Relatório de Alinhamento Horizontal por Estaca

Alinhamento: ESTRADA MUNICIPAL

Estaca	Norte	Este
0+0,000	6990008,3724081	438537,6134740
0+6,617 TC	6990009,5350152	438531,0992985
1+0,000	6990011,6655378	438517,8877155
2+0,000	6990014,0229301	438498,0292318
2+8,701 CT	6990014,7379951	438489,3583291
3+0,000	6990015,5441539	438478,0876323
3+4,996 TC	6990015,9006155	438473,1040347
4+0,000	6990022,2284770	438459,8863512
4+16,354 CT	6990037,2185314	438454,5778296
5+0,000	6990040,8558801	438454,8273698
5+16,176 TS	6990056,9940295	438455,9345268
6+0,000	6990060,8082454	438456,2065798
6+6,176 SC	6990066,9548283	438456,8034665
7+0,000	6990080,4875283	438459,5586965
7+13,919 CS	6990093,5253437	438464,3915511
8+0,000	6990098,9756302	438467,0880232
8+14,204 SC	6990111,5928373	438473,6095564
9+0,000	6990116,9019453	438475,9321860
10+0,000	6990136,0559577	438481,5763273
11+0,000	6990155,9408252	438483,3996674
12+0,000	6990175,8018785	438481,3330070
12+1,566 CS	6990177,3340838	438481,0082160
13+0,000	6990194,9245355	438475,5635515
14+0,000	6990212,9438506	438466,9193770
15+0,000	6990229,9127393	438456,3458774
16+0,000	6990246,1556093	438444,6794682
16+9,615 ST	6990253,8428914	438438,9041238
17+0,000	6990262,1350658	438432,6521564
17+10,849 TC	6990270,7981591	438426,1205311
18+0,000	6990277,9573397	438420,4232519
19+0,000	6990292,5085125	438406,7182095
20+0,000	6990305,4018774	438391,4431986
21+0,000	6990316,4692146	438374,7975126
22+0,000	6990325,5661282	438356,9983278
22+2,010 CT	6990326,3666820	438355,1543476
23+0,000	6990333,4359014	438338,6117829
24+0,000	6990341,2950746	438320,2206602
24+2,446 TC	6990342,2561523	438317,9716580
25+0,000	6990350,6798468	438302,6022904
25+15,830 CT	6990360,7047430	438290,3773476

26+0,000	6990363,6218228	438287,3976794
26+10,489 TC	6990370,9594514	438279,9026159
27+0,000	6990377,4896854	438272,9883130
28+0,000	6990390,3886775	438257,7100220
28+0,451 CT	6990390,6662593	438257,3542536
29+0,000	6990402,6784595	438241,9315161
30+0,000	6990414,9679385	438226,1527739
31+0,000	6990427,2574175	438210,3740317
31+19,776 TS	6990439,4092199	438194,7720557
32+0,000	6990439,5468949	438194,5952882
32+11,026 SC	6990446,1106879	438185,7389379
33+0,000	6990450,6860901	438178,0243436
34+0,000	6990457,6054188	438159,3148836
34+11,665 CS	6990459,4199486	438147,8019685
35+0,000	6990459,7880351	438139,4769928
35+12,915 SC	6990459,9713490	438126,5629383
36+0,000	6990460,0987423	438119,4794510
37+0,000	6990460,6131042	438099,4861752
38+0,000	6990461,3559221	438079,5000834
38+13,335 CS	6990461,9780877	438066,1797136
39+0,000	6990462,3242832	438059,5236366
39+3,335 ST	6990462,5017344	438056,1934370
40+0,000	6990463,3902452	438039,5520637
41+0,000	6990464,4565599	438019,5805096
41+13,502 TC	6990465,1764100	438006,0980692
42+0,000	6990465,4174016	437999,6044691
43+0,000	6990464,8347119	437979,6212949
43+17,996 CT	6990462,6071319	437961,7696423
44+0,000	6990462,2698342	437959,7944025
45+0,000	6990458,9033062	437940,0797762
45+7,019 TS	6990457,7218077	437933,1608375
45+17,019 SC	6990455,9073973	437923,3275424
46+0,000	6990455,2538209	437920,4192388
47+0,000	6990449,1025044	437901,4111169
47+12,226 CS	6990443,8762758	437890,3639301
48+0,000	6990440,0554591	437883,5941198
48+12,226 SC	6990434,0128054	437872,9674374
49+0,000	6990430,6888833	437865,9419441
50+0,000	6990424,7302641	437846,8851001
50+5,262 CS	6990423,8052050	437841,7055411
50+15,262 ST	6990422,6371052	437831,7751171
51+0,000	6990422,1621080	437827,0611122
51+4,924 TS	6990421,6684743	437822,1621538
51+14,924 SC	6990420,6087704	437812,2185938
52+0,000	6990419,9687615	437807,1829324
52+15,565 CS	6990417,4585505	437791,8240756
53+0,000	6990416,5933876	437787,4738159

54+0,000	6990411,9908000	437768,0130932
55+0,000	6990406,5522004	437748,7676800
56+0,000	6990400,6901846	437729,6461709
56+18,041 SC	6990396,2359524	437712,1862473
57+0,000	6990396,0022717	437710,2410414
58+0,000	6990397,7806287	437690,4414632
58+6,957 CS	6990400,1404795	437683,9019049
59+0,000	6990406,6905256	437672,6537804
60+0,000	6990420,3987796	437658,1499889
61+0,000	6990436,2722747	437645,9954726
61+3,957 ST	6990439,5017554	437643,7082211
62+0,000	6990452,6015546	437634,4475498
62+14,909 TC	6990464,7753003	437625,8415356
63+0,000	6990468,9113053	437622,8723081
64+0,000	6990484,7275946	437610,6356354
65+0,000	6990499,8192105	437597,5156392
66+0,000	6990514,1368876	437583,5551488
67+0,000	6990527,6338869	437568,7997371
67+1,940 CT	6990528,8976235	437567,3281110
68+0,000	6990540,6256186	437553,5939967
68+1,876 TS	6990541,8441839	437552,1669911
68+11,876 SC	6990548,3506672	437544,5732139
69+0,000	6990553,6816752	437538,4436732
70+0,000	6990567,0172908	437523,5390422
71+0,000	6990580,6483121	437508,9040866
71+10,962 CS	6990588,2427125	437500,9993271
72+0,000	6990594,5605079	437494,5360376
72+12,212 SC	6990602,9207348	437485,6383590
73+0,000	6990607,6746375	437479,4732656
73+0,011 CS	6990607,6811762	437479,4638726
73+11,261 ST	6990613,6668878	437469,9413651
74+0,000	6990618,1427213	437462,4360828
75+0,000	6990628,3865965	437445,2586843
75+14,762 TC	6990635,9476207	437432,5800130
76+0,000	6990638,5740913	437428,0482952
77+0,000	6990647,5422920	437410,1801917
78+0,000	6990654,7706986	437391,5402376
79+0,000	6990660,1937967	437372,2973752
79+2,259 CT	6990660,6905581	437370,0935272
80+0,000	6990664,4984372	437352,7661572
80+6,329 TC	6990665,8569924	437346,5841888
81+0,000	6990668,4456025	437333,1625428
81+16,793 CT	6990670,6729946	437316,5204153
81+17,913 TC	6990670,7862942	437315,4065002
82+0,000	6990671,0110151	437313,3316447
83+0,000	6990674,5284603	437293,6566093
83+8,246 CT	6990676,6894400	437285,6993607

84+0,000	6990680,0610908	437274,4397121
85+0,000	6990685,7983005	437255,2802647
85+1,522 TC	6990686,2347978	437253,8225795
86+0,000	6990693,9636515	437237,1066776
86+3,859 CT	6990696,1580936	437233,9326761
87+0,000	6990705,7272498	437220,9344732
87+5,544 TC	6990709,0142605	437216,4695830
88+0,000	6990716,7146684	437204,2504896
89+0,000	6990724,3066529	437185,7834862
89+2,817 CT	6990725,0742296	437183,0729961
89+14,578 TC	6990728,1189243	437171,7135262
90+0,000	6990729,6887959	437166,5243129
91+0,000	6990738,2477668	437148,4992754
91+5,169 CT	6990741,1289363	437144,2088765
92+0,000	6990749,7677503	437132,1534113
92+9,349 TC	6990755,2134725	437124,5539060
93+0,000	6990761,5624616	437116,0029923
93+19,564 CT	6990773,9630754	437100,8747909
94+0,000	6990774,2496317	437100,5465461
95+0,000	6990787,4026125	437085,4800570
96+0,000	6990800,5555933	437070,4135678
96+19,216 TC	6990813,1931723	437055,9374616
97+0,000	6990813,7061959	437055,3450136
98+0,000	6990825,0958266	437038,9475842
98+9,613 CT	6990829,3205681	437030,3172670
98+19,637 TC	6990833,2788115	437021,1079085
99+0,000	6990833,4226975	437020,7743769
100+0,000	6990842,6976511	437003,0756714
100+9,888 CT	6990848,2254456	436994,8800804
101+0,000	6990854,1831492	436986,7092152
101+0,518 TC	6990854,4883157	436986,2906858
102+0,000	6990865,3886677	436970,1485932
102+10,683 CT	6990870,8631105	436960,9759017
103+0,000	6990875,4788365	436952,8823930
103+9,109 TC	6990879,9916410	436944,9693535
104+0,000	6990885,7623552	436935,7368454
105+0,000	6990898,2182718	436920,1125349
105+8,338 CT	6990904,0696071	436914,1739318
106+0,000	6990912,5070086	436906,1237440
107+0,000	6990926,9772845	436892,3175456
107+19,727 TS	6990941,2501670	436878,6996818
108+0,000	6990941,4475616	436878,5113484
108+9,727 SC	6990948,5423760	436871,8573041
108+17,879 CS	6990954,6893964	436866,5035000
109+0,000	6990956,3232579	436865,1516344
109+17,879 SC	6990970,2468349	436853,9359272
110+0,000	6990971,8667822	436852,5674221

111+0,000	6990986,4020170	436838,8417627
111+11,950 CS	6990994,4068924	436829,9715113
112+0,000	6990999,5281872	436823,7608715
112+1,950 ST	6991000,7537162	436822,2441397
112+4,507 TS	6991002,3600139	436820,2548739
112+19,507 SC	6991011,2831559	436808,2105714
113+0,000	6991011,5410180	436807,7901547
113+11,219 CS	6991016,4396028	436797,7157302
114+0,000	6991018,9399016	436789,3049649
115+0,000	6991020,7677289	436769,4387480
116+0,000	6991018,6668705	436749,5683062
117+0,000	6991014,5422558	436730,0009491
118+0,000	6991010,1280663	436710,4944185
118+3,857 SC	6991009,3350316	436706,7193638
119+0,000	6991006,3644421	436690,8533887
119+17,979 CS	6991003,7281037	436673,0698886
120+0,000	6991003,4759347	436671,0647318
120+7,979 ST	6991002,5330703	436663,1416059
121+0,000	6991001,1407311	436651,2015603
121+11,131 TS	6990999,8514930	436640,1456609
122+0,000	6990998,8819966	436631,3297768
122+1,131 SC	6990998,7760738	436630,2039347
122+19,123 CS	6990997,9470972	436612,2367524
123+0,000	6990997,9479768	436611,3599313
123+19,123 SC	6990998,2806404	436592,2399716
124+0,000	6990998,2842346	436591,3631571
124+10,388 CS	6990998,1140882	436580,9776018
125+0,000	6990997,6610822	436571,3759884
125+0,388 ST	6990997,6403802	436570,9889751
126+0,000	6990996,5925982	436551,4045502
126+5,084 TC	6990996,3209791	436546,3276326
127+0,000	6990994,4183001	436531,5475998
127+17,449 CT	6990989,4375600	436514,8478220
128+0,000	6990988,4981658	436512,4759130
128+11,661 TC	6990984,2044573	436501,6345797
129+0,000	6990981,0541105	436493,9133205
130+0,000	6990972,8563161	436475,6728467
130+1,872 CT	6990972,0432130	436473,9869317
131+0,000	6990964,1304449	436457,6767659
132+0,000	6990955,4006793	436439,6825671
132+8,105 TC	6990951,8630716	436432,3906855
133+0,000	6990946,5441022	436421,7511371
134+0,000	6990937,0356146	436404,1575209
135+0,000	6990926,8311757	436386,9582158
135+6,480 CT	6990923,3780957	436381,4744145
136+0,000	6990916,1002485	436370,0809616
136+2,585 TC	6990914,7086489	436367,9024156

137+0,000	6990903,8165848	436354,3581618
138+0,000	6990888,0537748	436342,1329901
138+0,280 CT	6990887,8125333	436341,9906960
139+0,000	6990870,8096774	436332,0017967
140+0,000	6990853,5653310	436321,8710258
141+0,000	6990836,3209847	436311,7402548
141+10,060 TC	6990827,6469433	436306,6443976
142+0,000	6990819,3275707	436301,2116488
143+0,000	6990804,3282572	436288,0278449
143+0,118 CT	6990804,2476866	436287,9420369
143+12,339 TS	6990795,8871756	436279,0280402
144+0,000	6990790,7075048	436273,3837524
144+9,815 SC	6990784,6858189	436265,6433450
145+0,000	6990779,9467190	436256,6463949
146+0,000	6990776,1590403	436237,1361023
147+0,000	6990780,0412038	436217,6443904
147+0,776 CS	6990780,3420365	436216,9294732
147+18,251 ST	6990788,9984923	436201,7740705
148+0,000	6990789,9501929	436200,3071086
148+11,860 TC	6990796,4050425	436190,3575313
149+0,000	6990800,5662821	436183,3639056
150+0,000	6990808,3932168	436164,9918839
150+2,124 CT	6990809,0154686	436162,9615423
150+10,625 TC	6990811,4241651	436154,8088515
151+0,000	6990814,4602895	436145,9417356
151+18,279 CT	6990822,4935480	436129,5463039
152+0,000	6990823,3765657	436128,0687747
152+8,713 TC	6990827,8461316	436120,5899732
153+0,000	6990832,7683624	436110,4481251
154+0,000	6990836,9440745	436090,9694816
155+0,000	6990835,0243698	436071,1409956
155+1,080 CT	6990834,7480420	436070,0966674
155+11,075 TC	6990832,1111495	436060,4557349
156+0,000	6990829,6530501	436051,8764672
157+0,000	6990823,3980245	436032,8823295
157+1,674 CT	6990822,8282079	436031,3087028
158+0,000	6990816,5496640	436014,0913810
158+4,705 TC	6990814,9376951	436009,6709629
159+0,000	6990810,7872558	435994,9647664
159+15,001 CT	6990808,8846926	435980,0982116
160+0,000	6990808,6143504	435975,1067133
160+5,098 TC	6990808,3386360	435970,0160263
161+0,000	6990807,8935229	435955,1222822
162+0,000	6990808,4308427	435935,1330277
163+0,000	6990810,2662240	435915,2209614
163+0,390 CT	6990810,3148742	435914,8340046
164+0,000	6990812,7734277	435895,3787355

165+0,000	6990815,2808767	435875,5365406
165+5,121 TS	6990815,9228475	435870,4564340
165+15,121 SC	6990817,0819885	435860,5242069
166+0,000	6990817,4874342	435855,6617480
167+0,000	6990817,7294194	435835,6740953
167+5,224 CS	6990817,4163873	435830,4598412
168+0,000	6990815,9896045	435815,7532095
168+5,224 SC	6990815,4861596	435810,5537094
169+0,000	6990814,4049231	435795,8179595
169+15,805 CS	6990813,8368938	435780,0240356
170+0,000	6990813,7854045	435775,8294769
170+5,805 ST	6990813,7514460	435770,0244667
170+7,696	6990813,7429755	435768,1336945

Alinhamento: LIMPA RODAS (1)

Estaca	Norte	Este
0+0,000	6990008,1361668	438460,4957950
0+5,040 TC	6990011,5099178	438464,2394971
0+7,323 CT	6990013,3666606	438465,5343977
0+11,539	6990017,2810661	438467,1007406

Alinhamento: LIMPA RODAS (2)

Estaca	Norte	Este
0+0,000	6990136,4575532	438504,9433979
0+14,777 TC	6990126,4645782	438494,0578341
1+0,000	6990124,0730208	438489,4810207
1+5,119 CT	6990124,2530635	438484,4213951
1+10,698	6990125,8564109	438479,0776502

Alinhamento: LIMPA RODAS (3)

Estaca	Norte	Este
0+0,000	6991029,5786162	436604,6461667
0+16,437 TC	6991014,9930836	436612,2247655
1+0,000	6991011,7251747	436613,6371072
1+8,027 CT	6991003,8560025	436615,0376496
1+13,913	6990997,9712706	436615,1293918

Alinhamento: LIMPA RODAS (4)

Estaca	Norte	Este
0+0,000	6990890,6371432	436370,8316462
1+0,000	6990909,6682333	436376,9812487
1+2,936 TC	6990912,4616671	436377,8839036
1+7,341 CT	6990916,6906718	436377,3398310
1+10,751	6990919,5644381	436375,5041423

TABELA DE CURVAS										
CURVAS	AC	R (m)	T (m)	D (m)	TC	CT	PONTO	TC	PI	CT
C1	6°01'40,81"	400,000	21,061	42,083	0+6,617	2+8,701	N E	6990009,5350 438531,0993	6990013,2354 438510,3658	6990014,7380 438489,3583
C2	89°50'00,24"	20,000	19,942	31,358	3+4,996	4+16,354	N E	6990015,9006 438473,1040	6990017,3234 438453,2129	6990037,2185 438454,5778
C3	17°39'41,12"	90,000	13,982	27,742	6+6,176	7+13,919	N E	6990066,9548 438456,8035	6990216,7209 438466,8926	6990093,5253 438464,3916
C4	37°39'15,16"	102,500	34,948	67,362	8+14,204	12+1,566	N E	6990111,5928 438473,6096	6990216,7209 438466,8926	6990177,3341 438481,0082
C5	29°50'47,21"	175,000	46,640	91,161	17+10,849	22+2,010	N E	6990270,7982 438426,1205	6990308,0391 438398,0423	6990326,3667 438355,1543
C6	21°15'11,38"	90,000	16,886	33,384	24+2,446	25+15,830	N E	6990342,2562 438317,9717	6990348,8918 438302,4438	6990360,7047 438290,3773
C7	6°28'41,43"	265,000	14,997	29,962	26+10,489	28+0,451	N E	6990370,9595 438279,9026	6990381,4509 438269,1861	6990390,6663 438257,3543
C8	29°06'21,02"	80,000	20,768	40,639	32+11,026	34+11,665	N E	6990446,1107 438185,7389	6990456,2578 438173,1398	6990459,4199 438147,8020
C9	1°58'41,39"	1750,000	30,213	60,420	35+12,915	38+13,335	N E	6990459,9713 438126,5629	6990456,2578 438173,1398	6990461,9781 438066,1797
C10	12°44'48,27"	200,000	22,339	44,495	41+13,502	43+17,996	N E	6990465,1764 438006,0981	6990466,3675 437983,7904	6990462,6071 437961,7696
C11	16°08'15,42"	125,000	17,721	35,207	45+17,019	47+12,226	N E	6990455,9074 437923,3275	6990397,0551 437577,8925	6990443,8763 437890,3639
C12	18°55'42,08"	100,000	16,670	33,036	48+12,226	50+5,262	N E	6990434,0128 437872,9674	6990397,0551 437577,8925	6990423,8052 437841,7055
C13	4°04'40,89"	290,000	10,325	20,641	51+14,924	52+15,565	N E	6990420,6088 437812,2186	6990406,0685 437667,3433	6990417,4586 437791,8241
C14	31°33'29,53"	52,500	14,835	28,917	56+18,041	58+6,957	N E	6990396,2360 437712,1862	6990406,0685 437667,3433	6990400,1405 437683,9019
C15	14°14'49,96"	350,000	43,741	87,031	62+14,909	67+1,940	N E	6990464,7753 437625,8415	6990500,4928 437600,5917	6990528,8976 437567,3281
C16	3°23'07,22"	1000,000	29,551	59,085	68+11,876	71+10,962	N E	6990548,3507 437544,5732	6990617,3890 437463,6999	6990588,2427 437500,9993
C17	5°35'09,87"	80,000	3,903	7,800	72+12,212	73+0,011	N E	6990602,9207 437485,6384	6990617,3890 437463,6999	6990607,6812 437479,4639
C18	18°24'56,57"	210,000	34,042	67,497	75+14,762	79+2,259	N E	6990635,9476 437432,5800	6990653,3838 437403,3423	6990660,6906 437370,0935
C19	6°35'11,77"	265,000	15,249	30,464	80+6,329	81+16,793	N E	6990665,8570 437346,5842	6990669,1300 437331,6909	6990670,6730 437316,5204
C20	10°51'44,43"	160,000	15,212	30,333	81+17,913	83+8,246	N E	6990670,7863 437315,4065	6990672,3256 437300,2723	6990676,6894 437285,6994
C21	19°41'24,23"	65,000	11,280	22,338	85+1,522	86+3,859	N E	6990686,2348 437253,8226	6990689,4706 437243,0166	6990696,1581 437233,9327
C22	21°21'20,74"	100,000	18,855	37,273	87+5,544	89+2,817	N E	6990709,0143 437216,4696	6990720,1927 437201,2854	6990725,0742 437183,0730
C23	20°37'14,06"	85,000	15,463	30,591	89+14,578	91+5,169	N E	6990728,1189 437171,7135	6990732,1222 437156,7778	6990741,1289 437144,2089
C24	5°29'45,07"	315,000	15,119	30,215	92+9,349	93+19,564	N E	6990755,2135 437124,5539	6990764,0200 437112,2644	6990773,9631 437100,8748
C25	17°51'44,88"	97,500	15,323	30,396	96+19,216	98+9,613	N E	6990813,1932 437055,9375	6990823,2700 437044,3946	6990829,3206 437030,3173

TABELA DE CURVAS										
CURVAS	AC	R (m)	T (m)	D (m)	TC	CT	PONTO	TC	PI	CT
C26	12°50'20,14"	135,000	15,189	30,251	98+19,637	100+9,888	N E	6990833,2788 437021,1079	6990839,2767 437007,1532	6990848,2254 436994,8801
C27	6°24'04,25"	270,000	15,098	30,165	101+0,518	102+10,683	N E	6990854,4883 436986,2907	6990863,3835 436974,0911	6990870,8631 436960,9759
C28	16°38'57,31"	135,000	19,754	39,229	103+9,109	105+8,338	N E	6990879,9916 436944,9694	6990889,7776 436927,8101	6990904,0696 436914,1739
C29	2°20'07,55"	200,000	4,077	8,152	108+9,727	108+17,879	N E	6990948,5424 436871,8573	6991001,8695 436820,8623	6990954,6894 436866,5035
C30	9°45'37,83"	200,000	17,077	34,071	109+17,879	111+11,950	N E	6990970,2468 436853,9359	6991001,8695 436820,8623	6990994,4069 436829,9715
C31	11°11'02,11"	60,000	5,875	11,712	112+19,507	113+11,219	N E	6991011,2832 436808,2106	6991018,5204 436800,2416	6991016,4396 436797,7157
C32	4°20'40,18"	450,000	17,069	34,122	118+3,857	119+17,979	N E	6991009,3350 436706,7194	6991018,5204 436800,2416	6991003,7281 436673,0699
C33	5°09'15,96"	200,000	9,002	17,992	122+1,131	122+19,123	N E	6990998,7761 436630,2039	6991002,6024 436663,7366	6990997,9471 436612,2368
C34	2°20'48,90"	275,000	5,633	11,264	123+19,123	124+10,388	N E	6990998,2806 436592,2400	6991002,6024 436663,7366	6990998,1141 436580,9776
C35	18°32'36,91"	100,000	16,325	32,365	126+5,084	127+17,449	N E	6990996,3210 436546,3276	6990995,4488 436530,0259	6990989,4376 436514,8478
C36	4°16'26,39"	405,000	15,113	30,211	128+11,661	130+1,872	N E	6990984,2045 436501,6346	6990978,6397 436487,5839	6990972,0432 436473,9869
C37	6°41'21,73"	500,000	29,221	58,376	132+8,105	135+6,480	N E	6990951,8631 436432,3907	6990939,1084 436406,1002	6990923,3781 436381,4744
C38	26°59'49,41"	80,000	19,204	37,695	136+2,585	138+0,280	N E	6990914,7086 436367,9024	6990904,3707 436351,7183	6990887,8125 436341,9907
C39	16°24'05,85"	105,000	15,132	30,058	141+10,060	143+0,118	N E	6990827,6469 436306,6444	6990814,5997 436298,9793	6990804,2477 436287,9420
C40	56°41'46,10"	51,500	27,786	50,961	144+9,815	147+0,776	N E	6990784,6858 436265,6433	6990762,1888 436243,0988	6990780,3420 436216,9295
C41	16°30'50,64"	105,000	15,237	30,264	148+11,860	150+2,124	N E	6990796,4050 436190,3575	6990804,6981 436177,5745	6990809,0155 436162,9615
C42	14°24'15,08"	110,000	13,900	27,654	150+10,625	151+18,279	N E	6990811,4242 436154,8089	6990815,3627 436141,4782	6990822,4935 436129,5463
C43	46°09'38,59"	65,000	27,699	52,368	152+8,713	155+1,080	N E	6990827,8461 436120,5900	6990842,0555 436096,8139	6990834,7480 436070,0967
C44	4°44'17,71"	370,000	15,308	30,598	155+11,075	157+1,674	N E	6990832,1111 436060,4557	6990828,0726 436045,6902	6990822,8282 436031,3087
C45	16°56'05,89"	102,500	15,259	30,296	158+4,705	159+15,001	N E	6990814,9377 436009,6710	6990809,7099 435995,3351	6990808,8847 435980,0982
C46	10°18'08,66"	307,500	27,721	55,292	160+5,098	163+0,390	N E	6990808,3386 435970,0160	6990806,8395 435942,3359	6990810,3149 435914,8340
C47	9°51'21,47"	175,000	15,089	30,103	165+15,121	167+5,224	N E	6990817,0820 435860,5242	6990814,2603 435883,6126	6990817,4164 435830,4598
C48	4°16'24,98"	410,000	15,298	30,581	168+5,224	169+15,805	N E	6990815,4862 435810,5537	6990814,2603 435883,6126	6990813,8369 435780,0240

TABELA DE CURVAS										
CURVAS	AC	R (m)	T (m)	D (m)	TC	CT	PONTO	TC	PI	CT
C49	26°10'00,14"	5,000	1,162	2,283	0+5,040	0+7,323	N E	6990011,5099 438464,2395	6990012,2878 438465,1027	6990013,3667 438465,5344

TABELA DE CURVAS										
CURVAS	AC	R (m)	T (m)	D (m)	TC	CT	PONTO	TC	PI	CT
C50	59°15'12,44"	10,000	5,687	10,342	0+14,777	1+5,119	N E	6990126,4646 438494,0578	6990122,6187 438489,8685	6990124,2531 438484,4214

TABELA DE CURVAS										
CURVAS	AC	R (m)	T (m)	D (m)	TC	CT	PONTO	TC	PI	CT
C51	26°33'47,13"	25,000	5,901	11,590	0+16,437	1+8,027	N E	6991014,9931 436612,2248	6991009,7565 436614,9457	6991003,8560 436615,0376

TABELA DE CURVAS										
CURVAS	AC	R (m)	T (m)	D (m)	TC	CT	PONTO	TC	PI	CT
C52	50°28'36,62"	5,000	2,357	4,405	1+2,936	1+7,341	N E	6990912,4617 436377,8839	6990914,7044 436378,6086	6990916,6907 436377,3398

TABELA DE ESPIRAIS								
ESPIRAL	A (m)	RAIO (m)	COMPRIMENTO (m)	DIREÇÃO	COORDENADAS INÍCIO	COORDENADAS FINAL	ESTACA INÍCIO	ESTACA FINAL
S1	30.000	INFINITY	10.000	N03° 55' 28.65"E	(438455.9345,6990056.9940)	(438456.8035,6990066.9548)	5+16	6+6
S2	30.426	90.000	10.286	N24° 46' 08.93"E	(438464.3916,6990093.5253)	(438469.0528,6990102.6926)	7+14	8+4
S3	32.016	INFINITY	10.000	N28° 02' 35.49"E	(438469.0528,6990102.6926)	(438473.6096,6990111.5928)	8+4	8+14
S4	95.000	102.500	88.049	N12° 24' 21.37"W	(438481.0082,6990177.3341)	(438438.9041,6990253.8429)	12+2	17+0
S5	30.000	INFINITY	11.250	N52° 05' 10.66"W	(438194.7721,6990439.4092)	(438185.7389,6990446.1107)	31+20	32+11
S6	30.000	80.000	11.250	N85° 13' 14.67"W	(438147.8020,6990459.4199)	(438136.5619,6990459.8308)	34+12	35+3
S7	132.288	INFINITY	10.000	N89° 14' 57.67"W	(438136.5619,6990459.8308)	(438126.5629,6990459.9713)	35+3	35+13
S8	132.288	1750.000	10.000	N87° 06' 26.95"W	(438066.1797,6990461.9781)	(438056.1934,6990462.5017)	38+13	39+3
S9	35.355	INFINITY	10.000	S80° 18' 34.10"W	(437933.1608,6990457.7218)	(437923.3275,6990455.9074)	45+7	45+17
S10	35.355	125.000	10.000	S61° 52' 48.09"W	(437890.3639,6990443.8763)	(437881.6737,6990438.9299)	47+12	48+2
S11	31.623	INFINITY	10.000	S59° 35' 17.50"W	(437881.6737,6990438.9299)	(437872.9674,6990434.0128)	48+2	48+12
S12	31.623	100.000	10.000	S81° 22' 52.82"W	(437841.7055,6990423.8052)	(437831.7751,6990422.6371)	50+5	50+15
S13	53.852	INFINITY	10.000	S84° 14' 46.06"W	(437822.1622,6990421.6685)	(437812.2186,6990420.6088)	51+5	51+15
S14	137.647	290.000	65.333	S79° 10' 48.88"W	(437791.8241,6990417.4586)	(437728.7888,6990400.4236)	52+16	56+1
S15	30.000	INFINITY	17.143	S72° 43' 34.45"W	(437728.7888,6990400.4236)	(437712.1862,6990396.2360)	56+1	56+18
S16	54.704	52.500	57.000	N66° 21' 40.13"W	(437683.9019,6990400.1405)	(437643.7082,6990439.5018)	58+7	61+4
S17	100.000	INFINITY	10.000	N49° 30' 17.77"W	(437552.1670,6990541.8442)	(437544.5732,6990548.3507)	68+2	68+12
S18	100.000	1000.000	10.000	N45° 49' 59.23"W	(437500.9993,6990588.2427)	(437493.8495,6990595.2341)	71+11	72+1
S19	30.000	INFINITY	11.250	N45° 32' 47.90"W	(437493.8495,6990595.2341)	(437485.6384,6990602.9207)	72+1	72+12
S20	30.000	80.000	11.250	N55° 09' 40.77"W	(437479.4639,6990607.6812)	(437469.9414,6990613.6669)	73+0	73+11
S21	44.721	INFINITY	10.000	N43° 39' 16.73"W	(436878.6997,6990941.2502)	(436871.8573,6990948.5424)	107+20	109+0
S22	44.721	200.000	10.000	N39° 53' 12.55"W	(436866.5035,6990954.6894)	(436860.2197,6990962.4681)	108+18	109+8
S23	44.721	INFINITY	10.000	N38° 27' 15.93"W	(436860.2197,6990962.4681)	(436853.9359,6990970.2468)	109+8	109+18
S24	44.721	200.000	10.000	N49° 38' 50.39"W	(436829.9715,6990994.4069)	(436822.2441,6991000.7537)	111+12	112+2
S25	30.000	INFINITY	15.000	N51° 04' 47.01"W	(436820.2549,6991002.3600)	(436808.2106,6991011.2832)	112+5	112+20

TABELA DE ESPIRAIS								
ESPIRAL	A (m)	RAIO (m)	COMPRIMENTO (m)	DIREÇÃO	COORDENADAS INÍCIO	COORDENADAS FINAL	ESTACA INÍCIO	ESTACA FINAL
S26	65.000	60.000	70.417	N69° 25' 32.21"W	(436797.7157,6991016.4396)	(436728.4079,6991014.1733)	113+11	117+2
S27	100.000	INFINITY	22.222	S76° 57' 10.45"W	(436728.4079,6991014.1733)	(436706.7194,6991009.3350)	117+2	118+4
S28	67.082	450.000	10.000	S82° 42' 43.59"W	(436673.0699,6991003.7281)	(436663.1416,6991002.5331)	119+18	120+8
S29	44.721	INFINITY	10.000	S83° 20' 55.42"W	(436640.1457,6990999.8515)	(436630.2039,6990998.7761)	121+11	122+1
S30	44.721	200.000	10.000	S89° 56' 08.00"W	(436612.2368,6990997.9471)	(436602.2382,6990998.1025)	122+19	123+9
S31	52.440	INFINITY	10.000	N88° 37' 55.38"W	(436602.2382,6990998.1025)	(436592.2400,6990998.2806)	123+9	123+19
S32	52.440	275.000	10.000	S87° 58' 45.45"W	(436580.9776,6990998.1141)	(436570.9890,6990997.6404)	124+10	125+0
S33	30.000	INFINITY	17.476	S46° 50' 06.59"W	(436279.0280,6990795.8872)	(436265.6433,6990784.6858)	143+12	145+0
S34	30.000	51.500	17.476	N66° 44' 50.92"W	(436216.9295,6990780.3420)	(436201.7741,6990788.9985)	147+1	147+18
S35	41.833	INFINITY	10.000	N82° 47' 51.85"W	(435870.4564,6990815.9228)	(435860.5242,6990817.0820)	165+5	165+15
S36	41.833	175.000	10.000	S85° 42' 33.41"W	(435830.4598,6990817.4164)	(435820.5043,6990816.4785)	167+5	167+15
S37	64.031	INFINITY	10.000	S84° 04' 20.13"W	(435820.5043,6990816.4785)	(435810.5537,6990815.4862)	167+15	168+5

ANDRE FELIPE KASTELLER:08463810950

Localização: Joaçaba
Data: 2026.01.28 09:25:41-03'00'