

# ANEXO

COORDENADA POLIGONAL - PROJETO MODERNIZAÇÃO HORTO FLORESTAL - CAETANO FURQUIM - GENERAL CARNEIRO				
PARAMETRO DO ELIPSÓIDE: DANTUM SAD-69			a=6378160,0000000	
MC=- 45°	LOCAL: BELO HORIZONTE		b=6356774,71919531	
Nº	Coordenadas UTM		Coordenada Geodésicas	
	Este	Norte	Latitude	Longitude
1	617987,4706	7799566,8914	-19° , 53' 47,479897"	-43° , 52' 22,310924"
2	617939,3352	7799497,8205	-19° , 53' 49,736979"	-43° , 52' 23,950206"
3	617897,1617	7799460,2977	-19° , 53' 50,966627"	-43° , 52' 25,391751"
4	617879,0828	7799401,0819	-19° , 53' 52,896615"	-43° , 52' 25,999791"
5	617865,9181	7799375,1281	-19° , 53' 53,743654"	-43° , 52' 26,446506"
6	617804,2549	7799372,1773	-19° , 53' 53,853045"	-43° , 52' 28,566194"
7	617790,6094	7799390,1216	-19° , 53' 53,272356"	-43° , 52' 29,039537"
8	617765,3091	7799402,9952	-19° , 53' 52,859129"	-43° , 52' 29,912478"
9	617731,1386	7799420,7025	-19° , 53' 52,290608"	-43° , 52' 31,091541"
10	617708,6268	7799425,5744	-19° , 53' 52,137037"	-43° , 52' 31,866755"
11	617692,0248	7799418,6267	-19° , 53' 52,366625"	-43° , 52' 32,436039"
12	617679,0938	7799422,7526	-19° , 53' 52,235235"	-43° , 52' 32,881635"
13	617660,0292	7799434,6219	-19° , 53' 51,853315"	-43° , 52' 33,539919"
14	617548,9766	7799438,0167	-19° , 53' 51,767004"	-43° , 52' 37,359372"
15	617477,4508	7799444,2077	-19° , 53' 51,581151"	-43° , 52' 39,820291"
16	617431,7219	7799436,9412	-19° , 53' 51,827417"	-43° , 52' 41,391068"
17	617397,4846	7799411,8965	-19° , 53' 52,649443"	-43° , 52' 42,56262"
18	617366,1717	7799376,9332	-19° , 53' 53,793447"	-43° , 52' 43,631345"
19	617303,2946	7799211,4247	-19° , 53' 59,190409"	-43° , 52' 45,755566"
20	617253,5423	7799168,7791	-19° , 54' 00,588276"	-43° , 52' 47,456622"
21	617183,6271	7799152,4073	-19° , 54' 01,135917"	-43° , 52' 49,857033"
22	617147,0880	7799153,4649	-19° , 54' 01,109421"	-43° , 52' 51,113737"
23	617106,1835	7799151,2698	-19° , 54' 01,189664"	-43° , 52' 52,51981"
24	616997,2713	7799121,7252	-19° , 54' 02,174172"	-43° , 52' 56,258205"
25	616897,4131	7799130,7251	-19° , 54' 01,903001"	-43° , 52' 59,69407"
26	616822,9770	7799137,9177	-19° , 54' 01,685113"	-43° , 53' 02,255334"
27	616781,5045	7799129,9937	-19° , 54' 01,951794"	-43° , 53' 03,679637"
28	616753,7512	7799115,1588	-19° , 54' 02,440299"	-43° , 53' 04,630605"
29	616712,1090	7799055,4679	-19° , 54' 04,390788"	-43° , 53' 06,048953"
30	616669,5750	7798960,1789	-19° , 54' 07,499335"	-43° , 53' 07,48987"

31	616636.7814	7798875.7237	-19° , 54' 10.2534"	-43° , 53' 08.598322"	98	616513.0603	7798799.3451	-19° , 54' 12.764333"	-43° , 53' 12.835396"
32	616625.6605	7798804.6667	-19° , 54' 12.567005"	-43° , 53' 08.964563"	99	616667.0208	7799114.1672	-19° , 54' 02.49124"	-43° , 53' 07.61277"
33	616590.1504	7798677.3078	-19° , 54' 16.717144"	-43° , 53' 10.156678"	100	616763.2331	7799239.6885	-19° , 53' 58.387785"	-43° , 53' 04.332933"
34	616435.7892	7798638.1459	-19° , 54' 18.024142"	-43° , 53' 15.455917"	101	616925.7333	7799234.5499	-19° , 53' 58.51987"	-43° , 52' 58.743922"
35	616330.8351	7798744.6931	-19° , 54' 14.581128"	-43° , 53' 19.089265"	102	617104.0320	7799219.5484	-19° , 53' 58.969293"	-43° , 52' 52.609399"
36	616251.6054	7798811.1398	-19° , 54' 12.436885"	-43° , 53' 21.828872"	103	617192.9741	7799221.3050	-19° , 53' 58.892922"	-43° , 52' 59.55138"
37	616159.6136	7798864.6266	-19° , 54' 10.716903"	-43° , 53' 25.004375"	104	617259.0655	7799277.1641	-19° , 53' 57.061741"	-43° , 52' 47.291502"
38	616044.0046	7798907.8332	-19° , 54' 09.336341"	-43° , 53' 28.989665"	105	617357.9551	7799454.0719	-19° , 53' 51.286208"	-43° , 52' 43.931551"
39	615952.3794	7798928.6615	-19° , 54' 08.6785"	-43° , 53' 32.145133"	106	617470.6575	779951.8800	-19° , 53' 49.283932"	-43° , 52' 40.070088"
40	615894.0561	7798921.7361	-19° , 54' 08.916241"	-43° , 53' 34.149151"	107	617677.6471	7799531.9465	-19° , 53' 48.683903"	-43° , 52' 32.956457"
41	615845.8727	7798898.3976	-19° , 54' 09.685663"	-43° , 53' 35.800775"	108	617768.7475	7799589.6348	-19° , 53' 46.787735"	-43° , 52' 29.837139"
42	615812.0327	7798873.0351	-19° , 54' 10.517847"	-43° , 53' 36.958712"	109	617847.3684	7799786.0481	-19° , 53' 40.382093"	-43° , 52' 27.178858"
43	615726.3179	7798779.2346	-19° , 54' 13.587147"	-43° , 53' 39.885038"	110	617909.4511	7799849.1610	-19° , 53' 38.315774"	-43° , 52' 25.058635"
44	615687.3648	7798755.6929	-19° , 54' 14.361193"	-43° , 53' 41.219229"	111	618063.1033	7799871.7066	-19° , 53' 37.548997"	-43° , 52' 19.80448"
45	615634.5730	7798742.7872	-19° , 54' 14.792242"	-43° , 53' 43.031706"	112	618171.9611	7799918.5509	-19° , 53' 36.001608"	-43° , 52' 16.048145"
46	615503.3731	7798730.9983	-19° , 54' 15.20369"	-43° , 53' 47.540721"	113	618354.7680	7799923.1056	-19° , 53' 35.813563"	-43° , 52' 09.763353"
47	615450.5896	7798732.5731	-19° , 54' 15.163723"	-43° , 53' 49.356186"	114	618530.9859	7799885.4159	-19° , 53' 37.000938"	-43° , 52' 03.695364"
48	615397.5947	7798744.9122	-19° , 54' 14.773674"	-43° , 53' 51.181345"	115	618865.5085	7799731.7572	-19° , 53' 41.925548"	-43° , 51' 52.157113"
49	615341.4648	7798770.4312	-19° , 54' 13.955595"	-43° , 53' 53.117275"	116	618873.6550	7799790.1663	-19° , 53' 40.02395"	-43° , 51' 50.89054"
50	615320.5692	7798810.0042	-19° , 54' 12.672882"	-43° , 53' 53.844737"	117	618923.1159	7799905.2878	-19° , 53' 36.268663"	-43° , 51' 50.126523"
51	615274.8472	7798883.3247	-19° , 54' 10.297774"	-43° , 53' 55.433511"	118	619019.4770	7800030.9184	-19° , 53' 32.161255"	-43° , 51' 46.932309"
52	615245.7833	7798913.0526	-19° , 54' 09.337021"	-43° , 53' 56.439635"	119	619040.4934	7800149.3566	-19° , 53' 28.304327"	-43° , 51' 46.237168"
53	615205.4357	7798936.6300	-19° , 54' 08.57872"	-43° , 53' 57.83239"	120	618978.3261	7800328.1502	-19° , 53' 22.502551"	-43° , 51' 48.416262"
54	614905.2222	7799015.9046	-19° , 54' 06.063988"	-43° , 54' 08.173754"	121	619011.4341	7800492.0180	-19° , 53' 17.165328"	-43° , 51' 47.315907"
55	614813.5473	7799039.8657	-19° , 54' 05.304063"	-43° , 54' 11.33158"	122	618981.7601	7800594.5822	-19° , 53' 13.835846"	-43° , 51' 48.360016"
56	614751.5360	7799068.8519	-19° , 54' 04.37439"	-43° , 54' 13.470474"	123	618871.0959	7800785.3403	-19° , 53' 07.655537"	-43° , 51' 52.209288"
57	614678.4648	7799114.4745	-19° , 54' 02.90593"	-43° , 54' 15.993404"	124	618913.1176	7800936.4588	-19° , 53' 02.731046"	-43° , 51' 50.799481"
58	614618.4045	7799133.7770	-19° , 54' 02.290803"	-43° , 54' 18.063026"	125	619002.8931	7801011.2225	-19° , 53' 00.279586"	-43° , 51' 47.730071"
59	614583.0044	7799134.8556	-19° , 54' 02.26321"	-43° , 54' 19.280576"	126	619084.1429	7801054.6736	-19° , 52' 58.848457"	-43° , 51' 44.946555"
60	614534.4771	7799128.4280	-19° , 54' 02.482541"	-43° , 54' 20.947854"	127	619249.3454	7801070.5003	-19° , 52' 58.297367"	-43° , 51' 39.270106"
61	614493.1269	7799110.8597	-19° , 54' 03.062716"	-43° , 54' 22.365844"	128	619338.5741	7801169.6541	-19° , 52' 55.052665"	-43° , 51' 36.225247"
62	614462.6825	7799089.7854	-19° , 54' 03.754621"	-43° , 54' 23.408033"	129	619381.9349	7801284.2720	-19° , 52' 51.315066"	-43° , 51' 34.761068"
63	614408.6408	7799147.1553	-19° , 54' 01.900004"	-43° , 54' 25.27919"	130	619222.4357	7801070.5003	-19° , 52' 58.303285"	-43° , 51' 40.195337"
64	614375.9106	7799110.9868	-19° , 54' 03.083347"	-43° , 54' 26.396613"	131	619207.1765	7801647.5269	-19° , 52' 39.538305"	-43° , 51' 40.854086"
65	614356.7015	7799122.2905	-19° , 54' 02.719735"	-43° , 54' 27.059683"	132	619337.2630	7801781.3474	-19° , 52' 35.157056"	-43° , 51' 36.412623"
66	614458.1561	7799232.1667	-19° , 53' 59.12443"	-43° , 54' 23.595492"	133	619423.3471	7801871.5148	-19° , 52' 32.205329"	-43° , 51' 33.47392"
67	614497.2429	7799296.3964	-19° , 53' 57.02701"	-43° , 54' 22.265769"	134	619499.1815	7801829.7847	-19° , 52' 33.545936"	-43° , 51' 30.856924"
68	614530.5396	7799337.8263	-19° , 53' 55.672407"	-43° , 54' 21.130062"	135	619452.1897	7801778.8535	-19° , 52' 35.212872"	-43° , 51' 34.660704"
69	614582.0282	7799353.4580	-19° , 53' 55.153075"	-43° , 54' 19.363032"	136	619386.5399	7801732.9200	-19° , 52' 36.721358"	-43° , 51' 34.707147"
70	614636.4497	7799348.5731	-19° , 53' 55.300449"	-43° , 54' 17.490563"	137	619453.8562	7801414.9313	-19° , 52' 47.049412"	-43° , 51' 32.318672"
71	614676.3039	7799327.3116	-19° , 53' 55.983573"	-43° , 54' 16.11535"	138	619497.9695	7801384.5360	-19° , 52' 48.028328"	-43° , 51' 30.794884"
72	614710.5640	7799289.9113	-19° , 53' 57.192814"	-43° , 54' 14.928883"	139	619505.6596	7801353.0835	-19° , 52' 49.049654"	-43° , 51' 30.523155"
73	614718.9438	7799261.6393	-19° , 53' 58.110624"	-43° , 54' 14.634398"	140	619479.7663	7801314.2104	-19° , 52' 50.319743"	-43° , 51' 31.404369"
74	614722.9462	7799175.8661	-19° , 54' 00.899666"	-43° , 54' 14.477562"	141	619473.5390	7801246.6546	-19° , 52' 52.51843"	-43° , 51' 31.602743"
75	614729.2075	7799142.7544	-19° , 54' 01.975342"	-43° , 54' 14.254839"	142	619454.3779	7801135.6098	-19° , 52' 56.134485"	-43° , 51' 32.235686"
76	614759.7090	7799096.9231	-19° , 54' 03.459605"	-43° , 54' 13.195715"	143	619429.2539	7801060.9112	-19° , 52' 58.56966"	-43° , 51' 33.082121"
77	614807.9867	7799069.5276	-19° , 54' 04.340449"	-43° , 54' 11.529441"	144	619389.8531	7801028.9223	-19° , 52' 59.618806"	-43° , 51' 34.429383"
78	614937.1698	7799033.0437	-19° , 54' 05.499737"	-43° , 54' 07.079007"	145	619324.8083	7801006.6072	-19° , 53' 00.358945"	-43° , 51' 36.660617"
79	615149.7280	7798979.7937	-19° , 54' 07.186612"	-43° , 53' 59.757739"	146	619178.0001	7800974.0115	-19° , 53' 01.451443"	-43° , 51' 41.700735"
80	615227.1020	7798960.2897	-19° , 54' 07.804549"	-43° , 53' 57.092664"	147	619081.3286	7800965.8639	-19° , 53' 01.737694"	-43° , 51' 45.022698"
81	615263.6847	7798948.2624	-19° , 54' 08.187968"	-43° , 53' 55.831973"	148	619045.9989	7800936.3775	-19° , 53' 02.704527"	-43° , 51' 46.230595"
82	615298.2416	7798921.9451	-19° , 54' 09.036616"	-43° , 53' 54.637728"	149	619035.9658	7800849.9575	-19° , 53' 05.517622"	-43° , 51' 46.555504"
83	615346.2774	7798825.5653	-19° , 54' 12.161263"	-43° , 53' 52.964196"	150	618998.1148	7800748.8525	-19° , 53' 08.814468"	-43° , 51' 47.833482"
84	615423.0718	7798769.3976	-19° , 54' 13.971826"	-43° , 53' 50.310761"	151	619012.5215	7800696.5963	-19° , 53' 10.510988"	-43° , 51' 47.326002"
85	615466.2626	7798769.0107	-19° , 54' 13.975203"	-43° , 53' 48.825439"	152	619049.5845	7800649.3010	-19° , 53' 12.041173"	-43° , 51' 46.040664"
86	615596.8127	7798783.3298	-19° , 54' 13.481605"	-43° , 53' 44.339349"	153	619077.2444	7800612.5469	-19° , 53' 13.230559"	-43° , 51' 45.081081"
87	615665.1620	7798791.4270	-19° , 54' 13.20364"	-43° , 53' 41.990802"	154	619091.8668	7800572.3558	-19° , 53' 14.5346"	-43° , 51' 44.568974"
88	615710.5214	7798809.7923	-19° , 54' 12.596596"	-43° , 53' 40.435146"	155	619083.5196	7800492.3010	-19° , 53' 17.140291"	-43° , 51' 44.837389"
89	615795.3905	7798961.6354	-19° , 54' 07.639572"	-43° , 53' 37.551023"	156	619061.3224	7800275.0507	-19° , 53' 24.211435"	-43° , 51' 45.550164"
90	615843.5089	7798995.6965	-19° , 54' 06.521403"	-43° , 53' 35.904063"	157	619084.4806	7800233.3938	-19° , 53' 25.561276"	-43° , 51' 44.744208"
91	615904.1294	7799002.4482	-19° , 54' 06.288826"	-41° , 53' 33.821018"	158	619130.9930	7800192.1451	-19° , 53' 26.892705"	-43° , 51' 43.13532"
92	616048.8055	7798963.9656	-19° , 54' 07.509539"	-43° , 53' 28.837291"	159	619174.1357	7800133.8040	-19° , 53' 28.780816"	-43° , 51' 43.638317"
93	616144.0257	7798936.9630	-19° , 54' 08.367419"	-43° , 53' 25.556804"	160	619172.0642	7800057.7940	-19° , 53' 31.253566"	-43° , 51' 41.691873"
94	616255.3781	7798936.1228	-19° , 54' 08.370856"	-43° , 53' 21.727502"	161	619139.0364	7800012.2104	-19° , 53' 32.743476"	-43° , 51' 42.816932"
95	616286.2145	7798851.8932	-19° , 54' 11.103903"	-43° , 53' 20.648001"	162	619053.6188	7799953.5460	-19° , 53' 34.670363"	-43° , 51' 45.740378"
96	616390.9680	7798784.7307	-19° , 54' 13.265938"	-43° , 53' 17.030532"					
97	616456.7382	7798769.0571	-19° , 54' 13.7616"	-43° , 53' 14.765289"					

163	618973,7848	7799798,7576	-19° , 53' 39,722533"	-43° , 51' 48,449539"	173	618445,1293	7799771,0220	-19° , 53' 40,740486"	-43° , 52' 06,621123"
164	618874,8523	7799598,7118	-19° , 53' 46,250922"	-43° , 51' 51,804962"	174	618405,1907	7799748,5566	-19° , 53' 41,479924"	-43° , 52' 07,989238"
165	618806,1803	7799463,1448	-19° , 53' 50,675429"	-43° , 51' 54,134867"	175	618356,0832	7799744,2444	-19° , 53' 41,630912"	-43° , 52' 09,676826"
166	618686,9432	7799458,3137	-19° , 53' 50,858701"	-43° , 51' 58,233832"	176	618220,9329	7799804,1326	-19° , 53' 39,712495"	-43° , 52' 14,33785"
167	618607,0026	7799514,2861	-19° , 53' 49,055654"	-43° , 52' 00,995625"	177	618118,9417	7799809,4480	-19° , 53' 39,561851"	-43° , 52' 17,846082"
168	618597,1966	7799534,7313	-19° , 53' 48,392801"	-43° , 52' 01,337545"	178	618035,6347	7799759,9190	-19° , 53' 41,190987"	-43° , 52' 20,699218"
169	618587,5514	7799583,8932	-19° , 53' 46,795875"	-43° , 52' 01,68058"	179	618035,4553	7799612,1016	-19° , 53' 45,998937"	-43° , 52' 20,671342"
170	618597,9481	7799646,0284	-19° , 53' 44,772593"	-43° , 52' 01,337461"	Área da Poligonal				863.991,75 m²
171	618486,7419	7799751,1855	-19° , 53' 41,376589"	-43° , 52' 05,18567"	Área da Faixa de Domínio - Ferrovia Existente				246.949,82 m²
172	618474,7843	7799755,0094	-19° , 53' 41,254827"	-43° , 52' 05,597722"	Diferença das Áreas				617.041,93 m²