155	−0°2'43.615403"	0.99960353	16°40'23.557472" N	93°9'30.260732" W
67–68	313°59'19.99"	56.908	483,086.2049	1,843,434.0036	−0°2'43.846224"	0.99960354	16°40'24.298460" N	93°9'31.058376" W
68–69	313°59'19.99"	11.552	483,045.2612	1,843,473.5271	−0°2'44.246574"	0.99960355	16°40'25.583625" N	93°9'32.441811" W
69–70	310°34'26.45"	112.608	483,036.9500	1,843,481.5500	−0°2'44.327843"	0.99960356	16°40'25.844502" N	93°9'32.722637" W
70–71	311°30'41.73"	41.608	482,951.4167	1,843,554.7937	−0°2'45.163375"	0.99960359	16°40'28.225868" N	93°9'35.612467" W
71–72	306°47'53.82"	42.811	482,920.2600	1,843,582.3700	−0°2'45.467831"	0.99960361	16°40'29.122479" N	93°9'36.665156" W
72–73	306°47'53.82"	30.795	482,885.9793	1,843,608.0136	−0°2'45.802378"	0.99960362	16°40'29.956111" N	93°9'37.823271" W
73–74	308°59'12.09"	14.856	482,861.3200	1,843,626.4600	−0°2'46.043036"	0.99960363	16°40'30.555771" N	93°9'38.656346" W
74–75	312°59'34.94"	58.310	482,849.7729	1,843,635.8062	−0°2'46.155797"	0.99960364	16°40'30.859624" N	93°9'39.046465" W
75–76	315°3'56.87"	27.185	482,807.1229	1,843,675.5683	−0°2'46.572799"	0.99960366	16°40'32.152493" N	93°9'40.487546" W
76–77	321°30'34.86"	20.942	482,788.2044	1,843,695.0901	−0°2'46.757957"	0.99960366	16°40'32.787299" N	93°9'41.126827" W
77–78	328°23'16.24"	30.045	482,775.1703	1,843,711.4819	−0°2'46.885808"	0.99960367	16°40'33.320401" N	93°9'41.567349" W
78–79	333°6'12.55"	19.172	482,759.4219	1,843,737.0684	−0°2'47.040840"	0.99960368	16°40'34.152653" N	93°9'42.099765" W
79–80	333°6'12.55"	18.679	482,750.7488	1,843,754.1665	−0°2'47.126510"	0.99960368	16°40'34.708854" N	93°9'42.393064" W
80–81	333°6'12.55"	16.808	482,742.2988	1,843,770.8249	−0°2'47.209979"	0.99960368	16°40'35.250750" N	93°9'42.678820" W
81–82	335°46'50.96"	21.288	482,734.6951	1,843,785.8149	−0°2'47.285090"	0.99960369	16°40'35.738372" N	93°9'42.935957" W
82–83	338°1'18.57"	39.579	482,725.9620	1,843,805.2295	−0°2'47.371569"	0.99960369	16°40'36.369955" N	93°9'43.231346" W
83–84	330°6'29.41"	84.408	482,711.1494	1,843,841.9322	−0°2'47.518617"	0.99960370	16°40'37.563990" N	93°9'43.732476" W
84–85	329°58'42.46"	16.421	482,669.0833	1,843,915.1116	−0°2'47.933259"	0.99960371	16°40'39.944372" N	93°9'45.154783" W
85–86	333°41'9.83"	27.154	482,660.8674	1,843,929.3295	−0°2'48.014240"	0.99960372	16°40'40.406853" N	93°9'45.432572" W
86–87	317°44'29.79"	31.189	482,648.8303	1,843,953.6700	−0°2'48.133225"	0.99960372	16°40'41.198651" N	93°9'45.839659" W
87–88	314°58'25.89"	38.077	482,627.8563	1,843,976.7537	−0°2'48.338691"	0.99960373	16°40'41.949316" N	93°9'46.548452" W
88–89	320°29'33.30"	36.006	482,600.9197	1,844,003.6657	−0°2'48.602312"	0.99960374	16°40'42.824403" N	93°9'47.458670" W
89–90	314°57'14.34"	54.946	482,578.0133	1,844,031.4461	−0°2'48.826971"	0.99960375	16°40'43.727857" N	93°9'48.232843" W
90–91	331°45'36.77"	13.721	482,539.1291	1,844,070.2679	−0°2'49.207542"	0.99960377	16°40'44.990207" N	93°9'49.546793" W
91–92	12°25'22.24"	13.008	482,532.6367	1,844,082.3560	−0°2'49.271631"	0.99960377	16°40'45.383423" N	93°9'49.766337" W
92–93	50°56'55.35"	46.428	482,535.4351	1,844,095.0599	−0°2'49.245745"	0.99960377	16°40'45.796922" N	93°9'49.672203" W
93–94	349°6'28.61"	83.242	482,571.4900	1,844,124.3100	−0°2'48.899180"	0.99960376	16°40'46.749778" N	93°9'48.455662" W
94–95	351°45'43.46"	29.731	482,555.7606	1,844,206.0525	−0°2'49.059538"	0.99960376	16°40'49.409526" N	93°9'48.989008" W
95–96	355°34'36.40"	36.160	482,551.5006	1,844,235.4771	−0°2'49.103677"	0.99960376	16°40'50.366983" N	93°9'49.133659" W
96–97	02°34'52.23"	18.465	482,548.7118	1,844,271.5295	−0°2'49.134202"	0.99960377	16°40'51.540173" N	93°9'49.228817" W
97–98	12°37'6.98"	43.205	482,549.5434	1,844,289.9756	−0°2'49.127932"	0.99960377	16°40'52.140491" N	93°9'49.201251" W
98–99	13°8'40.75"	25.827	482,558.9819	1,844,332.1369	−0°2'49.040542"	0.99960376	16°40'53.512810" N	93°9'48.883733" W
99–100	13°8'40.75"	26.459	482,564.8553	1,844,357.2875	−0°2'48.986054"	0.99960376	16°40'54.331448" N	93°9'48.686119" W
100–101	15°2'12.57"	17.520	482,570.8725	1,844,383.0536	−0°2'48.930231"	0.99960376	16°40'55.170121" N	93°9'48.483667" W
101–102	20°54'59.25"	36.865	482,575.5104	1,844,399.9485	−0°2'48.886914"	0.99960375	16°40'55.720059" N	93°9'48.327536" W
102–103	20°20'49.62"	31.579	482,588.6715	1,844,434.3843	−0°2'48.762684"	0.99960375	16°40'56.841063" N	93°9'47.884112" W
103–104	19°50'19.42"	38.619	482,599.6519	1,844,463.9933	−0°2'48.659119"	0.99960374	16°40'57.804927" N	93°9'47.514184" W
104–105	19°50'19.42"	10.898	482,612.7583	1,844,500.3207	−0°2'48.535592"	0.99960374	16°40'58.987486" N	93°9'47.072656" W
105–106	19°50'19.42"	30.750	482,616.4567	1,844,510.5716	−0°2'48.500734"	0.99960374	16°40'59.321182" N	93°9'46.948065" W
106–107	27°46'48.59"	29.706	482,626.8924	1,844,539.4964	−0°2'48.402373"	0.99960373	16°41'0.262769" N	93°9'46.596507" W
107–108	31°53'4.75"	31.638	482,640.7378	1,844,565.7787	−0°2'48.270702"	0.99960373	16°41'1.118448" N	93°9'46.129746" W
108–109	31°53'4.75"	30.415	482,657.4496	1,844,592.6434	−0°2'48.111298"	0.99960372	16°41'1.993154" N	93°9'45.566219" W
109–110	42°10'48.14"	14.662	482,673.5153	1,844,618.4694	−0°2'47.958053"	0.99960371	16°41'2.834041" N	93°9'45.024478" W
110–111	17°31'32.56"	20.095	482,683.3601	1,844,629.3342	−0°2'47.863666"	0.99960371	16°41'3.187880" N	93°9'44.692371" W
111–112	11°41'53.00"	45.100	482,689.4115	1,844,648.4968	−0°2'47.806850"	0.99960371	16°41'3.811653" N	93°9'44.488574" W
112–113	03°0'53.27"	33.437	482,698.5556	1,844,692.6597	−0°2'47.722455"	0.99960370	16°41'5.249099" N	93°9'44.181038" W
113–114	03°26'35.79"	47.307	482,700.3142	1,844,726.0503	−0°2'47.708618"	0.99960370	16°41'6.335782" N	93°9'44.122577" W
114–115	04°18'40.45"	38.349	482,703.1555	1,844,773.2722	−0°2'47.685614"	0.99960370	16°41'7.872612" N	93°9'44.027937" W
115–116	04°18'40.45"	29.741	482,706.0383	1,844,811.5129	−0°2'47.661342"	0.99960370	16°41'9.117165" N	93°9'43.931646" W
116–117	01°37'26.30"	43.443	482,708.2741	1,844,841.1701	−0°2'47.642518"	0.99960370	16°41'10.082367" N	93°9'43.856969" W
117–118	359°23'4.61"	37.986	482,709.5053	1,844,884.5952	−0°2'47.634755"	0.99960370	16°41'11.495592" N	93°9'43.816591" W
118–119	354°41'35.31"	42.927	482,709.0973	1,844,922.5792	−0°2'47.642361"	0.99960370	16°41'12.731701" N	93°9'43.831409" W
119–120	344°32'1.07"	21.720	482,705.1270	1,844,965.3226	−0°2'47.684965"	0.99960370	16°41'14.122605" N	93°9'43.966641" W
120–121	335°46'27.51"	23.364	482,699.3348	1,844,986.2561	−0°2'47.743136"	0.99960370	16°41'14.803698" N	93°9'44.162790" W
121–122	335°29'17.89"	40.130	482,689.7478	1,845,007.5627	−0°2'47.838140"	0.99960371	16°41'15.496828" N	93°9'44.487083" W
122–123	338°12'12.33"	31.884	482,673.0989	1,845,044.0756	−0°2'48.003081"	0.99960371	16°41'16.684636" N	93°9'45.050242" W
123–124	06°30'13.34"	18.187	482,661.2600	1,845,073.6800	−0°2'48.120724"	0.99960372	16°41'17.647744" N	93°9'45.450800" W
124–125	13°43'9.79"	31.138	482,663.3200	1,845,091.7500	−0°2'48.102492"	0.99960372	16°41'18.235855" N	93°9'45.381740" W
125–126	13°43'9.79"	19.881	482,670.7050	1,845,122.0000	−0°2'48.033798"	0.99960371	16°41'19.220483" N	93°9'45.133215" W
126–127	10°0'14.90"	21.991	482,675.4200	1,845,141.3134	−0°2'47.989939"	0.99960371	16°41'19.849129" N	93°9'44.974541" W
127–128	03°58'30.69"	38.458	482,679.2403	1,845,162.9704	−0°2'47.954981"	0.99960371	16°41'20.554018" N	93°9'44.846141" W
128–129	00°6'36.44"	28.269	482,681.9065	1,845,201.3363	−0°2'47.932821"	0.99960371	16°41'21.802639" N	93°9'44.757173" W
129–130	01°16'47.90"	52.947	482,681.9608	1,845,229.6053	−0°2'47.935016"	0.99960371	16°41'22.722605" N	93°9'44.756116" W
130–131	02°54'23.27"	47.517	482,683.1435	1,845,282.5392	−0°2'47.928643"	0.99960371	16°41'24.445276" N	93°9'44.717636" W
131–132	02°50'18.52"	50.303	482,685.5529	1,845,329.9955	−0°2'47.909845"	0.99960371	16°41'25.989721" N	93°9'44.637585" W
132–133	01°30'11.26"	44.436	482,688.0439	1,845,380.2364	−0°2'47.890523"	0.99960371	16°41'27.624789" N	93°9'44.554855" W
133–134	01°30'11.26"	29.154	482,689.2095	1,845,424.6569	−0°2'47.883494"	0.99960371	16°41'29.070404" N	93°9'44.516717" W
134–135	01°30'11.26"	20.003	482,689.9743	1,845,453.8012	−0°2'47.878882"	0.99960371	16°41'30.018874" N	93°9'44.491696" W
135–136	01°1'20.73"	34.406	482,690.4990	1,845,473.7975	−0°2'47.875717"	0.99960370	16°41'30.669633" N	93°9'44.474528" W
136–137	00°3'52.38"	19.847	482,691.1130	1,845,508.1978	−0°2'47.873073"	0.99960370	16°41'31.789145" N	93°9'44.454743" W
137–138	00°3'52.38"	13.036	482,691.1353	1,845,528.0444	−0°2'47.874765"	0.99960370	16°41'32.435019" N	93°9'44.454533" W
138–139	354°12'7.72"	3.267	482,691.1500	1,845,541.0800	−0°2'47.875877"	0.99960370	16°41'32.859240" N	93°9'44.454396" W
139–140	335°25'43.25"	12.707	482,690.8200	1,845,544.3300	−0°2'47.879391"	0.99960370	16°41'32.964996" N	93°9'44.465628" W
140–141	337°11'47.59"	39.774	482,685.5362	1,845,555.8862	−0°2'47.931750"	0.99960370	16°41'33.340931" N	93°9'44.644360" W
141–142	334°38'35.14"	54.655	482,670.1209	1,845,592.5516	−0°2'48.084793"	0.99960371	16°41'34.533733" N	93°9'45.165885" W
142–143	334°38'35.14"	24.178	482,646.7144	1,845,641.9413	−0°2'48.316579"	0.99960372	16°41'36.140414" N	93°9'45.957593" W
143–144	335°43'1.56"	17.310	482,636.3600	1,845,663.7900	−0°2'48.419119"	0.99960373	16°41'36.851164" N	93°9'46.307824" W
144–145	333°5'42.59"	3.870	482,629.2413	1,845,679.5687	−0°2'48.489690"	0.99960373	16°41'37.364463" N	93°9'46.548631" W
145–146	333°13'10.62"	10.365	482,627.4900	1,845,683.0200	−0°2'48.507010"	0.99960373	16°41'37.476734" N	93°9'46.607862" W
146–147	335°40'42.48"	13.531	482,622.8197	1,845,692.2735	−0°2'48.553204"	0.99960373	16°41'37.777748" N	93°9'46.765816" W
147–148	333°26'14.83"	41.985	482,617.2467	1,845,704.6039	−0°2'48.608452"	0.99960374	16°41'38.178872" N	93°9'46.954336" W
148–149	336°59'45.68"	11.634	482,598.4719	1,845,742.1577	−0°2'48.794195"	0.99960374	16°41'39.400492" N	93°9'47.589332" W
149–150	336°8'41.44"	28.628	482,593.9254	1,845,752.8666	−0°2'48.839332"	0.99960375	16°41'39.748872" N	93°9'47.743148" W
150–152	337°52'50.80"	32.978	482,582.3474	1,845,779.0489	−0°2'48.954172"	0.99960375	16°41'40.600623" N	93°9'48.134817" W
152–153	00°13'32.06"	17.780	482,569.9300	1,845,809.6000	−0°2'49.077583"	0.99960376	16°41'41.594521" N	93°9'48.554956" W
153–154	330°36'15.08"	27.444	482,570.0000	1,845,827.3800	−0°2'49.078627"	0.99960376	16°41'42.173141" N	93°9'48.553085" W
154–155	330°31'5.65"	6.785	482,556.5292	1,845,851.2909	−0°2'49.211618"	0.99960376	16°41'42.950918" N	93°9'49.008609" W
155–156	338°27'32.31"	31.387	482,553.1898	1,845,857.1976	−0°2'49.244584"	0.99960376	16°41'43.143052" N	93°9'49.121532" W
156–157	339°13'18.98"	34.586	482,541.6656	1,845,886.3922	−0°2'49.359209"	0.99960377	16°41'44.092830" N	93°9'49.511475" W
157–158	337°33'1.04"	19.185	482,529.3962	1,845,918.7290	−0°2'49.481372"	0.99960377	16°41'45.144847" N	93°9'49.926671" W
158–159	355°58'39.28"	20.671	482,522.0700	1,845,936.4600	−0°2'49.554165"	0.99960378	16°41'45.721674" N	93°9'50.174544" W
159–160	11°32'24.13"	8.929	482,520.6200	1,845,957.0800	−0°2'49.570235"	0.99960378	16°41'46.392676" N	93°9'50.224078" W
160–161	11°32'24.13"	8.781	482,522.4063	1,845,965.8286	−0°2'49.553756"	0.99960378	16°41'46.677430" N	93°9'50.164004" W
161–162	11°32'24.13"	28.967	482,524.1630	1,845,974.4325	−0°2'49.537550"	0.99960378	16°41'46.957477" N	93°9'50.104923" W
162–163	08°49'21.88"	28.077	482,529.9580	1,846,002.8142	−0°2'49.484088"	0.99960377	16°41'47.881263" N	93°9'49.910033" W
163–164	08°21'25.92"	24.263	482,534.2644	1,846,030.5592	−0°2'49.445004"	0.99960377	16°41'48.784290" N	93°9'49.765388" W
164–165	16°58'34.51"	27.739	482,537.7910	1,846,054.5650	−0°2'49.413121"	0.99960377	16°41'49.565610" N	93°9'49.646973" W
165–166	20°38'34.23"	28.210	482,545.8900	1,846,081.0950	−0°2'49.337122"	0.99960377	16°41'50.429197" N	93°9'49.374230" W
166–167	15°57'29.07"	20.284	482,555.8351	1,846,107.4936	−0°2'49.243196"	0.99960376	16°41'51.288559" N	93°9'49.039144" W
167–168	03°20'20.95"	7.193	482,561.4118	1,846,126.9958	−0°2'49.190982"	0.99960376	16°41'51.923369" N	93°9'48.851376" W
168–169	03°20'20.95"	7.025	482,561.8308	1,846,134.1765	−0°2'49.187613"	0.99960376	16°41'52.157066" N	93°9'48.837427" W
169–170	352°38'42.03"	16.249	482,562.2400	1,846,141.1900	−0°2'49.184323"	0.99960376	16°41'52.385317" N	93°9'48.823804" W
170–171	352°38'42.03"	8.274	482,560.1598	1,846,157.3055	−0°2'49.206068"	0.99960376	16°41'52.909712" N	93°9'48.894492" W
171–172	352°38'42.03"	11.379	482,559.1006	1,846,165.5114	−0°2'49.217140"	0.99960376	16°41'53.176729" N	93°9'48.930485" W
172–173	352°38'42.03"	7.135	482,557.6439	1,846,176.7968	−0°2'49.232367"	0.99960376	16°41'53.543954" N	93°9'48.979987" W
173–174	353°7'18.26"	27.726	482,556.7305	1,846,183.8733	−0°2'49.241916"	0.99960376	16°41'53.774219" N	93°9'49.011026" W
174–175	354°1'50.59"	35.482	482,553.4100	1,846,211.4000	−0°2'49.276803"	0.99960376	16°41'54.669939" N	93°9'49.123913" W
175–176	344°53'35.22"	34.917	482,549.7200	1,846,246.6900	−0°2'49.316028"	0.99960377	16°41'55.818290" N	93°9'49.249492" W
176–177	346°9'33.50"	18.476	482,540.6200	1,846,280.4000	−0°2'49.407595"	0.99960377	16°41'56.915078" N	93°9'49.557709" W
178–179	343°12'28.61"	21.288	482,536.2000	1,846,298.3400	−0°2'49.452224"	0.99960377	16°41'57.498785" N	93°9'49.707458" W
179–180	358°46'19.34"	21.465	482,530.0500	1,846,318.7200	−0°2'49.513877"	0.99960377	16°41'58.161850" N	93°9'49.915692" W
180–181	355°43'48.08"	26.777	482,529.5900	1,846,340.1800	−0°2'49.520424"	0.99960377	16°41'58.860215" N	93°9'49.931821" W
181–182	357°12'56.81"	33.364	482,527.5963	1,846,366.8827	−0°2'49.542364"	0.99960377	16°41'59.729151" N	93°9'49.999884" W
182–183	358°31'15.51"	44.689	482,525.9757	1,846,400.2071	−0°2'49.561327"	0.99960378	16°42'0.813590" N	93°9'50.055534" W
183–184	307°20'49.25"	16.114	482,524.8222	1,846,444.8809	−0°2'49.576859"	0.99960378	16°42'2.267390" N	93°9'50.095724" W
184–185	301°7'55.12"	53.003	482,512.0120	1,846,454.6563	−0°2'49.702117"	0.99960378	16°42'2.585169" N	93°9'50.528564" W
185–186	293°2'13.61"	10.233	482,466.6422	1,846,482.0597	−0°2'50.145052"	0.99960380	16°42'3.475746" N	93°9'52.061356" W
186–187	266°19'42.16"	14.252	482,457.2253	1,846,486.0641	−0°2'50.236824"	0.99960381	16°42'3.605810" N	93°9'52.379452" W
187–188	228°56'25.08"	14.721	482,443.0025	1,846,485.1514	−0°2'50.374754"	0.99960381	16°42'3.575726" N	93°9'52.859699" W
188–189	211°41'21.74"	57.508	482,431.9021	1,846,475.4817	−0°2'50.481528"	0.99960382	16°42'3.260744" N	93°9'53.234262" W
189–190	209°29'54.86"	34.085	482,401.6925	1,846,426.5479	−0°2'50.769894"	0.99960383	16°42'1.667470" N	93°9'54.252999" W
190–191	221°26'50.78"	37.509	482,384.9090	1,846,396.8815	−0°2'50.929851"	0.99960384	16°42'0.701576" N	93°9'54.818905" W
191–192	224°23'26.77"	27.334	482,360.0804	1,846,368.7659	−0°2'51.168019"	0.99960385	16°41'59.785937" N	93°9'55.656516" W
192–193	235°5'23.03"	10.920	482,340.9588	1,846,349.2332	−0°2'51.351646"	0.99960386	16°41'59.149764" N	93°9'56.301658" W
193–194	260°46'35.50"	20.425	482,332.0039	1,846,342.9838	−0°2'51.437924"	0.99960386	16°41'58.946147" N	93°9'56.603865" W
194–195	259°38'12.53"	13.583	482,311.8429	1,846,339.7100	−0°2'51.633230"	0.99960387	16°41'58.839059" N	93°9'57.284558" W
195–196	260°10'24.91"	48.150	482,298.4810	1,846,337.2665	−0°2'51.762643"	0.99960387	16°41'58.759178" N	93°9'57.735686" W
196–197	263°17'5.33"	28.217	482,251.0377	1,846,329.0491	−0°2'52.222185"	0.99960390	16°41'58.490470" N	93°9'59.337491" W
197–198	264°12'30.60"	60.853	482,223.0145	1,846,325.7496	−0°2'52.493772"	0.99960391	16°41'58.382332" N	93°10'0.283666" W
198–199	272°15'8.95"	47.349	482,162.4725	1,846,319.6090	−0°2'53.080612"	0.99960393	16°41'58.180848" N	93°10'2.327836" W
199–200	348°31'19.54"	31.241	482,115.1600	1,846,321.4700	−0°2'53.539875"	0.99960396	16°41'58.240116" N	93°10'3.925505" W
200–201	351°26'27.18"	48.119	482,108.9433	1,846,352.0866	−0°2'53.603242"	0.99960396	16°41'59.236308" N	93°10'4.136298" W
201–202	352°50'43.69"	51.983	482,101.7817	1,846,399.6698	−0°2'53.677468"	0.99960396	16°42'0.784621" N	93°10'4.379478" W
202–203	16°20'41.17"	48.643	482,095.3075	1,846,451.2478	−0°2'53.745425"	0.99960396	16°42'2.462954" N	93°10'4.599563" W
203–204	32°5'39.10"	22.129	482,108.9964	1,846,497.9248	−0°2'53.617232"	0.99960396	16°42'3.982347" N	93°10'4.138649" W
204–205	45°10'22.41"	34.988	482,120.7540	1,846,516.6723	−0°2'53.504998"	0.99960395	16°42'4.592772" N	93°10'3.742154" W
205–206	40°50'10.83"	29.412	482,145.5686	1,846,541.3375	−0°2'53.266641"	0.99960394	16°42'5.396138" N	93°10'2.904923" W
206–207	37°27'27.31"	28.901	482,164.8013	1,846,563.5903	−0°2'53.082206"	0.99960393	16°42'6.120839" N	93°10'2.256109" W
207–208	277°34'56.02"	64.998	482,182.3782	1,846,586.5321	−0°2'52.913904"	0.99960393	16°42'6.867919" N	93°10'1.663226" W
208–209	282°7'49.74"	43.822	482,117.9489	1,846,595.1085	−0°2'53.540018"	0.99960395	16°42'7.145260" N	93°10'3.839107" W
209–210	288°29'18.74"	56.471	482,075.1050	1,846,604.3173	−0°2'53.956721"	0.99960397	16°42'7.443769" N	93°10'5.286113" W
210–211	290°15'13.40"	9.237	482,021.5484	1,846,622.2251	−0°2'54.478261"	0.99960400	16°42'8.025076" N	93°10'7.095112" W
211–212	291°32'12.62"	7.547	482,012.8821	1,846,625.4229	−0°2'54.562685"	0.99960400	16°42'8.128903" N	93°10'7.387843" W
212–213	215°58'59.84"	5.756	482,005.8623	1,846,628.1933	−0°2'54.631089"	0.99960400	16°42'8.218868" N	93°10'7.624968" W
LONGITUD = 5,998.573 m LINEA #1								



CROQUIS DE LOCALIZACION



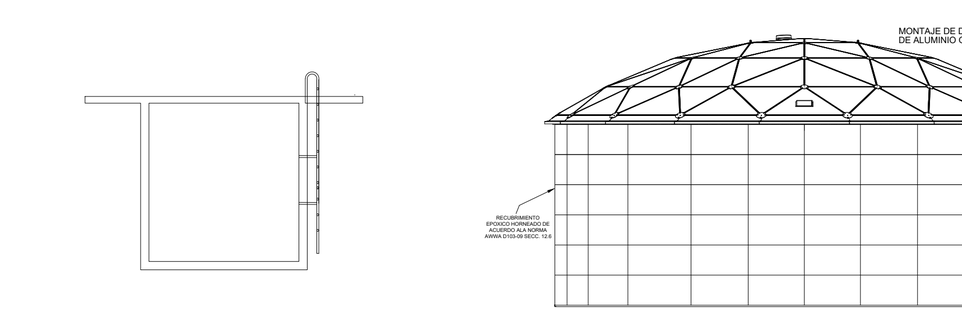
DATOS DE PROYECTO

POBLACION ACTUAL (2,025)	
POBLACION DE PROYECTO (2,045)	27,000.00 HAB.
DOTACION	183 L/HAB./DIA
GASTO MEDIO DIARIO	57.19 L.P.S.
GASTO MAXIMO HORARIO	80.07 L.P.S.
GASTO MAXIMO DIARIO	124.11 L.P.S.
GASTO DE BOMBEO	80.07 L.P.S.
COEF. DE VARIACION DIARIA	1.40
COEF. DE VARIACION HORARIA	1.55
FUENTE DE ABASTECIMIENTO	POZO PROFUNDO
TIPO DE CAPTACION	POZO
CONDUCCION	BOMBEO
REGULARIZACION	TANQUE DE 600M3 REBOMBEO/TANQUE DE 1200M3
DISTRIBUCION	GRAVEDAD
TIPO DE SERVICIO	TOMA DOMICILIARIA
DESINFECCION	CLORADOR TIPO RAINBOW

CANTIDAD DE TUBERIA

	CANT.
TUBERIA HIERRO DUCTIL CED–30 DE 350 MM (14") DE ø.	7,773.73 M

SIMBOLOGIA

DESCRIPCION	SIMBOLO
TUBERIA HIERRO DUCTIL CED–30 DE 350 MM (14") DE ø.	
TANQUE DE ALMACENAMIENTO	
CADENAMIENTO	P.I. K=0+126.29
DEFLEXION	DEF=15°33'50.73"IZQ.
VALVULA DE DESFOGUE	D1
VALVULA DE ADM. Y EXP. DE AIRE COMBINADA	VAEA 01

LIMPIEZA,TRAZO	6,093.73 M2
DEMOLICION DE CONCRETO	271.86 M3
REPOSICION DE CONCRETO	1812.35 M2
EXCAVACION EN MATERIAL	7,129.66 M3
RELLENO DE MATERIAL MEJORADO	9,625.05 M3
TUBERIA DE 14" HIERRO DUCTIL	7,773.73 M
CODO DE 45G DE 14" HIERRO DUCTIL	47.00 PZA
CODO DE 22G DE 14" HIERRO DUCTIL	33.00 PZA
TEE DE 14" HIERRO DUCTIL	01.00 PZA
EXTR. CAMPANA DE 14" HIERRO DUCTIL	02.00 PZA
EXTR. ESPIGA DE 14" HIERRO DUCTIL	02.00 PZA
EMPAQUE DE NEOPRENO 14"	04.00 PZA
TORNILLO HEXAGONAL DE 7/8"X4"	48.00 PZA
PLANTILLA P/ATRAQUE POZO	0.26 M3
CONCRETO FC=250 KG/CM2	9.27 M3
CIMBRA PARA ATRAQUES	9.27 M2
ACERO PARA ATRAQUES	302.22 KG
ZAMPEADO EN LINEA	22.40 M3

H. AYUNTAMIENTO MUNICIPAL DE TUXTLA GUTIERREZ 2024-2027

PLANO: 1/1

OBRA O PROYECTO: CONSTRUCCION DE SISTEMA DE AGUA POTABLE

NOMBRE DE PLANO: LEVANTAMIENTO TOPOGRAFICO

LOCALIDAD: REAL DEL BOSQUE Y VIVIENDAS BIENESTAR

MUNICIPIO: TUXTLA GUTIERREZ, CHIAPAS

LONGITUD TOTAL:

PROYECTÓ: DIRECCION DE OBRAS PUBLICAS MUNICIPALES

FECHA: AGOSTO DE 2026

ESCALA: ESPECIFICADA

ACOTACION: METROS

AUTORIZÓ:	REALIZÓ:
LIC. PRESIDENTE MPAL. CONSTL.	ING. DIR. DE OBRAS PUBLICAS