



IMAGEM GOOGLE MAPS



CURVA PRIMÁRIA
CURVA MESTRA
TRAÇADO

Richardson Jorge Dantas
Engenheiro Civil
CREA-CE 53913

PROJETO	SEDE IPAUMIRIM	DESCRIÇÃO DA OBRA	• Trabalho de
CLIENTE	EMPRESAMENTO ESTADUAIS NOROIS	DATA	14/03/2020
PROJETA	SEDE IPAUMIRIM	PROJETA	02/03
PROJETO	SEDE IPAUMIRIM	PROJETO	02/03
PROJETO	SEDE IPAUMIRIM	PROJETO	02/03



QUANTITATIVOS DE MATERIAL

PREFEITURA MUNICIPAL DE IPAUMIRIM

COMUNIDADE BANANEIRAS

VOLUME 10 cm DE BASE

ESTACAS	DIST. ACUMULADO	LARGURA	COTA TN	C. ATERRO	VOLUME	DISTÂNCIA	V. ACUMULADO
0	0	5	313,4775	313,5775	0,5		
1	20	5	312,0782	312,1782	0,5	20	10
1+16,116	36,116	5	311,4964	311,5964	0,5	16,116	8,058
2	40	5	311,0596	311,1596	0,5	3,884	1,942
3	60	5	310,3119	310,4119	0,5	20	10
3+8,315	68,315	5	309,5642	309,6642	0,5	8,315	4,1575
4	80	5	309,4998	309,5998	0,5	11,685	5,8425
5	100	5	308,9339	309,0339	0,5	20	10
6	120	5	308,3975	308,4975	0,5	20	10
6+1,722	121,722	5	308,2531	308,3531	0,5	1,722	0,861
7	140	5	307,1729	307,2729	0,5	18,278	9,139
7+17,327	157,327	5	306,6312	306,7312	0,5	17,327	8,6635
8	160	5	305,2646	305,3646	0,5	2,673	1,3365
9	180	5	303,6197	303,7197	0,5	20	10
9+10,028	190,028	5	303,2805	303,3805	0,5	10,028	5,014
10	200	5	302,5719	302,6719	0,5	9,972	4,986
10+12,002	212,002	5	302,5129	302,6129	0,5	12,002	6,001
11	220	5	302,1543	302,2543	0,5	7,998	3,999
11+16,707	236,707	5	302,1508	302,2508	0,5	16,707	8,3535
12	240	5	302,0597	302,1597	0,5	3,293	1,6465
13	260	5	301,9677	302,0677	0,5	20	10
13+0,195	260,195	5	301,8756	301,9756	0,5	0,195	0,0975
14	280	5	301,797	301,897	0,5	19,805	9,9025
15	300	5	301,8317	301,9317	0,5	20	10
16	320	5	302,0701	302,1701	0,5	20	10
16+17,089	337,089	5	302,3084	302,4084	0,5	17,089	8,5445
17	340	5	302,4122	302,5122	0,5	2,911	1,4555
18	360	5	302,5655	302,6655	0,5	20	10
19	380	5	302,769	302,869	0,5	20	10
19+8,706	388,706	5	302,8836	302,9836	0,5	8,706	4,353
20	400	5	303,3398	303,4398	0,5	11,294	5,647
20+14,990	414,99	5	303,3431	303,4431	0,5	14,99	7,495
21	420	5	304,4682	304,5682	0,5	5,01	2,505
21+19,940	439,94	5	304,8047	304,9047	0,5	19,94	9,97
22	440	5	306,6521	306,7521	0,5	0,06	0,03
23	460	5	307,6196	307,7196	0,5	20	10
23+5,983	465,983	5	308,5539	308,6539	0,5	5,983	2,9915
24	480	5	308,587	308,687	0,5	14,017	7,0085
24+7,341	487,341	5	310,4738	310,5738	0,5	7,341	3,6705
25	500	5	310,9263	311,0263	0,5	12,659	6,3295
25+0,449	500,449	5	312,1924	312,2924	0,5	0,449	0,2245
26	520	5	312,9047	313,0047	0,5	19,551	9,7755
26+4,689	524,689	5	312,2586	312,3586	0,5	4,689	2,3445

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27	540	5	312,4844	312,5844	0,5	15,311	7,6555
27+8,614	548,614	5	313,3656	313,4656	0,5	8,614	4,307
27+15,400	555,4	5	313,4559	313,5559	0,5	6,786	3,393
28	560	5	314,3398	314,4398	0,5	4,6	2,3
28+17,957	577,957	5	315,1475	315,2475	0,5	17,957	8,9785
29	580	5	315,1888	315,2888	0,5	2,043	1,0215
30	600	5	315,6682	315,7682	0,5	20	10
30+18,277	618,277	5	315,8642	315,9642	0,5	18,277	9,1385
31	620	5	315,609	315,709	0,5	1,723	0,8615
32	640	5	315,1772	315,2772	0,5	20	10
32+8,176	648,176	5	314,9227	315,0227	0,5	8,176	4,088
33	660	5	314,6069	314,7069	0,5	11,824	5,912
34	680	5	313,8373	313,9373	0,5	20	10
34+11,792	691,792	5	313,2213	313,3213	0,5	11,792	5,896
35	700	5	313,0789	313,1789	0,5	8,208	4,104
36	720	5	312,3654	312,4654	0,5	20	10
36+16,007	736,007	5	312,2017	312,3017	0,5	16,007	8,0035
37	740	5	311,2146	311,3146	0,5	3,993	1,9965
38	760	5	309,9336	310,0336	0,5	20	10
38+4,589	764,589	5	308,6525	308,7525	0,5	4,589	2,2945
39	780	5	307,8764	307,9764	0,5	15,411	7,7055
40	800	5	307,0579	307,1579	0,5	20	10
41	820	5	305,5094	305,6094	0,5	20	10
41+12,117	832,117	5	305,0958	305,1958	0,5	12,117	6,0585
42	840	5	303,4692	303,5692	0,5	7,883	3,9415
42+14,914	854,914	5	301,8427	301,9427	0,5	14,914	7,457
43	860	5	300,9295	301,0295	0,5	5,086	2,543
44	880	5	300,563	300,663	0,5	20	10
45	900	5	299,7272	299,8272	0,5	20	10
45+11,228	911,228	5	299,2693	299,3693	0,5	11,228	5,614
46	920	5	299,1715	299,2715	0,5	8,772	4,386
47	940	5	298,955	299,055	0,5	20	10
47+10,959	950,959	5	298,822	298,922	0,5	10,959	5,4795
48	960	5	298,7431	298,8431	0,5	9,041	4,5205
49	980	5	298,5383	298,6383	0,5	20	10
49+12,294	992,294	5	298,3336	298,4336	0,5	12,294	6,147
50	1000	5	298,1288	298,2288	0,5	7,706	3,853
51	1020	5	297,924	298,024	0,5	20	10
52	1040	5	297,8435	297,9435	0,5	20	10
53	1060	5	297,7666	297,8666	0,5	20	10
54	1080	5	297,64	297,74	0,5	20	10
54+7,863	1087,863	5	297,5134	297,6134	0,5	7,863	3,9315
55	1100	5	297,3867	297,4867	0,5	12,137	6,0685
56	1120	5	297,3723	297,4723	0,5	20	10
57	1140	5	297,2844	297,3844	0,5	20	10
58	1160	5	297,1851	297,2851	0,5	20	10
58+2,279	1162,279	5	297,1402	297,2402	0,5	2,279	1,1395
59	1180	5	297,0862	297,1862	0,5	17,721	8,8605
60	1200	5	296,9875	297,0875	0,5	20	10

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60+9,052	1209,052	5	296,8889	296,9889	0,5	9,052	4,526
61	1220	5	296,7902	296,8902	0,5	10,948	5,474
62	1240	5	296,7646	296,8646	0,5	20	10
63	1260	5	296,6737	296,7737	0,5	20	10
64	1280	5	296,5509	296,6509	0,5	20	10
64+5,187	1285,187	5	296,4372	296,5372	0,5	5,187	2,5935
65	1300	5	296,4312	296,5312	0,5	14,813	7,4065
66	1320	5	296,3495	296,4495	0,5	20	10
66+18,534	1338,534	5	296,2858	296,3858	0,5	18,534	9,267
67	1340	5	296,2776	296,3776	0,5	1,466	0,733
68	1360	5	296,2405	296,3405	0,5	20	10
68+15,604	1375,604	5	296,2034	296,3034	0,5	15,604	7,802
69	1380	5	296,1663	296,2663	0,5	4,396	2,198
70	1400	5	296,1291	296,2291	0,5	20	10
71	1420	5	296,1136	296,2136	0,5	20	10
72	1440	5	296,118	296,218	0,5	20	10
73	1460	5	296,1256	296,2256	0,5	20	10
73+8,361	1468,361	5	296,1331	296,2331	0,5	8,361	4,1805
74	1480	5	296,1407	296,2407	0,5	11,639	5,8195
75	1500	5	296,1439	296,2439	0,5	20	10
76	1520	5	296,1269	296,2269	0,5	20	10
77	1540	5	296,0972	296,1972	0,5	20	10
77+8,511	1548,511	5	296,0676	296,1676	0,5	8,511	4,2555
78	1560	5	296,0659	296,1659	0,5	11,489	5,7445
79	1580	5	296,0309	296,1309	0,5	20	10
80	1600	5	295,9939	296,0939	0,5	20	10
80+1,134	1601,134	5	295,9568	296,0568	0,5	1,134	0,567
81	1620	5	295,9471	296,0471	0,5	18,866	9,433
82	1640	5	295,99	296,09	0,5	20	10
83	1660	5	296,0481	296,1481	0,5	20	10
83+5,253	1665,253	5	296,1063	296,2063	0,5	5,253	2,6265
84	1680	5	296,1644	296,2644	0,5	14,747	7,3735
85	1700	5	296,1872	296,2872	0,5	20	10
86	1720	5	296,1509	296,2509	0,5	20	10
87	1740	5	296,0912	296,1912	0,5	20	10
87+7,827	1747,827	5	296,0315	296,1315	0,5	7,827	3,9135
88	1760	5	296,0245	296,1245	0,5	12,173	6,0865
89	1780	5	296,0183	296,1183	0,5	20	10
90	1800	5	296,0113	296,1113	0,5	20	10
90+2,350	1802,35	5	296,0043	296,1043	0,5	2,35	1,175
91	1820	5	295,9986	296,0986	0,5	17,65	8,825
92	1840	5	295,9938	296,0938	0,5	20	10
93	1860	5	295,9682	296,0682	0,5	20	10
93+16,277	1876,277	5	295,9426	296,0426	0,5	16,277	8,1385
94	1880	5	295,917	296,017	0,5	3,723	1,8615
95	1900	5	295,8914	295,9914	0,5	20	10
96	1920	5	295,8879	295,9879	0,5	20	10
97	1940	5	295,9244	296,0244	0,5	20	10
98	1960	5	295,9666	296,0666	0,5	20	10



98+2,709	1962,709	5	295,9815	296,0815	0,5	2,709	3,3545
99	1980	5	295,7505	295,8505	0,5	17,291	8,6455
100	2000	5	295,3941	295,4941	0,5	20	10
100+7,034	2007,034	5	295,0377	295,1377	0,5	7,034	3,517
101	2020	5	294,6814	294,7814	0,5	12,966	6,483
102	2040	5	294,325	294,425	0,5	20	10
103	2060	5	294,1121	294,2121	0,5	20	10
104	2080	5	294,078	294,178	0,5	20	10
105	2100	5	293,9933	294,0933	0,5	20	10
105+11,949	2111,949	5	293,9086	294,0086	0,5	11,949	5,9745
106	2120	5	293,824	293,924	0,5	8,051	4,0255
107	2140	5	293,7393	293,8393	0,5	20	10
108	2160	5	293,6546	293,7546	0,5	20	10
109	2180	5	293,6475	293,7475	0,5	20	10
110	2200	5	293,5408	293,6408	0,5	20	10
111	2220	5	293,4243	293,5243	0,5	20	10
111+1,678	2221,678	5	293,3079	293,4079	0,5	1,678	0,839
112	2240	5	293,2069	293,3069	0,5	18,322	9,161
113	2260	5	293,1979	293,2979	0,5	20	10
114	2280	5	293,1303	293,2303	0,5	20	10
114+17,336	2297,336	5	293,0628	293,1628	0,5	17,336	8,668
115	2300	5	292,9952	293,0952	0,5	2,664	1,332
116	2320	5	292,9894	293,0894	0,5	20	10
117	2340	5	292,9424	293,0424	0,5	20	10
118	2360	5	292,8909	292,9909	0,5	20	10
118+1,717	2361,717	5	292,8394	292,9394	0,5	1,717	0,8585
119	2380	5	292,8165	292,9165	0,5	18,283	9,1415
120	2400	5	292,8403	292,9403	0,5	20	10
121	2420	5	292,8833	292,9833	0,5	20	10
121+8,912	2428,912	5	292,9263	293,0263	0,5	8,912	4,456
122	2440	5	292,9693	293,0693	0,5	11,088	5,544
123	2460	5	293,0015	293,1015	0,5	20	10
124	2480	5	293,0528	293,1528	0,5	20	10
125	2500	5	293,2578	293,3578	0,5	20	10
125+14,995	2514,995	5	293,4628	293,5628	0,5	14,995	7,4975
126	2520	5	293,6207	293,7207	0,5	5,005	2,5025
127	2540	5	293,7573	293,8573	0,5	20	10
128	2560	5	294,352	294,452	0,5	20	10
128+15,407	2575,407	5	294,6655	294,7655	0,5	15,407	7,7035
129	2580	5	295,3047	295,4047	0,5	4,593	2,2965
130	2600	5	296,6566	296,7566	0,5	20	10
130+10,544	2610,544	5	297,6496	297,7496	0,5	10,544	5,272
131	2620	5	297,5105	297,6105	0,5	9,456	4,728
132	2640	5	296,9867	297,0867	0,5	20	10
132+14,689	2654,689	5	296,619	296,719	0,5	14,689	7,3445
133	2660	5	296,7269	296,8269	0,5	5,311	2,6555
134	2680	5	297,0634	297,1634	0,5	20	10
134+14,039	2694,039	5	297,1385	297,2385	0,5	14,039	7,0195
135	2700	5	297,885	297,985	0,5	5,961	2,9805



135+18,593	2718,593	5	298,1597	298,2597	0,5	18,593	9,2965
136	2720	5	298,9268	299,0268	0,5	1,407	0,7035
136+13,996	2733,996	5	298,9078	299,0078	0,5	13,996	6,998
137	2740	5	298,7901	298,8901	0,5	6,004	3,002
137+16,770	2756,77	5	298,6958	298,7958	0,5	16,77	8,385
138	2760	5	298,6136	298,7136	0,5	3,23	1,615
139	2780	5	298,1987	298,2987	0,5	20	10
139+16,036	2796,036	5	297,977	298,077	0,5	16,036	8,018
140	2800	5	297,9337	298,0337	0,5	3,964	1,982
141	2820	5	297,8408	297,9408	0,5	20	10
141+10,691	2830,691	5	297,8048	297,9048	0,5	10,691	5,3455
142	2840	5	296,8967	296,9967	0,5	9,309	4,6545
143	2860	5	296,1344	296,2344	0,5	20	10
143+7,733	2867,733	5	295,6806	295,7806	0,5	7,733	3,8665
144	2880	5	294,7451	294,8451	0,5	12,267	6,1335
144+10,298	2890,298	5	294,4419	294,5419	0,5	10,298	5,149
145	2900	5	294,3613	294,4613	0,5	9,702	4,851
146	2920	5	294,2422	294,3422	0,5	20	10
146+6,482	2926,482	5	294,123	294,223	0,5	6,482	3,241
147	2940	5	294,118	294,218	0,5	13,518	6,759
148	2960	5	294,1246	294,2246	0,5	20	10
149	2980	5	294,1316	294,2316	0,5	20	10
149+0,833	2980,833	5	294,1385	294,2385	0,5	0,833	0,4165
150	3000	5	294,1454	294,2454	0,5	19,167	9,5835
151	3020	5	294,15	294,25	0,5	20	10
152	3040	5	294,2069	294,3069	0,5	20	10
153	3060	5	294,3769	294,4769	0,5	20	10
153+13,302	3073,302	5	294,4565	294,5565	0,5	13,302	6,651
154	3080	5	294,7012	294,8012	0,5	6,698	3,349
155	3100	5	295,161	295,261	0,5	20	10
155+9,360	3109,36	5	295,6209	295,7209	0,5	9,36	4,68
156	3120	5	295,6761	295,7761	0,5	10,64	5,32
157	3140	5	298,2645	298,3645	0,5	20	10
158	3160	5	300,0373	300,1373	0,5	20	10
158+2,402	3162,402	5	300,7527	300,8527	0,5	2,402	1,201
159	3180	5	302,5532	302,6532	0,5	17,598	8,799
159+12,054	3192,054	5	303,9457	304,0457	0,5	12,054	6,027
160	3200	5	304,4031	304,5031	0,5	7,946	3,973
161	3220	5	306,422	306,522	0,5	20	10
161+15,469	3235,469	5	307,1054	307,2054	0,5	15,469	7,7345
162	3240	5	307,9763	308,0763	0,5	4,531	2,2655
163	3260	5	308,9943	309,0943	0,5	20	10
163+6,770	3266,77	5	309,1422	309,2422	0,5	6,77	3,385
164	3280	5	309,7946	309,8946	0,5	13,23	6,615
164+15,464	3295,464	5	310,1177	310,2177	0,5	15,464	7,732
165	3300	5	310,417	310,517	0,5	4,536	2,268
166	3320	5	310,5884	310,6884	0,5	20	10
166+9,908	3329,908	5	311,2038	311,3038	0,5	9,908	4,954
167	3340	5	312,0692	312,1692	0,5	10,092	5,046

Comissão Permanente de FLS. 73
 P.R.

167+5,778	3345,778	5	312,5158	312,6158	0,5	5,778	2,889
168	3360	5	313,0428	313,1428	0,5	14,222	7,111
169	3380	5	314,1319	314,2319	0,5	20	10
169+10,321	3390,321	5	314,8006	314,9006	0,5	10,321	5,1605
170	3400	5	314,9049	315,0049	0,5	9,679	4,8395
171	3420	5	315,0327	315,1327	0,5	20	10
171+12,281	3432,281	5	314,1976	314,2976	0,5	12,281	6,1405
172	3440	5	312,6144	312,7144	0,5	7,719	3,8595
172+9,451	3449,451	5	312,4458	312,5458	0,5	9,451	4,7255
173	3460	5	311,4656	311,5656	0,5	10,549	5,2745
174	3480	5	310,4568	310,5568	0,5	20	10
174+2,130	3482,13	5	310,4125	310,5125	0,5	2,13	1,065
175	3500	5	309,8613	309,9613	0,5	17,87	8,935
175+18,392	3518,392	5	309,3101	309,4101	0,5	18,392	9,196
176	3520	5	309,1746	309,2746	0,5	1,608	0,804
177	3540	5	308,4952	308,5952	0,5	20	10
178	3560	5	307,5943	307,6943	0,5	20	10
178+4,916	3564,916	5	306,9248	307,0248	0,5	4,916	2,458
179	3580	5	306,7071	306,8071	0,5	15,084	7,542
180	3600	5	305,8596	305,9596	0,5	20	10
180+14,863	3614,863	5	305,0122	305,1122	0,5	14,863	7,4315
181	3620	5	304,1647	304,2647	0,5	5,137	2,5685
182	3640	5	303,8856	303,9856	0,5	20	10
183	3660	5	302,7995	302,8995	0,5	20	10
184	3680	5	301,18	301,28	0,5	20	10
184+6,587	3686,587	5	299,8776	299,9776	0,5	6,587	3,2935
185	3700	5	299,3909	299,4909	0,5	13,413	6,7065
186	3720	5	296,9055	297,0055	0,5	20	10
186+16,084	3736,084	5	296,5156	296,6156	0,5	16,084	8,042
187	3740	5	296,1117	296,2117	0,5	3,916	1,958
188	3760	5	295,6326	295,7326	0,5	20	10
188+3,138	3763,138	5	295,1535	295,2535	0,5	3,138	1,569
189	3780	5	295,0726	295,1726	0,5	16,862	8,431
190	3800	5	295,1871	295,2871	0,5	20	10
191	3820	5	295,3249	295,4249	0,5	20	10
191+3,379	3823,379	5	295,4627	295,5627	0,5	3,379	1,6895
192	3840	5	295,6004	295,7004	0,5	16,621	8,3105
193	3860	5	295,7382	295,8382	0,5	20	10
194	3880	5	295,876	295,976	0,5	20	10
195	3900	5	296,0089	296,1089	0,5	20	10
196	3920	5	296,0481	296,1481	0,5	20	10
197	3940	5	297,1567	297,2567	0,5	20	10
197+19,293	3959,293	5	298,2654	298,3654	0,5	19,293	9,6465
198	3960	5	298,3493	298,4493	0,5	0,707	0,3535
199	3980	5	299,344	299,444	0,5	20	10
200	4000	5	300,4202	300,5202	0,5	20	10
200+1,514	4001,514	5	300,4709	300,5709	0,5	1,514	0,757
201	4020	5	300,1542	300,2542	0,5	18,486	9,243
202	4040	5	299,8218	299,9218	0,5	20	10

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202+0,943	4040,943	5	299,7584	299,8584	0,5	0,943	0,4715
203	4060	5	299,3541	299,4541	0,5	19,057	9,5285
204	4080	5	298,9535	299,0535	0,5	20	10
204+3,812	4083,812	5	298,7468	298,8468	0,5	3,812	1,906
205	4100	5	297,7029	297,8029	0,5	16,188	8,094
205+16,041	4116,041	5	297,4553	297,5553	0,5	16,041	8,0205
206	4120	5	297,3024	297,4024	0,5	3,959	1,9795
207	4140	5	297,1019	297,2019	0,5	20	10
207+4,743	4144,743	5	296,9014	297,0014	0,5	4,743	2,3715
208	4160	5	296,701	296,801	0,5	15,257	7,6285
209	4180	5	296,7009	296,8009	0,5	20	10
210	4200	5	297,9806	298,0806	0,5	20	10
211	4220	5	298,0319	298,1319	0,5	20	10
211+0,007	4220,007	5	299,0095	299,1095	0,5	0,007	0,0035
212	4240	5	300,028	300,128	0,5	19,993	9,9965
212+0,802	4240,802	5	300,3772	300,4772	0,5	0,802	0,401
213	4260	5	299,234	299,334	0,5	19,198	9,599
214	4280	5	299,0685	299,1685	0,5	20	10
214+6,858	4286,858	5	298,8337	298,9337	0,5	6,858	3,429
215	4300	5	298,6346	298,7346	0,5	13,142	6,571
215+1,903	4301,903	5	299,0443	299,1443	0,5	1,903	0,9515
216	4320	5	300,8032	300,9032	0,5	18,097	9,0485
216+15,341	4335,341	5	302,2333	302,3333	0,5	15,341	7,6705
217	4340	5	302,4472	302,5472	0,5	4,659	2,3295
218	4360	5	303,4606	303,5606	0,5	20	10
218+16,262	4376,262	5	303,4449	303,5449	0,5	16,262	8,131
219	4380	5	303,3079	303,4079	0,5	3,738	1,869
219+17,713	4397,713	5	303,171	303,271	0,5	17,713	8,8565
220	4400	5	303,1188	303,2188	0,5	2,287	1,1435
221	4420	5	302,9159	303,0159	0,5	20	10
222	4440	5	302,5884	302,6884	0,5	20	10
222+7,614	4447,614	5	302,4342	302,5342	0,5	7,614	3,807
223	4460	5	302,0211	302,1211	0,5	12,386	6,193
224	4480	5	301,2407	301,3407	0,5	20	10
224+9,412	4489,412	5	300,4603	300,5603	0,5	9,412	4,706
225	4500	5	300,2888	300,3888	0,5	10,588	5,294
226	4520	5	299,8504	299,9504	0,5	20	10
227	4540	5	299,2885	299,3885	0,5	20	10
227+4,397	4544,397	5	299,2401	299,3401	0,5	4,397	2,1985
228	4560	5	298,0338	298,1338	0,5	15,603	7,8015
229	4580	5	296,7139	296,8139	0,5	20	10
229+1,723	4581,723	5	296,4903	296,5903	0,5	1,723	0,8615
230	4600	5	295,0137	295,1137	0,5	18,277	9,1385
231	4620	5	293,2359	293,3359	0,5	20	10
231+3,388	4623,388	5	292,2076	292,3076	0,5	3,388	1,694
232	4640	5	292,059	292,159	0,5	16,612	8,306
233	4660	5	291,7065	291,8065	0,5	20	10
233+11,569	4671,569	5	291,354	291,454	0,5	11,569	5,7845
234	4680	5	291,0542	291,1542	0,5	8,431	4,2155

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235	4700	5	291,0651	291,1651	0,5	20	102,00
236	4720	5	291,1376	291,2376	0,5	20	10
236+17,009	4737,009	5	291,2102	291,3102	0,5	17,009	8,5045
237	4740	5	291,2348	291,3348	0,5	2,991	1,4955
238	4760	5	291,5758	291,6758	0,5	20	10
239	4780	5	291,8648	291,9648	0,5	20	10
239+6,785	4786,785	5	292,7273	292,8273	0,5	6,785	3,3925
240	4800	5	294,1794	294,2794	0,5	13,215	6,6075
240+11,197	4811,197	5	294,4068	294,5068	0,5	11,197	5,5985
241	4820	5	295,2767	295,3767	0,5	8,803	4,4015
241+14,822	4834,822	5	295,2683	295,3683	0,5	14,822	7,411
242	4840	5	294,4106	294,5106	0,5	5,178	2,589
242+19,803	4859,803	5	293,6211	293,7211	0,5	19,803	9,9015
243	4860	5	293,6014	293,7014	0,5	0,197	0,0985
244	4880	5	293,3529	293,4529	0,5	20	10
244+18,411	4898,411	5	293,1237	293,2237	0,5	18,411	9,2055
245	4900	5	292,98	293,08	0,5	1,589	0,7945
246	4920	5	291,1303	291,2303	0,5	20	10
246+18,446	4938,446	5	290,3047	290,4047	0,5	18,446	9,223
247	4940	5	290,2051	290,3051	0,5	1,554	0,777
248	4960	5	290,0251	290,1251	0,5	20	10
248+8,927	4968,927	5	289,8452	289,9452	0,5	8,927	4,4635
249	4980	5	289,6652	289,7652	0,5	11,073	5,5365
250	5000	5	289,4853	289,5853	0,5	20	10
251	5020	5	289,3556	289,4556	0,5	20	10
252	5040	5	289,4143	289,5143	0,5	20	10
253	5060	5	289,6242	289,7242	0,5	20	10
253+14,412	5074,412	5	289,8341	289,9341	0,5	14,412	7,206
254	5080	5	289,8553	289,9553	0,5	5,588	2,794
255	5100	5	289,7936	289,8936	0,5	20	10
256	5120	5	289,7249	289,8249	0,5	20	10
256+2,016	5122,016	5	289,6562	289,7562	0,5	2,016	1,008
257	5140	5	289,5876	289,6876	0,5	17,984	8,992
258	5160	5	289,5189	289,6189	0,5	20	10
259	5180	5	289,4502	289,5502	0,5	20	10
260	5200	5	289,4478	289,5478	0,5	20	10
261	5220	5	289,3553	289,4553	0,5	20	10
262	5240	5	289,3245	289,4245	0,5	20	10
262+0,706	5240,706	5	289,3005	289,4005	0,5	0,706	0,353
263	5260	5	289,265	289,365	0,5	19,294	9,647
263+6,425	5266,425	5	289,2607	289,3607	0,5	6,425	3,2125
264	5280	5	289,3675	289,4675	0,5	13,575	6,7875
265	5300	5	289,4892	289,5892	0,5	20	10
265+2,456	5302,456	5	289,6109	289,7109	0,5	2,456	1,228
266	5320	5	289,7326	289,8326	0,5	17,544	8,772
267	5340	5	289,8543	289,9543	0,5	20	10
268	5360	5	289,976	290,076	0,5	20	10
269	5380	5	290,0977	290,1977	0,5	20	10
270	5400	5	290,1581	290,2581	0,5	20	10



271	5420	5	290,5391	290,6391	0,5	20	10
272	5440	5	291,295	291,395	0,5	20	10
272+9,921	5449,921	5	292,051	292,151	0,5	9,921	4,9605
273	5460	5	292,2931	292,3931	0,5	10,079	5,0395
274	5480	5	292,679	292,779	0,5	20	10
275	5500	5	293,2466	293,3466	0,5	20	10
275+6,405	5506,405	5	293,8143	293,9143	0,5	6,405	3,2025
276	5520	5	294,2724	294,3724	0,5	13,595	6,7975
277	5540	5	294,3881	294,4881	0,5	20	10
278	5560	5	294,988	295,088	0,5	20	10
278+16,141	5576,141	5	295,5878	295,6878	0,5	16,141	8,0705
279	5580	5	296,1877	296,2877	0,5	3,859	1,9295
280	5600	5	296,3779	296,4779	0,5	20	10
281	5620	5	297,4695	297,5695	0,5	20	10
282	5640	5	298,3641	298,4641	0,5	20	10
282+6,342	5646,342	5	298,64	298,74	0,5	6,342	3,171
283	5660	5	298,9588	299,0588	0,5	13,658	6,829
283+11,193	5671,193	5	298,986	299,086	0,5	11,193	5,5965
284	5680	5	299,009	299,109	0,5	8,807	4,4035
284+10,173	5690,173	5	299,2078	299,3078	0,5	10,173	5,0865
285	5700	5	299,548	299,648	0,5	9,827	4,9135
285+8,316	5708,316	5	299,5712	299,6712	0,5	8,316	4,158
286	5720	5	299,4864	299,5864	0,5	11,684	5,842
287	5740	5	299,3953	299,4953	0,5	20	10
287+1,364	5741,364	5	299,3043	299,4043	0,5	1,364	0,682
288	5760	5	299,2133	299,3133	0,5	18,636	9,318
289	5780	5	299,1861	299,2861	0,5	20	10
290	5800	5	299,4826	299,5826	0,5	20	10
291	5820	5	299,9053	300,0053	0,5	20	10
291+5,970	5825,97	5	300,1108	300,2108	0,5	5,97	2,985
292	5840	5	300,4871	300,5871	0,5	14,03	7,015
293	5860	5	301,2194	301,3194	0,5	20	10
293+9,725	5869,725	5	301,3031	301,4031	0,5	9,725	4,8625
294	5880	5	301,8966	301,9966	0,5	10,275	5,1375
295	5900	5	302,5666	302,6666	0,5	20	10
295+2,285	5902,285	5	302,6781	302,7781	0,5	2,285	1,1425
296	5920	5	303,4825	303,5825	0,5	17,715	8,8575
297	5940	5	304,1862	304,2862	0,5	20	10
297+3,329	5943,329	5	304,4068	304,5068	0,5	3,329	1,6645
298	5960	5	304,9535	305,0535	0,5	16,671	8,3355
298+14,583	5974,583	5	305,032	305,132	0,5	14,583	7,2915
299	5980	5	305,075	305,175	0,5	5,417	2,7085
299+13,427	5993,427	5	304,3645	304,4645	0,5	13,427	6,7135
300	6000	5	304,3132	304,4132	0,5	6,573	3,2865
300+3,601	6003,601	5	304,0202	304,1202	0,5	3,601	1,8005
301	6020	5	303,7088	303,8088	0,5	16,399	8,1995
301+1,185	6021,185	5	303,531	303,631	0,5	1,185	0,5925
302	6040	5	303,5926	303,6926	0,5	18,815	9,4075
303	6060	5	303,7362	303,8362	0,5	20	10

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303+11,420	6071,42	5	303,7791	303,8791	0,5	11,42	5,71
304	6080	5	302,706	302,806	0,5	8,58	4,29
305	6100	5	301,4674	301,5674	0,5	20	10
305+5,969	6105,969	5	300,9292	301,0292	0,5	5,969	2,9845
306	6120	5	298,101	298,201	0,5	14,031	7,0155
306+16,194	6136,194	5	297,1942	297,2942	0,5	16,194	8,097
307	6140	5	296,8025	296,9025	0,5	3,806	1,903
308	6160	5	296,226	296,326	0,5	20	10
308+6,413	6166,413	5	295,6495	295,7495	0,5	6,413	3,2065
309	6180	5	295,3762	295,4762	0,5	13,587	6,7935
310	6200	5	295,4422	295,5422	0,5	20	10
311	6220	5	295,5676	295,6676	0,5	20	10
311+9,482	6229,482	5	295,693	295,793	0,5	9,482	4,741
312	6240	5	295,7514	295,8514	0,5	10,518	5,259
313	6260	5	296,1097	296,2097	0,5	20	10
314	6280	5	296,6053	296,7053	0,5	20	10
314+9,320	6289,32	5	297,1373	297,2373	0,5	9,32	4,66
315	6300	5	299,1716	299,2716	0,5	10,68	5,34
315+14,770	6314,77	5	301,2059	301,3059	0,5	14,77	7,385
316	6320	5	301,3266	301,4266	0,5	5,23	2,615
317	6340	5	303,4236	303,5236	0,5	20	10
318	6360	5	303,7607	303,8607	0,5	20	10
318+1,186	6361,186	5	304,7515	304,8515	0,5	1,186	0,593
319	6380	5	305,9189	306,0189	0,5	18,814	9,407
319+3,024	6383,024	5	307,0087	307,1087	0,5	3,024	1,512
320	6400	5	307,0068	307,1068	0,5	16,976	8,488
321	6420	5	306,9775	307,0775	0,5	20	10
321+18,671	6438,671	5	306,9482	307,0482	0,5	18,671	9,3355
322	6440	5	306,9394	307,0394	0,5	1,329	0,6645
323	6460	5	306,9948	307,0948	0,5	20	10
324	6480	5	307,0739	307,1739	0,5	20	10
324+5,990	6485,99	5	307,153	307,253	0,5	5,99	2,995
325	6500	5	307,158	307,258	0,5	14,01	7,005
326	6520	5	307,3478	307,4478	0,5	20	10
327	6540	5	307,4341	307,5341	0,5	20	10
327+1,265	6541,265	5	307,5924	307,6924	0,5	1,265	0,6325
328	6560	5	307,7466	307,8466	0,5	18,735	9,3675
328+8,512	6568,512	5	307,9032	308,0032	0,5	8,512	4,256
329	6580	5	308,2584	308,3584	0,5	11,488	5,744
329+11,183	6591,183	5	308,6135	308,7135	0,5	11,183	5,5915
330	6600	5	308,7771	308,8771	0,5	8,817	4,4085
331	6620	5	309,0002	309,1002	0,5	20	10
332	6640	5	309,4136	309,5136	0,5	20	10
332+9,209	6649,209	5	309,7916	309,8916	0,5	9,209	4,6045
333	6660	5	309,8157	309,9157	0,5	10,791	5,3955
334	6680	5	310,0938	310,1938	0,5	20	10
334+18,282	6698,282	5	310,0916	310,1916	0,5	18,282	9,141
335	6700	5	309,7078	309,8078	0,5	1,718	0,859
335+19,849	6719,849	5	309,4134	309,5134	0,5	19,849	9,9245

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Comissão Permanente de Licitação
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336	6720	5	278,3482	278,4482	0,5	0,151	0,0755
337	6740	5	278,3236	278,4236	0,5	20	10
337+15,367	6755,367	5	278,1211	278,2211	0,5	15,367	7,6835
TOTAL	6755,367					6755,367	3377,6835


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ENGENHEIRO CIVIL
CREA 53913



Estaca	Descrição	Progressão	Norte	Este	Oeste	Azimuth
0	PI0	0,000	9.250.100,1000	538.002,2432	314,3767	181°18'08"
1		20,000	9.250.100,5545	537.982,2484	314,0293	181°18'08"
1+16,116	PI1	36,116	9.250.100,9208	537.966,1365	313,7493	181°34'20"
2		40,000	9.250.101,0457	537.962,2545	313,4775	181°50'32"
3		60,000	9.250.101,6886	537.942,2649	312,0782	181°50'32"
3+8,315	PI2	68,315	9.250.101,9559	537.933,9541	311,4964	185°56'52"
4		80,000	9.250.103,9956	537.922,4486	311,0596	190°03'12"
5		100,000	9.250.107,4869	537.902,7557	310,3119	190°03'12"
6		120,000	9.250.110,9782	537.883,0627	309,5642	190°03'12"
6+1,722	PI3	121,722	9.250.111,2788	537.881,3669	309,4998	184°39'31"
7		140,000	9.250.111,0440	537.863,0907	308,9339	179°15'51"
7+17,327	PI4	157,327	9.250.110,8215	537.845,7651	308,3075	172°20'24"
8		160,000	9.250.110,1620	537.843,1748	308,2531	165°42'57"
9		180,000	9.250.105,2273	537.823,7931	307,1729	165°42'57"
9+10,028	PI5	190,028	9.250.102,7530	537.814,0747	306,6312	164°12'16"
10		200,000	9.250.099,7866	537.804,5546	305,2646	162°41'35"
10+12,002	PI6	212,002	9.250.096,2162	537.793,0964	303,6197	164°07'50"
11		220,000	9.250.094,2228	537.785,3504	303,2805	165°34'05"
11+16,707	PI7	236,707	9.250.090,0590	537.769,1709	302,5719	174°56'41"
12		240,000	9.250.090,3072	537.765,8869	302,5129	184°19'16"
13		260,000	9.250.091,8141	537.745,9438	302,1543	184°19'16"
13+0,195	PI8	260,195	9.250.091,8288	537.745,7492	302,1508	191°33'05"
14		280,000	9.250.098,2052	537.726,9988	302,0597	198°46'53"
15		300,000	9.250.104,6443	537.708,0638	301,9677	198°46'53"
16		320,000	9.250.111,0835	537.689,1287	301,8756	198°46'53"
16+17,089	PI9	337,089	9.250.116,5855	537.672,9495	301,7970	200°48'46"
17		340,000	9.250.117,7156	537.670,2669	301,8317	202°50'38"
18		360,000	9.250.125,4800	537.651,8356	302,0701	202°50'38"
19		380,000	9.250.133,2444	537.633,4043	302,3084	202°50'38"
19+8,706	PI10	388,706	9.250.136,6244	537.625,3809	302,4122	209°44'41"
20		400,000	9.250.143,3652	537.616,3194	302,5655	216°38'44"
20+14,990	PI11	414,990	9.250.152,3122	537.604,2923	302,7690	217°41'36"
21		420,000	9.250.155,4475	537.600,3846	302,8836	218°44'28"
21+19,940	PI12	439,940	9.250.167,9263	537.584,8314	303,3398	210°48'26"
22		440,000	9.250.167,9494	537.584,7766	303,3431	202°52'23"
23		460,000	9.250.175,7232	537.566,3492	304,4682	202°52'23"
23+5,983	PI13	465,983	9.250.178,0488	537.560,8366	304,8047	195°27'33"
24		480,000	9.250.180,0105	537.546,9576	306,5521	188°02'43"
24+7,341	PI14	487,341	9.250.181,6375	537.539,6892	307,6196	188°36'15"
25		500,000	9.250.183,0539	537.527,1914	308,5539	189°09'48"
25+0,449	PI15	500,449	9.250.183,1253	537.526,7486	308,5870	183°43'15"
26		520,000	9.250.182,5379	537.507,2060	310,4738	178°16'42"
26+4,689	PI16	524,689	9.250.182,3970	537.502,5193	310,9263	170°50'38"
27		540,000	9.250.178,0253	537.487,8455	312,1924	163°24'35"
27+8,614	PI17	548,614	9.250.175,5658	537.479,5903	312,9047	173°32'20"
27+15,400	PI18	555,400	9.250.175,9999	537.472,8183	312,2586	179°43'22"
28		560,000	9.250.175,6612	537.468,2305	312,4844	175°46'39"
28+17,957	PI19	577,957	9.250.174,3390	537.450,3221	313,3656	184°49'53"



Estaca	Descrição	Progressiva	Norte	Este	Oeste	Azimute
29		580,000	9.250.174,8292	537.448,3389	313,4559	193°53'06"
30		600,000	9.250.179,6288	537.428,9233	314,3398	193°53'06"
30+18,277	PI20	618,277	9.250.184,0149	537.411,1799	315,1475	197°59'38"
31		620,000	9.250.184,6630	537.409,5840	315,1888	202°06'09"
32		640,000	9.250.192,1884	537.391,0538	315,6682	202°06'09"
32+8,176	PI21	648,176	9.250.195,2648	537.383,4784	315,8642	204°33'05"
33		660,000	9.250.200,6327	537.372,9433	315,6090	207°00'00"
34		680,000	9.250.209,7124	537.355,1232	315,1772	207°00'00"
34+11,792	PI22	691,792	9.250.215,0660	537.344,6162	314,9227	216°24'28"
35		700,000	9.250.220,9518	537.338,8957	314,6069	225°48'56"
36		720,000	9.250.235,2938	537.324,9563	313,8373	225°48'56"
36+16,007	PI23	736,007	9.250.246,7723	537.313,8000	313,2213	226°57'03"
37		740,000	9.250.249,7438	537.311,1325	313,0789	228°05'11"
38		760,000	9.250.264,6269	537.297,7723	312,3654	228°05'11"
38+4,589	PI24	764,589	9.250.268,0420	537.294,7066	312,2017	220°06'08"
39		780,000	9.250.276,2354	537.281,6545	311,2146	212°07'06"
40		800,000	9.250.286,8687	537.264,7154	309,9336	212°07'06"
41		820,000	9.250.297,5021	537.247,7763	308,6525	212°07'06"
41+12,117	PI25	832,117	9.250.303,9445	537.237,5135	307,8764	213°42'40"
42		840,000	9.250.308,5000	537.231,0805	307,0579	215°18'14"
42+14,914	PI26	854,914	9.250.317,1191	537.218,9090	305,5094	218°08'15"
43		860,000	9.250.320,4537	537.215,0691	305,0358	220°58'16"
44		880,000	9.250.333,5673	537.199,9683	303,4692	220°58'16"
45		900,000	9.250.346,6809	537.184,8675	301,8427	220°58'16"
45+11,228	PI27	911,228	9.250.354,0429	537.176,3898	300,9295	204°30'51"
46		920,000	9.250.355,2724	537.167,7045	300,5630	188°03'26"
47		940,000	9.250.358,0755	537.147,9019	299,7272	188°03'25"
47+10,959	PI28	950,959	9.250.359,6115	537.137,0510	299,2693	187°07'17"
48		960,000	9.250.360,5857	537.128,0627	299,1715	186°11'09"
49		980,000	9.250.362,7407	537.108,1792	298,9550	186°11'09"
49+12,294	PI29	992,294	9.250.364,0654	537.095,9568	298,8220	189°47'51"
50		1000,000	9.250.365,8525	537.088,4608	298,7431	193°24'34"
51		1020,000	9.250.370,4907	537.069,0061	298,5383	193°24'34"
52		1040,000	9.250.375,1289	537.049,5513	298,3336	193°24'34"
53		1060,000	9.250.379,7671	537.030,0966	298,1288	193°24'34"
54		1080,000	9.250.384,4053	537.010,6418	297,9240	193°24'34"
54+7,863	PI30	1087,863	9.250.386,2287	537.002,9935	297,8435	190°57'07"
55		1100,000	9.250.388,0216	536.990,9893	297,7666	188°29'41"
56		1120,000	9.250.390,9759	536.971,2067	297,6400	188°29'41"
57		1140,000	9.250.393,9302	536.951,4281	297,5134	188°29'41"
58		1160,000	9.250.396,8846	536.931,6476	297,3867	188°29'41"
58+2,279	PI31	1162,279	9.250.397,2212	536.929,3937	297,3723	188°34'51"
59		1180,000	9.250.399,8916	536.911,8749	297,2844	188°40'01"
60		1200,000	9.250.402,9054	536.892,1033	297,1851	188°40'01"
60+9,052	PI32	1209,052	9.250.404,2695	536.883,1546	297,1402	191°10'37"
61		1220,000	9.250.406,8600	536.872,5176	297,0862	193°41'14"
62		1240,000	9.250.411,5924	536.853,0855	296,9875	193°41'14"
63		1260,000	9.250.416,3248	536.833,6535	296,8889	193°41'14"



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Data: 30/03/2011

Traçado Horizontal: TRAÇADO BANANEIRA

Projeto: COMUNIDADE DE BANANEIRA

Estaca	Descrição	Proprietary	Nome	Este	Cota	Azimute
64		1280,000	9.250.421,0572	536.814,2214	296,7902	193°41'14"
64+5,187	PI33	1285,187	9.250.422,2845	536.809,1819	296,7646	196°19'29"
65		1300,000	9.250.427,0979	536.795,1726	296,6737	198°57'43"
66		1320,000	9.250.433,5968	536.776,2579	296,5509	198°57'43"
66+18,534	PI34	1338,534	9.250.439,6193	536.758,7295	296,4372	195°04'52"
67		1340,000	9.250.439,9040	536.757,2916	296,4312	191°12'01"
68		1360,000	9.250.443,7888	536.737,6725	296,3495	191°12'01"
68+15,604	PI35	1375,604	9.250.446,8196	536.722,3662	296,2858	185°24'11"
69		1380,000	9.250.446,7894	536.717,9698	296,2776	179°36'22"
70		1400,000	9.250.446,6519	536.697,9703	296,2405	179°36'22"
71		1420,000	9.250.446,5143	536.677,9707	296,2034	179°36'22"
72		1440,000	9.250.446,3768	536.657,9712	296,1663	179°36'22"
73		1460,000	9.250.446,2393	536.637,9717	296,1291	179°36'22"
73+8,361	PI36	1468,361	9.250.446,1818	536.629,6106	296,1136	184°34'55"
74		1480,000	9.250.448,1144	536.618,1334	296,1180	189°33'29"
75		1500,000	9.250.451,4353	536.598,4111	296,1256	189°33'29"
76		1520,000	9.250.454,7562	536.578,6887	296,1331	189°33'29"
77		1540,000	9.250.458,0771	536.558,9664	296,1407	189°33'29"
77+8,511	PI37	1548,511	9.250.459,4903	536.550,5736	296,1439	201°49'28"
78		1560,000	9.250.465,9300	536.541,0589	296,1269	214°05'27"
79		1580,000	9.250.477,1402	536.524,4959	296,0972	214°05'27"
80		1600,000	9.250.488,3503	536.507,9329	296,0070	214°05'27"
80+1,134	PI38	1601,134	9.250.488,9859	536.506,9939	296,0659	212°50'08"
81		1620,000	9.250.498,8658	536.490,9217	296,0309	211°34'48"
82		1640,000	9.250.509,3396	536.473,8835	295,9939	211°34'48"
83		1660,000	9.250.519,8134	536.456,8453	295,9568	211°34'48"
83+5,253	PI39	1665,253	9.250.522,5643	536.452,3702	295,9471	211°30'32"
84		1680,000	9.250.530,2559	536.439,7879	295,9900	211°26'15"
85		1700,000	9.250.540,6873	536.422,7237	296,0481	211°26'15"
86		1720,000	9.250.551,1186	536.405,6596	296,1063	211°26'15"
87		1740,000	9.250.561,5500	536.388,5954	296,1644	211°26'15"
87+7,827	PI40	1747,827	9.250.565,6321	536.381,9177	296,1872	203°18'03"
88		1760,000	9.250.568,8165	536.370,1681	296,1509	195°09'52"
89		1780,000	9.250.574,0483	536.350,8645	296,0912	195°09'52"
90		1800,000	9.250.579,2801	536.331,5609	296,0315	195°09'52"
90+2,350	PI41	1802,350	9.250.579,8947	536.329,2932	296,0245	185°59'26"
91		1820,000	9.250.578,9146	536.311,6700	296,0183	176°49'00"
92		1840,000	9.250.577,8040	536.291,7009	296,0113	176°49'00"
93		1860,000	9.250.576,6934	536.271,7317	296,0043	176°49'00"
93+16,277	PI42	1876,277	9.250.575,7895	536.255,4799	295,9986	183°00'24"
94		1880,000	9.250.576,3845	536.251,8047	295,9938	189°11'47"
95		1900,000	9.250.579,5810	536.232,0618	295,9682	189°11'47"
96		1920,000	9.250.582,7774	536.212,3188	295,9426	189°11'47"
97		1940,000	9.250.585,9738	536.192,5759	295,9170	189°11'47"
98		1960,000	9.250.589,1702	536.172,8330	295,8914	189°11'47"
98+2,709	PI43	1962,709	9.250.589,6032	536.170,1587	295,8879	193°28'01"
99		1980,000	9.250.594,8709	536.153,6898	295,9244	197°44'14"
100		2000,000	9.250.600,9640	536.134,6405	295,9666	197°44'14"



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Data: 30/03/2011

Traçado Horizontal: TRAÇADO BANANEIRA

Projeto: COMUNIDADE DE BANANEIRA

Estaca	Descrição	Progressiva	Norte	Este	Cota	Azimute
100+7,034	PI44	2007,034	9.250.603,1070	536.127,9407	295,9815	185°35'09"
101		2020,000	9.250.601,6244	536.115,0599	295,7505	173°26'03"
102		2040,000	9.250.599,3375	536.095,1911	295,3941	173°26'03"
103		2060,000	9.250.597,0507	536.075,3223	295,0377	173°26'03"
104		2080,000	9.250.594,7638	536.055,4535	294,6814	173°26'03"
105		2100,000	9.250.592,4769	536.035,5847	294,3250	173°26'03"
105+11,949	PI45	2111,949	9.250.591,1106	536.023,7143	294,1121	173°03'16"
106		2120,000	9.250.590,0840	536.015,7287	294,0780	172°40'29"
107		2140,000	9.250.587,5340	535.995,8920	293,9933	172°40'29"
108		2160,000	9.250.584,9839	535.976,0552	293,9086	172°40'29"
109		2180,000	9.250.582,4339	535.956,2184	293,8240	172°40'29"
110		2200,000	9.250.579,8838	535.936,3817	293,7393	172°40'29"
111		2220,000	9.250.577,3338	535.916,5449	293,6546	172°40'29"
111+1,678	PI46	2221,678	9.250.577,1198	535.914,8805	293,6475	170°45'36"
112		2240,000	9.250.573,5753	535.896,9047	293,5408	168°50'43"
113		2260,000	9.250.569,7061	535.877,2826	293,4243	168°50'43"
114		2280,000	9.250.565,8369	535.857,6604	293,3079	168°50'43"
114+17,336	PI47	2297,336	9.250.562,4831	535.840,6519	293,2069	173°38'55"
115		2300,000	9.250.562,4111	535.837,9889	293,1979	178°27'07"
116		2320,000	9.250.561,8708	535.817,9962	293,1303	178°27'07"
117		2340,000	9.250.561,3305	535.798,0035	293,0628	178°27'07"
118		2360,000	9.250.560,7902	535.778,0108	292,9952	178°27'07"
118+1,717	PI48	2361,717	9.250.560,7438	535.776,2946	292,9894	180°35'39"
119		2380,000	9.250.561,6167	535.758,0323	292,9424	182°44'11"
120		2400,000	9.250.562,5715	535.738,0551	292,8909	182°44'11"
121		2420,000	9.250.563,5263	535.718,0779	292,8394	182°44'11"
121+8,912	PI49	2428,912	9.250.563,9518	535.709,1756	292,8165	189°09'52"
122		2440,000	9.250.566,9320	535.698,4961	292,8403	195°35'32"
123		2460,000	9.250.572,3078	535.679,2321	292,8833	195°35'32"
124		2480,000	9.250.577,6836	535.659,9681	292,9263	195°35'32"
125		2500,000	9.250.583,0594	535.640,7041	292,9693	195°35'32"
125+14,995	PI50	2514,995	9.250.587,0899	535.626,2610	293,0015	201°49'03"
126		2520,000	9.250.589,4429	535.621,8436	293,0528	208°02'35"
127		2540,000	9.250.598,8456	535.604,1917	293,2578	208°02'35"
128		2560,000	9.250.608,2483	535.586,5398	293,4628	208°02'35"
128+15,407	PI51	2575,407	9.250.615,4917	535.572,9414	293,6207	214°57'15"
129		2580,000	9.250.618,5568	535.569,5211	293,7573	221°51'55"
130		2600,000	9.250.631,9045	535.554,6268	294,3520	221°51'55"
130+10,544	PI52	2610,544	9.250.638,9418	535.546,7743	294,6655	221°54'07"
131		2620,000	9.250.645,2611	535.539,7406	295,3047	221°56'18"
132		2640,000	9.250.658,6277	535.524,8633	296,6566	221°56'18"
132+14,689	PI53	2654,689	9.250.668,4451	535.513,9364	297,6496	219°00'35"
133		2660,000	9.250.671,5727	535.509,6444	297,5105	216°04'53"
134		2680,000	9.250.683,3514	535.493,4808	296,9867	216°04'53"
134+14,039	PI54	2694,039	9.250.691,6193	535.482,1348	296,6190	217°44'14"
135		2700,000	9.250.695,4024	535.477,5280	296,7269	219°23'35"
135+18,593	PI55	2718,593	9.250.707,2019	535.463,1595	297,0634	239°04'26"
136		2720,000	9.250.708,5824	535.462,8850	297,1385	258°45'16"



Estaca	Descrição	Progressiva	Norte	Este	Cota	Azimute
136+13,996	PI56	2733,996	9.250.722,3092	535.460,1557	297,8850	266°52'47"
137		2740,000	9.250.728,2908	535.460,6795	298,1597	275°00'17"
137+16,770	PI57	2756,770	9.250.744,9967	535.462,1425	298,9268	273°25'48"
138		2760,000	9.250.748,2252	535.462,2471	298,9078	271°51'18"
139		2780,000	9.250.768,2147	535.462,8945	298,7901	271°51'18"
139+16,036	PI58	2796,036	9.250.784,2419	535.463,4136	298,6958	268°52'08"
140		2800,000	9.250.788,1960	535.463,1289	298,6136	265°52'57"
141		2820,000	9.250.808,1444	535.461,6929	298,1987	265°52'57"
141+10,691	PI59	2830,691	9.250.818,8077	535.460,9253	297,9770	265°00'30"
142		2840,000	9.250.828,0681	535.459,9739	297,9337	264°08'04"
143		2860,000	9.250.847,9634	535.457,9300	297,8408	264°08'04"
143+7,733	PI60	2867,733	9.250.855,6563	535.457,1397	297,8048	253°02'29"
144		2880,000	9.250.866,4818	535.451,3711	296,8967	241°56'54"
144+10,298	PI61	2890,298	9.250.875,5698	535.446,5284	296,1344	231°13'40"
145		2900,000	9.250.881,8719	535.439,1515	295,6806	220°30'27"
146		2920,000	9.250.894,8628	535.423,9451	294,7451	220°30'27"
146+6,482	PI62	2926,482	9.250.899,0733	535.419,0166	294,4419	209°59'57"
147		2940,000	9.250.903,5836	535.406,2734	294,3613	199°29'27"
148		2960,000	9.250.910,2567	535.387,4195	294,2422	199°29'27"
149		2980,000	9.250.916,9298	535.368,5656	294,1230	199°29'27"
149+0,833	PI63	2980,833	9.250.917,2078	535.367,7800	294,1180	197°06'21"
150		3000,000	9.250.922,0762	535.349,2424	294,1240	194°43'15"
151		3020,000	9.250.927,1604	535.329,8989	294,1316	194°43'15"
152		3040,000	9.250.932,2426	535.310,5554	294,1385	194°43'15"
153		3060,000	9.250.937,3248	535.291,2119	294,1454	194°43'15"
153+13,302	PI64	3073,302	9.250.940,7050	535.278,3462	294,1500	194°29'57"
154		3080,000	9.250.942,3568	535.271,8554	294,2069	194°16'39"
155		3100,000	9.250.947,2891	535.252,4732	294,3769	194°16'39"
155+9,360	PI65	3109,360	9.250.949,5974	535.243,4026	294,4565	183°00'47"
156		3120,000	9.250.948,0703	535.232,8724	294,7012	171°44'54"
157		3140,000	9.250.945,1999	535.213,0795	295,1610	171°44'54"
158		3160,000	9.250.942,3295	535.193,2865	295,6209	171°44'54"
158+2,402	PI66	3162,402	9.250.941,9848	535.190,9099	295,6761	173°35'14"
159		3180,000	9.250.940,5814	535.173,3674	298,2645	175°25'33"
159+12,054	PI67	3192,054	9.250.939,6201	535.161,3522	300,0373	181°25'14"
160		3200,000	9.250.940,6456	535.153,4723	300,7527	187°24'54"
161		3220,000	9.250.943,2268	535.133,6395	302,5532	187°24'54"
161+15,469	PI68	3235,469	9.250.945,2231	535.118,3003	303,9457	196°06'49"
162		3240,000	9.250.947,1247	535.114,1672	304,4631	204°48'43"
163		3260,000	9.250.955,5175	535.096,0334	306,4220	204°48'43"
163+6,770	PI69	3266,770	9.250.958,3584	535.089,8884	307,1054	209°08'58"
164		3280,000	9.250.965,6580	535.078,8543	307,9763	213°29'13"
164+15,464	PI70	3295,464	9.250.974,1902	535.065,9572	308,9943	219°06'46"
165		3300,000	9.250.977,3830	535.062,7351	309,1422	224°44'20"
166		3320,000	9.250.991,4605	535.048,5287	309,7946	224°44'20"
166+9,908	PI71	3329,908	9.250.998,4343	535.041,4911	310,1177	239°12'43"
167		3340,000	9.251.008,1203	535.038,6560	310,4170	253°41'07"
167+5,778	PI72	3345,778	9.251.013,6660	535.037,0328	310,5884	259°46'41"



Estaca	Descrição	Progressiva	Norte	Este	Cota	Acumula
168		3360,000	9.251.027,8507	535.036,0088	311,2038	265°52'15"
169		3380,000	9.251.047,7988	535.034,5687	312,0692	265°52'15"
169+10,321	PI73	3390,321	9.251.058,0934	535.033,8255	312,5158	268°52'10"
170		3400,000	9.251.067,7668	535.034,1410	313,0428	271°52'05"
171		3420,000	9.251.087,7562	535.034,7930	314,1319	271°52'05"
171+12,281	PI74	3432,281	9.251.100,0310	535.035,1934	314,8006	265°20'59"
172		3440,000	9.251.107,6035	535.033,6983	314,9049	258°49'52"
172+9,451	PI75	3449,451	9.251.116,8750	535.031,8677	315,0327	254°41'01"
173		3460,000	9.251.126,8216	535.028,3524	314,1976	250°32'09"
174		3480,000	9.251.145,6786	535.021,6881	312,6144	250°32'09"
174+2,130	PI76	3482,130	9.251.147,6865	535.020,9785	312,4458	238°27'07"
175		3500,000	9.251.160,6208	535.008,6475	311,4656	226°22'04"
175+18,392	PI77	3518,392	9.251.173,9326	534.995,9566	310,4568	215°40'41"
176		3520,000	9.251.174,6119	534.994,4990	310,4125	204°59'19"
177		3540,000	9.251.183,0607	534.976,3712	309,8613	204°59'19"
178		3560,000	9.251.191,5094	534.958,2433	309,3101	204°59'19"
178+4,916	PI78	3564,916	9.251.193,5861	534.953,7875	309,1746	200°32'17"
179		3580,000	9.251.197,7660	534.939,2942	308,4952	196°05'16"
180		3600,000	9.251.203,3082	534.920,0774	307,5943	196°05'16"
180+14,863	PI79	3614,863	9.251.207,4267	534.905,7969	306,9248	193°33'31"
181		3620,000	9.251.208,4096	534.900,7544	306,7071	191°01'47"
182		3640,000	9.251.212,2358	534.881,1238	305,8590	191°01'47"
183		3660,000	9.251.216,0623	534.861,4932	305,0122	191°01'47"
184		3680,000	9.251.219,8886	534.841,8627	304,1647	191°01'47"
184+6,587	PI80	3686,587	9.251.221,1488	534.835,3973	303,8856	192°25'15"
185		3700,000	9.251.224,3510	534.822,3722	302,7995	193°48'44"
186		3720,000	9.251.229,1259	534.802,9505	301,1800	193°48'44"
186+16,084	PI81	3736,084	9.251.232,9657	534.787,3320	299,8776	193°41'14"
187		3740,000	9.251.233,8841	534.783,5248	299,3909	193°33'44"
188		3760,000	9.251.238,5742	534.764,0825	296,9055	193°33'44"
188+3,138	PI82	3763,138	9.251.239,3100	534.761,0322	296,5156	194°42'43"
189		3780,000	9.251.243,9186	534.744,8120	296,1117	195°51'41"
190		3800,000	9.251.249,3849	534.725,5735	295,6326	195°51'41"
191		3820,000	9.251.254,8511	534.706,3350	295,1535	195°51'41"
191+3,379	PI83	3823,379	9.251.255,7747	534.703,0845	295,0726	196°13'23"
192		3840,000	9.251.260,5187	534.687,1551	295,1871	196°35'04"
193		3860,000	9.251.266,2273	534.667,9871	295,3249	196°35'04"
194		3880,000	9.251.271,9358	534.648,8191	295,4627	196°35'04"
195		3900,000	9.251.277,6444	534.629,6511	295,6004	196°35'04"
196		3920,000	9.251.283,3529	534.610,4831	295,7382	196°35'04"
197		3940,000	9.251.289,0615	534.591,3151	295,8760	196°35'04"
197+19,293	PI84	3959,293	9.251.294,5682	534.572,8247	296,0089	195°52'43"
198		3960,000	9.251.294,7533	534.572,1423	296,0481	195°10'23"
199		3980,000	9.251.299,9880	534.552,8395	297,1567	195°10'23"
200		4000,000	9.251.305,2227	534.533,5367	298,2654	195°10'23"
200+1,514	PI85	4001,514	9.251.305,6188	534.532,0760	298,3493	193°21'43"
201		4020,000	9.251.309,3206	534.513,9639	299,3440	191°33'04"
202		4040,000	9.251.313,3254	534.494,3689	300,4202	191°33'04"



Estaca	Descrição	Progressiva	Norte	Este	Cota	Azimute
202+0,943	PI86	4040,943	9.251.313,5142	534.493,4452	300,4709	190°25'02"
203		4060,000	9.251.316,5884	534.474,6376	300,1542	189°17'00"
204		4080,000	9.251.319,8147	534.454,8996	299,8218	189°17'00"
204+3,812	PI87	4083,812	9.251.320,4296	534.451,1379	299,7584	187°48'32"
205		4100,000	9.251.322,2157	534.435,0483	299,3541	186°20'04"
205+16,041	PI88	4116,041	9.251.323,9855	534.419,1056	298,9535	179°20'30"
206		4120,000	9.251.323,4584	534.415,1815	298,7468	172°20'56"
207		4140,000	9.251.320,7955	534.395,3596	297,7029	172°20'56"
207+4,743	PI89	4144,743	9.251.320,1640	534.390,6584	297,4553	172°00'19"
208		4160,000	9.251.317,9515	534.375,5631	297,3024	171°39'42"
209		4180,000	9.251.315,0511	534.355,7745	297,1019	171°39'42"
210		4200,000	9.251.312,1508	534.335,9850	296,9014	171°39'42"
211		4220,000	9.251.309,2504	534.316,1973	296,7010	171°39'42"
211+0,007	PI90	4220,007	9.251.309,2494	534.316,1906	296,7009	168°20'52"
212		4240,000	9.251.304,0862	534.296,8756	297,9806	165°02'02"
212+0,802	PI91	4240,802	9.251.303,8791	534.296,1007	298,0319	167°11'14"
213		4260,000	9.251.300,3281	534.277,2341	299,0095	169°20'26"
214		4280,000	9.251.296,6287	534.257,5792	300,0280	169°20'26"
214+6,858	PI92	4286,858	9.251.295,3602	534.250,8399	300,3772	175°22'30"
215		4300,000	9.251.295,6835	534.237,7015	299,2340	181°24'34"
215+1,903	PI93	4301,903	9.251.295,7303	534.235,7989	299,0685	180°31'47"
216		4320,000	9.251.295,0198	534.217,7024	298,8337	179°39'00"
216+15,341	PI94	4335,341	9.251.295,5261	534.202,3617	298,6346	177°35'50"
217		4340,000	9.251.295,1641	534.197,7168	299,0443	175°32'39"
218		4360,000	9.251.293,6104	534.177,7772	300,8032	175°32'39"
218+16,262	PI95	4376,262	9.251.292,3470	534.161,5648	302,2333	171°54'22"
219		4380,000	9.251.291,5868	534.157,9045	302,4472	168°16'05"
219+17,713	PI96	4397,713	9.251.287,9851	534.140,5612	303,4606	166°23'02"
220		4400,000	9.251.287,3740	534.138,3577	303,4449	164°30'00"
221		4420,000	9.251.282,0293	534.119,0851	303,3079	164°30'00"
222		4440,000	9.251.276,6846	534.099,8125	303,1710	164°30'00"
222+7,614	PI97	4447,614	9.251.274,6498	534.092,4753	303,1188	172°59'42"
223		4460,000	9.251.274,9718	534.080,0936	302,9159	181°29'24"
224		4480,000	9.251.275,4919	534.060,1003	302,5884	181°29'24"
224+9,412	PI98	4489,412	9.251.275,7366	534.050,6920	302,4342	189°52'38"
225		4500,000	9.251.279,0551	534.040,6370	302,0211	198°15'52"
226		4520,000	9.251.285,3231	534.021,6446	301,2407	198°15'52"
227		4540,000	9.251.291,5912	534.002,6522	300,4603	198°15'52"
227+4,397	PI99	4544,397	9.251.292,9691	533.998,4771	300,2660	196°03'22"
228		4560,000	9.251.297,7513	533.983,6246	299,8504	197°50'51"
229		4580,000	9.251.303,8810	533.964,5870	299,2885	197°50'51"
229+1,723	PI100	4581,723	9.251.304,4091	533.962,9469	299,2401	194°48'16"
230		4600,000	9.251.308,1346	533.945,0537	298,0338	191°45'40"
231		4620,000	9.251.312,2112	533.925,4736	296,7139	191°45'40"
231+3,388	PI101	4623,388	9.251.312,9017	533.922,1572	296,4903	191°27'59"
232		4640,000	9.251.316,1203	533.905,8595	295,0137	191°10'18"
233		4660,000	9.251.319,9953	533.886,2384	293,2359	191°10'18"
233+11,569	PI102	4671,569	9.251.322,2368	533.874,8885	292,2076	189°57'54"



Estaca	Descrição	Progressiva	Norte	Este	Cota	Azimute
234		4680,000	9.251.323,5205	533.866,5560	292,0590	188°45'29"
235		4700,000	9.251.326,5658	533.846,7892	291,7065	188°45'29"
236		4720,000	9.251.329,6111	533.827,0224	291,3540	188°45'29"
236+17,009	PI103	4737,009	9.251.332,2009	533.810,2120	291,0542	186°30'41"
237		4740,000	9.251.332,4234	533.807,2290	291,0651	184°15'53"
238		4760,000	9.251.333,9107	533.787,2844	291,1376	184°15'53"
239		4780,000	9.251.335,3980	533.767,3397	291,2102	184°15'53"
239+6,785	PI104	4786,785	9.251.335,9026	533.760,5738	291,2348	174°16'30"
240		4800,000	9.251.332,3232	533.747,8525	291,5758	164°17'07"
240+11,197	PI105	4811,197	9.251.329,2906	533.737,0742	291,8648	154°26'17"
241		4820,000	9.251.324,1900	533.729,8993	292,7273	144°35'28"
241+14,822	PI106	4834,822	9.251.315,6020	533.717,9188	294,1704	135°40'34"
242		4840,000	9.251.311,4537	533.714,7199	294,4068	126°45'39"
242+19,803	PI107	4859,803	9.251.295,5884	533.702,8680	295,2767	128°20'06"
243		4860,000	9.251.295,4376	533.702,7419	295,2683	129°54'33"
244		4880,000	9.251.280,0963	533.689,9104	294,4106	129°54'33"
244+18,411	PI108	4898,411	9.251.265,9737	533.678,0982	293,6211	132°30'52"
245		4900,000	9.251.264,8527	533.676,9725	293,6014	135°07'11"
246		4920,000	9.251.250,7402	533.662,8008	293,3529	135°07'11"
246+18,446	PI109	4938,446	9.251.237,7241	533.649,7302	293,1237	131°08'46"
247		4940,000	9.251.236,4859	533.648,7913	292,9800	127°10'21"
248		4960,000	9.251.220,5435	533.636,7070	291,1303	127°10'21"
248+8,927	PI110	4968,927	9.251.213,4366	533.631,3134	290,3047	122°45'07"
249		4980,000	9.251.203,6896	533.626,0583	290,2051	118°19'53"
250		5000,000	9.251.186,0853	533.616,5669	290,0251	118°19'53"
251		5020,000	9.251.168,4809	533.607,0755	289,8452	118°19'53"
252		5040,000	9.251.150,8766	533.597,5841	289,6652	118°19'53"
253		5060,000	9.251.133,2722	533.588,0927	289,4853	118°19'53"
253+14,412	PI111	5074,412	9.251.120,5868	533.581,2533	289,3556	118°36'06"
254		5080,000	9.251.115,6931	533.578,5550	289,4143	118°52'19"
255		5100,000	9.251.098,1791	533.568,8979	289,6242	118°52'19"
256		5120,000	9.251.080,6650	533.559,2409	289,8341	118°52'19"
256+2,016	PI112	5122,016	9.251.078,8997	533.558,2675	289,8553	126°02'12"
257		5140,000	9.251.065,7902	533.545,9562	289,7936	133°12'06"
258		5160,000	9.251.051,2112	533.532,2648	289,7249	133°12'06"
259		5180,000	9.251.036,6322	533.518,5735	289,6562	133°12'06"
260		5200,000	9.251.022,0532	533.504,8822	289,5876	133°12'06"
261		5220,000	9.251.007,4742	533.491,1908	289,5189	133°12'06"
262		5240,000	9.250.992,8952	533.477,4995	289,4502	133°12'06"
262+0,706	PI113	5240,706	9.250.992,3804	533.477,0161	289,4478	137°58'44"
263		5260,000	9.250.980,7036	533.461,6569	289,3553	142°45'22"
263+6,425	PI114	5266,425	9.250.976,8149	533.456,5420	289,3245	146°16'21"
264		5280,000	9.250.969,9843	533.444,8110	289,3005	149°47'20"
265		5300,000	9.250.959,9205	533.427,5275	289,2650	149°47'20"
265+2,456	PI115	5302,456	9.250.958,6849	533.425,4054	289,2607	153°00'34"
266		5320,000	9.250.951,6133	533.409,3493	289,3675	156°13'48"
267		5340,000	9.250.943,5520	533.391,0459	289,4892	156°13'48"
268		5360,000	9.250.935,4907	533.372,7425	289,6109	156°13'48"



Estaca	Descrição	Progressivo	Norte	Este	Cota	Azimute
269		5380,000	9.250.927,4293	533.354,4391	289,7326	156°13'48"
270		5400,000	9.250.919,3680	533.336,1356	289,8543	156°13'48"
271		5420,000	9.250.911,3067	533.317,8322	289,9760	156°13'48"
272		5440,000	9.250.903,2453	533.299,5288	290,0977	156°13'48"
272+9,921	PI116	5449,921	9.250.899,2465	533.290,4494	290,1581	154°02'26"
273		5460,000	9.250.894,4916	533.281,5625	290,5391	151°51'04"
274		5480,000	9.250.885,0563	533.263,9280	291,2950	151°51'04"
275		5500,000	9.250.875,6210	533.246,2935	292,0510	151°51'04"
275+6,405	PI117	5506,405	9.250.872,5995	533.240,6464	292,2931	153°03'39"
276		5520,000	9.250.866,6975	533.228,3990	292,6790	154°16'15"
277		5540,000	9.250.858,0151	533.210,3819	293,2466	154°16'15"
278		5560,000	9.250.849,3327	533.192,3647	293,8143	154°16'15"
278+16,141	PI118	5576,141	9.250.842,3255	533.177,8238	294,2724	153°38'29"
279		5580,000	9.250.840,5744	533.174,3853	294,3881	153°00'44"
280		5600,000	9.250.831,4984	533.156,5632	294,9880	153°00'44"
281		5620,000	9.250.822,4223	533.138,7412	295,5878	153°00'44"
282		5640,000	9.250.813,3463	533.120,9191	296,1877	153°00'44"
282+6,342	PI119	5646,342	9.250.810,4683	533.115,2678	296,3779	153°32'18"
283		5660,000	9.250.804,4948	533.102,9853	297,4695	154°03'52"
283+11,193	PI120	5671,193	9.250.799,5993	533.092,9194	298,3641	148°38'08"
284		5680,000	9.250.794,3246	533.085,8669	298,6400	143°12'24"
284+10,173	PI121	5690,173	9.250.788,2310	533.077,7202	298,9588	120°23'17"
285		5700,000	9.250.778,4904	533.076,4258	298,9860	97°34'10"
285+8,316	PI122	5708,316	9.250.770,2474	533.075,3304	299,0090	95°34'42"
286		5720,000	9.250.758,5858	533.074,5993	299,2078	93°35'15"
287		5740,000	9.250.738,6250	533.073,3478	299,5480	93°35'15"
287+1,364	PI123	5741,364	9.250.737,2639	533.073,2625	299,5712	92°32'50"
288		5760,000	9.250.718,6341	533.072,7724	299,4864	91°30'25"
289		5780,000	9.250.698,6410	533.072,2464	299,3953	91°30'25"
290		5800,000	9.250.678,6479	533.071,7205	299,3043	91°30'25"
291		5820,000	9.250.658,6549	533.071,1945	299,2133	91°30'25"
291+5,970	PI124	5825,970	9.250.652,6870	533.071,0375	299,1861	93°52'57"
292		5840,000	9.250.638,7405	533.069,5081	299,4826	96°15'29"
293		5860,000	9.250.618,8597	533.067,3279	299,9053	96°15'29"
293+9,725	PI125	5869,725	9.250.609,1923	533.066,2678	300,1108	96°04'56"
294		5880,000	9.250.598,9722	533.065,2106	300,4871	95°54'22"
295		5900,000	9.250.579,0784	533.063,1526	301,2194	95°54'22"
295+2,285	PI126	5902,285	9.250.576,8059	533.062,9175	301,3031	95°54'27"
296		5920,000	9.250.559,1646	533.061,0937	301,6966	95°54'33"
297		5940,000	9.250.539,2909	533.059,0347	302,5666	95°54'33"
297+3,329	PI127	5943,329	9.250.535,9792	533.058,6919	302,6781	97°50'37"
298		5960,000	9.250.519,5508	533.055,8607	303,4825	99°46'40"
298+14,583	PI128	5974,583	9.250.505,1801	533.053,3842	304,1862	106°49'37"
299		5980,000	9.250.500,2262	533.051,1914	304,4068	113°52'33"
299+13,427	PI129	5993,427	9.250.487,9484	533.045,7569	304,9535	121°41'38"
300		6000,000	9.250.482,8772	533.041,5747	305,0320	129°30'44"
300+3,601	PI130	6003,601	9.250.480,0993	533.039,2838	305,0750	136°09'57"
301		6020,000	9.250.470,1887	533.026,2179	304,3645	142°49'09"



Estaca	Descrição	Progressiva	Norte	Este	Oeste	Azimuth
301+1,185	PI131	6021,185	9.250.469,4725	533.025,2737	304,3132	150°10'44"
302		6040,000	9.250.462,2840	533.007,8862	304,0202	157°32'18"
303		6060,000	9.250.454,6427	532.989,4035	303,7088	157°32'18"
303+11,420	PI132	6071,420	9.250.450,2797	532.978,8503	303,5310	158°33'01"
304		6080,000	9.250.447,2835	532.970,8100	303,5926	159°33'43"
305		6100,000	9.250.440,2996	532.952,0690	303,7362	159°33'43"
305+5,969	PI133	6105,969	9.250.438,2151	532.946,4753	303,7791	158°58'03"
306		6120,000	9.250.433,0439	532.933,4325	302,7060	158°22'22"
306+16,194	PI134	6136,194	9.250.427,0755	532.918,3787	301,4674	160°24'40"
307		6140,000	9.250.425,9277	532.914,7497	300,9292	162°26'57"
308		6160,000	9.250.419,8967	532.895,6807	298,1010	162°26'57"
308+6,413	PI135	6166,413	9.250.417,9629	532.889,5664	297,1942	164°25'30"
309		6180,000	9.250.414,7682	532.876,3601	296,8025	166°24'04"
310		6200,000	9.250.410,0658	532.856,9208	296,2260	166°24'04"
311		6220,000	9.250.405,3633	532.837,4815	295,6495	166°24'04"
311+9,482	PI136	6229,482	9.250.403,1339	532.828,2655	295,3762	167°09'36"
312		6240,000	9.250.400,9325	532.817,9802	295,4422	167°55'08"
313		6260,000	9.250.396,7466	532.798,4232	295,5676	167°55'08"
314		6280,000	9.250.392,5607	532.778,8661	295,6930	167°55'08"
314+9,320	PI137	6289,320	9.250.390,6100	532.769,7524	295,7514	167°12'49"
315		6300,000	9.250.388,1183	532.759,3673	296,1097	166°30'29"
315+14,770	PI138	6314,770	9.250.384,0723	532.745,0040	296,0050	168°15'39"
316		6320,000	9.250.383,4083	532.739,9299	297,1373	166°00'50"
317		6340,000	9.250.378,5746	532.720,5229	299,1716	166°00'50"
318		6360,000	9.250.373,7408	532.701,1158	301,2059	166°00'50"
318+1,186	PI139	6361,186	9.250.373,4541	532.699,9648	301,3266	162°34'17"
319		6380,000	9.250.366,7514	532.682,3854	303,4236	159°07'45"
319+3,024	PI140	6383,024	9.250.365,6739	532.679,5594	303,7607	156°31'24"
320		6400,000	9.250.358,2104	532.664,3126	304,7515	153°55'03"
321		6420,000	9.250.349,4171	532.646,3494	305,9189	153°55'03"
321+18,671	PI141	6438,671	9.250.341,2082	532.629,5799	307,0087	155°31'46"
322		6440,000	9.250.340,6919	532.628,3551	307,0068	157°08'28"
323		6460,000	9.250.332,9226	532.609,9258	306,9775	157°08'28"
324		6480,000	9.250.325,1534	532.591,4966	306,9482	157°08'28"
324+5,990	PI142	6485,990	9.250.322,8263	532.585,9765	306,9394	155°39'47"
325		6500,000	9.250.316,7257	532.573,3651	306,9948	154°11'07"
326		6520,000	9.250.308,0164	532.555,3610	307,0739	154°11'07"
327		6540,000	9.250.299,3071	532.537,3568	307,1530	154°11'07"
327+1,265	PI143	6541,265	9.250.299,7564	532.536,2183	307,1560	163°44'27"
328		6560,000	9.250.296,5694	532.517,6111	307,3478	173°17'47"
328+8,512	PI144	6568,512	9.250.295,5757	532.509,1568	307,4341	182°59'06"
329		6580,000	9.250.298,0960	532.497,9492	307,5924	192°40'24"
329+11,183	PI145	6591,183	9.250.300,5495	532.487,0384	307,7466	198°27'49"
330		6600,000	9.250.304,1713	532.478,9999	307,9032	204°15'15"
331		6620,000	9.250.312,3870	532.460,7652	308,2584	204°15'15"
332		6640,000	9.250.320,6026	532.442,5306	308,6135	204°15'15"
332+9,209	PI146	6649,209	9.250.324,3857	532.434,1341	308,7771	202°32'06"
333		6660,000	9.250.328,2203	532.424,0478	309,0002	200°48'57"

char *Pointer Informática

Data: 30/03/20 H

Traçado Horizontal: TRAÇADO BANANEIRA

Projeto: COMUNIDADE DE BANANEIRA



Estaca	Designação	Progressiva	Nom	Este	Cois	Azimuth
334		6680,000	9.250.335,3277	532.405,3533	309,4136	200°48'57"
334+18,282	PI147	6698,282	9.250.341,8246	532.388,2642	309,7916	196°10'55"
335		6700,000	9.250.342,1684	532.386,5814	309,8157	191°32'53"
335+19,849	PI148	6719,849	9.250.346,1419	532.367,1346	310,0938	187°56'03"
336		6720,000	9.250.346,1533	532.366,9836	310,0916	184°19'13"
337		6740,000	9.250.347,6600	532.347,0404	309,7078	184°19'13"
337+15,367	PI149	6755,367	9.250.348,8176	532.331,7175	309,4134	184°19'13"

Richardson Jorge Dantas
Richardson Jorge Dantas
 Engenheiro Civil
 CREA-CE 53913



IMAGEM GOOGLE MAPS



LEGENDA DE CURVAS

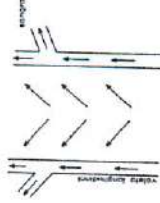
- CURVA PRIMÁRIA
- CURVA MESTRA
- TRAÇADO

Richardson Jorge Dantas
 Engenheiro Civil
 CREA-CE 53913

NO. EMPREITA	PROPOSTA
OBRA: EMPREITAMENTO DE TERRENO PARA OBRAS	
ENDEREÇO: COM. UNIDADE BANANEIRA - ZONA RURAL	
TRECHO	DESCRIÇÃO DA OBRA
Colônias km 0,246	• Zona Rural • Zona Urbana
6.246	9.250.000,00
6.246	9.250.000,00
6.246	9.250.000,00
6.246	9.250.000,00



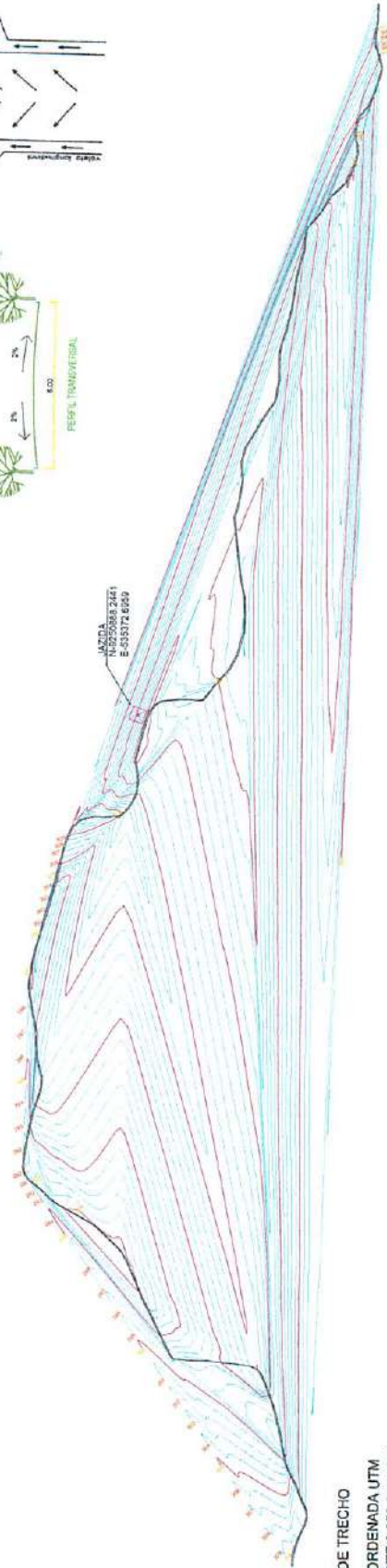
DETALHE DE VALETA E SANGRIA



DETALHE DE TRANSVERSAL DE CORTE



ALZADA
 N=225068,7451
 E=433374,6599



FIM DE TRECHO
 COORDENADA UTM
 NORTE 9.250.348,8176
 LESTE 532.331,7175

INICIO DE TRECHO
 COORDENADA UTM
 NORTE 9.250.100,1000
 LESTE 638.002,2432

6/2023
 Jorginho Barreto
 HANC/CP/2023
 Jm03

PERFIL TRANSVERSAL COMPLETO



IMAGEM GOOGLE MAPS



LEGENDA DE CURVAS

- █ CURVA PRIMÁRIA
- █ CURVA MESTRA
- █ TRAÇADO

Richardson Jorge Dantas
 Engenheiro Civil
 CREA-CE 52913

DO: RESPONSÁVEL

PROFESSOR

OBRA:

PREFEITURA MUNICIPAL DE BANNIERA

ENDEREÇO: COMUNIDADE BANNIERA - ZONA RURAL

TÍTULO: DESENVOLVIMENTO DE OBRAS

Quilômetros km: Direção: para: 0,725

0,725 38

DATA: 14/05/2023

ASSINATURA: Jorginho Severo

PROFESSOR

