



DUPLICAÇÃO E ADEQUAÇÃO GEOMÉTRICA DA RODOVIA GO-330

Trecho: Avenida Juscelino Kubitschek de Oliveira / Polícia Rodoviária Estadual

PROJETO EXECUTIVO DE ENGENHARIA

VOLUME 03C - NOTAS DE SERVIÇO E CÁLCULO DE VOLUMES

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setembro/2020

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1 APRESENTAÇÃO

1.1 INTRODUÇÃO

Basitec Projetos e Construções LTDA apresenta o Projeto Executivo de Engenharia para Duplicação e Adequação Geométrica da Rodovia GO-330 no trecho compreendido entre o final da avenida Juscelino Kubitschek de Oliveira e o posto da Polícia Rodoviária Estadual, perfazendo cerca de 3,4 km de extensão.

Este trabalho é composto pelos seguintes volumes:

- *Volume 01 - Relatório de Projeto: neste volume são apresentados os estudos realizados, as soluções propostas, as características do projeto, e demais informações necessárias para a execução do projeto;*
- *Volume 02 - Projeto de Execução: neste volume são apresentados os desenhos dos projetos desenvolvidos e os respectivos quantitativos de serviço necessários para execução das obras;*
- *Volume 03A - Estudos Geotécnicos: neste volume são apresentados os boletins de sondagem e os resultados dos ensaios realizados com os materiais do subleito, dos cortes, das jazidas de material granular, areais e pedreiras;*
- *Volume 03C - Notas de Serviço e Cálculo de Volumes: neste volume são apresentadas as notas de serviço de pavimentação e terraplenagem e os cálculos de volumes de terraplenagem.*

O presente trabalho foi integralmente elaborado obedecendo as orientações contidas na publicação IPR-727 - Diretrizes Básicas para Elaboração de Estudos e Projetos Rodoviários, ano de publicação 2006 e as diretrizes da Agência Goiana de Transportes e Obras - AGETOP. O Escopo Básico dos trabalhos foi orientado pela EB-107: Projeto Executivo de Engenharia para Melhoramentos em Rodovias para Adequação de Capacidade e Segurança.

1.2 MAPA DE LOCALIZAÇÃO

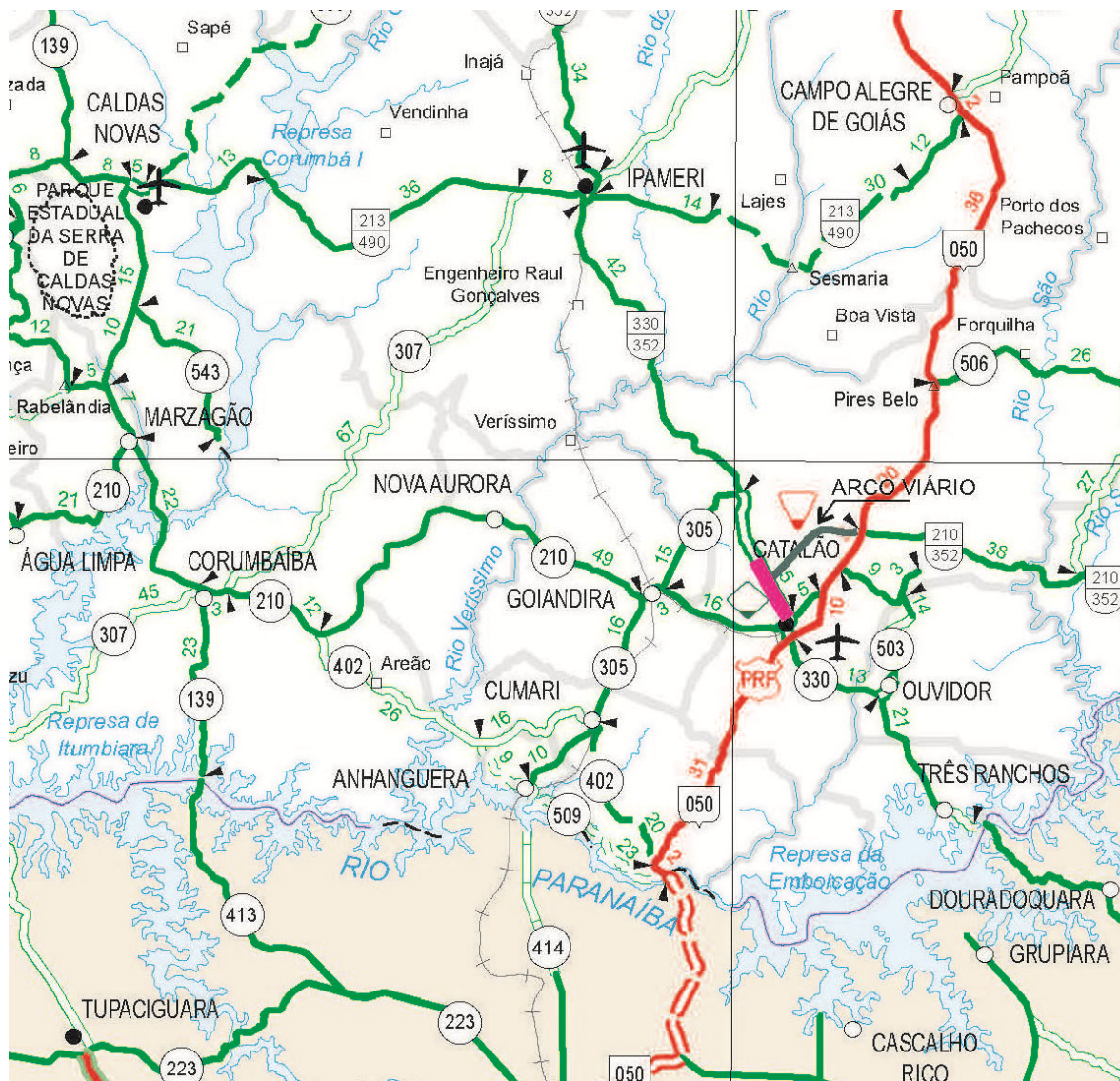


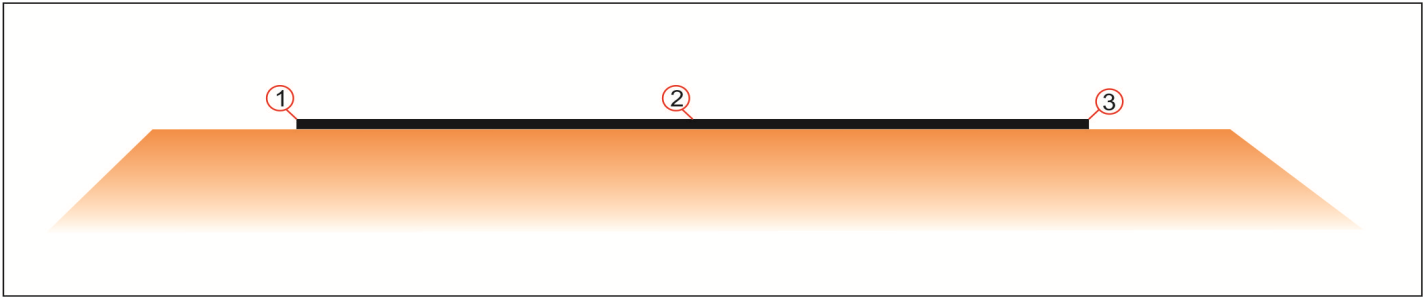
Figura 1: Mapa de Localização



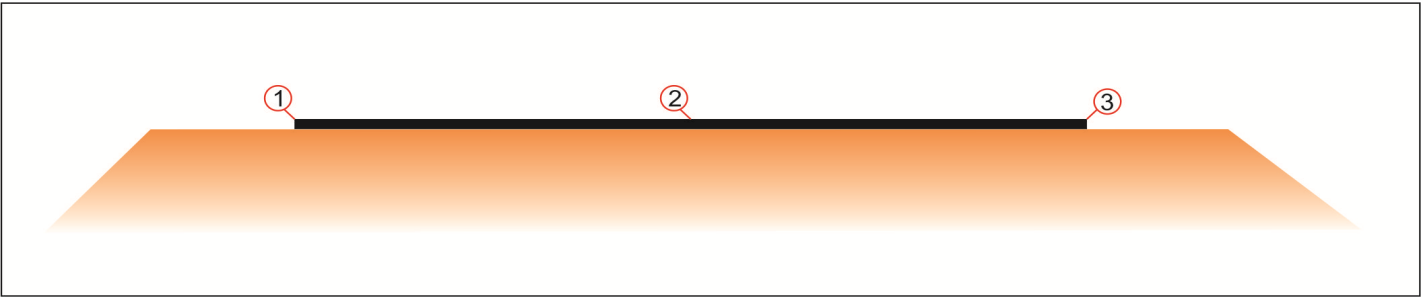
Figura 2: Diretriz do Traçado

2 NOTAS DE SERVIÇO DE PAVIMENTAÇÃO

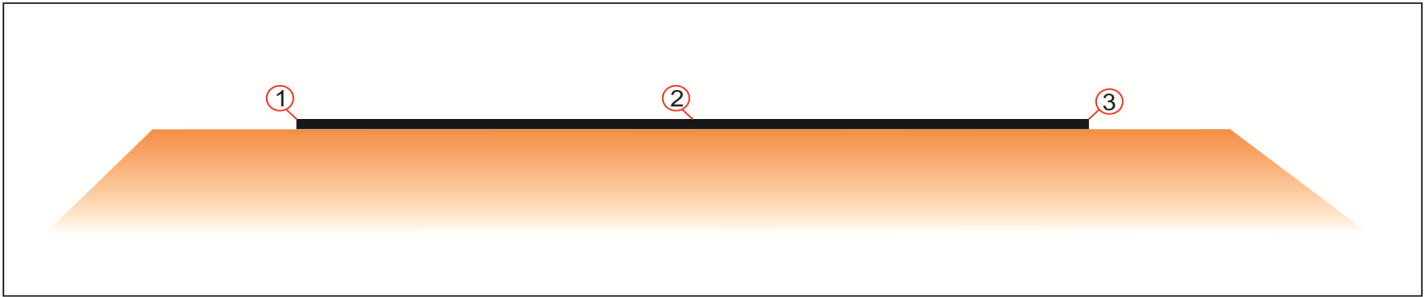
PROJETO EXECUTIVO DE ENGENHARIA PARA DUPLICAÇÃO DE RODOVIA										
Rodovia: GO-330										
Trecho: Entr. Avenida Juscelino Kubitschek de Oliveira / Posto Polícia Rodoviária Estadual										
Nota-de-Serviço de Pavimentação - GO-330 - Pista Dupla										
Estaca	Bordo Esquerdo			Eixo				Bordo Direito		
	cota pavim	i (%)	dist (m)	cota terreno	cota projeto	Coordenada X	Coordenada Y	dist (m)	i (%)	cota pavim
	1			2				3		
0+0,000				913,45	913,81	188.620,02	7.989.959,93			
1+0,000				915,68	915,61	188.606,08	7.989.974,26			
2+0,000				917,37	917,24	188.592,13	7.989.988,60			
3+0,000				918,71	918,69	188.578,18	7.990.002,93			
4+0,000				919,87	919,94	188.564,23	7.990.017,26			
5+0,000				920,92	920,99	188.550,28	7.990.031,59			
6+0,000				921,74	921,85	188.536,33	7.990.045,93			
6+5,508				921,97	922,06	188.532,49	7.990.049,88			
7+0,000	922,51	-2,0	4,88	922,69	922,61	188.521,66	7.990.059,51	7,27	-2,0	922,46
8+0,000	923,28	-2,0	3,43	923,39	923,35	188.506,72	7.990.072,80	8,33	-2,0	923,18
9+0,000	923,85	-2,0	4,18	923,85	923,94	188.491,78	7.990.086,10	9,40	-2,0	923,75
10+0,000	924,19	-2,0	7,20	924,23	924,33	188.476,84	7.990.099,39	5,30	-2,0	924,23
11+0,000	924,34	-2,0	10,35	924,58	924,55	188.461,90	7.990.112,69	6,65	-2,0	924,42
12+0,000	924,47	-2,0	8,00	924,64	924,63	188.446,96	7.990.125,98	8,00	-2,0	924,47
12+1,073	924,46	-2,0	9,00	924,64	924,64	188.446,15	7.990.126,70	9,00	-2,0	924,46
12+14,675	924,51	-2,0	9,00	924,68	924,69	188.436,15	7.990.135,91	9,00	-2,0	924,51
13+0,000	924,52	-2,0	9,00	924,71	924,70	188.432,32	7.990.139,61	9,00	-2,0	924,52
13+8,276	924,51	-2,0	9,00	924,78	924,69	188.426,46	7.990.145,46	9,00	-2,0	924,51
14+0,000	924,43	-2,0	9,00	924,83	924,61	188.418,25	7.990.153,83	9,00	-2,0	924,43
15+0,000	924,09	-2,0	9,00	924,84	924,27	188.404,25	7.990.168,11	9,00	-2,0	924,09
16+0,000	923,52	-2,0	9,00	924,72	923,70	188.390,25	7.990.182,39	9,00	-2,0	923,52
17+0,000	922,71	-2,0	9,00	924,62	922,89	188.376,24	7.990.196,67	9,00	-2,0	922,71
18+0,000	921,66	-2,0	9,00	924,40	921,84	188.362,24	7.990.210,95	9,00	-2,0	921,66
19+0,000	920,38	-2,0	9,00	924,08	920,56	188.348,24	7.990.225,22	9,00	-2,0	920,38
20+0,000	919,03	-2,0	9,00	923,42	919,21	188.334,23	7.990.239,50	9,00	-2,0	919,03
20+17,210	917,86	-2,0	9,00	922,62	918,04	188.322,18	7.990.251,79	9,00	-2,0	917,86
21+0,000	917,67	-2,0	9,00	922,50	917,85	188.320,23	7.990.253,78	9,00	-2,0	917,67
22+0,000	916,32	-2,0	9,00	921,57	916,50	188.306,31	7.990.268,15	9,00	-2,0	916,32
22+17,210	915,16	-2,0	9,00	920,47	915,34	188.294,65	7.990.280,80	9,00	-2,0	915,16
23+0,000	914,97	-2,0	9,00	920,23	915,15	188.292,80	7.990.282,89	9,00	-2,0	914,97
24+0,000	913,62	-2,0	9,00	918,90	913,80	188.279,99	7.990.298,25	9,00	-2,0	913,62
24+13,605	912,70	-2,0	9,00	918,29	912,88	188.271,71	7.990.309,04	9,00	-2,0	912,70
25+0,000	912,28	-2,0	9,00	918,07	912,46	188.267,94	7.990.314,21	9,00	-2,0	912,28
26+0,000	911,08	-2,0	9,00	917,67	911,26	188.256,69	7.990.330,74	9,00	-2,0	911,08
26+10,001	910,55	-2,0	9,00	917,46	910,73	188.251,37	7.990.339,21	9,00	-2,0	910,55
27+0,000	910,05	-2,0	9,00	917,30	910,23	188.246,25	7.990.347,80	9,00	-2,0	910,05
28+0,000	909,19	-2,0	9,00	916,97	909,37	188.236,43	7.990.365,22	9,00	-2,0	909,19
28+10,001	908,82	-2,0	9,00	916,46	909,00	188.231,63	7.990.373,99	9,00	-2,0	908,82
29+0,000	908,49	-2,0	9,00	916,05	908,67	188.226,84	7.990.382,77	9,00	-2,0	908,49
30+0,000	907,96	-2,0	9,00	915,82	908,14	188.217,25	7.990.400,32	9,00	-2,0	907,96
31+0,000	907,60	-2,0	9,00	915,99	907,78	188.207,66	7.990.417,87	9,00	-2,0	907,60
32+0,000	907,40	-2,0	9,00	915,35	907,58	188.198,08	7.990.435,43	9,00	-2,0	907,40
32+4,141	907,36	-2,0	9,00	914,85	907,54	188.196,09	7.990.439,06	9,00	-2,0	907,36
33+0,000	907,22	-2,0	9,00	913,87	907,40	188.188,57	7.990.453,02	9,00	-2,0	907,22
33+9,283	907,13	-2,0	9,00	913,38	907,31	188.184,24	7.990.461,23	9,00	-2,0	907,13
34+0,000	907,04	-2,0	9,00	912,96	907,22	188.179,31	7.990.470,75	9,00	-2,0	907,04
34+14,424	906,91	-2,0	9,00	912,46	907,09	188.172,78	7.990.483,61	9,00	-2,0	906,91
35+0,000	906,86	-2,0	9,00	912,36	907,04	188.170,29	7.990.488,60	9,00	-2,0	906,86
36+0,000	906,68	-2,0	9,00	912,18	906,86	188.161,33	7.990.506,48	9,00	-2,0	906,68
37+0,000	906,50	-2,0	9,00	911,70	906,68	188.152,38	7.990.524,37	9,00	-2,0	906,50
38+0,000	906,32	-2,0	9,00	911,44	906,50	188.143,43	7.990.542,25	9,00	-2,0	906,32
39+0,000	906,14	-2,0	9,00	910,91	906,32	188.134,47	7.990.560,13	9,00	-2,0	906,14
40+0,000	905,96	-2,0	9,00	910,15	906,14	188.125,52	7.990.578,02	9,00	-2,0	905,96
41+0,000	905,77	-2,0	9,00	909,47	905,95	188.116,57	7.990.595,90	9,00	-2,0	905,77
42+0,000	905,50	-2,0	9,00	908,74	905,68	188.107,61	7.990.613,79	9,00	-2,0	905,50
42+10,782	905,32	-2,0	9,00	908,33	905,50	188.102,79	7.990.623,43	9,00	-2,0	905,32
43+0,000	905,14	-2,0	9,00	907,98	905,32	188.098,63	7.990.631,66	9,00	-2,0	905,14
43+13,378	904,86	-2,0	9,00	907,50	905,04	188.092,51	7.990.643,55	9,00	-2,0	904,86



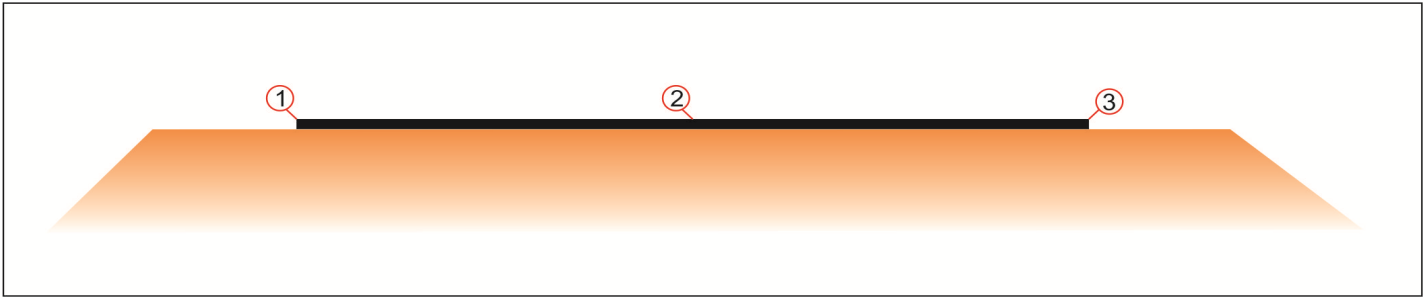
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Rodovia: GO-330										
Trecho: Entr. Avenida Juscelino Kubitschek de Oliveira / Posto Polícia Rodoviária Estadual										
Nota-de-Serviço de Pavimentação - GO-330 - Pista Dupla										
Estaca	Bordo Esquerdo			Eixo				Bordo Direito		
	cota pavim	i (%)	dist (m)	cota terreno	cota projeto	Coordenada X	Coordenada Y	dist (m)	i (%)	cota pavim
	1			2				3		
44+0,000	904,71	-2,0	9,00	907,26	904,89	188.089,44	7.990.649,42	9,00	-2,0	904,71
44+15,974	904,30	-2,0	9,00	906,66	904,48	188.081,91	7.990.663,51	9,00	-2,0	904,30
45+0,000	904,18	-2,0	9,00	906,51	904,36	188.079,99	7.990.667,05	9,00	-2,0	904,18
46+0,000	903,61	-2,0	9,00	905,73	903,79	188.070,47	7.990.684,63	9,00	-2,0	903,61
47+0,000	903,03	-2,0	9,00	904,98	903,21	188.060,95	7.990.702,22	9,00	-2,0	903,03
48+0,000	902,46	-2,0	9,00	904,24	902,64	188.051,43	7.990.719,81	9,00	-2,0	902,46
49+0,000	901,88	-2,0	9,00	903,47	902,06	188.041,90	7.990.737,40	9,00	-2,0	901,88



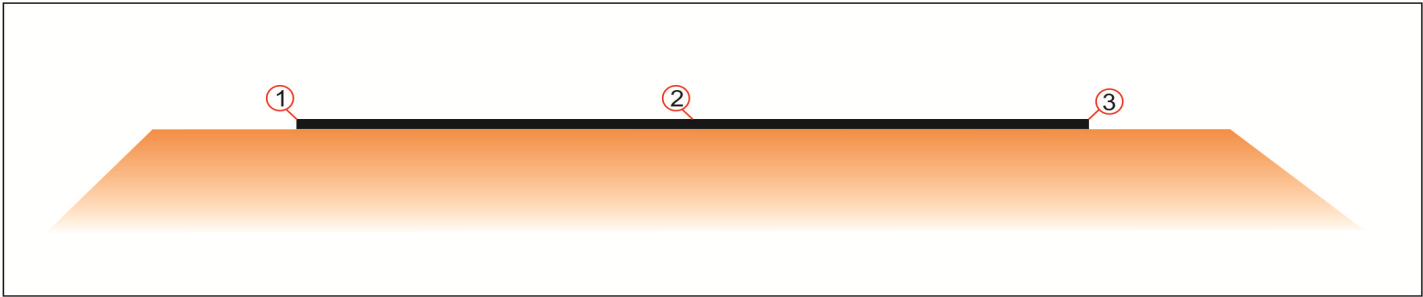
PROJETO EXECUTIVO DE ENGENHARIA PARA DUPLICAÇÃO DE RODOVIA										
Rodovia: GO-330										
Trecho: Entr. Avenida Juscelino K de Oliveira / Posto Polícia Rodoviária Estadual										
Nota-de-Serviço de Pavimentação - GO-330 - Pista Sul										
Estaca	Bordo Esquerdo			Eixo				Bordo Direito		
	cota pavim	i (%)	dist (m)	cota terreno	cota projeto	Coordenada X	Coordenada Y	dist (m)	i (%)	cota pavim
	1			2				3		
48+0,000	902,449	-2,0	5,05	903,722	902,550	188.046,61	7.990.717,14	5,05	2,0	902,651
48+13,187	902,069	-2,0	5,05	903,293	902,170	188.040,33	7.990.728,74	5,05	2,0	902,271
49+0,000	901,873	-2,0	5,05	903,038	901,974	188.037,08	7.990.734,72	5,05	2,0	902,075
50+0,000	901,297	-2,0	5,05	902,300	901,398	188.027,36	7.990.752,20	5,05	2,0	901,499
51+0,000	900,721	-2,0	5,05	901,323	900,822	188.017,41	7.990.769,55	5,05	2,0	900,923
51+5,063	900,575	-2,0	5,05	901,029	900,676	188.014,85	7.990.773,92	5,05	2,0	900,777
52+0,000	900,145	-2,0	5,05	900,768	900,246	188.007,23	7.990.786,77	5,05	2,0	900,347
53+0,000	899,569	-2,0	5,05	899,280	899,670	187.996,82	7.990.803,85	5,05	2,0	899,771
53+16,938	899,081	-2,0	5,05	897,671	899,182	187.987,83	7.990.818,20	5,05	2,0	899,283
54+0,000	898,993	-2,0	5,05	897,418	899,094	187.986,19	7.990.820,79	5,05	2,0	899,195
54+12,030	898,647	-2,0	5,05	896,958	898,748	187.979,75	7.990.830,95	5,05	2,0	898,849
55+0,000	898,417	-2,0	5,05	896,650	898,518	187.975,50	7.990.837,69	5,05	2,0	898,619
56+0,000	897,873	-2,0	5,05	895,715	897,974	187.964,99	7.990.854,71	5,05	2,0	898,075
56+16,556	897,466	-2,0	5,05	895,120	897,567	187.956,47	7.990.868,90	5,05	2,0	897,668
57+0,000	897,387	-2,0	5,05	895,030	897,488	187.954,71	7.990.871,86	5,05	2,0	897,589
58+0,000	896,957	-2,0	5,05	894,105	897,058	187.944,66	7.990.889,15	5,05	2,0	897,159
59+0,000	896,585	-2,0	5,05	894,020	896,686	187.934,85	7.990.906,58	5,05	2,0	896,787
59+1,082	896,567	-2,0	5,05	894,030	896,668	187.934,32	7.990.907,53	5,05	2,0	896,769
60+0,000	896,270	-2,0	5,05	893,902	896,371	187.925,16	7.990.924,08	5,05	2,0	896,472
61+0,000	896,012	-2,0	5,05	893,208	896,113	187.915,47	7.990.941,57	5,05	2,0	896,214
62+0,000	895,812	-2,0	5,05	893,257	895,913	187.905,79	7.990.959,07	5,05	2,0	896,014
63+0,000	895,669	-2,0	5,05	892,687	895,770	187.896,10	7.990.976,57	5,05	2,0	895,871
64+0,000	895,583	-2,0	5,05	893,017	895,684	187.886,41	7.990.994,07	5,05	2,0	895,785
65+0,000	895,554	-2,0	5,05	893,222	895,655	187.876,73	7.991.011,56	5,05	2,0	895,756
66+0,000	895,583	-2,0	5,05	893,064	895,684	187.867,04	7.991.029,06	5,05	2,0	895,785
67+0,000	895,669	-2,0	5,05	893,015	895,770	187.857,35	7.991.046,56	5,05	2,0	895,871
68+0,000	895,780	-2,0	5,05	893,303	895,881	187.847,66	7.991.064,06	5,05	2,0	895,982
69+0,000	895,891	-2,0	5,05	893,490	895,992	187.837,98	7.991.081,55	5,05	2,0	896,093
70+0,000	896,003	-2,0	5,05	893,325	896,104	187.828,29	7.991.099,05	5,05	2,0	896,205
71+0,000	896,114	-2,0	5,05	893,109	896,215	187.818,60	7.991.116,55	5,05	2,0	896,316
72+0,000	896,225	-2,0	5,05	893,501	896,326	187.808,92	7.991.134,05	5,05	2,0	896,427
73+0,000	896,337	-2,0	5,05	893,744	896,438	187.799,23	7.991.151,55	5,05	2,0	896,539
74+0,000	896,448	-2,0	5,05	893,353	896,549	187.789,54	7.991.169,04	5,05	2,0	896,650
75+0,000	896,559	-2,0	5,05	893,721	896,660	187.779,86	7.991.186,54	5,05	2,0	896,761
76+0,000	896,671	-2,0	5,05	894,327	896,772	187.770,17	7.991.204,04	5,05	2,0	896,873
77+0,000	896,775	-2,0	5,40	894,900	896,883	187.760,48	7.991.221,54	5,05	2,0	896,984
78+0,000	896,880	-2,0	5,68	895,173	896,994	187.750,80	7.991.239,03	5,05	2,0	897,095
79+0,000	896,986	-2,0	5,96	895,314	897,105	187.741,11	7.991.256,53	5,05	2,0	897,206
80+0,000	897,096	-2,0	6,05	895,678	897,217	187.731,42	7.991.274,03	5,05	2,0	897,318
81+0,000	897,212	-2,0	6,05	895,767	897,333	187.721,73	7.991.291,53	5,05	2,0	897,434
82+0,000	897,372	-2,0	6,05	895,545	897,493	187.712,05	7.991.309,02	5,05	2,0	897,594
83+0,000	897,585	-2,0	6,05	895,479	897,706	187.702,36	7.991.326,52	5,05	2,0	897,807
84+0,000	897,850	-2,0	6,05	896,888	897,971	187.692,67	7.991.344,02	5,05	2,0	898,072
85+0,000	898,164	-2,0	6,05	897,886	898,285	187.682,99	7.991.361,52	5,05	2,0	898,386
86+0,000	898,486	-2,0	6,05	898,589	898,607	187.673,30	7.991.379,01	5,05	2,0	898,708
87+0,000	898,809	-2,0	6,05	899,793	898,930	187.663,61	7.991.396,51	5,05	2,0	899,031
88+0,000	899,132	-2,0	6,05	899,834	899,253	187.653,93	7.991.414,01	5,05	2,0	899,354
89+0,000	899,454	-2,0	6,05	899,934	899,575	187.644,24	7.991.431,51	5,05	2,0	899,676
90+0,000	899,777	-2,0	6,05	899,519	899,898	187.634,55	7.991.449,00	5,05	2,0	899,999
91+0,000	900,106	-2,0	5,70	899,966	900,220	187.624,87	7.991.466,50	5,05	2,0	900,321
92+0,000	900,435	-2,0	5,40	900,350	900,543	187.615,18	7.991.484,00	5,05	2,0	900,644
93+0,000	900,763	-2,0	5,12	900,502	900,865	187.605,49	7.991.501,50	5,05	2,0	900,966
94+0,000	901,044	-2,0	5,05	900,750	901,145	187.595,80	7.991.518,99	5,05	2,0	901,246
95+0,000	901,211	-2,0	5,05	900,980	901,312	187.586,12	7.991.536,49	5,05	2,0	901,413
95+17,221	901,262	-2,0	5,05	901,050	901,363	187.577,78	7.991.551,56	5,05	2,0	901,464
96+0,000	901,263	-2,0	5,05	901,030	901,364	187.576,43	7.991.553,99	5,05	2,0	901,465
97+0,000	901,201	-2,0	5,05	900,948	901,302	187.566,67	7.991.571,45	5,05	2,0	901,403
97+7,221	901,151	-2,0	5,05	900,870	901,252	187.563,08	7.991.577,71	5,05	2,0	901,353



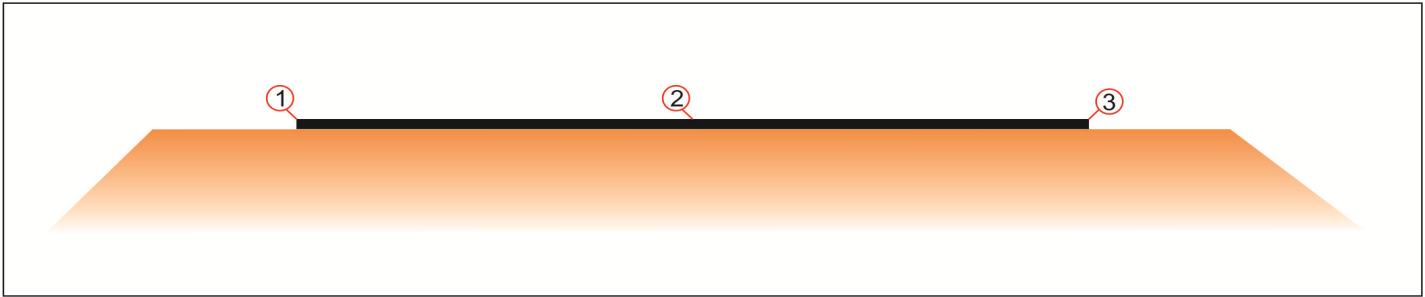
PROJETO EXECUTIVO DE ENGENHARIA PARA DUPLICAÇÃO DE RODOVIA										
Rodovia: GO-330										
Trecho: Entr. Avenida Juscelino K de Oliveira / Posto Polícia Rodoviária Estadual										
Nota-de-Serviço de Pavimentação - GO-330 - Pista Sul										
Estaca	Bordo Esquerdo			Eixo				Bordo Direito		
	cota pavim	i (%)	dist (m)	cota terreno	cota projeto	Coordenada X	Coordenada Y	dist (m)	i (%)	cota pavim
	1			2				3		
98+0,000	901,025	-2,0	5,05	900,621	901,126	187.556,60	7.991.588,72	5,51	2,0	901,236
98+6,657	900,941	-2,0	5,05	900,473	901,042	187.553,15	7.991.594,42	6,70	2,0	901,176
99+0,000	900,734	-2,0	5,05	900,059	900,835	187.546,09	7.991.605,74	6,73	2,0	900,970
99+6,092	900,623	-2,0	5,05	899,943	900,724	187.542,81	7.991.610,87	7,58	2,0	900,876
100+0,000	900,330	-2,0	5,05	899,860	900,431	187.535,19	7.991.622,51	7,95	2,0	900,590
100+16,092	899,921	-2,0	5,05	899,546	900,022	187.526,23	7.991.635,88	7,95	2,0	900,181
101+0,000	899,811	-2,0	5,05	899,436	899,912	187.524,05	7.991.639,12	7,95	2,0	900,071
102+0,000	899,178	-2,0	5,05	898,823	899,279	187.512,90	7.991.655,72	7,95	2,0	899,438
103+0,000	898,431	-2,0	5,05	897,676	898,532	187.501,74	7.991.672,32	7,95	2,0	898,691
104+0,000	897,570	-2,0	5,05	897,208	897,671	187.490,59	7.991.688,92	7,95	2,0	897,830
104+6,210	897,279	-2,0	5,05	897,014	897,380	187.487,12	7.991.694,07	7,95	2,0	897,539
105+0,000	896,626	-2,0	5,05	896,431	896,727	187.479,45	7.991.705,53	7,95	2,0	896,886
106+0,000	895,680	-2,0	5,05	895,291	895,781	187.468,47	7.991.722,25	7,95	2,0	895,940
106+1,210	895,622	-2,0	5,05	895,231	895,723	187.467,82	7.991.723,27	7,95	2,0	895,882
107+0,000	894,733	-2,0	5,05	894,268	894,834	187.457,86	7.991.739,20	7,95	2,0	894,993
108+0,000	893,765	-2,0	5,05	893,738	893,866	187.447,69	7.991.756,42	7,95	2,0	894,025
108+14,599	893,015	-2,0	5,05	893,691	893,116	187.440,53	7.991.769,15	7,95	2,0	893,275
109+0,000	892,728	-2,0	5,05	893,376	892,829	187.437,95	7.991.773,89	7,95	2,0	892,988
110+0,000	891,619	-2,0	5,05	892,289	891,720	187.428,64	7.991.791,59	7,95	2,0	891,879
111+0,000	890,439	-2,0	5,05	890,152	890,540	187.419,78	7.991.809,52	7,95	2,0	890,699
111+7,987	889,947	-2,0	5,05	889,795	890,048	187.416,37	7.991.816,74	7,95	2,0	890,207
112+0,000	889,187	-2,0	5,05	889,131	889,288	187.411,37	7.991.827,66	7,95	2,0	889,447
113+0,000	887,864	-2,0	5,05	887,571	887,965	187.403,25	7.991.845,94	7,95	2,0	888,124
113+2,987	887,660	-2,0	5,05	887,157	887,761	187.402,04	7.991.848,68	7,95	2,0	887,920
114+0,000	886,490	-2,0	5,05	886,344	886,591	187.395,19	7.991.864,25	6,78	2,0	886,727
114+11,848	885,675	-2,0	5,05	885,755	885,776	187.390,42	7.991.875,09	6,25	2,0	885,901
115+0,000	885,114	-2,0	5,05	885,310	885,215	187.387,13	7.991.882,55	5,89	2,0	885,333
116+0,000	883,739	-2,0	5,05	883,940	883,840	187.378,94	7.991.900,80	5,15	2,0	883,943
116+1,848	883,612	-2,0	5,05	883,788	883,713	187.378,17	7.991.902,48	5,05	2,0	883,814
117+0,000	882,363	-2,0	5,05	882,314	882,464	187.370,36	7.991.918,86	5,05	2,0	882,565
117+2,639	882,182	-2,0	5,05	882,005	882,283	187.369,20	7.991.921,23	5,05	2,0	882,384
118+0,000	881,041	-2,0	5,05	880,541	881,142	187.361,33	7.991.936,71	5,05	2,0	881,243
118+3,431	880,829	-2,0	5,05	880,307	880,930	187.359,74	7.991.939,75	5,05	2,0	881,031
119+0,000	879,877	-2,0	5,05	879,205	879,978	187.351,89	7.991.954,34	5,05	2,0	880,079
119+13,431	879,186	-2,0	5,05	878,036	879,287	187.345,42	7.991.966,11	5,05	2,0	879,388
120+0,000	878,874	-2,0	5,05	876,943	878,975	187.342,24	7.991.971,86	5,05	2,0	879,076
121+0,000	878,034	-2,0	5,05	874,268	878,135	187.332,59	7.991.989,37	5,05	2,0	878,236
122+0,000	877,355	-2,0	5,05	871,781	877,456	187.322,93	7.992.006,89	5,05	2,0	877,557
123+0,000	876,838	-2,0	5,05	872,244	876,939	187.313,27	7.992.024,40	5,05	2,0	877,040
124+0,000	876,483	-2,0	5,05	873,959	876,584	187.303,61	7.992.041,91	5,05	2,0	876,685
125+0,000	876,289	-2,0	5,05	874,691	876,390	187.293,95	7.992.059,43	5,05	2,0	876,491
126+0,000	876,258	-2,0	5,05	875,269	876,359	187.284,30	7.992.076,94	5,05	2,0	876,460
127+0,000	876,388	-2,0	5,05	875,659	876,489	187.274,64	7.992.094,45	5,05	2,0	876,590
128+0,000	876,680	-2,0	5,05	875,880	876,781	187.264,98	7.992.111,97	5,05	2,0	876,882
129+0,000	877,133	-2,0	5,05	876,244	877,234	187.255,32	7.992.129,48	5,05	2,0	877,335
130+0,000	877,748	-2,0	5,05	876,880	877,849	187.245,66	7.992.146,99	5,05	2,0	877,950
131+0,000	878,473	-2,0	5,05	877,532	878,574	187.236,01	7.992.164,51	5,05	2,0	878,675
132+0,000	879,200	-2,0	5,05	878,154	879,301	187.226,35	7.992.182,02	5,05	2,0	879,402
133+0,000	879,927	-2,0	5,05	879,090	880,028	187.216,69	7.992.199,53	5,05	2,0	880,129
134+0,000	880,655	-2,0	5,05	879,801	880,756	187.207,03	7.992.217,05	5,05	2,0	880,857
135+0,000	881,382	-2,0	5,05	880,227	881,483	187.197,38	7.992.234,56	5,05	2,0	881,584
136+0,000	882,109	-2,0	5,05	880,593	882,210	187.187,72	7.992.252,07	5,05	2,0	882,311
137+0,000	882,836	-2,0	5,05	881,076	882,937	187.178,06	7.992.269,59	5,05	2,0	883,038
138+0,000	883,564	-2,0	5,05	881,687	883,665	187.168,40	7.992.287,10	5,05	2,0	883,766
139+0,000	884,291	-2,0	5,05	882,524	884,392	187.158,74	7.992.304,62	5,05	2,0	884,493
140+0,000	885,018	-2,0	5,05	883,337	885,119	187.149,09	7.992.322,13	5,05	2,0	885,220
141+0,000	885,745	-2,0	5,05	884,354	885,846	187.139,43	7.992.339,64	5,05	2,0	885,947
142+0,000	886,473	-2,0	5,05	885,123	886,574	187.129,77	7.992.357,16	5,05	2,0	886,675



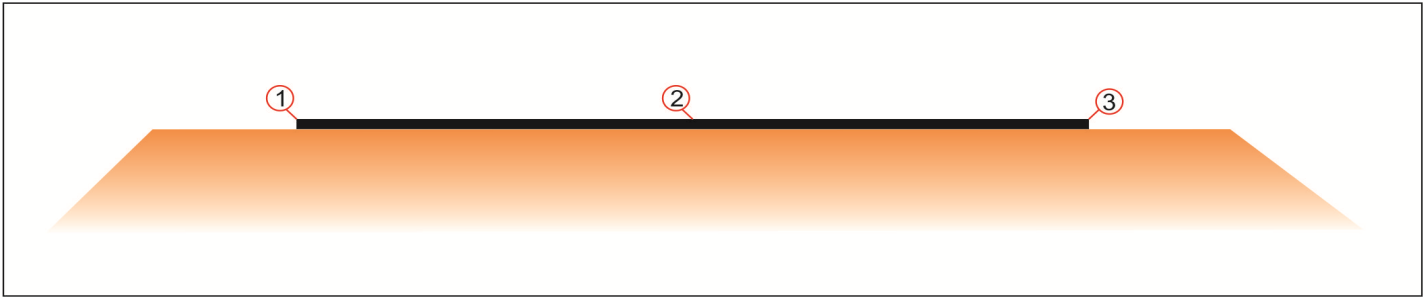
PROJETO EXECUTIVO DE ENGENHARIA PARA DUPLICAÇÃO DE RODOVIA Rodovia: GO-330 Trecho: Entr. Avenida Juscelino K de Oliveira / Posto Polícia Rodoviária Estadual Nota-de-Serviço de Pavimentação - GO-330 - Pista Sul										
Estaca	Bordo Esquerdo			Eixo				Bordo Direito		
	cota pavim	i (%)	dist (m)	cota terreno	cota projeto	Coordenada X	Coordenada Y	dist (m)	i (%)	cota pavim
	1			2				3		
143+0,000	887,200	-2,0	5,05	885,710	887,301	187.120,11	7.992.374,67	5,05	2,0	887,402
144+0,000	887,859	-2,0	5,05	886,318	887,960	187.110,45	7.992.392,18	5,05	2,0	888,061
145+0,000	888,401	-2,0	5,05	887,975	888,502	187.100,80	7.992.409,70	5,05	2,0	888,603
146+0,000	888,825	-2,0	5,05	887,453	888,926	187.091,14	7.992.427,21	5,05	2,0	889,027
147+0,000	889,132	-2,0	5,05	887,861	889,233	187.081,48	7.992.444,72	5,05	2,0	889,334
148+0,000	889,321	-2,0	5,05	888,021	889,422	187.071,82	7.992.462,24	5,05	2,0	889,523
149+0,000	889,393	-2,0	5,05	888,297	889,494	187.062,16	7.992.479,75	5,05	2,0	889,595
150+0,000	889,347	-2,0	5,05	887,705	889,448	187.052,51	7.992.497,26	5,05	2,0	889,549
151+0,000	889,185	-2,0	5,05	888,289	889,286	187.042,85	7.992.514,78	5,05	2,0	889,387
152+0,000	888,972	-2,0	5,05	888,248	889,073	187.033,19	7.992.532,29	5,05	2,0	889,174
153+0,000	888,759	-2,0	5,05	888,089	888,860	187.023,53	7.992.549,80	5,05	2,0	888,961
154+0,000	888,547	-2,0	5,05	887,990	888,648	187.013,87	7.992.567,32	5,05	2,0	888,749
155+0,000	888,334	-2,0	5,05	888,172	888,435	187.004,22	7.992.584,83	5,05	2,0	888,536
155+13,047	888,196	-2,0	5,05	888,233	888,297	186.997,92	7.992.596,26	5,05	2,0	888,398
156+0,000	888,122	-2,0	5,05	888,444	888,223	186.994,56	7.992.602,34	5,05	2,0	888,324
157+0,000	887,909	-2,0	5,05	888,271	888,010	186.984,81	7.992.619,81	5,46	2,0	888,119
157+13,047	887,771	-2,0	5,05	888,129	887,872	186.978,31	7.992.631,12	6,11	2,0	887,994
158+0,000	887,697	-2,0	5,05	887,960	887,798	186.974,77	7.992.637,11	6,42	2,0	887,926
158+19,927	887,485	-2,0	5,05	887,596	887,586	186.964,36	7.992.654,09	7,24	2,0	887,731
159+0,000	887,484	-2,0	5,05	887,595	887,585	186.964,32	7.992.654,16	7,25	2,0	887,730
160+0,000	887,272	-2,0	5,05	886,753	887,373	186.953,44	7.992.670,94	7,95	2,0	887,532
160+6,806	887,199	-2,0	5,05	886,411	887,300	186.949,64	7.992.676,59	7,95	2,0	887,459
161+0,000	887,059	-2,0	5,05	886,005	887,160	186.942,15	7.992.687,45	7,95	2,0	887,319
162+0,000	886,846	-2,0	5,05	885,575	886,947	186.930,59	7.992.703,77	7,95	2,0	887,106
162+6,806	886,774	-2,0	5,05	885,555	886,875	186.926,64	7.992.709,31	7,95	2,0	887,034
163+0,000	886,634	-2,0	5,05	885,947	886,735	186.918,96	7.992.720,04	7,95	2,0	886,894
163+8,157	886,565	-2,0	5,05	886,245	886,666	186.914,21	7.992.726,67	7,95	2,0	886,825
164+0,000	886,514	-2,0	5,05	885,936	886,615	186.907,34	7.992.736,32	7,95	2,0	886,774
164+18,157	886,548	-2,0	5,05	886,114	886,649	186.897,10	7.992.751,31	7,95	2,0	886,808
165+0,000	886,559	-2,0	5,05	886,125	886,660	186.896,10	7.992.752,86	7,95	2,0	886,819
166+0,000	886,769	-2,0	5,05	886,445	886,870	186.885,74	7.992.769,96	7,95	2,0	887,029
167+0,000	887,131	-2,0	5,05	886,607	887,232	186.876,38	7.992.787,63	5,05	2,0	887,333
167+7,267	887,273	-2,0	5,05	886,726	887,374	186.873,23	7.992.794,18	5,05	2,0	887,475
168+0,000	887,521	-2,0	5,05	887,027	887,622	186.868,04	7.992.805,81	5,05	2,0	887,723
169+0,000	887,911	-2,0	5,05	887,157	888,012	186.860,75	7.992.824,43	5,05	2,0	888,113
169+16,378	888,230	-2,0	5,05	887,078	888,331	186.855,58	7.992.839,97	5,05	2,0	888,432
170+0,000	888,301	-2,0	5,05	887,035	888,402	186.854,54	7.992.843,44	5,05	2,0	888,503
171+0,000	888,691	-2,0	5,05	887,321	888,792	186.849,22	7.992.862,72	5,05	2,0	888,893
171+6,378	888,816	-2,0	5,05	887,664	888,917	186.847,61	7.992.868,89	5,05	2,0	889,018
172+0,000	889,081	-2,0	5,05	888,315	889,182	186.844,17	7.992.882,07	5,05	2,0	889,283
173+0,000	889,47	-2,0	5,05	889,52	889,57	186.839,13	7.992.901,42	5,05	2,0	889,67
173+5,557	889,58	-2,0	5,05	889,76	889,68	186.837,73	7.992.906,80			
174+0,000	889,86	-2,0	5,05	890,09	889,96	186.833,60	7.992.920,64			
174+11,094	890,08	-2,0	5,05	890,09	890,18	186.829,77	7.992.931,05			
175+0,000	890,25	-2,0	5,05	890,09	890,35	186.826,30	7.992.939,25			
175+16,631	890,58	-2,0	5,05	890,09	890,68	186.818,86	7.992.954,12			
176+0,000	890,64	-2,0	5,05	890,09	890,74	186.817,24	7.992.957,07			



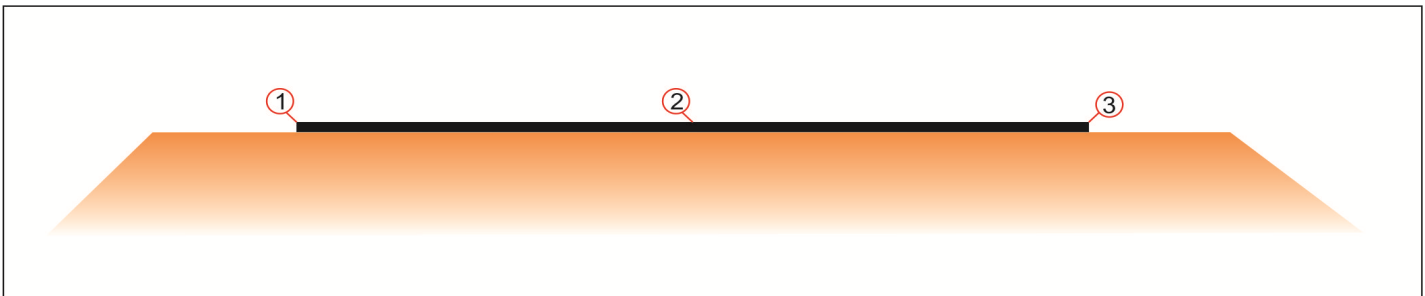
PROJETO EXECUTIVO DE ENGENHARIA PARA DUPLICAÇÃO DE RODOVIA										
Rodovia: GO-330										
Trecho: Entr. Avenida Juscelino K de Oliveira / Posto Polícia Rodoviária Estadual										
Nota-de-Serviço de Pavimentação - GO-330 - Pista Norte										
Estaca	Bordo Esquerdo			Eixo				Bordo Direito		
	cota pavim	i (%)	dist (m)	cota terreno	cota projeto	Coordenada X	Coordenada Y	dist (m)	i (%)	cota pavim
	1			2				3		
48+0,000	902,651	2,0	5,05	904,256	902,550	188.055,63	7.990.722,02	5,05	-2,0	902,449
49+0,000	902,075	2,0	5,05	903,441	901,974	188.046,10	7.990.739,61	5,05	-2,0	901,873
50+0,000	901,499	2,0	5,05	902,699	901,398	188.036,58	7.990.757,20	5,05	-2,0	901,297
50+16,788	901,016	2,0	5,05	902,072	900,915	188.028,59	7.990.771,96	5,05	-2,0	900,814
51+0,000	900,923	2,0	5,05	901,954	900,822	188.027,06	7.990.774,79	5,05	-2,0	900,721
51+19,998	900,347	2,0	5,05	901,225	900,246	188.017,38	7.990.792,29	5,05	-2,0	900,145
52+0,000	900,347	2,0	5,05	901,225	900,246	188.017,38	7.990.792,29	5,05	-2,0	900,145
53+0,000	899,771	2,0	5,05	900,490	899,670	188.007,47	7.990.809,66	5,05	-2,0	899,569
53+3,208	899,679	2,0	5,05	900,386	899,578	188.005,86	7.990.812,43	5,05	-2,0	899,477
54+0,000	899,195	2,0	5,05	899,787	899,094	187.997,41	7.990.826,95	5,05	-2,0	898,993
55+0,000	898,619	2,0	5,05	898,963	898,518	187.987,35	7.990.844,23	5,05	-2,0	898,417
56+0,000	898,048	2,0	5,05	898,276	897,947	187.977,29	7.990.861,52	6,05	-2,0	897,826
57+0,000	897,532	2,0	5,05	897,706	897,431	187.967,22	7.990.878,80	6,05	-2,0	897,310
58+0,000	897,086	2,0	5,05	897,204	896,985	187.957,16	7.990.896,08	6,05	-2,0	896,864
58+3,816	897,009	2,0	5,05	897,114	896,908	187.955,24	7.990.899,38	6,05	-2,0	896,787
58+19,990	896,711	2,0	5,05	896,768	896,610	187.947,18	7.990.913,40	6,05	-2,0	896,489
59+0,000	896,710	2,0	5,05	896,768	896,609	187.947,18	7.990.913,41	6,05	-2,0	896,488
59+16,165	896,458	2,0	5,05	896,483	896,357	187.939,27	7.990.927,51	6,05	-2,0	896,236
60+0,000	896,404	2,0	5,05	896,422	896,303	187.937,41	7.990.930,87	6,05	-2,0	896,182
61+0,000	896,168	2,0	5,05	896,144	896,067	187.927,73	7.990.948,36	6,05	-2,0	895,946
62+0,000	896,002	2,0	5,05	895,968	895,901	187.918,04	7.990.965,86	6,05	-2,0	895,780
63+0,000	895,905	2,0	5,05	895,859	895,804	187.908,35	7.990.983,36	5,76	-2,0	895,689
64+0,000	895,879	2,0	5,05	895,821	895,778	187.898,66	7.991.000,86	5,45	-2,0	895,669
65+0,000	895,922	2,0	5,05	895,851	895,821	187.888,98	7.991.018,35	5,14	-2,0	895,718
66+0,000	895,992	2,0	5,05	895,911	895,891	187.879,29	7.991.035,85	5,05	-2,0	895,790
67+0,000	896,062	2,0	5,05	895,979	895,961	187.869,60	7.991.053,35	5,05	-2,0	895,860
68+0,000	896,132	2,0	5,05	896,030	896,031	187.859,92	7.991.070,85	5,05	-2,0	895,930
69+0,000	896,203	2,0	5,05	896,067	896,102	187.850,23	7.991.088,34	5,05	-2,0	896,001
70+0,000	896,273	2,0	5,05	896,092	896,172	187.840,54	7.991.105,84	5,05	-2,0	896,071
71+0,000	896,343	2,0	5,05	896,167	896,242	187.830,85	7.991.123,34	5,05	-2,0	896,141
72+0,000	896,413	2,0	5,05	896,249	896,312	187.821,17	7.991.140,84	5,35	-2,0	896,205
73+0,000	896,484	2,0	5,05	896,317	896,383	187.811,48	7.991.158,33	5,65	-2,0	896,270
74+0,000	896,555	2,0	5,05	896,458	896,454	187.801,79	7.991.175,83	5,93	-2,0	896,335
75+0,000	896,656	2,0	5,05	896,588	896,555	187.792,11	7.991.193,33	6,05	-2,0	896,434
76+0,000	896,801	2,0	5,05	896,770	896,700	187.782,42	7.991.210,83	6,05	-2,0	896,579
77+0,000	896,998	2,0	5,40	896,986	896,890	187.772,73	7.991.228,32	6,05	-2,0	896,769
78+0,000	897,238	2,0	5,68	897,255	897,124	187.763,04	7.991.245,82	6,05	-2,0	897,003
79+0,000	897,521	2,0	5,96	897,556	897,402	187.753,36	7.991.263,32	6,05	-2,0	897,281
80+0,000	897,846	2,0	6,05	897,870	897,725	187.743,67	7.991.280,82	6,05	-2,0	897,604
81+0,000	898,182	2,0	6,05	898,250	898,061	187.733,98	7.991.298,31	6,05	-2,0	897,940
82+0,000	898,519	2,0	6,05	898,618	898,398	187.724,30	7.991.315,81	6,05	-2,0	898,277
83+0,000	898,856	2,0	6,05	898,946	898,735	187.714,61	7.991.333,31	6,05	-2,0	898,614
84+0,000	899,192	2,0	6,05	899,288	899,071	187.704,92	7.991.350,81	6,05	-2,0	898,950
85+0,000	899,529	2,0	6,05	899,610	899,408	187.695,23	7.991.368,30	5,99	-2,0	899,288
86+0,000	899,866	2,0	6,05	899,955	899,745	187.685,55	7.991.385,80	5,70	-2,0	899,631
87+0,000	900,202	2,0	6,05	900,301	900,081	187.675,86	7.991.403,30	5,41	-2,0	899,973
88+0,000	900,539	2,0	6,05	900,635	900,418	187.666,17	7.991.420,80	5,13	-2,0	900,315
89+0,000	900,876	2,0	6,05	900,970	900,755	187.656,49	7.991.438,29	5,05	-2,0	900,654
89+9,648	901,038	2,0	6,05	901,120	900,917	187.651,81	7.991.446,73	5,05	-2,0	900,816
90+0,000	901,205	2,0	5,70	901,267	901,091	187.646,83	7.991.455,81	5,05	-2,0	900,990
91+0,000	901,536	2,0	5,40	901,555	901,428	187.637,38	7.991.473,43	5,05	-2,0	901,327
91+13,703	901,737	2,0	5,12	901,692	901,635	187.631,04	7.991.485,58	5,05	-2,0	901,534
92+0,000	901,817	2,0	5,05	901,749	901,716	187.628,17	7.991.491,19	5,05	-2,0	901,615
93+0,000	902,015	2,0	5,05	901,863	901,914	187.619,19	7.991.509,06	5,05	-2,0	901,813
93+17,758	902,114	2,0	5,05	901,915	902,013	187.611,42	7.991.525,03	5,05	-2,0	901,912
94+0,000	902,122	2,0	5,05	901,914	902,021	187.610,46	7.991.527,05	5,05	-2,0	901,920
95+0,000	902,138	2,0	5,05	901,714	902,037	187.601,81	7.991.545,08	5,05	-2,0	901,936
96+0,000	902,064	2,0	5,05	901,420	901,963	187.593,17	7.991.563,12	5,05	-2,0	901,862



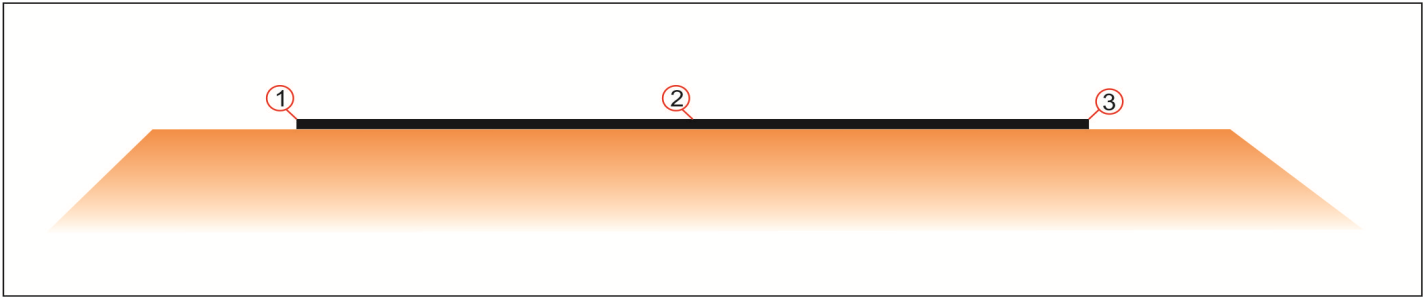
PROJETO EXECUTIVO DE ENGENHARIA PARA DUPLICAÇÃO DE RODOVIA										
Rodovia: GO-330										
Trecho: Entr. Avenida Juscelino K de Oliveira / Posto Polícia Rodoviária Estadual										
Nota-de-Serviço de Pavimentação - GO-330 - Pista Norte										
Estaca	Bordo Esquerdo			Eixo				Bordo Direito		
	cota pavim	i (%)	dist (m)	cota terreno	cota projeto	Coordenada X	Coordenada Y	dist (m)	i (%)	cota pavim
	1			2				3		
97+0,000	901,899	2,0	5,05	900,791	901,798	187.584,53	7.991.581,16	5,51	-2,0	901,688
98+0,000	901,643	2,0	5,05	900,238	901,542	187.575,88	7.991.599,19	6,70	-2,0	901,408
98+4,724	901,570	2,0	5,05	900,207	901,469	187.573,84	7.991.603,45	6,73	-2,0	901,334
99+0,000	901,297	2,0	5,05	900,626	901,196	187.567,17	7.991.617,19	7,58	-2,0	901,044
100+0,000	900,860	2,0	5,05	900,197	900,759	187.558,22	7.991.635,08	7,95	-2,0	900,600
100+7,530	900,672	2,0	5,05	899,288	900,571	187.554,79	7.991.641,79	7,95	-2,0	900,412
101+0,000	900,352	2,0	6,00	897,791	900,232	187.549,04	7.991.652,85	7,95	-2,0	900,073
102+0,000	899,750	2,0	6,78	896,785	899,614	187.539,62	7.991.670,49	7,95	-2,0	899,455
102+10,336	899,401	2,0	7,09	896,744	899,259	187.534,66	7.991.679,56	7,95	-2,0	899,100
103+0,000	899,052	2,0	7,33	896,861	898,905	187.529,99	7.991.688,02	7,95	-2,0	898,746
104+0,000	898,262	2,0	7,84	897,400	898,105	187.520,34	7.991.705,54	7,95	-2,0	897,946
105+0,000	897,374	2,0	7,95	896,508	897,215	187.510,68	7.991.723,05	7,95	-2,0	897,056
106+0,000	896,394	2,0	7,95	894,916	896,235	187.501,02	7.991.740,56	7,95	-2,0	896,076
107+0,000	895,322	2,0	7,95	893,922	895,163	187.491,36	7.991.758,08	7,95	-2,0	895,004
108+0,000	894,160	2,0	7,95	892,729	894,001	187.481,70	7.991.775,59	7,95	-2,0	893,842
109+0,000	892,908	2,0	7,95	891,624	892,749	187.472,05	7.991.793,10	7,95	-2,0	892,590
110+0,000	891,565	2,0	7,95	890,462	891,406	187.462,39	7.991.810,62	7,95	-2,0	891,247
111+0,000	890,168	2,0	7,95	889,188	890,009	187.452,73	7.991.828,13	7,95	-2,0	889,850
112+0,000	888,770	2,0	7,95	887,915	888,611	187.443,07	7.991.845,64	7,95	-2,0	888,452
113+0,000	887,373	2,0	7,95	886,707	887,214	187.433,41	7.991.863,16	7,95	-2,0	887,055
114+0,000	885,975	2,0	7,95	885,242	885,816	187.423,76	7.991.880,67	7,95	-2,0	885,657
114+8,077	885,411	2,0	7,95	884,753	885,252	187.419,86	7.991.887,74	7,95	-2,0	885,093
115+0,000	884,578	2,0	7,95	884,250	884,419	187.414,06	7.991.898,16	7,95	-2,0	884,260
116+0,000	883,178	2,0	7,78	883,028	883,022	187.404,14	7.991.915,53	7,95	-2,0	882,863
116+10,883	882,413	2,0	7,60	882,420	882,261	187.398,65	7.991.924,93	6,78	-2,0	882,125
117+0,000	881,767	2,0	7,14	881,771	881,624	187.394,00	7.991.932,77	6,25	-2,0	881,499
118+0,000	880,350	2,0	6,15	880,820	880,227	187.383,63	7.991.949,87	5,89	-2,0	880,109
118+13,690	879,436	2,0	5,59	880,189	879,324	187.376,40	7.991.961,49	5,15	-2,0	879,221
119+0,000	879,045	2,0	5,22	879,759	878,941	187.373,04	7.991.966,84	5,05	-2,0	878,840
120+0,000	877,973	2,0	5,05	877,742	877,872	187.362,40	7.991.983,77	5,05	-2,0	877,771
121+0,000	877,119	2,0	5,05	877,329	877,018	187.351,76	7.992.000,70	5,05	-2,0	876,917
122+0,000	876,481	2,0	5,05	876,697	876,380	187.341,12	7.992.017,64	5,05	-2,0	876,279
123+0,000	876,059	2,0	5,05	876,116	875,958	187.330,48	7.992.034,57	5,05	-2,0	875,857
124+0,000	875,852	2,0	5,05	875,791	875,751	187.319,83	7.992.051,51	5,05	-2,0	875,650
124+6,907	875,831	2,0	5,05	875,725	875,730	187.316,16	7.992.057,36	5,05	-2,0	875,629
125+0,000	875,862	2,0	5,05	875,610	875,761	187.309,24	7.992.068,47	5,05	-2,0	875,660
126+0,000	876,088	2,0	5,05	875,737	875,987	187.298,86	7.992.085,57	5,05	-2,0	875,886
126+9,729	876,275	2,0	5,05	875,823	876,174	187.293,90	7.992.093,93	5,05	-2,0	876,073
127+0,000	876,529	2,0	5,05	876,008	876,428	187.288,71	7.992.102,80	5,05	-2,0	876,327
128+0,000	877,171	2,0	5,05	876,512	877,070	187.278,79	7.992.120,17	5,05	-2,0	876,969
128+12,550	877,600	2,0	5,05	876,892	877,499	187.272,69	7.992.131,13	5,05	-2,0	877,398
129+0,000	877,855	2,0	5,05	877,155	877,754	187.269,09	7.992.137,65	5,05	-2,0	877,653
130+0,000	878,538	2,0	5,05	877,874	878,437	187.259,43	7.992.155,17	5,05	-2,0	878,336
131+0,000	879,222	2,0	5,05	878,612	879,121	187.249,77	7.992.172,68	5,05	-2,0	879,020
132+0,000	879,906	2,0	5,05	879,339	879,805	187.240,12	7.992.190,20	5,05	-2,0	879,704
133+0,000	880,590	2,0	5,05	880,054	880,489	187.230,46	7.992.207,71	5,05	-2,0	880,388
134+0,000	881,273	2,0	5,05	880,784	881,172	187.220,80	7.992.225,22	5,05	-2,0	881,071
135+0,000	881,957	2,0	5,05	881,466	881,856	187.211,14	7.992.242,74	5,05	-2,0	881,755
136+0,000	882,641	2,0	5,05	882,198	882,540	187.201,49	7.992.260,25	5,05	-2,0	882,439
137+0,000	883,325	2,0	5,05	882,933	883,224	187.191,83	7.992.277,76	5,07	-2,0	883,123
138+0,000	884,008	2,0	5,05	883,652	883,907	187.182,17	7.992.295,28	5,35	-2,0	883,800
139+0,000	884,692	2,0	5,05	884,382	884,591	187.172,51	7.992.312,79	5,64	-2,0	884,478
140+0,000	885,376	2,0	5,05	885,105	885,275	187.162,85	7.992.330,31	5,93	-2,0	885,156
141+0,000	886,060	2,0	5,05	885,799	885,959	187.153,20	7.992.347,82	6,05	-2,0	885,838
142+0,000	886,741	2,0	5,05	886,497	886,640	187.143,54	7.992.365,33	6,05	-2,0	886,519
143+0,000	887,370	2,0	5,05	887,095	887,269	187.133,88	7.992.382,85	6,05	-2,0	887,148
144+0,000	887,923	2,0	5,05	887,672	887,822	187.124,22	7.992.400,36	6,05	-2,0	887,701
145+0,000	888,401	2,0	5,05	888,092	888,300	187.114,57	7.992.417,87	6,05	-2,0	888,179



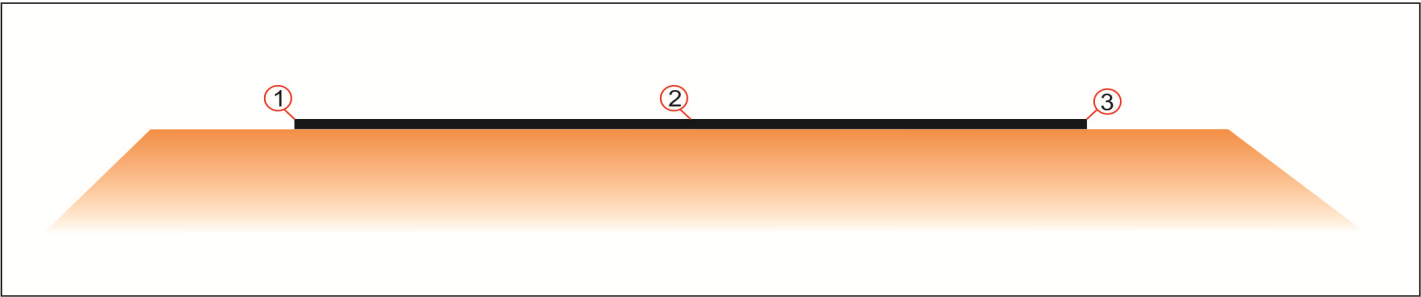
PROJETO EXECUTIVO DE ENGENHARIA PARA DUPLICAÇÃO DE RODOVIA										
Rodovia: GO-330										
Trecho: Entr. Avenida Juscelino K de Oliveira / Posto Polícia Rodoviária Estadual										
Nota-de-Serviço de Pavimentação - GO-330 - Pista Norte										
Estaca	Bordo Esquerdo			Eixo				Bordo Direito		
	cota pavim	i (%)	dist (m)	cota terreno	cota projeto	Coordenada X	Coordenada Y	dist (m)	i (%)	cota pavim
	1			2				3		
146+0,000	888,804	2,0	5,05	888,584	888,703	187.104,91	7.992.435,39	6,05	-2,0	888,582
147+0,000	889,132	2,0	5,05	888,939	889,031	187.095,25	7.992.452,90	6,05	-2,0	888,910
148+0,000	889,385	2,0	5,05	889,214	889,284	187.085,59	7.992.470,41	6,05	-2,0	889,163
149+0,000	889,563	2,0	5,05	889,431	889,462	187.075,94	7.992.487,93	6,05	-2,0	889,341
150+0,000	889,666	2,0	5,05	889,549	889,565	187.066,28	7.992.505,44	6,05	-2,0	889,444
151+0,000	889,694	2,0	5,05	889,566	889,593	187.056,62	7.992.522,96	6,05	-2,0	889,472
152+0,000	889,646	2,0	5,05	889,525	889,545	187.046,96	7.992.540,47	6,05	-2,0	889,424
152+3,347	889,631	2,0	5,05	889,511	889,530	187.045,35	7.992.543,40	6,05	-2,0	889,409
153+0,000	889,524	2,0	5,05	889,413	889,423	187.037,39	7.992.558,03	6,05	-2,0	889,302
154+0,000	889,326	2,0	5,05	889,219	889,225	187.028,04	7.992.575,71	6,05	-2,0	889,104
154+3,006	889,290	2,0	5,05	889,183	889,189	187.026,66	7.992.578,38	6,05	-2,0	889,068
155+0,000	889,054	2,0	5,05	888,956	888,953	187.018,93	7.992.593,52	6,05	-2,0	888,832
156+0,000	888,708	2,0	5,05	888,633	888,607	187.010,06	7.992.611,44	5,78	-2,0	888,491
156+2,666	888,659	2,0	5,05	888,584	888,558	187.008,90	7.992.613,84	5,78	-2,0	888,443
157+0,000	888,341	2,0	5,05	888,277	888,240	187.001,34	7.992.629,44	5,35	-2,0	888,133
158+0,000	887,973	2,0	5,05	887,917	887,872	186.992,62	7.992.647,44	5,05	-2,0	887,771
159+0,000	887,606	2,0	5,05	887,513	887,505	186.983,91	7.992.665,44	5,05	-2,0	887,404
160+0,000	887,252	2,0	5,28	886,722	887,146	186.975,19	7.992.683,44	5,05	-2,0	887,045
161+0,000	886,998	2,0	6,20	886,188	886,874	186.966,47	7.992.701,44	5,05	-2,0	886,773
161+4,999	886,952	2,0	6,47	886,055	886,823	186.964,29	7.992.705,94	5,05	-2,0	886,722
162+0,000	886,854	2,0	7,13	886,300	886,711	186.957,74	7.992.719,43	5,05	-2,0	886,610
163+0,000	886,812	2,0	7,83	885,644	886,655	186.948,83	7.992.737,34	5,05	-2,0	886,554
163+4,999	886,817	2,0	7,95	885,554	886,658	186.946,55	7.992.741,79	5,05	-2,0	886,557
164+0,000	886,866	2,0	7,95	885,180	886,707	186.939,56	7.992.755,06	5,05	-2,0	886,606
164+12,509	886,953	2,0	7,95	884,755	886,794	186.933,53	7.992.766,02	5,05	-2,0	886,693
165+0,000	887,025	2,0	7,95	884,850	886,866	186.929,84	7.992.772,54	5,05	-2,0	886,765
166+0,000	887,293	2,0	7,95	885,296	887,134	186.919,69	7.992.789,77	5,05	-2,0	887,033
166+0,020	887,293	2,0	7,95	885,296	887,134	186.919,68	7.992.789,79	5,05	-2,0	887,033
167+0,000	887,590	2,0	5,05	886,298	887,489	186.909,15	7.992.806,77	5,05	-2,0	887,388
168+0,000	887,953	2,0	5,05	887,314	887,852	186.898,39	7.992.823,63	5,05	-2,0	887,751
168+0,020	887,954	2,0	5,05	887,315	887,853	186.898,38	7.992.823,64	5,05	-2,0	887,752
169+0,000	888,317	2,0	5,05	888,132	888,216	186.887,60	7.992.840,47	5,05	-2,0	888,115
170+0,000	888,680	2,0	5,05	888,569	888,579	186.876,81	7.992.857,31	5,05	-2,0	888,478
171+0,000	889,044	2,0	5,05	888,973	888,943	186.866,02	7.992.874,15	5,05	-2,0	888,842
172+0,000	889,407	2,0	5,05	889,383	889,306	186.855,23	7.992.890,99	5,05	-2,0	889,205
172+7,470	889,543	2,0	5,05	889,528	889,442	186.851,20	7.992.897,28	5,05	-2,0	889,341
173+0,000				889,742	889,670	186.844,61	7.992.907,93	5,05	0,0	889,670
173+0,645				889,753	889,682	186.844,28	7.992.908,48	5,05	0,0	889,682
173+13,821				890,016	889,921	186.837,73	7.992.919,92	5,05	0,0	889,921
174+0,000				890,136	890,033	186.834,74	7.992.925,33	5,05	0,0	890,033



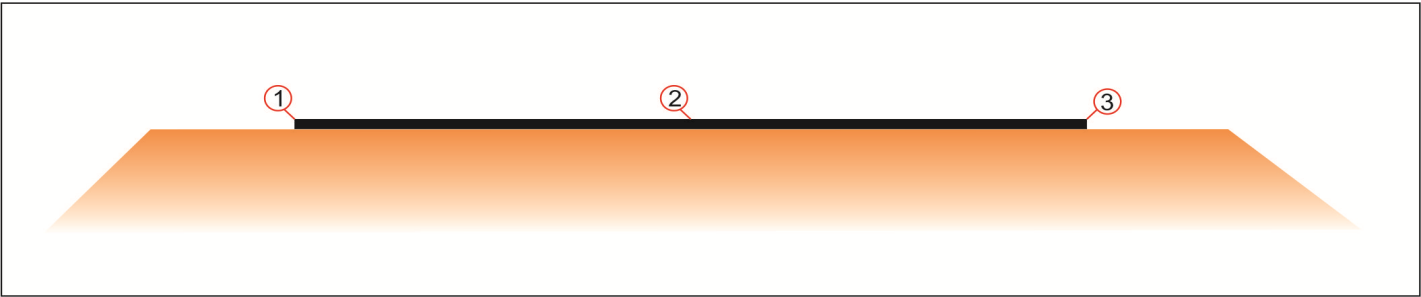
PROJETO EXECUTIVO DE ENGENHARIA PARA DUPLICAÇÃO DE RODOVIA										
Rodovia: GO-330										
Trecho: Entr. Avenida Juscelino K de Oliveira / Posto Polícia Rodoviária Estadual										
Nota-de-Serviço de Pavimentação - GO-330 - Marginal Sul										
Estaca	Bordo Esquerdo			Eixo				Bordo Direito		
	cota pavim	i (%)	dist (m)	cota terreno	cota projeto	Coordenada X	Coordenada Y	dist (m)	i (%)	cota pavim
	1			2				3		
10+0,000	924,080	-2,0	2,50	923,920	924,130	188.473,12	7.990.095,15	2,50	2,0	924,180
11+0,000	923,944	-2,0	2,50	923,506	923,994	188.456,32	7.990.106,02	2,50	2,0	924,044
12+0,000	923,808	-2,0	2,50	923,190	923,858	188.439,53	7.990.116,88	2,50	2,0	923,908
12+12,965	923,720	-2,0	2,50	923,038	923,770	188.428,64	7.990.123,92	2,50	2,0	923,820
12+17,387	923,690	-2,0	2,50	922,868	923,740	188.425,07	7.990.126,52	2,50	2,0	923,790
13+0,000	923,672	-2,0	2,50	922,820	923,722	188.423,10	7.990.128,24	2,50	2,0	923,772
13+1,808	923,659	-2,0	2,50	922,803	923,709	188.421,80	7.990.129,50	2,50	2,0	923,759
14+0,000	923,536	-2,0	2,50	922,731	923,586	188.409,07	7.990.142,49	2,50	2,0	923,636
15+0,000	923,400	-2,0	2,50	922,678	923,450	188.395,06	7.990.156,77	2,50	2,0	923,500
16+0,000	923,159	-2,0	2,50	922,385	923,209	188.381,06	7.990.171,05	2,50	2,0	923,259
17+0,000	922,717	-2,0	2,50	922,054	922,767	188.367,06	7.990.185,33	2,50	2,0	922,817
17+6,311	922,535	-2,0	2,50	921,908	922,585	188.362,64	7.990.189,83	2,50	2,0	922,635
17+8,502	922,467	-2,0	2,50	921,873	922,517	188.361,06	7.990.191,35	2,50	2,0	922,567
17+10,693	922,397	-2,0	2,50	921,837	922,447	188.359,41	7.990.192,79	2,50	2,0	922,497
18+0,000	922,086	-2,0	2,50	921,632	922,136	188.352,20	7.990.198,68	2,50	2,0	922,186
19+0,000	921,417	-2,0	2,50	921,226	921,467	188.336,72	7.990.211,34	2,50	2,0	921,517
19+17,419	920,834	-2,0	2,50	920,807	920,884	188.323,24	7.990.222,37	2,50	2,0	920,934
20+0,000	920,748	-2,0	2,50	920,743	920,798	188.321,22	7.990.223,98	2,50	2,0	920,848
20+9,105	920,423	-2,0	3,50	920,487	920,493	188.313,84	7.990.229,30	3,50	2,0	920,563
21+0,000	920,101	-2,0	3,50	920,174	920,171	188.304,49	7.990.234,89	3,50	2,0	920,241
21+0,791	920,083	-2,0	3,50	920,157	920,153	188.303,79	7.990.235,26	3,50	2,0	920,223
21+9,103	919,947	-2,0	3,50	920,029	920,017	188.296,44	7.990.239,14	3,50	2,0	920,087
22+0,000	919,866	-2,0	3,50	919,946	919,936	188.287,05	7.990.244,67	3,50	2,0	920,006
23+0,000	919,728	-2,0	3,50	919,794	919,798	188.271,39	7.990.257,06	3,50	2,0	919,868
23+3,307	919,705	-2,0	3,50	919,746	919,775	188.269,02	7.990.259,37	3,50	2,0	919,845
24+0,000	919,258	-2,0	3,50	919,344	919,328	188.258,13	7.990.272,01	3,50	2,0	919,398
24+17,510	918,223	-2,0	3,50	918,415	918,293	188.248,84	7.990.286,82	3,50	2,0	918,363
25+0,000	918,072	-2,0	3,50	918,225	918,142	188.247,68	7.990.289,03	3,50	2,0	918,212
26+0,000	916,887	-2,0	3,50	916,863	916,957	188.238,39	7.990.306,74	3,50	2,0	917,027
26+5,468	916,603	-2,0	3,50	916,602	916,673	188.235,85	7.990.311,58	3,50	2,0	916,743
27+0,000	915,967	-2,0	3,50	916,017	916,037	188.229,10	7.990.324,45	3,50	2,0	916,107
27+11,382	915,590	-2,0	3,50	915,642	915,660	188.223,81	7.990.334,53	3,50	2,0	915,730
28+0,000	915,351	-2,0	3,50	915,372	915,421	188.219,81	7.990.342,16	3,50	2,0	915,491
29+0,000	914,798	-2,0	3,50	914,688	914,868	188.210,52	7.990.359,87	3,50	2,0	914,938
30+0,000	914,244	-2,0	3,50	914,035	914,314	188.201,23	7.990.377,58	3,50	2,0	914,384
31+0,000	913,690	-2,0	3,50	913,450	913,760	188.191,94	7.990.395,30	3,50	2,0	913,830
31+14,817	913,280	-2,0	3,50	913,054	913,350	188.185,06	7.990.408,42	3,50	2,0	913,420
32+0,000	913,137	-2,0	3,50	912,995	913,207	188.182,66	7.990.413,01	3,50	2,0	913,277
32+18,610	912,632	-2,0	3,50	912,524	912,702	188.174,05	7.990.429,51	3,50	2,0	912,772
33+0,000	912,595	-2,0	3,50	912,484	912,665	188.173,38	7.990.430,73	3,50	2,0	912,735
34+0,000	912,057	-2,0	3,50	911,957	912,127	188.163,67	7.990.448,21	3,50	2,0	912,197
35+0,000	911,519	-2,0	3,50	911,362	911,589	188.153,96	7.990.465,70	3,50	2,0	911,659
35+6,668	911,340	-2,0	3,50	911,253	911,410	188.150,72	7.990.471,53	3,50	2,0	911,480
36+0,000	911,011	-2,0	2,00	910,924	911,051	188.146,55	7.990.484,19	2,00	2,0	911,091
37+0,000	910,473	-2,0	2,00	910,365	910,513	188.140,28	7.990.503,18	2,00	2,0	910,553
38+0,000	909,905	-2,0	2,00	909,901	909,945	188.134,02	7.990.522,18	2,00	2,0	909,985
38+3,435	909,796	-2,0	2,00	909,851	909,836	188.132,95	7.990.525,44	2,00	2,0	909,876
38+9,210	909,605	-2,0	2,00	909,599	909,645	188.130,99	7.990.530,87	2,00	2,0	909,685
38+14,985	909,403	-2,0	2,00	909,200	909,443	188.128,73	7.990.536,19	2,00	2,0	909,483
39+0,000	909,220	-2,0	2,00	909,065	909,260	188.126,64	7.990.540,74	2,00	2,0	909,300
40+0,000	908,440	-2,0	2,00	908,296	908,480	188.117,86	7.990.558,71	2,00	2,0	908,520
41+0,000	907,655	-2,0	2,00	907,534	907,695	188.108,69	7.990.576,48	2,00	2,0	907,735
42+0,000	906,869	-2,0	2,00	906,607	906,909	188.099,73	7.990.594,36	2,00	2,0	906,949
43+0,000	906,084	-2,0	2,00	905,988	906,124	188.090,81	7.990.612,26	2,00	2,0	906,164
44+0,000	905,299	-2,0	2,00	905,292	905,339	188.082,59	7.990.630,49	2,00	2,0	905,379
45+0,000	904,514	-2,0	2,00	904,542	904,554	188.074,53	7.990.648,80	2,00	2,0	904,594
46+0,000	903,728	-2,0	2,00	903,901	903,768	188.066,47	7.990.667,10	2,00	2,0	903,808



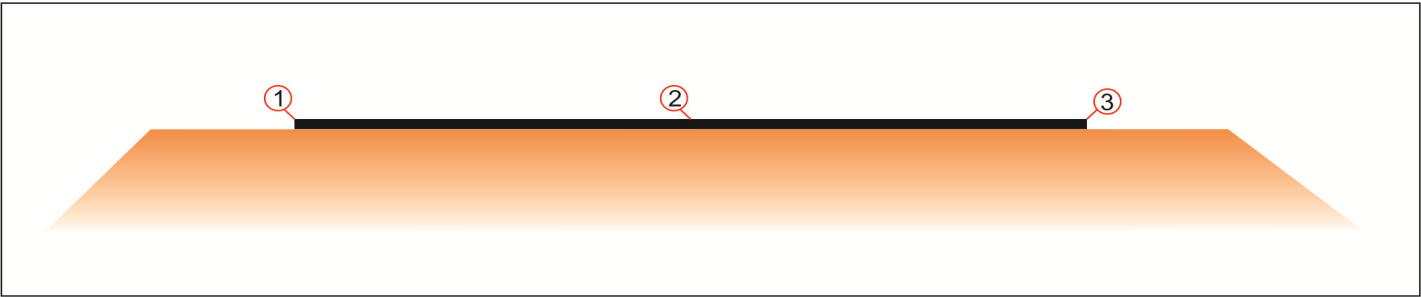
PROJETO EXECUTIVO DE ENGENHARIA PARA DUPLICAÇÃO DE RODOVIA										
Rodovia: GO-330										
Trecho: Entr. Avenida Juscelino K de Oliveira / Posto Polícia Rodoviária Estadual										
Nota-de-Serviço de Pavimentação - GO-330 - Marginal Norte										
Estaca	Bordo Esquerdo			Eixo				Bordo Direito		
	cota pavim	i (%)	dist (m)	cota terreno	cota projeto	Coordenada X	Coordenada Y	dist (m)	i (%)	cota pavim
	1			2				3		
9+0,000	923,801	-2,0	2,00	923,841	923,841	188.496,21	7.990.091,08	2,00	2,0	923,881
10+0,000	924,181	-2,0	2,00	924,221	924,221	188.482,92	7.990.106,02	2,00	2,0	924,261
10+10,113	924,440	-2,0	2,50	924,490	924,490	188.476,20	7.990.113,58	2,50	2,0	924,540
11+0,000	924,531	-2,0	2,50	924,581	924,581	188.469,22	7.990.120,58	2,50	2,0	924,631
12+0,000	924,662	-2,0	2,50	924,712	924,712	188.455,09	7.990.134,73	2,50	2,0	924,762
13+0,000	924,733	-2,0	2,50	924,783	924,783	188.440,96	7.990.148,89	2,50	2,0	924,833
14+0,000	924,748	-2,0	2,50	924,798	924,798	188.426,83	7.990.163,04	2,50	2,0	924,848
14+1,589	924,744	-2,0	2,50	924,794	924,794	188.425,70	7.990.164,16	2,50	2,0	924,844
14+4,993	924,735	-2,0	2,50	924,785	924,785	188.423,44	7.990.166,70	2,50	2,0	924,835
14+8,396	924,638	-2,0	3,00	924,698	924,698	188.421,48	7.990.169,48	3,00	2,0	924,758
14+16,912	924,473	-2,0	3,00	924,533	924,533	188.416,97	7.990.176,71	3,00	2,0	924,593
15+0,000	924,388	-2,0	3,00	924,448	924,448	188.415,21	7.990.179,24	3,00	2,0	924,508
15+0,019	924,387	-2,0	3,00	924,447	924,447	188.415,20	7.990.179,26	3,00	2,0	924,507
15+3,126	924,313	-2,0	3,00	924,373	924,373	188.413,16	7.990.181,61	3,00	2,0	924,433
16+0,000	923,891	-2,0	3,00	923,951	923,951	188.401,48	7.990.193,78	3,00	2,0	924,011
17+0,000	923,435	-2,0	3,00	923,495	923,495	188.387,63	7.990.208,21	3,00	2,0	923,555
18+0,000	923,026	-2,0	3,00	923,086	923,086	188.373,78	7.990.222,64	3,00	2,0	923,146
19+0,000	922,618	-2,0	3,00	922,678	922,678	188.359,94	7.990.237,07	3,00	2,0	922,738
19+10,761	922,424	-2,0	3,00	922,484	922,484	188.352,49	7.990.244,84	3,00	2,0	922,544
19+19,136	922,167	-2,0	3,00	922,227	922,227	188.346,95	7.990.251,12	3,00	2,0	922,287
20+0,000	922,136	-2,0	3,00	922,196	922,196	188.346,41	7.990.251,79	3,00	2,0	922,256
20+7,512	921,860	-2,0	3,00	921,920	921,920	188.341,95	7.990.257,84	3,00	2,0	921,980
21+0,000	921,497	-2,0	3,00	921,557	921,557	188.334,93	7.990.268,16	3,00	2,0	921,617
22+0,000	921,052	-2,0	3,00	921,112	921,112	188.323,68	7.990.284,70	3,00	2,0	921,172
23+0,000	920,546	-2,0	3,00	920,606	920,606	188.312,43	7.990.301,24	3,00	2,0	920,666
24+0,000	919,967	-2,0	3,00	920,027	920,027	188.301,19	7.990.317,77	3,00	2,0	920,087
25+0,000	919,438	-2,0	3,00	919,498	919,498	188.289,94	7.990.334,31	3,00	2,0	919,558
25+6,939	919,271	-2,0	3,00	919,331	919,331	188.286,03	7.990.340,05	3,00	2,0	919,391
26+0,000	918,947	-2,0	3,50	919,017	919,017	188.279,12	7.990.351,13	3,50	2,0	919,087
27+0,000	918,326	-2,0	3,50	918,396	918,396	188.268,52	7.990.368,09	3,50	2,0	918,466
27+13,121	918,034	-2,0	3,50	918,104	918,104	188.261,57	7.990.379,22	3,50	2,0	918,174
28+0,000	917,898	-2,0	3,50	917,968	917,968	188.257,60	7.990.384,84	3,50	2,0	918,038
29+0,000	917,374	-2,0	3,50	917,444	917,444	188.246,06	7.990.401,17	3,50	2,0	917,514
29+5,032	917,125	-2,0	3,50	917,195	917,195	188.243,16	7.990.405,28	3,50	2,0	917,265
30+0,000	916,332	-2,0	3,50	916,402	916,402	188.235,65	7.990.418,23	3,50	2,0	916,472
31+0,000	915,456	-2,0	3,50	915,526	915,526	188.225,62	7.990.435,54	3,50	2,0	915,596
32+0,000	914,761	-2,0	2,50	914,811	914,811	188.215,59	7.990.452,84	2,50	2,0	914,861
32+6,279	914,497	-2,0	2,50	914,547	914,547	188.212,45	7.990.458,27	2,50	2,0	914,597
33+0,000	913,930	-2,0	2,50	913,980	913,980	188.205,84	7.990.470,30	2,50	2,0	914,030
34+0,000	913,303	-2,0	2,50	913,353	913,353	188.196,22	7.990.487,83	2,50	2,0	913,403
35+0,000	912,648	-2,0	2,50	912,698	912,698	188.186,59	7.990.505,36	2,50	2,0	912,748
36+0,000	911,842	-2,0	2,50	911,892	911,892	188.176,97	7.990.522,90	2,50	2,0	911,942
37+0,000	910,596	-2,0	2,50	910,646	910,646	188.167,35	7.990.540,43	2,50	2,0	910,696
38+0,000	909,249	-2,0	2,50	909,299	909,299	188.157,72	7.990.557,96	2,50	2,0	909,349
39+0,000	908,411	-2,0	2,50	908,461	908,461	188.148,10	7.990.575,49	2,50	2,0	908,511
40+0,000	907,270	-2,0	2,50	907,320	907,320	188.138,47	7.990.593,02	2,50	2,0	907,370
41+0,000	906,455	-2,0	2,50	906,505	906,505	188.128,85	7.990.610,56	2,50	2,0	906,555
42+0,000	905,641	-2,0	2,50	905,691	905,691	188.119,22	7.990.628,09	2,50	2,0	905,741
43+0,000	904,884	-2,0	2,50	904,934	904,934	188.109,60	7.990.645,62	2,50	2,0	904,984
44+0,000	904,043	-2,0	2,50	904,093	904,093	188.099,98	7.990.663,15	2,50	2,0	904,143
45+0,000	903,300	-2,0	2,50	903,350	903,350	188.090,35	7.990.680,68	2,50	2,0	903,400
46+0,000	902,682	-2,0	2,50	902,732	902,732	188.080,73	7.990.698,22	2,50	2,0	902,782
47+0,000	902,101	-2,0	2,50	902,151	902,151	188.071,10	7.990.715,75	2,50	2,0	902,201
48+0,000	901,693	-2,0	2,50	901,743	901,743	188.061,48	7.990.733,28	2,50	2,0	901,793
49+0,000	901,154	-2,0	2,50	901,204	901,204	188.051,85	7.990.750,81	2,50	2,0	901,254
50+0,000	900,775	-2,0	2,50	900,825	900,825	188.042,23	7.990.768,34	2,50	2,0	900,875
51+0,000	900,195	-2,0	2,50	900,245	900,245	188.032,61	7.990.785,88	2,50	2,0	900,295
52+0,000	899,640	-2,0	2,50	899,690	899,690	188.022,98	7.990.803,41	2,50	2,0	899,740



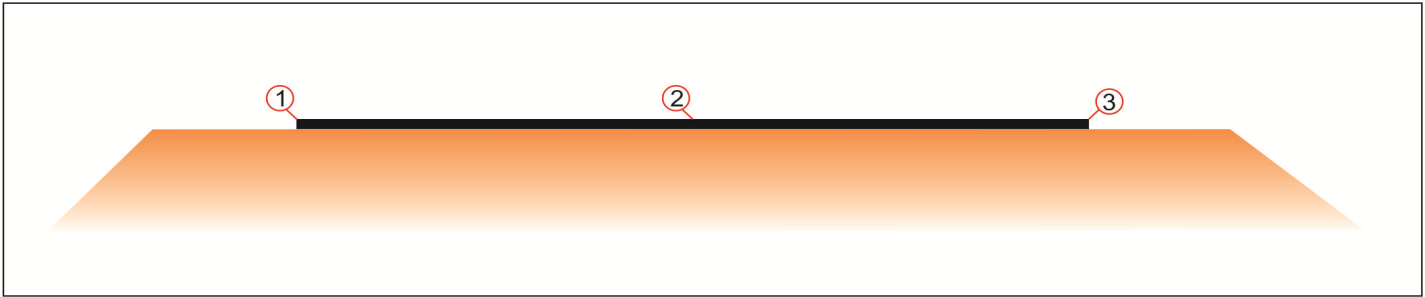
PROJETO EXECUTIVO DE ENGENHARIA PARA DUPLICAÇÃO DE RODOVIA										
Rodovia: GO-330										
Trecho: Entr. Avenida Juscelino K de Oliveira / Posto Polícia Rodoviária Estadual										
Nota-de-Serviço de Pavimentação - GO-330 - Marginal Norte										
Estaca	Bordo Esquerdo			Eixo				Bordo Direito		
	cota pavim	i (%)	dist (m)	cota terreno	cota projeto	Coordenada X	Coordenada Y	dist (m)	i (%)	cota pavim
	1			2				3		
53+0,000	899,153	-2,0	2,50	899,203	899,203	188.013,36	7.990.820,94	2,50	2,0	899,253
53+16,900	898,773	-2,0	2,50	898,823	898,823	188.005,22	7.990.835,76	2,50	2,0	898,873
54+0,000	898,726	-2,0	2,50	898,776	898,776	188.003,63	7.990.838,41	2,50	2,0	898,826
54+0,912	898,714	-2,0	2,50	898,764	898,764	188.003,12	7.990.839,17	2,50	2,0	898,814
54+4,925	898,659	-2,0	2,50	898,709	898,709	188.000,68	7.990.842,36	2,50	2,0	898,759
55+0,000	898,509	-2,0	2,50	898,559	898,559	187.990,94	7.990.853,86	2,50	2,0	898,609
55+14,716	898,089	-2,0	2,63	898,142	898,142	187.981,43	7.990.865,09	2,63	2,0	898,195



PROJETO EXECUTIVO DE ENGENHARIA PARA DUPLICAÇÃO DE RODOVIA										
Rodovia: GO-330										
Trecho: Entr. Avenida Juscelino Kubitschek de Oliveira / Posto Polícia Rodoviária Estadual										
Nota-de-Serviço de Pavimentação - Alça Entrada Arco										
Estaca	Bordo Esquerdo			Eixo				Bordo Direito		
	cota pavim	i (%)	dist (m)	cota terreno	cota projeto	Coordenada X	Coordenada Y	dist (m)	i (%)	cota pavim
	1			2				3		
0+0,000	887,791	3,0	3,0	887,366	887,701	187.128,40	7.992.405,32	3,0	-3,0	887,611
1+0,000	887,948	3,0	3,0	887,521	887,858	187.125,12	7.992.425,02	3,0	-3,0	887,768
2+0,000	888,205	3,0	3,0	886,507	888,115	187.125,70	7.992.444,98	3,0	-3,0	888,025
2+9,959	888,212	3,0	3,0	885,719	888,122	187.127,43	7.992.454,78	3,0	-3,0	888,032
3+0,000	888,138	3,0	3,0	885,409	888,048	187.130,13	7.992.464,45	3,0	-3,0	887,958
4+0,000	887,757	3,0	3,0	884,968	887,667	187.138,23	7.992.482,70	3,0	-3,0	887,577
4+19,918	887,290	3,0	3,0	883,983	887,200	187.149,64	7.992.498,99	3,0	-3,0	887,110

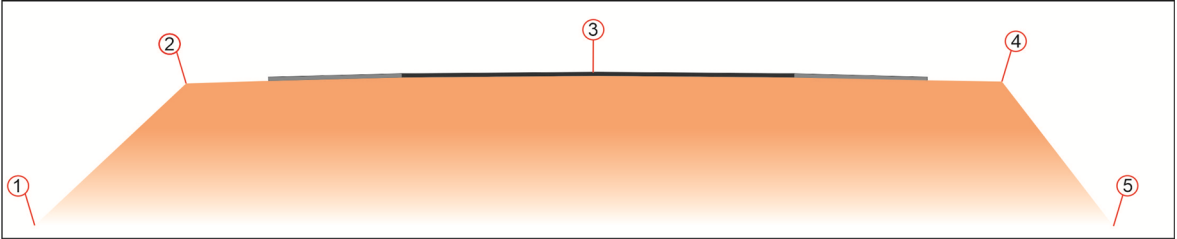


PROJETO EXECUTIVO DE ENGENHARIA PARA DUPLICAÇÃO DE RODOVIA										
Rodovia: GO-330										
Trecho: Entr. Avenida Juscelino Kubitschek de Oliveira / Posto Polícia Rodoviária Estadual										
Nota-de-Serviço de Pavimentação - Alça Saída Arco										
Estaca	Bordo Esquerdo			Eixo				Bordo Direito		
	cota pavim	i (%)	dist (m)	cota terreno	cota projeto	Coordenada X	Coordenada Y	dist (m)	i (%)	cota pavim
	1			2				3		
0+0,000	889,251	-3,0	3,0	889,069	889,341	187.080,15	7.992.492,82	3,0	3,0	889,431
1+0,000	888,662	-3,0	3,0	886,931	888,752	187.097,92	7.992.484,05	3,0	3,0	888,842
1+16,380	888,181	-3,0	3,0	886,251	888,271	187.114,19	7.992.483,47	3,0	3,0	888,361
2+0,000	888,074	-3,0	3,0	886,110	888,164	187.117,74	7.992.484,18	3,0	3,0	888,254
3+0,000	887,485	-3,0	3,0	885,000	887,575	187.135,40	7.992.493,18	3,0	3,0	887,665
3+12,760	887,110	-3,0	3,0	884,227	887,200	187.143,76	7.992.502,76	3,0	3,0	887,290
Concordar com Arco Viário										

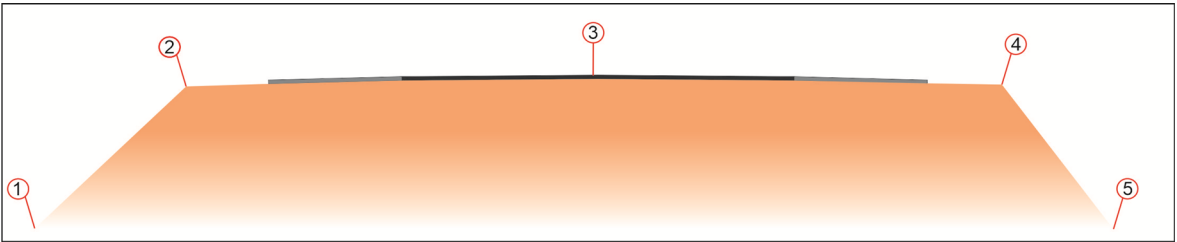


3 NOTAS DE SERVIÇO DE TERRAPLENAGEM

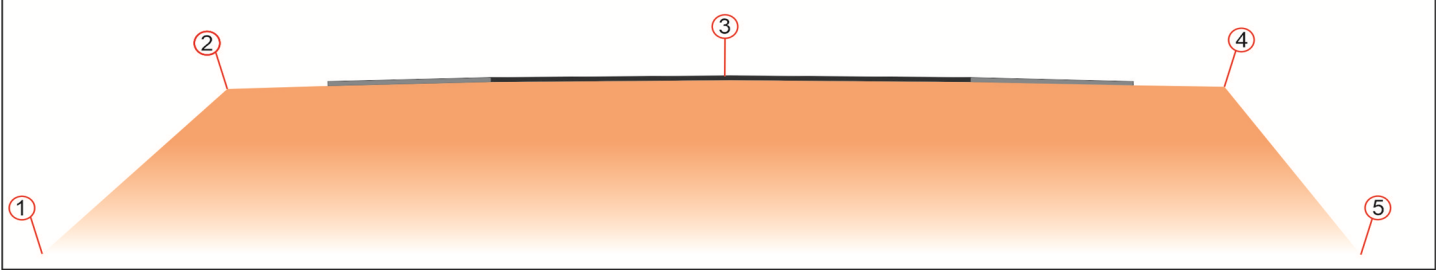
PROJETO EXECUTIVO DE ENGENHARIA PARA DUPLICAÇÃO DE RODOVIA															
Rodovia: GO-330															
Trecho: Entr. Avenida Juscelino Kubitschek de Oliveira / Posto Polícia Rodoviária Estadual															
Nota-de-Serviço de Terraplenagem - GO-330 - Pista Dupla															
Estaca	Offset		Bordo Esquerdo			Eixo					Bordo Direito			Offset	
	cota terrapl	dist (m)	cota terrapl	i (%)	dist (m)	cota terreno	cota terrapl	Cota Vermelha	Coordenada X	Coordenada Y	dist (m)	i (%)	cota terrapl	cota terrapl	dist (m)
	1		2					3			4			5	
0+0,000						913,45	913,43	-0,02	188.620,02	7.989.959,93					
1+0,000						915,68	915,23	-0,45	188606,08	7.989.974,26					
2+0,000						917,37	916,86	-0,51	188592,13	7.989.988,60					
3+0,000						918,71	918,31	-0,40	188578,18	7.990.002,93					
4+0,000						919,87	919,56	-0,31	188564,23	7.990.017,26					
5+0,000						920,92	920,61	-0,31	188550,28	7.990.031,59					
6+0,000						921,74	921,47	-0,28	188536,33	7.990.045,93					
6+5,508						921,97	921,68	-0,30	188532,49	7.990.049,88					
7+0,000						922,69	922,23	-0,46	188521,66	7.990.059,51					
8+0,000	923,041	9,79	922,89	-2,0	3,93	923,39	922,97	-0,42	188506,72	7.990.072,80	8,83	-2,0	922,79	923,420	10,17
9+0,000	923,735	4,90	923,46	-2,0	4,68	923,85	923,56	-0,30	188491,78	7.990.086,10	9,90	-2,0	923,36	923,819	10,40
10+0,000	923,834	7,72	923,80	-2,0	7,70	924,23	923,95	-0,28	188476,84	7.990.099,39	5,80	-2,0	923,84	924,265	6,25
11+0,000	923,439	11,48	923,95	-2,0	10,85	924,58	924,17	-0,41	188461,90	7.990.112,69	7,15	-2,0	924,03	924,591	7,75
12+0,000	923,249	9,70	924,08	-2,0	8,50	924,64	924,25	-0,39	188446,96	7.990.125,98	8,50	-2,0	924,08	924,706	9,17
12+1,073	923,225	9,82	924,07	-2,0	9,50	924,64	924,26	-0,39	188446,15	7.990.126,70	9,50	-2,0	924,07	924,714	9,25
12+14,675	923,015	11,26	924,12	-2,0	9,50	924,68	924,31	-0,38	188436,15	7.990.135,91	9,50	-2,0	924,12	924,789	9,96
13+0,000	922,961	11,31	924,13	-2,0	9,50	924,71	924,32	-0,39	188432,32	7.990.139,61	9,50	-2,0	924,13	924,810	10,12
13+8,276	922,868	11,34	924,12	-2,0	9,50	924,78	924,31	-0,47	188426,46	7.990.145,46	9,50	-2,0	924,12	924,841	10,24
14+0,000	922,758	11,38	924,04	-2,0	9,50	924,83	924,23	-0,60	188418,25	7.990.153,83	9,50	-2,0	924,04	924,833	10,32
15+0,000	922,615	11,10	923,70	-2,0	9,50	924,84	923,89	-0,94	188404,25	7.990.168,11	9,50	-2,0	923,70	924,683	10,50
16+0,000	922,400	10,56	923,13	-2,0	9,50	924,72	923,32	-1,40	188390,25	7.990.182,39	9,50	-2,0	923,13	924,483	10,88
17+0,000	922,096	9,80	922,32	-2,0	9,50	924,62	922,51	-2,11	188376,24	7.990.196,67	9,50	-2,0	922,32	924,116	11,32
18+0,000	922,021	10,28	921,27	-2,0	9,50	924,40	921,46	-2,94	188362,24	7.990.210,95	9,50	-2,0	921,27	923,691	11,95
19+0,000	921,478	11,02	919,99	-2,0	9,50	924,08	920,18	-3,90	188348,24	7.990.225,22	9,50	-2,0	919,99	923,155	12,69
20+0,000	920,989	11,88	918,64	-2,0	9,50	923,42	918,83	-4,60	188334,23	7.990.239,50	9,50	-2,0	918,64	922,786	13,68
20+17,210	920,340	12,39	917,47	-2,0	9,50	922,62	917,66	-4,96	188322,18	7.990.251,79	9,50	-2,0	917,47	922,622	14,68
21+0,000	920,243	12,49	917,28	-2,0	9,50	922,50	917,47	-5,03	188320,23	7.990.253,78	9,50	-2,0	917,28	922,596	14,84
22+0,000	919,720	13,43	915,93	-2,0	9,50	921,57	916,12	-5,45	188306,31	7.990.268,15	9,50	-2,0	915,93	922,431	15,91
22+17,210	919,467	14,39	914,77	-2,0	9,50	920,47	914,96	-5,51	188294,65	7.990.280,80	9,50	-2,0	914,77	922,152	16,74
23+0,000	919,424	14,54	914,58	-2,0	9,50	920,23	914,77	-5,46	188292,80	7.990.282,89	9,50	-2,0	914,58	922,110	16,89
24+0,000	918,774	15,24	913,23	-2,0	9,50	918,90	913,42	-5,49	188279,99	7.990.298,25	9,50	-2,0	913,23	921,646	17,78
24+13,605	918,047	15,43	912,31	-2,0	9,50	918,29	912,50	-5,79	188271,71	7.990.309,04	9,50	-2,0	912,31	921,271	18,32
25+0,000	917,487	15,29	911,89	-2,0	9,50	918,07	912,08	-5,99	188267,94	7.990.314,21	9,50	-2,0	911,89	921,077	18,55
26+0,000	916,380	15,38	910,69	-2,0	9,50	917,67	910,88	-6,79	188256,69	7.990.330,74	9,50	-2,0	910,69	920,490	19,16
26+10,001	915,911	15,45	910,16	-2,0	9,50	917,46	910,35	-7,11	188251,37	7.990.339,21	9,50	-2,0	910,16	920,015	19,22
27+0,000	915,584	15,61	909,66	-2,0	9,50	917,30	909,85	-7,44	188246,25	7.990.347,80	9,50	-2,0	909,66	919,480	19,19
28+0,000	915,154	15,89	908,80	-2,0	9,50	916,97	908,99	-7,98	188236,43	7.990.365,22	9,50	-2,0	908,80	918,883	19,60
28+10,001	914,745	15,84	908,43	-2,0	9,50	916,46	908,62	-7,84	188231,63	7.990.373,99	9,50	-2,0	908,43	918,385	19,48
29+0,000	914,427	15,85	908,10	-2,0	9,50	916,05	908,29	-7,76	188226,84	7.990.382,77	9,50	-2,0	908,10	918,038	19,46
30+0,000	913,969	15,92	907,57	-2,0	9,50	915,82	907,76	-8,06	188217,25	7.990.400,32	9,50	-2,0	907,57	917,134	19,08
31+0,000	913,379	15,69	907,21	-2,0	9,50	915,99	907,40	-8,58	188207,66	7.990.417,87	9,50	-2,0	907,21	916,366	18,68
32+0,000	913,020	15,54	907,01	-2,0	9,50	915,35	907,20	-8,15	188198,08	7.990.435,43	9,50	-2,0	907,01	915,603	18,12
32+4,141	912,779	15,34	906,97	-2,0	9,50	914,85	907,16	-7,69	188196,09	7.990.439,06	9,50	-2,0	906,97	915,455	18,01
33+0,000	912,215	14,86	906,83	-2,0	9,50	913,87	907,02	-6,86	188188,57	7.990.453,02	9,50	-2,0	906,83	914,869	17,57
33+9,283	911,827	14,61	906,74	-2,0	9,50	913,38	906,93	-6,45	188184,24	7.990.461,23	9,50	-2,0	906,74	914,551	17,33
34+0,000	911,406	14,23	906,65	-2,0	9,50	912,96	906,84	-6,12	188179,31	7.990.470,75	9,50	-2,0	906,65	914,206	17,08
34+14,424	911,237	14,25	906,52	-2,0	9,50	912,46	906,71	-5,76	188172,78	7.990.483,61	9,50	-2,0	906,52	913,606	16,61



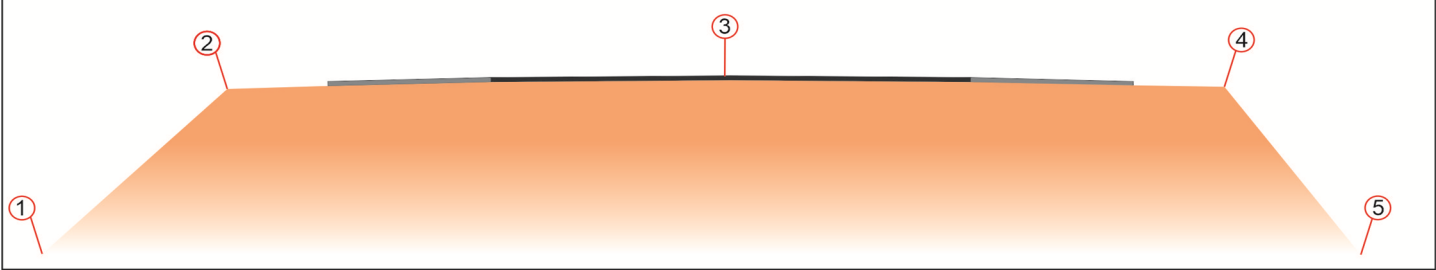
PROJETO EXECUTIVO DE ENGENHARIA PARA DUPLICAÇÃO DE RODOVIA															
Rodovia: GO-330															
Trecho: Entr. Avenida Juscelino Kubitschek de Oliveira / Posto Polícia Rodoviária Estadual															
Nota-de-Serviço de Terraplenagem - GO-330 - Pista Dupla															
Estaca	Offset		Bordo Esquerdo			Eixo					Bordo Direito			Offset	
	cota terrapl	dist (m)	cota terrapl	i (%)	dist (m)	cota terreno	cota terrapl	Cota Vermelha	Coordenada X	Coordenada Y	dist (m)	i (%)	cota terrapl	cota terrapl	dist (m)
	1		2					3					4		5
35+0,000	910,926	13,98	906,47	-2,0	9,50	912,36	906,66	-5,70	188170,29	7.990.488,60	9,50	-2,0	906,47	913,346	16,40
36+0,000	910,505	13,74	906,29	-2,0	9,50	912,18	906,48	-5,70	188161,33	7.990.506,48	9,50	-2,0	906,29	912,729	15,97
37+0,000	910,046	13,46	906,11	-2,0	9,50	911,70	906,30	-5,40	188152,38	7.990.524,37	9,50	-2,0	906,11	911,661	15,08
38+0,000	909,718	13,32	905,93	-2,0	9,50	911,44	906,12	-5,32	188143,43	7.990.542,25	9,50	-2,0	905,93	910,587	14,18
39+0,000	908,821	12,60	905,75	-2,0	9,50	910,91	905,94	-4,97	188134,47	7.990.560,13	9,50	-2,0	905,75	909,663	13,44
40+0,000	907,838	11,79	905,57	-2,0	9,50	910,15	905,76	-4,38	188125,52	7.990.578,02	9,50	-2,0	905,57	908,914	12,87
41+0,000	907,017	11,17	905,38	-2,0	9,50	909,47	905,57	-3,90	188116,57	7.990.595,90	9,50	-2,0	905,38	908,065	12,21
42+0,000	906,434	10,85	905,11	-2,0	9,50	908,74	905,30	-3,44	188107,61	7.990.613,79	9,50	-2,0	905,11	907,111	11,53
42+10,782	906,132	10,77	904,93	-2,0	9,50	908,33	905,12	-3,21	188102,79	7.990.623,43	9,50	-2,0	904,93	906,726	11,33
43+0,000	905,877	10,79	904,75	-2,0	9,50	907,98	904,94	-3,03	188098,63	7.990.631,66	9,50	-2,0	904,75	906,327	11,10
43+13,378	905,341	10,72	904,47	-2,0	9,50	907,50	904,66	-2,84	188092,51	7.990.643,55	9,50	-2,0	904,47	905,728	10,78
44+0,000	905,055	10,68	904,32	-2,0	9,50	907,26	904,51	-2,76	188089,44	7.990.649,42	9,50	-2,0	904,32	905,435	10,65
44+15,974	904,592	10,72	903,91	-2,0	9,50	906,66	904,10	-2,56	188081,91	7.990.663,51	9,50	-2,0	903,91	904,822	10,44
45+0,000	904,425	10,67	903,79	-2,0	9,50	906,51	903,98	-2,52	188079,99	7.990.667,05	9,50	-2,0	903,79	904,673	10,40
46+0,000	903,289	15,09	903,22	-2,0	9,50	905,73	903,41	-2,32	188070,47	7.990.684,63	9,50	-2,0	903,22	904,042	10,35
47+0,000	902,349	14,35	902,64	-2,0	9,50	904,98	902,83	-2,15	188060,95	7.990.702,22	9,50	-2,0	902,64	903,373	10,25
48+0,000	901,453	14,04	902,07	-2,0	9,50	904,24	902,26	-1,98	188051,43	7.990.719,81	9,50	-2,0	902,07	902,796	10,25
49+0,000			901,49	-2,0	9,50	903,47	901,68	-1,79	188041,90	7.990.737,40	9,50	-2,0	901,49		



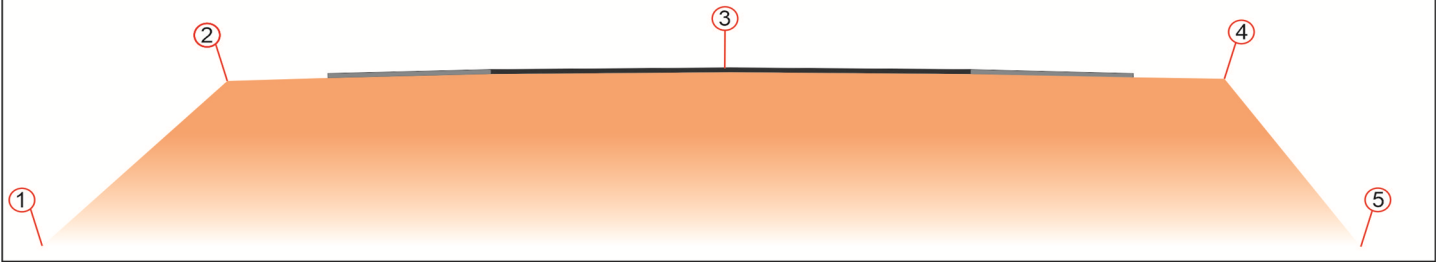
PROJETO EXECUTIVO DE ENGENHARIA PARA DUPLICAÇÃO DE RODOVIA															
Rodovia: GO-330															
Trecho: Entr. Avenida Juscelino Kubitschek de Oliveira / Posto Polícia Rodoviária Estadual															
Nota-de-Serviço de Terraplenagem - GO-330 - Pista Sul															
Estaca	Offset		Bordo Esquerdo			Eixo					Bordo Direito			Offset	
	cota terrapl	dist (m)	cota terrapl	i (%)	dist (m)	cota terreno	cota terrapl	Cota Vermelha	Coordenada X	Coordenada Y	dist (m)	i (%)	cota terrapl	cota terrapl	dist (m)
	1		2					3					4		5
48+0,000	901,291	9,30	902,05	-2,0	6,05	903,72	902,17	-1,55	188046,61	7.990.717,14	6,05	2,0	902,29	904,048	7,36
48+13,187	900,660	9,17	901,67	-2,0	6,05	903,29	901,79	-1,50	188040,33	7.990.728,74	6,05	2,0	901,91	903,521	7,13
49+0,000	900,372	9,04	901,47	-2,0	6,05	903,04	901,59	-1,44	188037,08	7.990.734,72	6,05	2,0	901,72	903,258	7,17
50+0,000	899,570	8,40	900,90	-2,0	6,05	902,30	901,02	-1,28	188027,36	7.990.752,20	6,05	2,0	901,14	902,527	7,26
51+0,000	899,328	7,50	900,32	-2,0	6,05	901,32	900,44	-0,88	188017,41	7.990.769,55	6,05	2,0	900,56	901,770	7,25
51+5,063	899,316	7,30	900,18	-2,0	6,05	901,03	900,30	-0,73	188014,85	7.990.773,92	6,05	2,0	900,42	901,578	7,24
52+0,000	899,679	6,11	899,75	-2,0	6,05	900,77	899,87	-0,90	188007,23	7.990.786,77	6,05	2,0	899,99	901,029	7,17
53+0,000	897,985	7,79	899,17	-2,0	6,05	899,28	899,29	0,01	187996,82	7.990.803,85	6,05	2,0	899,41	900,296	7,02
53+16,938	897,292	8,10	898,68	-2,0	6,05	897,67	898,80	1,13	187987,83	7.990.818,20	6,05	2,0	898,92	899,680	6,83
54+0,000	897,012	8,38	898,59	-2,0	6,05	897,42	898,71	1,30	187986,19	7.990.820,79	6,05	2,0	898,84	899,571	6,81
54+12,030	896,168	9,13	898,25	-2,0	6,05	896,96	898,37	1,41	187979,75	7.990.830,95	6,05	2,0	898,49	899,083	6,67
55+0,000	895,987	9,06	898,02	-2,0	6,05	896,65	898,14	1,49	187975,50	7.990.837,69	6,05	2,0	898,26	898,719	6,54
56+0,000	895,337	9,22	897,47	-2,0	6,05	895,72	897,59	1,88	187964,99	7.990.854,71	6,05	2,0	897,72	897,968	6,33
56+16,556	894,602	9,71	897,07	-2,0	6,05	895,12	897,19	2,07	187956,47	7.990.868,90	6,05	2,0	897,31	897,371	6,14
57+0,000	894,436	9,84	896,99	-2,0	6,05	895,03	897,11	2,08	187954,71	7.990.871,86	6,05	2,0	897,23	897,182	6,08
58+0,000	893,858	10,06	896,56	-2,0	6,05	894,11	896,68	2,57	187944,66	7.990.889,15	6,05	2,0	896,80	896,676	6,20
59+0,000	893,464	10,09	896,19	-2,0	6,05	894,02	896,31	2,29	187934,85	7.990.906,58	6,05	2,0	896,43	896,214	6,33
59+1,082	893,442	10,10	896,17	-2,0	6,05	894,03	896,29	2,26	187934,32	7.990.907,53	6,05	2,0	896,41	896,192	6,34
60+0,000	893,431	9,67	895,87	-2,0	6,05	893,90	895,99	2,09	187925,16	7.990.924,08	6,05	2,0	896,11	895,910	6,32
61+0,000	892,537	10,63	895,61	-2,0	6,05	893,21	895,73	2,53	187915,47	7.990.941,57	6,05	2,0	895,85	895,543	6,48
62+0,000	893,203	9,33	895,41	-2,0	6,05	893,26	895,53	2,28	187905,79	7.990.959,07	6,05	2,0	895,65	895,448	6,32
63+0,000	892,600	10,02	895,27	-2,0	6,05	892,69	895,39	2,70	187896,10	7.990.976,57	6,05	2,0	895,51	895,243	6,42
64+0,000	892,922	9,40	895,18	-2,0	6,05	893,02	895,30	2,29	187886,41	7.990.994,07	6,05	2,0	895,43	895,122	6,47
65+0,000	893,211	8,93	895,15	-2,0	6,05	893,22	895,28	2,05	187876,73	7.991.011,56	6,05	2,0	895,40	895,132	6,41
66+0,000	892,931	9,39	895,18	-2,0	6,05	893,06	895,30	2,24	187867,04	7.991.029,06	6,05	2,0	895,43	895,173	6,39
67+0,000	892,059	10,83	895,27	-2,0	6,05	893,02	895,39	2,38	187857,35	7.991.046,56	6,05	2,0	895,51	895,449	6,11
68+0,000	892,491	10,35	895,38	-2,0	6,05	893,30	895,50	2,20	187847,66	7.991.064,06	6,05	2,0	895,62	895,480	6,23
69+0,000	892,894	9,91	895,49	-2,0	6,05	893,49	895,61	2,12	187837,98	7.991.081,55	6,05	2,0	895,73	895,498	6,37
70+0,000	892,775	10,25	895,60	-2,0	6,05	893,33	895,72	2,40	187828,29	7.991.099,05	6,05	2,0	895,85	895,542	6,47
71+0,000	892,775	10,42	895,71	-2,0	6,05	893,11	895,84	2,73	187818,60	7.991.116,55	6,05	2,0	895,96	895,663	6,45
72+0,000	893,126	10,06	895,83	-2,0	6,05	893,50	895,95	2,45	187808,92	7.991.134,05	6,05	2,0	896,07	895,815	6,39
73+0,000	893,509	9,65	895,94	-2,0	6,05	893,74	896,06	2,31	187799,23	7.991.151,55	6,05	2,0	896,18	895,890	6,45
74+0,000	892,916	10,71	896,05	-2,0	6,05	893,35	896,17	2,82	187789,54	7.991.169,04	6,05	2,0	896,29	896,059	6,36
75+0,000	893,384	10,18	896,16	-2,0	6,05	893,72	896,28	2,56	187779,86	7.991.186,54	6,05	2,0	896,40	896,152	6,39
76+0,000	893,648	10,00	896,27	-2,0	6,05	894,33	896,39	2,07	187770,17	7.991.204,04	6,05	2,0	896,51	896,288	6,35
77+0,000	894,309	9,45	896,38	-2,0	6,40	894,90	896,50	1,60	187760,48	7.991.221,54	6,05	2,0	896,62	896,468	6,25
78+0,000	894,615	9,44	896,48	-2,0	6,68	895,17	896,61	1,44	187750,80	7.991.239,03	6,05	2,0	896,74	896,683	6,09
79+0,000	895,032	9,25	896,59	-2,0	6,96	895,31	896,73	1,41	187741,11	7.991.256,53	6,05	2,0	896,85	896,880	6,11
80+0,000	895,417	8,93	896,70	-2,0	7,05	895,68	896,84	1,16	187731,42	7.991.274,03	6,05	2,0	896,96	897,304	6,42
81+0,000	895,273	9,32	896,81	-2,0	7,05	895,77	896,95	1,19	187721,73	7.991.291,53	6,05	2,0	897,07	897,708	6,71
82+0,000	894,876	10,16	896,97	-2,0	7,05	895,55	897,11	1,57	187712,05	7.991.309,02	6,05	2,0	897,23	898,219	7,06



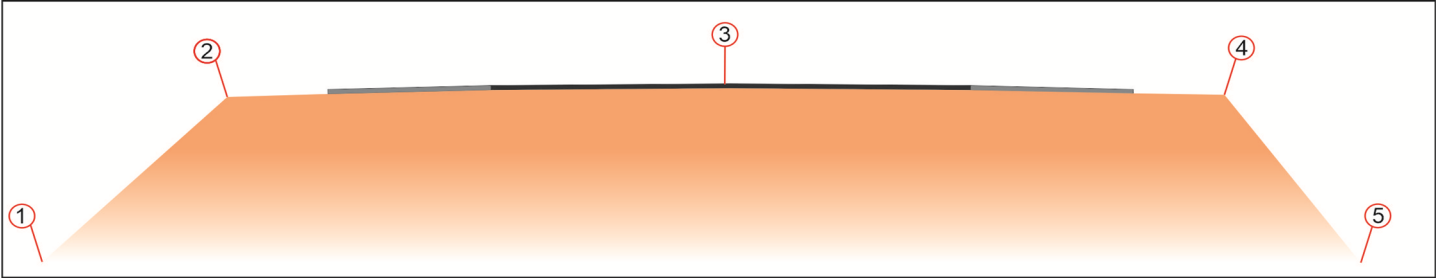
PROJETO EXECUTIVO DE ENGENHARIA PARA DUPLICAÇÃO DE RODOVIA															
Rodovia: GO-330															
Trecho: Entr. Avenida Juscelino Kubitschek de Oliveira / Posto Polícia Rodoviária Estadual															
Nota-de-Serviço de Terraplenagem - GO-330 - Pista Sul															
Estaca	Offset		Bordo Esquerdo			Eixo					Bordo Direito			Offset	
	cota terrapl	dist (m)	cota terrapl	i (%)	dist (m)	cota terreno	cota terrapl	Cota Vermelha	Coordenada X	Coordenada Y	dist (m)	i (%)	cota terrapl	cota terrapl	dist (m)
	1		2					3					4		5
83+0,000	895,020	10,26	897,19	-2,0	7,05	895,48	897,33	1,85	187702,36	7.991.326,52	6,05	2,0	897,45	898,562	7,19
84+0,000	896,066	9,09	897,45	-2,0	7,05	896,89	897,59	0,70	187692,67	7.991.344,02	6,05	2,0	897,71	898,690	7,05
85+0,000	897,071	8,05	897,76	-2,0	7,05	897,89	897,91	0,02	187682,99	7.991.361,52	6,05	2,0	898,03	899,071	7,12
86+0,000	897,718	7,57	898,09	-2,0	7,05	898,59	898,23	-0,36	187673,30	7.991.379,01	6,05	2,0	898,35	899,504	7,23
87+0,000	898,795	7,46	898,41	-2,0	7,05	899,79	898,55	-1,24	187663,61	7.991.396,51	6,05	2,0	898,67	899,931	7,34
88+0,000	898,914	7,26	898,73	-2,0	7,05	899,83	898,87	-0,96	187653,93	7.991.414,01	6,05	2,0	898,99	900,315	7,40
89+0,000	898,805	7,39	899,05	-2,0	7,05	899,93	899,20	-0,74	187644,24	7.991.431,51	6,05	2,0	899,32	900,669	7,43
90+0,000	898,792	7,82	899,38	-2,0	7,05	899,52	899,52	-0,00	187634,55	7.991.449,00	6,05	2,0	899,64	900,742	7,18
91+0,000	898,788	8,04	899,71	-2,0	6,70	899,97	899,84	-0,13	187624,87	7.991.466,50	6,05	2,0	899,96	900,967	7,08
92+0,000	899,114	7,75	900,04	-2,0	6,40	900,35	900,16	-0,19	187615,18	7.991.484,00	6,05	2,0	900,28	901,255	7,05
93+0,000	899,374	7,57	900,36	-2,0	6,12	900,50	900,49	-0,02	187605,49	7.991.501,50	6,05	2,0	900,61	901,341	6,81
94+0,000	899,801	7,28	900,64	-2,0	6,05	900,75	900,77	0,01	187595,80	7.991.518,99	6,05	2,0	900,89	901,384	6,57
95+0,000	900,218	6,90	900,81	-2,0	6,05	900,98	900,93	-0,05	187586,12	7.991.536,49	6,05	2,0	901,05	901,403	6,43
95+17,221	900,360	6,77	900,86	-2,0	6,05	901,05	900,98	-0,07	187577,78	7.991.551,56	6,05	2,0	901,10	901,317	6,29
96+0,000	900,358	6,77	900,86	-2,0	6,05	901,03	900,98	-0,05	187576,43	7.991.553,99	6,05	2,0	901,11	901,295	6,27
97+0,000	900,323	6,73	900,80	-2,0	6,05	900,95	900,92	-0,03	187566,67	7.991.571,45	6,05	2,0	901,04	901,138	6,17
97+7,221	900,220	6,81	900,75	-2,0	6,05	900,87	900,87	0,00	187563,08	7.991.577,71	6,05	2,0	900,99	901,070	6,15
98+0,000	899,977	6,98	900,63	-2,0	6,05	900,62	900,75	0,13	187556,60	7.991.588,72	6,51	2,0	900,88	900,859	6,53
98+6,657	899,728	7,23	900,54	-2,0	6,05	900,47	900,66	0,19	187553,15	7.991.594,42	7,70	2,0	900,82	900,765	6,97
99+0,000	899,195	7,72	900,33	-2,0	6,05	900,06	900,46	0,40	187546,09	7.991.605,74	7,73	2,0	900,61	900,574	7,72
99+6,092	899,322	7,37	900,22	-2,0	6,05	899,94	900,34	0,40	187542,81	7.991.610,87	8,58	2,0	900,52	900,503	8,04
100+0,000	899,624	6,47	899,93	-2,0	6,05	899,86	900,05	0,19	187535,19	7.991.622,51	8,95	2,0	900,23	900,301	8,69
100+16,092	899,219	6,47	899,52	-2,0	6,05	899,55	899,64	0,10	187526,23	7.991.635,88	8,95	2,0	899,82	899,719	9,06
101+0,000	899,066	6,53	899,41	-2,0	6,05	899,44	899,53	0,10	187524,05	7.991.639,12	8,95	2,0	899,71	899,569	9,12
102+0,000	898,437	6,53	898,78	-2,0	6,05	898,82	898,90	0,08	187512,90	7.991.655,72	8,95	2,0	899,08	898,886	9,19
103+0,000	897,863	6,27	898,03	-2,0	6,05	897,68	898,15	0,48	187501,74	7.991.672,32	8,95	2,0	898,33	897,981	9,43
104+0,000	896,812	6,55	897,17	-2,0	6,05	897,21	897,29	0,08	187490,59	7.991.688,92	8,95	2,0	897,47	897,239	9,26
104+6,210	896,105	6,20	896,88	-2,0	6,05	897,01	897,00	-0,01	187487,12	7.991.694,07	8,95	2,0	897,18	896,421	9,07
105+0,000	895,027	6,39	896,23	-2,0	6,05	896,43	896,35	-0,08	187479,45	7.991.705,53	8,95	2,0	896,53	895,351	9,26
106+0,000	894,973	6,39	895,28	-2,0	6,05	895,29	895,40	0,11	187468,47	7.991.722,25	8,95	2,0	895,58	895,290	9,27
106+1,210	894,284	6,09	895,22	-2,0	6,05	895,23	895,34	0,11	187467,82	7.991.723,27	8,95	2,0	895,52	894,264	9,49
107+0,000	893,879	6,59	894,33	-2,0	6,05	894,27	894,45	0,19	187457,86	7.991.739,20	8,95	2,0	894,63	893,358	9,42
108+0,000	893,113	6,57	893,37	-2,0	6,05	893,74	893,49	-0,25	187447,69	7.991.756,42	8,95	2,0	893,67	893,119	9,23
108+14,599	892,852	6,60	892,62	-2,0	6,05	893,69	892,74	-0,96	187440,53	7.991.769,15	8,95	2,0	892,92	892,891	9,28
109+0,000	892,132	6,99	892,33	-2,0	6,05	893,38	892,45	-0,93	187437,95	7.991.773,89	8,95	2,0	892,63	892,116	9,58
110+0,000	890,145	6,18	891,22	-2,0	6,05	892,29	891,34	-0,95	187428,64	7.991.791,59	8,95	2,0	891,52	890,220	9,09
111+0,000	889,473	6,12	890,04	-2,0	6,05	890,15	890,16	0,01	187419,78	7.991.809,52	8,95	2,0	890,34	890,226	9,35
111+7,987	888,656	6,21	889,55	-2,0	6,05	889,80	889,67	-0,13	187416,37	7.991.816,74	8,95	2,0	889,85	888,892	9,21
112+0,000	887,548	6,16	888,79	-2,0	6,05	889,13	888,91	-0,22	187411,37	7.991.827,66	8,95	2,0	889,09	886,683	10,27
113+0,000	887,375	6,19	887,46	-2,0	6,05	887,57	887,59	0,01	187403,25	7.991.845,94	8,95	2,0	887,76	886,468	10,14
113+2,987	886,775	6,76	887,26	-2,0	6,05	887,16	887,38	0,22	187402,04	7.991.848,68	8,95	2,0	887,56	885,349	9,28



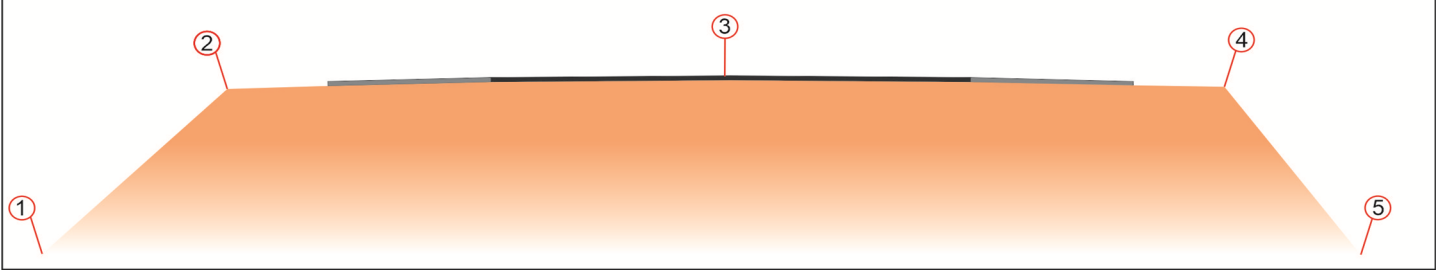
PROJETO EXECUTIVO DE ENGENHARIA PARA DUPLICAÇÃO DE RODOVIA															
Rodovia: GO-330															
Trecho: Entr. Avenida Juscelino Kubitschek de Oliveira / Posto Polícia Rodoviária Estadual															
Nota-de-Serviço de Terraplenagem - GO-330 - Pista Sul															
Estaca	Offset		Bordo Esquerdo			Eixo					Bordo Direito			Offset	
	cota terrapl	dist (m)	cota terrapl	i (%)	dist (m)	cota terreno	cota terrapl	Cota Vermelha	Coordenada X	Coordenada Y	dist (m)	i (%)	cota terrapl	cota terrapl	dist (m)
	1		2					3			4			5	
114+0,000	886,199	7,00	886,09	-2,0	6,05	886,34	886,21	-0,13	187395,19	7.991.864,25	7,78	2,0	886,37	884,763	8,39
114+11,848	885,701	7,06	885,28	-2,0	6,05	885,76	885,40	-0,36	187390,42	7.991.875,09	7,25	2,0	885,54	884,302	7,87
115+0,000	884,203	6,94	884,71	-2,0	6,05	885,31	884,84	-0,47	187387,13	7.991.882,55	6,89	2,0	884,97	883,188	6,71
116+0,000	884,051	6,92	883,34	-2,0	6,05	883,94	883,46	-0,48	187378,94	7.991.900,80	6,15	2,0	883,58	883,085	6,62
116+1,848	882,205	6,32	883,21	-2,0	6,05	883,79	883,33	-0,46	187378,17	7.991.902,48	6,05	2,0	883,45	881,641	6,86
117+0,000	881,885	6,18	881,96	-2,0	6,05	882,31	882,08	-0,23	187370,36	7.991.918,86	6,05	2,0	882,21	881,423	6,91
117+2,639	880,314	6,50	881,78	-2,0	6,05	882,01	881,90	-0,10	187369,20	7.991.921,23	6,05	2,0	882,02	880,289	6,90
118+0,000	880,082	6,53	880,64	-2,0	6,05	880,54	880,76	0,22	187361,33	7.991.936,71	6,05	2,0	880,88	880,094	6,88
118+3,431	878,984	6,75	880,43	-2,0	6,05	880,31	880,55	0,24	187359,74	7.991.939,75	6,05	2,0	880,67	879,039	7,03
119+0,000	877,850	7,42	879,48	-2,0	6,05	879,21	879,60	0,39	187351,89	7.991.954,34	6,05	2,0	879,72	877,933	7,65
119+13,431	877,100	8,08	878,79	-2,0	6,05	878,04	878,91	0,87	187345,42	7.991.966,11	6,05	2,0	879,03	877,604	7,68
120+0,000	874,149	11,24	878,47	-2,0	6,05	876,94	878,60	1,65	187342,24	7.991.971,86	6,05	2,0	878,72	875,931	8,93
121+0,000	873,320	11,47	877,63	-2,0	6,05	874,27	877,76	3,49	187332,59	7.991.989,37	6,05	2,0	877,88	875,327	8,82
122+0,000	873,311	10,70	876,96	-2,0	6,05	871,78	877,08	5,30	187322,93	7.992.006,89	6,05	2,0	877,20	875,032	8,48
123+0,000	874,292	8,70	876,44	-2,0	6,05	872,24	876,56	4,31	187313,27	7.992.024,40	6,05	2,0	876,68	874,543	8,69
124+0,000	875,093	7,21	876,08	-2,0	6,05	873,96	876,20	2,25	187303,61	7.992.041,91	6,05	2,0	876,33	874,767	8,06
125+0,000	875,157	7,06	875,89	-2,0	6,05	874,69	876,01	1,32	187293,95	7.992.059,43	6,05	2,0	876,13	874,972	7,70
126+0,000	875,576	6,63	875,86	-2,0	6,05	875,27	875,98	0,71	187284,30	7.992.076,94	6,05	2,0	876,10	875,373	7,30
127+0,000	875,880	6,61	875,99	-2,0	6,05	875,66	876,11	0,45	187274,64	7.992.094,45	6,05	2,0	876,23	875,736	7,19
128+0,000	876,365	6,57	876,28	-2,0	6,05	875,88	876,40	0,52	187264,98	7.992.111,97	6,05	2,0	876,52	876,215	7,15
129+0,000	876,870	6,73	876,73	-2,0	6,05	876,24	876,85	0,61	187255,32	7.992.129,48	6,05	2,0	876,98	876,714	7,33
130+0,000	877,585	6,74	877,35	-2,0	6,05	876,88	877,47	0,59	187245,66	7.992.146,99	6,05	2,0	877,59	877,542	7,17
131+0,000	878,274	6,80	878,07	-2,0	6,05	877,53	878,19	0,66	187236,01	7.992.164,51	6,05	2,0	878,32	878,288	7,14
132+0,000	879,347	6,28	878,80	-2,0	6,05	878,15	878,92	0,77	187226,35	7.992.182,02	6,05	2,0	879,04	878,966	7,22
133+0,000	880,146	6,18	879,53	-2,0	6,05	879,09	879,65	0,56	187216,69	7.992.199,53	6,05	2,0	879,77	879,682	7,23
134+0,000	880,657	6,50	880,26	-2,0	6,05	879,80	880,38	0,57	187207,03	7.992.217,05	6,05	2,0	880,50	880,460	7,16
135+0,000	880,788	7,39	880,98	-2,0	6,05	880,23	881,10	0,88	187197,38	7.992.234,56	6,05	2,0	881,22	881,201	7,14
136+0,000	881,398	7,57	881,71	-2,0	6,05	880,59	881,83	1,24	187187,72	7.992.252,07	6,05	2,0	881,95	881,957	7,10
137+0,000	882,136	7,55	882,44	-2,0	6,05	881,08	882,56	1,48	187178,06	7.992.269,59	6,05	2,0	882,68	882,618	7,20
138+0,000	882,569	8,00	883,16	-2,0	6,05	881,69	883,29	1,60	187168,40	7.992.287,10	6,05	2,0	883,41	883,349	7,19
139+0,000	883,186	8,16	883,89	-2,0	6,05	882,52	884,01	1,49	187158,74	7.992.304,62	6,05	2,0	884,13	884,125	7,12
140+0,000	884,770	6,88	884,62	-2,0	6,05	883,34	884,74	1,40	187149,09	7.992.322,13	6,05	2,0	884,86	884,893	7,06
141+0,000	885,904	6,27	885,35	-2,0	6,05	884,35	885,47	1,11	187139,43	7.992.339,64	6,05	2,0	885,59	885,384	7,41
142+0,000	885,922	7,33	886,07	-2,0	6,05	885,12	886,19	1,07	187129,77	7.992.357,16	6,05	2,0	886,32	886,022	7,54
143+0,000	886,273	7,79	886,80	-2,0	6,05	885,71	886,92	1,21	187120,11	7.992.374,67	6,05	2,0	887,04	886,659	7,58
144+0,000	887,871	6,21	887,46	-2,0	6,05	886,32	887,58	1,26	187110,45	7.992.392,18	6,05	2,0	887,70	887,710	6,81
145+0,000	887,404	7,54	888,00	-2,0	6,05	887,98	888,12	0,15	187100,80	7.992.409,70	6,05	2,0	888,24	887,491	7,78
146+0,000	887,865	7,31	888,43	-2,0	6,05	887,45	888,55	1,09	187091,14	7.992.427,21	6,05	2,0	888,67	887,782	7,80
147+0,000	888,045	7,33	888,73	-2,0	6,05	887,86	888,85	0,99	187081,48	7.992.444,72	6,05	2,0	888,97	887,921	7,88
148+0,000	888,104	7,35	888,92	-2,0	6,05	888,02	889,04	1,02	187071,82	7.992.462,24	6,05	2,0	889,16	888,528	7,07
149+0,000	888,078	7,32	888,99	-2,0	6,05	888,30	889,11	0,82	187062,16	7.992.479,75	6,05	2,0	889,24	888,274	7,39



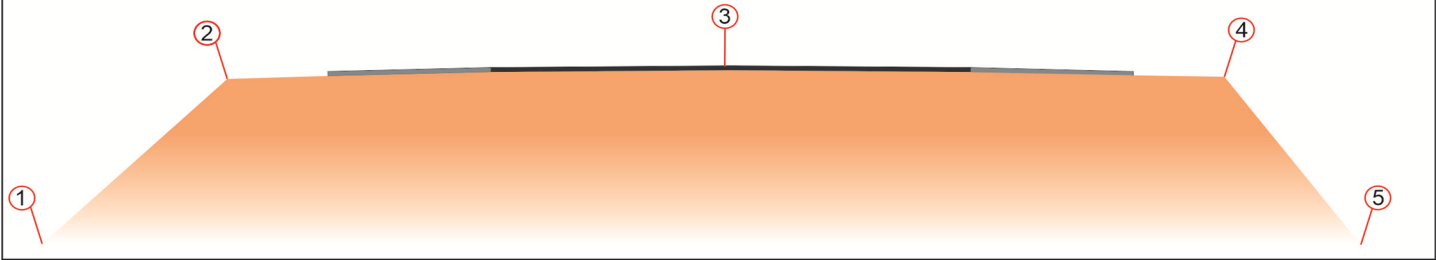
PROJETO EXECUTIVO DE ENGENHARIA PARA DUPLICAÇÃO DE RODOVIA															
Rodovia: GO-330															
Trecho: Entr. Avenida Juscelino Kubitschek de Oliveira / Posto Polícia Rodoviária Estadual															
Nota-de-Serviço de Terraplenagem - GO-330 - Pista Sul															
Estaca	Offset		Bordo Esquerdo			Eixo					Bordo Direito			Offset	
	cota terrapl	dist (m)	cota terrapl	i (%)	dist (m)	cota terreno	cota terrapl	Cota Vermelha	Coordenada X	Coordenada Y	dist (m)	i (%)	cota terrapl	cota terrapl	dist (m)
	1		2					3					4		5
150+0,000	888,297	6,74	888,95	-2,0	6,05	887,71	889,07	1,36	187052,51	7.992.497,26	6,05	2,0	889,19	888,262	7,16
151+0,000	888,147	6,65	888,79	-2,0	6,05	888,29	888,91	0,62	187042,85	7.992.514,78	6,05	2,0	889,03	888,225	6,90
152+0,000	888,069	6,45	888,57	-2,0	6,05	888,25	888,69	0,44	187033,19	7.992.532,29	6,05	2,0	888,81	888,203	6,61
153+0,000	887,894	6,39	888,36	-2,0	6,05	888,09	888,48	0,39	187023,53	7.992.549,80	6,05	2,0	888,60	888,071	6,49
154+0,000	888,013	6,15	888,15	-2,0	6,05	887,99	888,27	0,28	187013,87	7.992.567,32	6,05	2,0	888,39	888,310	6,21
155+0,000	887,987	6,27	887,93	-2,0	6,05	888,17	888,06	-0,12	187004,22	7.992.584,83	6,05	2,0	888,18	888,182	6,22
155+13,047	888,222	6,58	887,80	-2,0	6,05	888,23	887,92	-0,32	186997,92	7.992.596,26	6,05	2,0	888,04	888,308	6,42
156+0,000	888,148	6,71	887,72	-2,0	6,05	888,44	887,84	-0,60	186994,56	7.992.602,34	6,05	2,0	887,96	887,994	6,73
157+0,000	888,012	6,72	887,51	-2,0	6,05	888,27	887,63	-0,64	186984,81	7.992.619,81	6,46	2,0	887,76	887,807	7,31
157+13,047	887,943	6,72	887,37	-2,0	6,05	888,13	887,49	-0,64	186978,31	7.992.631,12	7,11	2,0	887,63	887,695	7,58
158+0,000	887,536	6,53	887,30	-2,0	6,05	887,96	887,42	-0,54	186974,77	7.992.637,11	7,42	2,0	887,57	887,234	8,42
158+19,927	887,533	6,52	887,09	-2,0	6,05	887,60	887,21	-0,39	186964,36	7.992.654,09	8,24	2,0	887,37	887,232	8,43
159+0,000	886,580	6,45	887,08	-2,0	6,05	887,60	887,21	-0,39	186964,32	7.992.654,16	8,25	2,0	887,37	886,610	9,77
160+0,000	886,325	6,72	886,87	-2,0	6,05	886,75	886,99	0,24	186953,44	7.992.670,94	8,95	2,0	887,17	886,537	9,77
160+6,806	885,964	7,06	886,80	-2,0	6,05	886,41	886,92	0,51	186949,64	7.992.676,59	8,95	2,0	887,10	885,533	11,05
161+0,000	886,024	6,65	886,66	-2,0	6,05	886,01	886,78	0,77	186942,15	7.992.687,45	8,95	2,0	886,96	885,382	10,96
162+0,000	886,112	6,41	886,45	-2,0	6,05	885,58	886,57	0,99	186930,59	7.992.703,77	8,95	2,0	886,75	885,255	11,04
162+6,806	886,295	6,14	886,37	-2,0	6,05	885,56	886,50	0,94	186926,64	7.992.709,31	8,95	2,0	886,67	885,054	11,13
163+0,000	886,476	6,44	886,23	-2,0	6,05	885,95	886,36	0,41	186918,96	7.992.720,04	8,95	2,0	886,53	884,847	11,26
163+8,157	886,544	6,47	886,17	-2,0	6,05	886,25	886,29	0,04	186914,21	7.992.726,67	8,95	2,0	886,47	885,007	11,07
164+0,000	886,580	6,50	886,11	-2,0	6,05	885,94	886,24	0,30	186907,34	7.992.736,32	8,95	2,0	886,41	885,031	11,06
164+18,157	886,951	6,66	886,15	-2,0	6,05	886,11	886,27	0,15	186897,10	7.992.751,31	8,95	2,0	886,45	885,360	10,76
165+0,000	887,178	6,52	886,16	-2,0	6,05	886,13	886,28	0,15	186896,10	7.992.752,86	8,95	2,0	886,46	885,888	9,40
166+0,000	887,177	6,38	886,37	-2,0	6,05	886,45	886,49	0,04	186885,74	7.992.769,96	8,95	2,0	886,67	885,985	7,71
167+0,000	887,383	6,34	886,73	-2,0	6,05	886,61	886,85	0,25	186876,38	7.992.787,63	6,05	2,0	886,97	886,138	7,85
167+7,267	887,473	6,07	886,87	-2,0	6,05	886,73	886,99	0,27	186873,23	7.992.794,18	6,05	2,0	887,12	886,243	8,28
168+0,000	887,353	6,73	887,12	-2,0	6,05	887,03	887,24	0,21	186868,04	7.992.805,81	6,05	2,0	887,36	886,675	8,11
169+0,000	887,320	6,88	887,51	-2,0	6,05	887,16	887,63	0,47	186860,75	7.992.824,43	6,05	2,0	887,75	886,800	8,03
169+16,378	887,588	7,07	887,83	-2,0	6,05	887,08	887,95	0,87	186855,58	7.992.839,97	6,05	2,0	888,07	887,788	7,13
170+0,000	887,629	7,19	887,90	-2,0	6,05	887,04	888,02	0,99	186854,54	7.992.843,44	6,05	2,0	888,14	888,230	6,65
171+0,000	888,030	6,99	888,29	-2,0	6,05	887,32	888,41	1,09	186849,22	7.992.862,72	6,05	2,0	888,53	888,726	6,26
171+6,378	888,965	6,17	888,42	-2,0	6,05	887,66	888,54	0,87	186847,61	7.992.868,89	6,05	2,0	888,66	889,474	6,19
172+0,000	889,350	6,25	888,68	-2,0	6,05	888,32	888,80	0,49	186844,17	7.992.882,07	6,05	2,0	888,92	889,559	6,16
173+0,000	889,664	6,28	889,07	-2,0	6,05	889,52	889,19	-0,33	186839,13	7.992.901,42	6,05	2,0	889,31	889,823	6,15
173+5,557	889,653	6,05	889,18	-2,0	6,05	889,76	889,30	-0,46	186837,73	7.992.906,80	1,00	0,0	889,30		
174+0,000	889,826	6,05	889,46	-2,0	6,05	890,09	889,58	-0,51	186833,60	7.992.920,64	1,00	0,0	889,58		
174+11,094	890,151	6,05	889,68	-2,0	6,05	890,09	889,80	-0,29	186829,77	7.992.931,05	1,00	0,0	889,80		
175+0,000	890,217	6,05	889,85	-2,0	6,05	890,09	889,97	-0,12	186826,30	7.992.939,25	1,00	0,0	889,97		
175+16,631	890,583	6,05	890,18	-2,0	6,05	890,09	890,30	0,21	186818,86	7.992.954,12	1,00	0,0	890,30		
176+0,000			890,24	-2,0	6,05	890,09	890,36	0,27	186817,24	7.992.957,07	1,00	0,0	890,36		



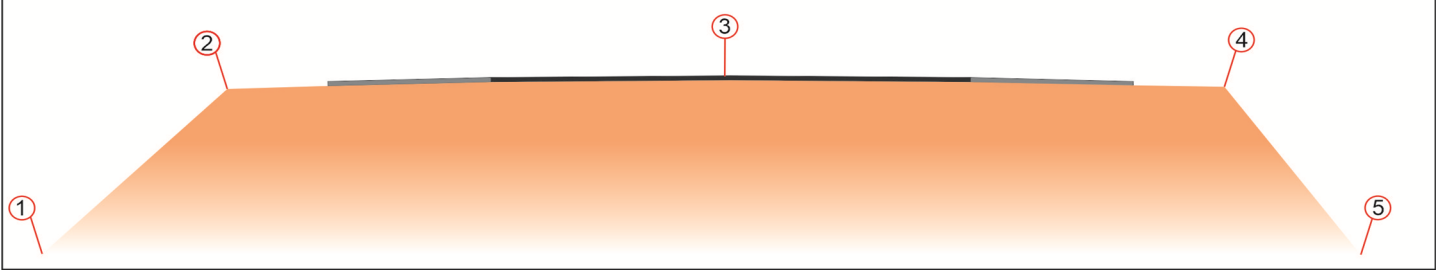
PROJETO EXECUTIVO DE ENGENHARIA PARA DUPLICAÇÃO DE RODOVIA															
Rodovia: GO-330															
Trecho: Entr. Avenida Juscelino Kubitschek de Oliveira / Posto Polícia Rodoviária Estadual															
Nota-de-Serviço de Terraplenagem - GO-330 - Pista Norte															
Estaca	Offset		Bordo Esquerdo			Eixo					Bordo Direito			Offset	
	cota terrapl	dist (m)	cota terrapl	i (%)	dist (m)	cota terreno	cota terrapl	Cota Vermelha	Coordenada X	Coordenada Y	dist (m)	i (%)	cota terrapl	cota terrapl	dist (m)
	1		2					3					4		5
48+0,000	904,031	7,02	902,29	2,0	6,05	904,26	902,17	-2,09	188055,63	7.990.722,02	6,05	-2,0	902,05	902,310	6,34
49+0,000	903,286	6,85	901,72	2,0	6,05	903,44	901,59	-1,85	188046,10	7.990.739,61	6,05	-2,0	901,47	901,672	6,27
50+0,000	902,532	6,67	901,14	2,0	6,05	902,70	901,02	-1,68	188036,58	7.990.757,20	6,05	-2,0	900,90	901,215	6,39
50+16,788	901,885	6,66	900,66	2,0	6,05	902,07	900,54	-1,54	188028,59	7.990.771,96	6,05	-2,0	900,41	900,934	5,81
51+0,000	901,760	6,74	900,56	2,0	6,05	901,95	900,44	-1,51	188027,06	7.990.774,79	6,05	-2,0	900,32	900,831	5,79
51+19,998	901,033	7,06	899,99	2,0	6,05	901,23	899,87	-1,36	188017,38	7.990.792,29	6,05	-2,0	899,75	900,247	5,75
52+0,000	901,033	7,06	899,99	2,0	6,05	901,23	899,87	-1,36	188017,38	7.990.792,29	6,05	-2,0	899,75	900,247	5,75
53+0,000	900,311	6,90	899,41	2,0	6,05	900,49	899,29	-1,20	188007,47	7.990.809,66	6,05	-2,0	899,17	899,689	5,78
53+3,208	900,195	6,83	899,32	2,0	6,05	900,39	899,20	-1,19	188005,86	7.990.812,43	6,05	-2,0	899,08	899,649	5,83
54+0,000	899,592	6,36	898,84	2,0	6,05	899,79	898,71	-1,07	187997,41	7.990.826,95	6,05	-2,0	898,59	899,129	5,80
55+0,000	898,772	6,33	898,26	2,0	6,05	898,96	898,14	-0,82	187987,35	7.990.844,23	6,05	-2,0	898,02	898,470	5,71
56+0,000	898,070	6,45	897,69	2,0	6,05	898,28	897,57	-0,71	187977,29	7.990.861,52	7,05	-2,0	897,43	898,007	6,80
57+0,000	897,467	6,36	897,17	2,0	6,05	897,71	897,05	-0,65	187967,22	7.990.878,80	7,05	-2,0	896,91	897,501	7,67
58+0,000	896,965	6,30	896,73	2,0	6,05	897,20	896,61	-0,60	187957,16	7.990.896,08	7,05	-2,0	896,46	897,074	7,69
58+3,816	896,523	6,24	896,65	2,0	6,05	897,11	896,53	-0,59	187955,24	7.990.899,38	7,05	-2,0	896,39	896,562	7,55
58+19,990	896,523	6,24	896,35	2,0	6,05	896,77	896,23	-0,54	187947,18	7.990.913,40	7,05	-2,0	896,09	896,561	7,55
59+0,000	896,210	6,18	896,35	2,0	6,05	896,77	896,23	-0,54	187947,18	7.990.913,41	7,05	-2,0	896,09	896,402	7,64
59+16,165	896,139	6,16	896,10	2,0	6,05	896,48	895,98	-0,51	187939,27	7.990.927,51	7,05	-2,0	895,84	896,488	7,79
60+0,000	895,873	6,13	896,04	2,0	6,05	896,42	895,92	-0,50	187937,41	7.990.930,87	7,05	-2,0	895,78	896,161	7,75
61+0,000	895,736	6,16	895,81	2,0	6,05	896,14	895,69	-0,46	187927,73	7.990.948,36	7,05	-2,0	895,55	895,776	7,50
62+0,000	895,642	6,16	895,64	2,0	6,05	895,97	895,52	-0,45	187918,04	7.990.965,86	7,05	-2,0	895,38	895,482	6,98
63+0,000	895,593	6,14	895,55	2,0	6,05	895,86	895,42	-0,44	187908,35	7.990.983,36	6,76	-2,0	895,29	895,347	6,55
64+0,000	895,622	6,13	895,52	2,0	6,05	895,82	895,40	-0,42	187898,66	7.991.000,86	6,45	-2,0	895,27	894,523	7,29
65+0,000	895,646	6,08	895,56	2,0	6,05	895,85	895,44	-0,41	187888,98	7.991.018,35	6,14	-2,0	895,32	895,024	6,56
66+0,000	895,710	6,07	895,63	2,0	6,05	895,91	895,51	-0,40	187879,29	7.991.035,85	6,05	-2,0	895,39	895,159	6,46
67+0,000	895,796	6,09	895,70	2,0	6,05	895,98	895,58	-0,40	187869,60	7.991.053,35	6,05	-2,0	895,46	895,530	6,08
68+0,000	895,783	6,12	895,77	2,0	6,05	896,03	895,65	-0,38	187859,92	7.991.070,85	6,05	-2,0	895,53	895,729	6,20
69+0,000	895,828	6,15	895,84	2,0	6,05	896,07	895,72	-0,35	187850,23	7.991.088,34	6,05	-2,0	895,60	895,831	6,24
70+0,000	895,920	6,12	895,91	2,0	6,05	896,09	895,79	-0,30	187840,54	7.991.105,84	6,05	-2,0	895,67	896,056	6,41
71+0,000	896,028	6,07	895,98	2,0	6,05	896,17	895,86	-0,31	187830,85	7.991.123,34	6,05	-2,0	895,74	895,855	6,43
72+0,000	896,082	6,09	896,05	2,0	6,05	896,25	895,93	-0,32	187821,17	7.991.140,84	6,35	-2,0	895,81	895,843	6,65
73+0,000	896,245	6,12	896,12	2,0	6,05	896,32	896,00	-0,31	187811,48	7.991.158,33	6,65	-2,0	895,87	896,074	7,10
74+0,000	896,386	6,16	896,20	2,0	6,05	896,46	896,07	-0,38	187801,79	7.991.175,83	6,93	-2,0	895,94	896,289	7,33
75+0,000	896,561	6,19	896,30	2,0	6,05	896,59	896,18	-0,41	187792,11	7.991.193,33	7,05	-2,0	896,03	896,464	7,36
76+0,000	896,774	6,21	896,44	2,0	6,05	896,77	896,32	-0,45	187782,42	7.991.210,83	7,05	-2,0	896,18	896,682	7,39
77+0,000	896,996	6,20	896,64	2,0	6,40	896,99	896,51	-0,48	187772,73	7.991.228,32	7,05	-2,0	896,37	896,975	7,45
78+0,000	897,255	6,18	896,88	2,0	6,68	897,26	896,74	-0,51	187763,04	7.991.245,82	7,05	-2,0	896,60	897,292	7,49
79+0,000	897,627	6,23	897,16	2,0	6,96	897,56	897,02	-0,53	187753,36	7.991.263,32	7,05	-2,0	896,88	897,612	7,48
80+0,000	897,986	6,25	897,49	2,0	7,05	897,87	897,35	-0,52	187743,67	7.991.280,82	7,05	-2,0	897,20	897,932	7,47
81+0,000	898,317	6,24	897,82	2,0	7,05	898,25	897,68	-0,57	187733,98	7.991.298,31	7,05	-2,0	897,54	898,241	7,44
82+0,000	898,666	6,26	898,16	2,0	7,05	898,62	898,02	-0,60	187724,30	7.991.315,81	7,05	-2,0	897,88	898,646	7,51



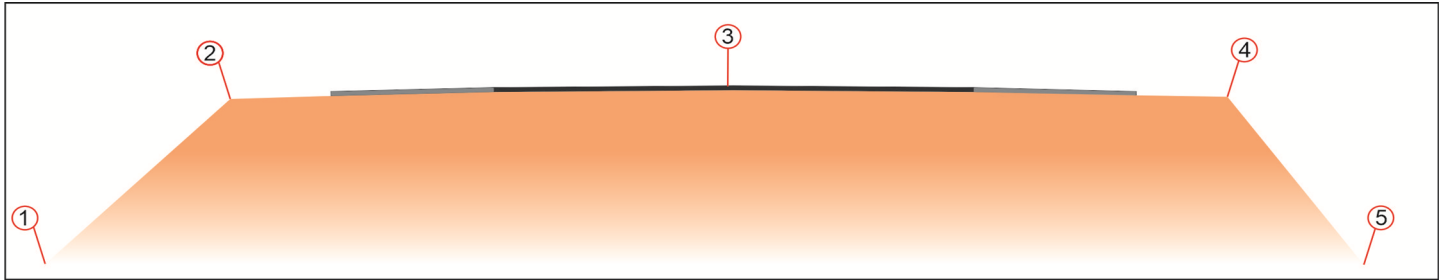
PROJETO EXECUTIVO DE ENGENHARIA PARA DUPLICAÇÃO DE RODOVIA															
Rodovia: GO-330															
Trecho: Entr. Avenida Juscelino Kubitschek de Oliveira / Posto Polícia Rodoviária Estadual															
Nota-de-Serviço de Terraplenagem - GO-330 - Pista Norte															
Estaca	Offset		Bordo Esquerdo			Eixo					Bordo Direito			Offset	
	cota terrapl	dist (m)	cota terrapl	i (%)	dist (m)	cota terreno	cota terrapl	Cota Vermelha	Coordenada X	Coordenada Y	dist (m)	i (%)	cota terrapl	cota terrapl	dist (m)
	1		2					3					4		5
83+0,000	898,907	6,16	898,50	2,0	7,05	898,95	898,36	-0,59	187714,61	7.991.333,31	7,05	-2,0	898,21	898,951	7,48
84+0,000	899,188	6,10	898,83	2,0	7,05	899,29	898,69	-0,60	187704,92	7.991.350,81	7,05	-2,0	898,55	899,194	7,32
85+0,000	899,549	6,13	899,17	2,0	7,05	899,61	899,03	-0,58	187695,23	7.991.368,30	6,99	-2,0	898,89	899,339	6,83
86+0,000	899,963	6,21	899,51	2,0	7,05	899,96	899,37	-0,59	187685,55	7.991.385,80	6,70	-2,0	899,23	899,557	6,42
87+0,000	900,337	6,24	899,84	2,0	7,05	900,30	899,70	-0,60	187675,86	7.991.403,30	6,41	-2,0	899,57	899,921	6,16
88+0,000	900,707	6,28	900,18	2,0	7,05	900,64	900,04	-0,60	187666,17	7.991.420,80	6,13	-2,0	899,92	900,288	6,11
89+0,000	900,819	6,23	900,52	2,0	7,05	900,97	900,38	-0,60	187656,49	7.991.438,29	6,05	-2,0	900,25	900,409	6,07
89+9,648	900,968	6,20	900,68	2,0	7,05	901,12	900,54	-0,58	187651,81	7.991.446,73	6,05	-2,0	900,42	900,437	6,24
90+0,000	901,231	6,13	900,85	2,0	6,70	901,27	900,71	-0,56	187646,83	7.991.455,81	6,05	-2,0	900,59	900,386	6,82
91+0,000	901,386	6,08	901,18	2,0	6,40	901,56	901,05	-0,51	187637,38	7.991.473,43	6,05	-2,0	900,93	900,293	7,28
91+13,703	901,451	6,06	901,38	2,0	6,12	901,69	901,26	-0,44	187631,04	7.991.485,58	6,05	-2,0	901,13	900,205	7,53
92+0,000	901,656	6,07	901,46	2,0	6,05	901,75	901,34	-0,41	187628,17	7.991.491,19	6,05	-2,0	901,22	900,043	8,07
93+0,000	901,729	6,07	901,66	2,0	6,05	901,86	901,53	-0,33	187619,19	7.991.509,06	6,05	-2,0	901,41	899,225	9,44
93+17,758	901,738	6,06	901,75	2,0	6,05	901,92	901,63	-0,28	187611,42	7.991.525,03	6,05	-2,0	901,51	899,184	9,52
94+0,000	901,725	6,11	901,76	2,0	6,05	901,91	901,64	-0,27	187610,46	7.991.527,05	6,05	-2,0	901,52	898,870	10,01
95+0,000	901,588	6,20	901,78	2,0	6,05	901,71	901,66	-0,06	187601,81	7.991.545,08	6,05	-2,0	901,54	899,092	9,57
96+0,000	901,440	6,18	901,70	2,0	6,05	901,42	901,58	0,16	187593,17	7.991.563,12	6,05	-2,0	901,46	899,604	8,55
97+0,000	901,190	6,23	901,54	2,0	6,05	900,79	901,42	0,63	187584,53	7.991.581,16	6,51	-2,0	901,29	899,579	8,21
98+0,000	901,119	6,27	901,28	2,0	6,05	900,24	901,16	0,92	187575,88	7.991.599,19	7,70	-2,0	901,01	898,777	9,30
98+4,724	900,891	6,39	901,21	2,0	6,05	900,21	901,09	0,88	187573,84	7.991.603,45	7,73	-2,0	900,93	897,962	10,11
99+0,000	900,568	6,64	900,94	2,0	6,05	900,63	900,82	0,19	187567,17	7.991.617,19	8,58	-2,0	900,64	897,317	10,43
100+0,000	900,378	6,72	900,50	2,0	6,05	900,20	900,38	0,18	187558,22	7.991.635,08	8,95	-2,0	900,20	897,106	10,46
100+7,530	900,064	6,89	900,31	2,0	6,05	899,29	900,19	0,90	187554,79	7.991.641,79	8,95	-2,0	900,01	896,877	10,29
101+0,000	899,451	7,57	899,99	2,0	7,00	897,79	899,85	2,06	187549,04	7.991.652,85	8,95	-2,0	899,67	896,754	9,55
102+0,000	899,092	7,96	899,39	2,0	7,78	896,79	899,23	2,45	187539,62	7.991.670,49	8,95	-2,0	899,06	896,887	8,82
102+10,336	898,730	8,30	899,04	2,0	8,09	896,74	898,88	2,13	187534,66	7.991.679,56	8,95	-2,0	898,70	896,909	8,26
103+0,000	897,937	9,02	898,69	2,0	8,33	896,86	898,53	1,66	187529,99	7.991.688,02	8,95	-2,0	898,35	897,106	6,76
104+0,000	897,004	9,56	897,90	2,0	8,84	897,40	897,73	0,33	187520,34	7.991.705,54	8,95	-2,0	897,55	896,330	6,59
105+0,000	895,939	9,69	897,01	2,0	8,95	896,51	896,84	0,33	187510,68	7.991.723,05	8,95	-2,0	896,66	894,761	7,47
106+0,000	894,790	9,80	896,03	2,0	8,95	894,92	895,86	0,94	187501,02	7.991.740,56	8,95	-2,0	895,68	893,800	7,31
107+0,000	893,571	9,89	894,96	2,0	8,95	893,92	894,78	0,86	187491,36	7.991.758,08	8,95	-2,0	894,60	893,409	6,15
108+0,000	892,319	9,89	893,80	2,0	8,95	892,73	893,62	0,89	187481,70	7.991.775,59	8,95	-2,0	893,44	892,801	6,63
109+0,000	891,043	9,79	892,55	2,0	8,95	891,62	892,37	0,75	187472,05	7.991.793,10	8,95	-2,0	892,19	892,041	7,21
110+0,000	889,798	9,54	891,21	2,0	8,95	890,46	891,03	0,56	187462,39	7.991.810,62	8,95	-2,0	890,85	890,988	7,56
111+0,000	888,494	9,59	889,81	2,0	8,95	889,19	889,63	0,44	187452,73	7.991.828,13	8,95	-2,0	889,45	889,752	7,72
112+0,000	887,244	9,72	888,41	2,0	8,95	887,92	888,23	0,32	187443,07	7.991.845,64	8,95	-2,0	888,05	888,517	7,88
113+0,000	885,959	9,81	887,01	2,0	8,95	886,71	886,83	0,13	187433,41	7.991.863,16	8,95	-2,0	886,66	887,200	7,96
114+0,000	885,447	9,85	885,62	2,0	8,95	885,24	885,44	0,19	187423,76	7.991.880,67	8,95	-2,0	885,26	886,651	7,98
114+8,077	884,693	9,87	885,05	2,0	8,95	884,75	884,87	0,12	187419,86	7.991.887,74	8,95	-2,0	884,69	885,687	7,84
115+0,000	883,440	9,67	884,22	2,0	8,95	884,25	884,04	-0,21	187414,06	7.991.898,16	8,95	-2,0	883,86	883,935	7,49
116+0,000	882,762	9,43	882,82	2,0	8,78	883,03	882,64	-0,39	187404,14	7.991.915,53	8,95	-2,0	882,46	882,921	7,24



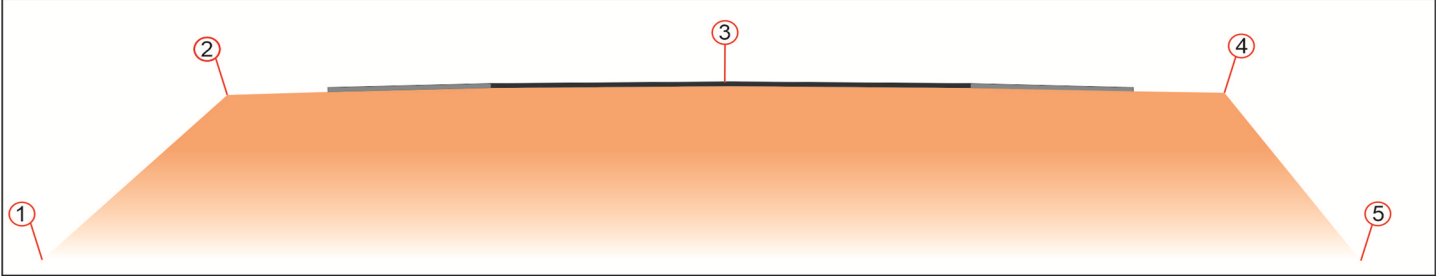
PROJETO EXECUTIVO DE ENGENHARIA PARA DUPLICAÇÃO DE RODOVIA															
Rodovia: GO-330															
Trecho: Entr. Avenida Juscelino Kubitschek de Oliveira / Posto Polícia Rodoviária Estadual															
Nota-de-Serviço de Terraplenagem - GO-330 - Pista Norte															
Estaca	Offset		Bordo Esquerdo			Eixo					Bordo Direito			Offset	
	cota terrapl	dist (m)	cota terrapl	i (%)	dist (m)	cota terreno	cota terrapl	Cota Vermelha	Coordenada X	Coordenada Y	dist (m)	i (%)	cota terrapl	cota terrapl	dist (m)
	1		2					3					4		5
116+10,883	882,193	9,16	882,05	2,0	8,60	882,42	881,88	-0,54	187398,65	7.991.924,93	7,78	-2,0	881,73	881,782	6,73
117+0,000	880,921	8,37	881,41	2,0	8,14	881,77	881,24	-0,53	187394,00	7.991.932,77	7,25	-2,0	881,10	880,372	6,72
118+0,000	880,044	7,62	879,99	2,0	7,15	880,82	879,85	-0,97	187383,63	7.991.949,87	6,89	-2,0	879,71	879,742	7,00
118+13,690	879,641	7,21	879,08	2,0	6,59	880,19	878,94	-1,25	187376,40	7.991.961,49	6,15	-2,0	878,82	878,972	6,61
119+0,000	878,433	6,91	878,69	2,0	6,22	879,76	878,56	-1,20	187373,04	7.991.966,84	6,05	-2,0	878,44	876,239	7,71
120+0,000	877,499	6,82	877,61	2,0	6,05	877,74	877,49	-0,25	187362,40	7.991.983,77	6,05	-2,0	877,37	873,749	10,16
121+0,000	876,686	6,64	876,76	2,0	6,05	877,33	876,64	-0,69	187351,76	7.992.000,70	6,05	-2,0	876,52	871,242	12,97
122+0,000	875,986	6,36	876,12	2,0	6,05	876,70	876,00	-0,70	187341,12	7.992.017,64	6,05	-2,0	875,88	868,746	16,08
123+0,000	875,584	6,16	875,70	2,0	6,05	876,12	875,58	-0,54	187330,48	7.992.034,57	6,05	-2,0	875,46	868,339	16,38
124+0,000	875,521	6,12	875,49	2,0	6,05	875,79	875,37	-0,42	187319,83	7.992.051,51	6,05	-2,0	875,25	869,431	14,71
124+6,907	875,471	6,07	875,47	2,0	6,05	875,73	875,35	-0,38	187316,16	7.992.057,36	6,05	-2,0	875,23	872,587	10,02
125+0,000	875,325	6,63	875,50	2,0	6,05	875,61	875,38	-0,23	187309,24	7.992.068,47	6,05	-2,0	875,26	874,237	7,89
126+0,000	875,399	6,80	875,73	2,0	6,05	875,74	875,61	-0,13	187298,86	7.992.085,57	6,05	-2,0	875,49	874,995	7,03
126+9,729	875,537	6,98	875,92	2,0	6,05	875,82	875,79	-0,03	187293,90	7.992.093,93	6,05	-2,0	875,67	875,307	6,94
127+0,000	875,928	7,35	876,17	2,0	6,05	876,01	876,05	0,04	187288,71	7.992.102,80	6,05	-2,0	875,93	875,731	7,27
128+0,000	876,154	7,66	876,81	2,0	6,05	876,51	876,69	0,18	187278,79	7.992.120,17	6,05	-2,0	876,57	874,948	9,09
128+12,550	876,428	7,63	877,24	2,0	6,05	876,89	877,12	0,23	187272,69	7.992.131,13	6,05	-2,0	877,00	875,563	8,55
129+0,000	876,866	8,00	877,50	2,0	6,05	877,16	877,37	0,22	187269,09	7.992.137,65	6,05	-2,0	877,25	876,341	8,41
130+0,000	877,751	7,69	878,18	2,0	6,05	877,87	878,06	0,18	187259,43	7.992.155,17	6,05	-2,0	877,94	877,201	8,14
131+0,000	878,537	7,54	878,86	2,0	6,05	878,61	878,74	0,13	187249,77	7.992.172,68	6,05	-2,0	878,62	878,071	7,86
132+0,000	879,225	7,54	879,55	2,0	6,05	879,34	879,43	0,09	187240,12	7.992.190,20	6,05	-2,0	879,30	878,674	7,98
133+0,000	879,952	7,47	880,23	2,0	6,05	880,05	880,11	0,06	187230,46	7.992.207,71	6,05	-2,0	879,99	879,386	7,94
134+0,000	880,756	7,29	880,91	2,0	6,05	880,78	880,79	0,01	187220,80	7.992.225,22	6,05	-2,0	880,67	879,891	8,21
135+0,000	881,509	7,19	881,60	2,0	6,05	881,47	881,48	0,01	187211,14	7.992.242,74	6,05	-2,0	881,36	880,922	7,69
136+0,000	882,279	7,06	882,28	2,0	6,05	882,20	882,16	-0,04	187201,49	7.992.260,25	6,05	-2,0	882,04	881,049	8,54
137+0,000	882,939	7,09	882,97	2,0	6,05	882,93	882,84	-0,09	187191,83	7.992.277,76	6,07	-2,0	882,72	882,952	6,99
138+0,000	883,739	6,92	883,65	2,0	6,05	883,65	883,53	-0,13	187182,17	7.992.295,28	6,35	-2,0	883,40	883,685	7,19
139+0,000	884,486	6,82	884,33	2,0	6,05	884,38	884,21	-0,17	187172,51	7.992.312,79	6,64	-2,0	884,08	884,317	7,55
140+0,000	885,254	6,70	885,02	2,0	6,05	885,11	884,90	-0,21	187162,85	7.992.330,31	6,93	-2,0	884,76	885,024	7,63
141+0,000	885,596	7,21	885,70	2,0	6,05	885,80	885,58	-0,22	187153,20	7.992.347,82	7,05	-2,0	885,44	885,715	7,62
142+0,000	886,363	7,00	886,38	2,0	6,05	886,50	886,26	-0,24	187143,54	7.992.365,33	7,05	-2,0	886,12	886,241	7,77
143+0,000	886,940	6,96	887,01	2,0	6,05	887,10	886,89	-0,21	187133,88	7.992.382,85	7,05	-2,0	886,75	886,832	7,72
144+0,000	887,726	6,50	887,56	2,0	6,05	887,67	887,44	-0,23	187124,22	7.992.400,36	7,05	-2,0	887,30	887,442	7,52
145+0,000	887,691	7,16	888,04	2,0	6,05	888,09	887,92	-0,17	187114,57	7.992.417,87	7,05	-2,0	887,78	887,852	7,51
146+0,000	888,061	7,09	888,44	2,0	6,05	888,58	888,32	-0,26	187104,91	7.992.435,39	7,05	-2,0	888,18	888,214	7,46
147+0,000	888,216	7,24	888,77	2,0	6,05	888,94	888,65	-0,29	187095,25	7.992.452,90	7,05	-2,0	888,51	888,449	7,48
148+0,000	889,009	6,32	889,03	2,0	6,05	889,21	888,90	-0,31	187085,59	7.992.470,41	7,05	-2,0	888,76	888,757	7,29
149+0,000	888,824	6,75	889,20	2,0	6,05	889,43	889,08	-0,35	187075,94	7.992.487,93	7,05	-2,0	888,94	888,920	7,20
150+0,000	888,678	7,01	889,31	2,0	6,05	889,55	889,19	-0,36	187066,28	7.992.505,44	7,05	-2,0	889,04	888,950	7,20
151+0,000	888,906	6,60	889,33	2,0	6,05	889,57	889,21	-0,35	187056,62	7.992.522,96	7,05	-2,0	889,07	888,824	7,31
152+0,000	888,897	6,59	889,29	2,0	6,05	889,53	889,17	-0,36	187046,96	7.992.540,47	7,05	-2,0	889,02	888,785	7,35



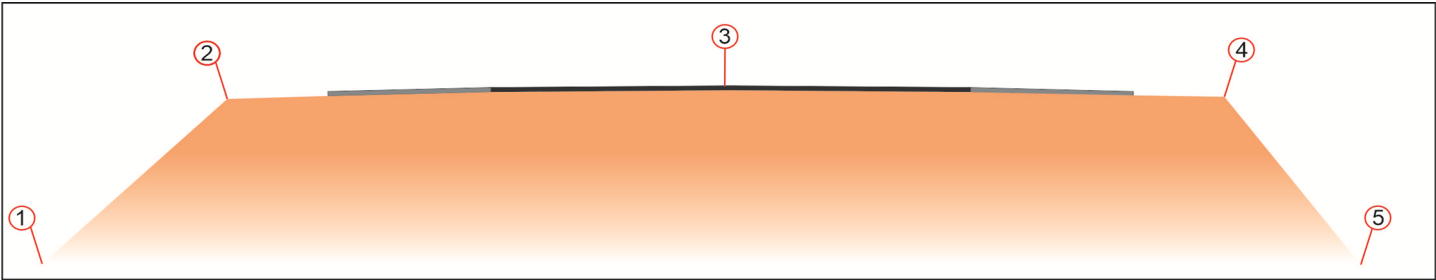
PROJETO EXECUTIVO DE ENGENHARIA PARA DUPLICAÇÃO DE RODOVIA															
Rodovia: GO-330															
Trecho: Entr. Avenida Juscelino Kubitschek de Oliveira / Posto Polícia Rodoviária Estadual															
Nota-de-Serviço de Terraplenagem - GO-330 - Pista Norte															
Estaca	Offset		Bordo Esquerdo			Eixo					Bordo Direito			Offset	
	cota terrapl	dist (m)	cota terrapl	i (%)	dist (m)	cota terreno	cota terrapl	Cota Vermelha	Coordenada X	Coordenada Y	dist (m)	i (%)	cota terrapl	cota terrapl	dist (m)
	1		2					3					4		5
152+3,347	888,798	6,58	889,27	2,0	6,05	889,51	889,15	-0,36	187045,35	7.992.543,40	7,05	-2,0	889,01	888,856	7,08
153+0,000	888,754	6,35	889,16	2,0	6,05	889,41	889,04	-0,37	187037,39	7.992.558,03	7,05	-2,0	888,90	888,640	7,11
154+0,000	888,734	6,32	888,97	2,0	6,05	889,22	888,85	-0,37	187028,04	7.992.575,71	7,05	-2,0	888,70	888,616	7,09
154+3,006	888,617	6,14	888,93	2,0	6,05	889,18	888,81	-0,37	187026,66	7.992.578,38	7,05	-2,0	888,67	888,366	7,10
155+0,000	888,431	6,15	888,69	2,0	6,05	888,96	888,57	-0,38	187018,93	7.992.593,52	7,05	-2,0	888,43	888,188	6,90
156+0,000	888,389	6,16	888,35	2,0	6,05	888,63	888,23	-0,41	187010,06	7.992.611,44	6,78	-2,0	888,09	888,095	6,80
156+2,666	888,118	6,20	888,30	2,0	6,05	888,58	888,18	-0,41	187008,90	7.992.613,84	6,78	-2,0	888,04	886,817	7,69
157+0,000	887,756	6,21	887,98	2,0	6,05	888,28	887,86	-0,42	187001,34	7.992.629,44	6,35	-2,0	887,73	885,546	8,75
158+0,000	887,426	6,25	887,61	2,0	6,05	887,92	887,49	-0,43	186992,62	7.992.647,44	6,05	-2,0	887,37	884,794	9,33
159+0,000	887,160	6,56	887,25	2,0	6,05	887,51	887,13	-0,39	186983,91	7.992.665,44	6,05	-2,0	887,00	883,914	10,11
160+0,000	886,998	7,56	886,89	2,0	6,28	886,72	886,77	0,04	186975,19	7.992.683,44	6,05	-2,0	886,65	883,385	10,50
161+0,000	886,983	7,82	886,64	2,0	7,20	886,19	886,49	0,31	186966,47	7.992.701,44	6,05	-2,0	886,37	883,352	10,47
161+4,999	886,935	8,55	886,59	2,0	7,47	886,06	886,44	0,39	186964,29	7.992.705,94	6,05	-2,0	886,32	883,377	10,26
162+0,000	886,861	9,25	886,49	2,0	8,13	886,30	886,33	0,03	186957,74	7.992.719,43	6,05	-2,0	886,21	883,175	10,48
163+0,000	886,859	9,37	886,45	2,0	8,83	885,64	886,28	0,63	186948,83	7.992.737,34	6,05	-2,0	886,15	882,960	10,81
163+4,999	886,887	9,35	886,46	2,0	8,95	885,55	886,28	0,72	186946,55	7.992.741,79	6,05	-2,0	886,16	882,771	11,16
164+0,000	886,940	9,31	886,51	2,0	8,95	885,18	886,33	1,15	186939,56	7.992.755,06	6,05	-2,0	886,21	883,001	10,95
164+12,509	886,980	9,28	886,59	2,0	8,95	884,76	886,41	1,66	186933,53	7.992.766,02	6,05	-2,0	886,29	883,272	10,65
165+0,000	887,107	9,21	886,67	2,0	8,95	884,85	886,49	1,64	186929,84	7.992.772,54	6,05	-2,0	886,37	883,996	9,97
166+0,000	887,107	9,21	886,93	2,0	8,95	885,30	886,75	1,46	186919,69	7.992.789,77	6,05	-2,0	886,63	883,996	9,97
166+0,020	887,316	8,95	886,93	2,0	8,95	885,30	886,75	1,46	186919,68	7.992.789,79	6,05	-2,0	886,63	884,600	9,59
167+0,000	887,629	6,10	887,23	2,0	6,05	886,30	887,11	0,81	186909,15	7.992.806,77	6,05	-2,0	886,99	885,515	8,77
168+0,000	887,630	6,10	887,59	2,0	6,05	887,31	887,47	0,16	186898,39	7.992.823,63	6,05	-2,0	887,35	885,516	8,77
168+0,020	888,011	6,12	887,59	2,0	6,05	887,32	887,47	0,16	186898,38	7.992.823,64	6,05	-2,0	887,35	886,324	8,10
169+0,000	888,396	6,14	887,96	2,0	6,05	888,13	887,84	-0,30	186887,60	7.992.840,47	6,05	-2,0	887,72	887,134	7,43
170+0,000	888,780	6,16	888,32	2,0	6,05	888,57	888,20	-0,37	186876,81	7.992.857,31	6,05	-2,0	888,08	888,076	6,56
171+0,000	889,112	6,13	888,68	2,0	6,05	888,97	888,56	-0,41	186866,02	7.992.874,15	6,05	-2,0	888,44	888,819	6,09
172+0,000	889,272	6,15	889,05	2,0	6,05	889,38	888,93	-0,46	186855,23	7.992.890,99	6,05	-2,0	888,81	889,031	6,17
172+7,470	889,561	6,22	889,18	2,0	6,05	889,53	889,06	-0,47	186851,20	7.992.897,28	6,05	-2,0	888,94	889,370	6,28
173+0,000	889,576	6,22	889,29	0,0	1,00	889,74	889,29	-0,45	186844,61	7.992.907,93	6,05	0,0	889,29	889,386	6,28
173+0,645	889,755	6,16	889,30	0,0	1,00	889,75	889,30	-0,45	186844,28	7.992.908,48	6,05	0,0	889,30	889,746	6,40
173+13,821	889,851	6,14	889,54	0,0	1,00	890,02	889,54	-0,47	186837,73	7.992.919,92	6,05	0,0	889,54	889,877	6,42
174+0,000	889,350	6,25	889,65	0,0	1,00	890,14	889,65	-0,48	186834,74	7.992.925,33	6,05	0,0	889,65	889,559	6,16



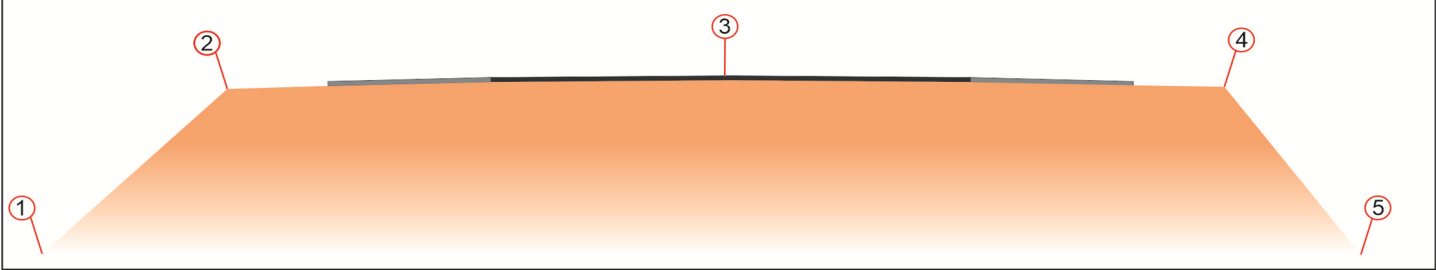
PROJETO EXECUTIVO DE ENGENHARIA PARA DUPLICAÇÃO DE RODOVIA Rodovia: GO-330 Trecho: Entr. Avenida Juscelino Kubitschek de Oliveira / Posto Polícia Rodoviária Estadual Nota-de-Serviço de Terraplenagem - GO-330 - Marginal Sul															
Estaca	Offset		Bordo Esquerdo			Eixo					Bordo Direito			Offset	
	cota terrapl	dist (m)	cota terrapl	i (%)	dist (m)	cota terreno	cota terrapl	Cota Vermelha	Coordenada X	Coordenada Y	dist (m)	i (%)	cota terrapl	cota terrapl	dist (m)
	1		2					3					4		5
10+0,000			923,74	-2,0	3,00	923,92	923,80	-0,13	188473,12	7.990.095,15	3,00	2,0	923,86		
11+0,000			923,60	-2,0	3,00	923,51	923,66	0,15	188456,32	7.990.106,02	3,00	2,0	923,72		
12+0,000			923,46	-2,0	3,00	923,19	923,52	0,33	188439,53	7.990.116,88	3,00	2,0	923,58		
12+12,965			923,38	-2,0	3,00	923,04	923,44	0,40	188428,64	7.990.123,92	3,00	2,0	923,50		
12+17,387			923,35	-2,0	3,00	922,87	923,41	0,54	188425,07	7.990.126,52	3,00	2,0	923,47		
13+0,000			923,33	-2,0	3,00	922,82	923,39	0,57	188423,10	7.990.128,24	3,00	2,0	923,45		
13+1,808			923,31	-2,0	3,00	922,80	923,37	0,57	188421,80	7.990.129,50	3,00	2,0	923,43		
14+0,000			923,19	-2,0	3,00	922,73	923,25	0,52	188409,07	7.990.142,49	3,00	2,0	923,31		
15+0,000			923,06	-2,0	3,00	922,68	923,12	0,44	188395,06	7.990.156,77	3,00	2,0	923,18		
16+0,000			922,81	-2,0	3,00	922,39	922,87	0,49	188381,06	7.990.171,05	3,00	2,0	922,93		
17+0,000			922,37	-2,0	3,00	922,05	922,43	0,38	188367,06	7.990.185,33	3,00	2,0	922,49		
17+6,311			922,19	-2,0	3,00	921,91	922,25	0,34	188362,64	7.990.189,83	3,00	2,0	922,31		
17+8,502			922,12	-2,0	3,00	921,87	922,18	0,31	188361,06	7.990.191,35	3,00	2,0	922,24		
17+10,693			922,05	-2,0	3,00	921,84	922,11	0,27	188359,41	7.990.192,79	3,00	2,0	922,17		
18+0,000			921,74	-2,0	3,00	921,63	921,80	0,17	188352,20	7.990.198,68	3,00	2,0	921,86		
19+0,000			921,07	-2,0	3,00	921,23	921,13	-0,09	188336,72	7.990.211,34	3,00	2,0	921,19		
19+17,419			920,49	-2,0	3,00	920,81	920,55	-0,26	188323,24	7.990.222,37	3,00	2,0	920,61		
20+0,000			920,40	-2,0	3,00	920,74	920,46	-0,28	188321,22	7.990.223,98	3,00	2,0	920,52		
20+9,105			920,09	-2,0	3,50	920,49	920,16	-0,33	188313,84	7.990.229,30	3,50	2,0	920,23		
21+0,000			919,77	-2,0	3,50	920,17	919,84	-0,34	188304,49	7.990.234,89	3,50	2,0	919,91		
21+0,791			919,75	-2,0	3,50	920,16	919,82	-0,34	188303,79	7.990.235,26	3,50	2,0	919,89		
21+9,103			919,61	-2,0	3,50	920,03	919,68	-0,35	188296,44	7.990.239,14	3,50	2,0	919,75		
22+0,000			919,53	-2,0	3,50	919,95	919,60	-0,35	188287,05	7.990.244,67	3,50	2,0	919,67		
23+0,000			919,39	-2,0	3,50	919,79	919,46	-0,33	188271,39	7.990.257,06	3,50	2,0	919,53		
23+3,307			919,37	-2,0	3,50	919,75	919,44	-0,31	188269,02	7.990.259,37	3,50	2,0	919,51		
24+0,000			918,92	-2,0	3,50	919,34	918,99	-0,35	188258,13	7.990.272,01	3,50	2,0	919,06		
24+17,510			917,89	-2,0	3,50	918,42	917,96	-0,46	188248,84	7.990.286,82	3,50	2,0	918,03		
25+0,000			917,74	-2,0	3,50	918,23	917,81	-0,42	188247,68	7.990.289,03	3,50	2,0	917,88		
26+0,000			916,55	-2,0	3,50	916,86	916,62	-0,24	188238,39	7.990.306,74	3,50	2,0	916,69		
26+5,468			916,27	-2,0	3,50	916,60	916,34	-0,26	188235,85	7.990.311,58	3,50	2,0	916,41		
27+0,000			915,63	-2,0	3,50	916,02	915,70	-0,32	188229,10	7.990.324,45	3,50	2,0	915,77		
27+11,382			915,26	-2,0	3,50	915,64	915,33	-0,32	188223,81	7.990.334,53	3,50	2,0	915,40		
28+0,000			915,02	-2,0	3,50	915,37	915,09	-0,29	188219,81	7.990.342,16	3,50	2,0	915,16		
29+0,000			914,46	-2,0	3,50	914,69	914,53	-0,15	188210,52	7.990.359,87	3,50	2,0	914,60		
30+0,000			913,91	-2,0	3,50	914,04	913,98	-0,06	188201,23	7.990.377,58	3,50	2,0	914,05		
31+0,000			913,36	-2,0	3,50	913,45	913,43	-0,03	188191,94	7.990.395,30	3,50	2,0	913,50		
31+14,817			912,95	-2,0	3,50	913,05	913,02	-0,04	188185,06	7.990.408,42	3,50	2,0	913,09		
32+0,000			912,80	-2,0	3,50	913,00	912,87	-0,12	188182,66	7.990.413,01	3,50	2,0	912,94		
32+18,610			912,30	-2,0	3,50	912,52	912,37	-0,16	188174,05	7.990.429,51	3,50	2,0	912,44		
33+0,000			912,26	-2,0	3,50	912,48	912,33	-0,15	188173,38	7.990.430,73	3,50	2,0	912,40		
34+0,000			911,72	-2,0	3,50	911,96	911,79	-0,17	188163,67	7.990.448,21	3,50	2,0	911,86		



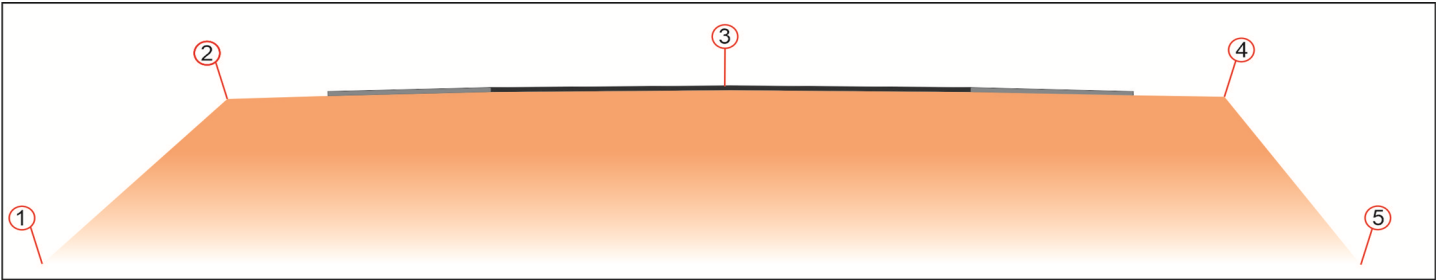
PROJETO EXECUTIVO DE ENGENHARIA PARA DUPLICAÇÃO DE RODOVIA															
Rodovia: GO-330															
Trecho: Entr. Avenida Juscelino Kubitschek de Oliveira / Posto Polícia Rodoviária Estadual															
Nota-de-Serviço de Terraplenagem - GO-330 - Marginal Sul															
Estaca	Offset		Bordo Esquerdo			Eixo					Bordo Direito			Offset	
	cota terrapl	dist (m)	cota terrapl	i (%)	dist (m)	cota terreno	cota terrapl	Cota Vermelha	Coordenada X	Coordenada Y	dist (m)	i (%)	cota terrapl	cota terrapl	dist (m)
	1		2					3					4		5
35+0,000			911,18	-2,0	3,50	911,36	911,25	-0,11	188153,96	7.990.465,70	3,50	2,0	911,32		
35+6,668			911,01	-2,0	3,50	911,25	911,08	-0,18	188150,72	7.990.471,53	3,50	2,0	911,15		
36+0,000			910,67	-2,0	2,50	910,92	910,72	-0,21	188146,55	7.990.484,19	2,50	2,0	910,77		
37+0,000			910,13	-2,0	2,50	910,37	910,18	-0,19	188140,28	7.990.503,18	2,50	2,0	910,23		
38+0,000			909,56	-2,0	2,50	909,90	909,61	-0,29	188134,02	7.990.522,18	2,50	2,0	909,66		
38+3,435			909,45	-2,0	2,50	909,85	909,50	-0,35	188132,95	7.990.525,44	2,50	2,0	909,55		
38+9,210			909,26	-2,0	2,50	909,60	909,31	-0,29	188130,99	7.990.530,87	2,50	2,0	909,36		
38+14,985			909,06	-2,0	2,50	909,20	909,11	-0,09	188128,73	7.990.536,19	2,50	2,0	909,16		
39+0,000			908,88	-2,0	2,50	909,07	908,93	-0,14	188126,64	7.990.540,74	2,50	2,0	908,98		
40+0,000			908,10	-2,0	2,50	908,30	908,15	-0,15	188117,86	7.990.558,71	2,50	2,0	908,20		
41+0,000			907,31	-2,0	2,50	907,53	907,36	-0,17	188108,69	7.990.576,48	2,50	2,0	907,41		
42+0,000			906,52	-2,0	2,50	906,61	906,57	-0,03	188099,73	7.990.594,36	2,50	2,0	906,62		
43+0,000			905,74	-2,0	2,50	905,99	905,79	-0,20	188090,81	7.990.612,26	2,50	2,0	905,84		
44+0,000			904,95	-2,0	2,50	905,29	905,00	-0,29	188082,59	7.990.630,49	2,50	2,0	905,05		
45+0,000			904,17	-2,0	2,50	904,54	904,22	-0,32	188074,53	7.990.648,80	2,50	2,0	904,27		
46+0,000			903,38	-2,0	2,50	903,90	903,43	-0,47	188066,47	7.990.667,10	2,50	2,0	903,48		



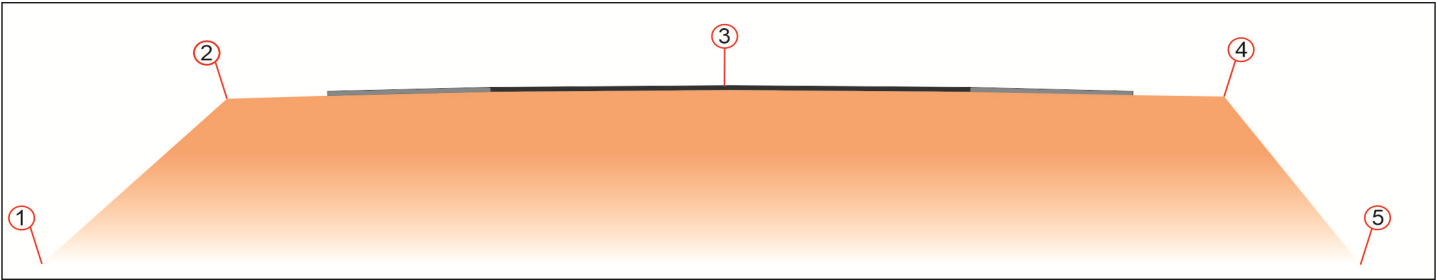
PROJETO EXECUTIVO DE ENGENHARIA PARA DUPLICAÇÃO DE RODOVIA															
Rodovia: GO-330															
Trecho: Entr. Avenida Juscelino Kubitschek de Oliveira / Posto Polícia Rodoviária Estadual															
Nota-de-Serviço de Terraplenagem - GO-330 - Marginal Norte															
Estaca	Offset		Bordo Esquerdo			Eixo					Bordo Direito			Offset	
	cota terrapl	dist (m)	cota terrapl	i (%)	dist (m)	cota terreno	cota terrapl	Cota Vermelha	Coordenada X	Coordenada Y	dist (m)	i (%)	cota terrapl	cota terrapl	dist (m)
	1		2					3					4		5
9+0,000	904,031	7,02	923,45	-2,0	3,00	923,84	923,51	-0,34	188496,21	7.990.091,08	3,00	2,0	923,57	902,310	6,34
10+0,000	903,286	6,85	923,83	-2,0	3,00	924,22	923,89	-0,34	188482,92	7.990.106,02	3,00	2,0	923,95	901,672	6,27
10+10,113	902,532	6,67	924,09	-2,0	3,50	924,49	924,16	-0,34	188476,20	7.990.113,58	3,50	2,0	924,23	901,215	6,39
11+0,000	901,885	6,66	924,18	-2,0	3,50	924,58	924,25	-0,34	188469,22	7.990.120,58	3,50	2,0	924,32	900,934	5,81
12+0,000	901,760	6,74	924,31	-2,0	3,50	924,71	924,38	-0,34	188455,09	7.990.134,73	3,50	2,0	924,45	900,831	5,79
13+0,000	901,033	7,06	924,38	-2,0	3,50	924,78	924,45	-0,34	188440,96	7.990.148,89	3,50	2,0	924,52	900,247	5,75
14+0,000	901,033	7,06	924,39	-2,0	3,50	924,80	924,46	-0,34	188426,83	7.990.163,04	3,50	2,0	924,53	900,247	5,75
14+1,589	900,311	6,90	924,39	-2,0	3,50	924,79	924,46	-0,34	188425,70	7.990.164,16	3,50	2,0	924,53	899,689	5,78
14+4,993	900,195	6,83	924,38	-2,0	3,50	924,79	924,45	-0,34	188423,44	7.990.166,70	3,50	2,0	924,52	899,649	5,83
14+8,396	899,592	6,36	924,28	-2,0	4,00	924,70	924,36	-0,34	188421,48	7.990.169,48	4,00	2,0	924,44	899,129	5,80
14+16,912	898,772	6,33	924,12	-2,0	4,00	924,53	924,20	-0,34	188416,97	7.990.176,71	4,00	2,0	924,28	898,470	5,71
15+0,000	898,070	6,45	924,03	-2,0	4,00	924,45	924,11	-0,34	188415,21	7.990.179,24	4,00	2,0	924,19	898,007	6,80
15+0,019	897,467	6,36	924,03	-2,0	4,00	924,45	924,11	-0,34	188415,20	7.990.179,26	4,00	2,0	924,19	897,501	7,67
15+3,126	896,965	6,30	923,96	-2,0	4,00	924,37	924,04	-0,34	188413,16	7.990.181,61	4,00	2,0	924,12	897,074	7,69
16+0,000	896,523	6,24	923,54	-2,0	4,00	923,95	923,62	-0,34	188401,48	7.990.193,78	4,00	2,0	923,70	896,562	7,55
17+0,000	896,523	6,24	923,08	-2,0	4,00	923,50	923,16	-0,34	188387,63	7.990.208,21	4,00	2,0	923,24	896,561	7,55
18+0,000	896,210	6,18	922,67	-2,0	4,00	923,09	922,75	-0,34	188373,78	7.990.222,64	4,00	2,0	922,83	896,402	7,64
19+0,000	896,139	6,16	922,26	-2,0	4,00	922,68	922,34	-0,34	188359,94	7.990.237,07	4,00	2,0	922,42	896,488	7,79
19+10,761	895,873	6,13	922,07	-2,0	4,00	922,48	922,15	-0,34	188352,49	7.990.244,84	4,00	2,0	922,23	896,161	7,75
19+19,136	895,736	6,16	921,81	-2,0	4,00	922,23	921,89	-0,34	188346,95	7.990.251,12	4,00	2,0	921,97	895,776	7,50
20+0,000	895,642	6,16	921,78	-2,0	4,00	922,20	921,86	-0,34	188346,41	7.990.251,79	4,00	2,0	921,94	895,482	6,98
20+7,512	895,593	6,14	921,51	-2,0	4,00	921,92	921,59	-0,34	188341,95	7.990.257,84	4,00	2,0	921,67	895,347	6,55
21+0,000	895,622	6,13	921,14	-2,0	4,00	921,56	921,22	-0,34	188334,93	7.990.268,16	4,00	2,0	921,30	894,523	7,29
22+0,000	895,646	6,08	920,70	-2,0	4,00	921,11	920,78	-0,34	188323,68	7.990.284,70	4,00	2,0	920,86	895,024	6,56
23+0,000	895,710	6,07	920,19	-2,0	4,00	920,61	920,27	-0,34	188312,43	7.990.301,24	4,00	2,0	920,35	895,159	6,46
24+0,000	895,796	6,09	919,61	-2,0	4,00	920,03	919,69	-0,34	188301,19	7.990.317,77	4,00	2,0	919,77	895,530	6,08
25+0,000	895,783	6,12	919,08	-2,0	4,00	919,50	919,16	-0,34	188289,94	7.990.334,31	4,00	2,0	919,24	895,729	6,20
25+6,939	895,828	6,15	918,92	-2,0	4,00	919,33	919,00	-0,34	188286,03	7.990.340,05	4,00	2,0	919,08	895,831	6,24
26+0,000	895,920	6,12	918,59	-2,0	4,50	919,02	918,68	-0,34	188279,12	7.990.351,13	4,50	2,0	918,77	896,056	6,41
27+0,000	896,028	6,07	917,97	-2,0	4,50	918,40	918,06	-0,34	188268,52	7.990.368,09	4,50	2,0	918,15	895,855	6,43
27+13,121	896,082	6,09	917,68	-2,0	4,50	918,10	917,77	-0,34	188261,57	7.990.379,22	4,50	2,0	917,86	895,843	6,65
28+0,000	896,245	6,12	917,54	-2,0	4,50	917,97	917,63	-0,34	188257,60	7.990.384,84	4,50	2,0	917,72	896,074	7,10
29+0,000	896,386	6,16	917,02	-2,0	4,50	917,44	917,11	-0,34	188246,06	7.990.401,17	4,50	2,0	917,20	896,289	7,33
29+5,032	896,561	6,19	916,77	-2,0	4,50	917,20	916,86	-0,34	188243,16	7.990.405,28	4,50	2,0	916,95	896,464	7,36
30+0,000	896,774	6,21	915,98	-2,0	4,50	916,40	916,07	-0,34	188235,65	7.990.418,23	4,50	2,0	916,16	896,682	7,39
31+0,000	896,996	6,20	915,10	-2,0	4,50	915,53	915,19	-0,34	188225,62	7.990.435,54	4,50	2,0	915,28	896,975	7,45
32+0,000	897,255	6,18	914,41	-2,0	3,50	914,81	914,48	-0,34	188215,59	7.990.452,84	3,50	2,0	914,55	897,292	7,49
32+6,279	897,627	6,23	914,14	-2,0	3,50	914,55	914,21	-0,34	188212,45	7.990.458,27	3,50	2,0	914,28	897,612	7,48
33+0,000	897,986	6,25	913,58	-2,0	3,50	913,98	913,65	-0,34	188205,84	7.990.470,30	3,50	2,0	913,72	897,932	7,47
34+0,000	898,317	6,24	912,95	-2,0	3,50	913,35	913,02	-0,34	188196,22	7.990.487,83	3,50	2,0	913,09	898,241	7,44
35+0,000	898,666	6,26	912,29	-2,0	3,50	912,70	912,36	-0,34	188186,59	7.990.505,36	3,50	2,0	912,43	898,646	7,51



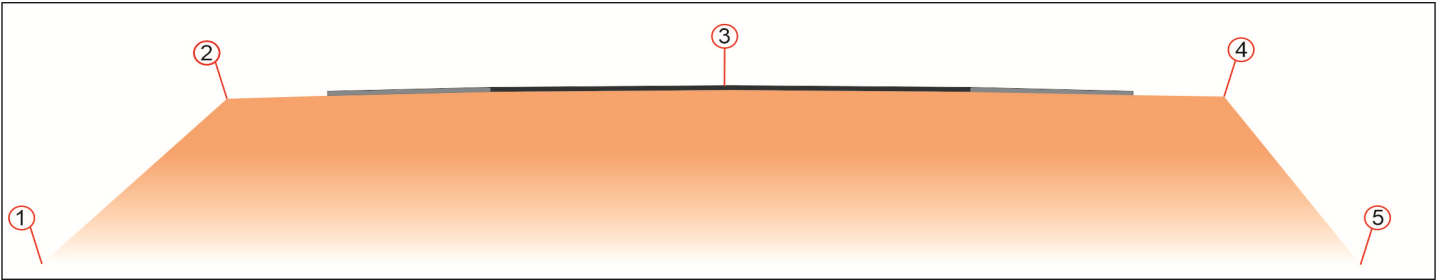
PROJETO EXECUTIVO DE ENGENHARIA PARA DUPLICAÇÃO DE RODOVIA															
Rodovia: GO-330															
Trecho: Entr. Avenida Juscelino Kubitschek de Oliveira / Posto Polícia Rodoviária Estadual															
Nota-de-Serviço de Terraplenagem - GO-330 - Marginal Norte															
Estaca	Offset		Bordo Esquerdo			Eixo					Bordo Direito			Offset	
	cota terrapl	dist (m)	cota terrapl	i (%)	dist (m)	cota terreno	cota terrapl	Cota Vermelha	Coordenada X	Coordenada Y	dist (m)	i (%)	cota terrapl	cota terrapl	dist (m)
	1		2					3					4		5
36+0,000	898,907	6,16	911,49	-2,0	3,50	911,89	911,56	-0,34	188176,97	7.990.522,90	3,50	2,0	911,63	898,951	7,48
37+0,000	899,188	6,10	910,24	-2,0	3,50	910,65	910,31	-0,34	188167,35	7.990.540,43	3,50	2,0	910,38	899,194	7,32
38+0,000	899,549	6,13	908,89	-2,0	3,50	909,30	908,96	-0,34	188157,72	7.990.557,96	3,50	2,0	909,03	899,339	6,83
39+0,000	899,963	6,21	908,06	-2,0	3,50	908,46	908,13	-0,34	188148,10	7.990.575,49	3,50	2,0	908,20	899,557	6,42
40+0,000	900,337	6,24	906,92	-2,0	3,50	907,32	906,99	-0,34	188138,47	7.990.593,02	3,50	2,0	907,06	899,921	6,16
41+0,000	900,707	6,28	906,10	-2,0	3,50	906,51	906,17	-0,34	188128,85	7.990.610,56	3,50	2,0	906,24	900,288	6,11
42+0,000	900,819	6,23	905,29	-2,0	3,50	905,69	905,36	-0,34	188119,22	7.990.628,09	3,50	2,0	905,43	900,409	6,07
43+0,000	900,968	6,20	904,53	-2,0	3,50	904,93	904,60	-0,34	188109,60	7.990.645,62	3,50	2,0	904,67	900,437	6,24
44+0,000	901,231	6,13	903,69	-2,0	3,50	904,09	903,76	-0,34	188099,98	7.990.663,15	3,50	2,0	903,83	900,386	6,82
45+0,000	901,386	6,08	902,95	-2,0	3,50	903,35	903,02	-0,34	188090,35	7.990.680,68	3,50	2,0	903,09	900,293	7,28
46+0,000	901,451	6,06	902,33	-2,0	3,50	902,73	902,40	-0,34	188080,73	7.990.698,22	3,50	2,0	902,47	900,205	7,53
47+0,000	901,656	6,07	901,75	-2,0	3,50	902,15	901,82	-0,34	188071,10	7.990.715,75	3,50	2,0	901,89	900,043	8,07
48+0,000	901,729	6,07	901,34	-2,0	3,50	901,74	901,41	-0,34	188061,48	7.990.733,28	3,50	2,0	901,48	899,225	9,44
49+0,000	901,738	6,06	900,80	-2,0	3,50	901,20	900,87	-0,34	188051,85	7.990.750,81	3,50	2,0	900,94	899,184	9,52
50+0,000	901,725	6,11	900,42	-2,0	3,50	900,83	900,49	-0,34	188042,23	7.990.768,34	3,50	2,0	900,56	898,870	10,01
51+0,000	901,588	6,20	899,84	-2,0	3,50	900,25	899,91	-0,34	188032,61	7.990.785,88	3,50	2,0	899,98	899,092	9,57
52+0,000	901,440	6,18	899,29	-2,0	3,50	899,69	899,36	-0,34	188022,98	7.990.803,41	3,50	2,0	899,43	899,604	8,55
53+0,000	901,190	6,23	898,80	-2,0	3,50	899,20	898,87	-0,34	188013,36	7.990.820,94	3,50	2,0	898,94	899,579	8,21
53+16,900	901,119	6,27	898,42	-2,0	3,50	898,82	898,49	-0,34	188005,22	7.990.835,76	3,50	2,0	898,56	898,777	9,30
54+0,000	900,891	6,39	898,37	-2,0	3,50	898,78	898,44	-0,34	188003,63	7.990.838,41	3,50	2,0	898,51	897,962	10,11
54+0,912	900,568	6,64	898,36	-2,0	3,50	898,76	898,43	-0,34	188003,12	7.990.839,17	3,50	2,0	898,50	897,317	10,43
54+4,925	900,378	6,72	898,30	-2,0	3,50	898,71	898,37	-0,34	188000,68	7.990.842,36	3,50	2,0	898,44	897,106	10,46
55+0,000	900,064	6,89	898,15	-2,0	3,50	898,56	898,22	-0,34	187990,94	7.990.853,86	3,50	2,0	898,29	896,877	10,29
55+14,716	899,451	7,57	897,73	-2,0	3,63	898,14	897,81	-0,34	187981,43	7.990.865,09	3,63	2,0	897,88	896,754	9,55



PROJETO EXECUTIVO DE ENGENHARIA PARA DUPLICAÇÃO DE RODOVIA															
Rodovia: GO-330															
Trecho: Entr. Avenida Juscelino K de Oliveira / Posto Polícia Rodoviária Estadual															
Nota-de-Serviço de Terraplenagem - Alça Entrada Arco															
Estaca	Offset		Bordo Esquerdo			Eixo					Bordo Direito			Offset	
	cota terrapl	dist (m)	cota terrapl	i (%)	dist (m)	cota terreno	cota terrapl	Cota Vermelha	Coordenada X	Coordenada Y	dist (m)	i (%)	cota terrapl	cota terrapl	dist (m)
	1		2					3					4		5
0+0,000	888,109	4,7	887,441	3,0	4,0	887,366	887,321	-0,04	187128,40	7.992.405,32	4,0	-3,0	887,201	886,961	4,34
1+0,000	887,851	4,1	887,598	3,0	4,0	887,521	887,478	-0,04	187125,12	7.992.425,02	4,0	-3,0	887,358	887,571	4,04
2+0,000	887,160	5,0	887,855	3,0	4,0	886,507	887,735	1,23	187125,70	7.992.444,98	4,0	-3,0	887,615	885,810	6,80
3+0,000	885,888	6,8	887,862	3,0	4,0	885,719	887,742	2,02	187127,43	7.992.454,78	4,0	-3,0	887,622	884,965	7,87
4+0,000	885,081	7,5	887,788	3,0	4,0	885,409	887,668	2,26	187130,13	7.992.464,45	4,0	-3,0	887,548	884,602	7,90
4+19,918	884,210	8,1	887,407	3,0	4,0	884,968	887,287	2,32	187138,23	7.992.482,70	4,0	-3,0	887,167	883,906	8,17



PROJETO EXECUTIVO DE ENGENHARIA PARA DUPLICAÇÃO DE RODOVIA															
Rodovia: GO-330															
Trecho: Entr. Avenida Juscelino Kubitschek de Oliveira / Posto Polícia Rodoviária Estadual															
Nota-de-Serviço de Terraplenagem - Alça Saída Arco															
Estaca	Offset		Bordo Esquerdo			Eixo					Bordo Direito			Offset	
	cota terrapl	dist (m)	cota terrapl	i (%)	dist (m)	cota terreno	cota terrapl	Cota Vermelha	Coordenada X	Coordenada Y	dist (m)	i (%)	cota terrapl	cota terrapl	dist (m)
	1		2					3					4		5
0+0,000	888,886	4,0	888,841	-3,0	4,0	889,069	888,961	-0,11	187080,15	7.992.492,82	4,0	3,0	889,081	889,410	4,40
1+0,000	886,810	6,2	888,252	-3,0	4,0	886,931	888,372	1,44	187097,92	7.992.484,05	4,0	3,0	888,492	888,079	4,51
1+16,380	885,987	6,7	887,771	-3,0	4,0	886,251	887,891	1,64	187114,19	7.992.483,47	4,0	3,0	888,011	886,211	6,59
2+0,000	885,803	6,8	887,664	-3,0	4,0	886,110	887,784	1,67	187117,74	7.992.484,18	4,0	3,0	887,904	885,989	6,76
3+0,000	885,000	7,2	887,075	-3,0	4,0	885,000	887,195	2,20	187135,40	7.992.493,18	4,0	3,0	887,315	884,791	7,67
3+12,760	884,643	7,1	886,820	0,0	1,0	884,227	886,820	2,59	187143,76	7.992.502,76	1,0	3,0	886,850	883,966	8,35



4 CÁLCULOS DE VOLUMES DE TERRAPLENAGEM

PROJETO EXECUTIVO DE ENGENHARIA PARA DUPLICAÇÃO DE RODOVIA

Rodovia: GO-330

Trecho: Entr. Avenida Juscelino K de Oliveira / Posto Polícia Rodoviária Estadual

Cálculo de Volumes de Terraplenagem

Estaca	Via	Área (m ²)		Volume (m ³)		Volume acumulado (m ³)	
		Corte	Aterro	Corte	Aterro	Corte	Aterro
0	Passagem Inferior	0,17	1,19	61,80	13,90	61,80	13,90
1	Passagem Inferior	6,01	0,20	160,30	5,80	222,10	19,70
2	Passagem Inferior	10,02	0,38	172,40	4,10	394,50	23,80
3	Passagem Inferior	7,22	0,03	123,40	0,70	517,90	24,50
4	Passagem Inferior	5,12	0,04	89,80	0,80	607,70	25,30
5	Passagem Inferior	3,86	0,04	71,80	0,80	679,50	26,10
6	Passagem Inferior	3,32	0,04	102,40	0,80	781,90	26,90
7	Passagem Inferior	6,92	0,04	113,60	3,50	895,50	30,40
8	Passagem Inferior	4,44	0,31	73,50	8,80	969,00	39,20
9	Passagem Inferior	2,91	0,57	42,90	20,40	1.011,90	59,60
10	Passagem Inferior	1,38	1,47	40,20	70,20	1.052,10	129,80
11	Passagem Inferior	2,64	5,55	61,10	128,40	1.113,20	258,20
12	Passagem Inferior	3,47	7,29	75,20	183,00	1.188,40	441,20
13	Passagem Inferior	4,05	11,01	99,10	220,70	1.287,50	661,90
14	Passagem Inferior	5,86	11,06	154,80	192,90	1.442,30	854,80
15	Passagem Inferior	9,62	8,23	257,60	126,20	1.699,90	981,00
16	Passagem Inferior	16,14	4,39	437,70	50,30	2.137,60	1.031,30
17	Passagem Inferior	27,63	0,64	730,90	6,70	2.868,50	1.038,00
18	Passagem Inferior	45,46	0,03	1.096,90	0,60	3.965,40	1.038,60
19	Passagem Inferior	64,23	0,03	1.500,10	0,60	5.465,50	1.039,20
20	Passagem Inferior	85,78	0,03	1.930,20	0,60	7.395,70	1.039,80
21	Passagem Inferior	107,24	0,03	2.369,30	0,70	9.765,00	1.040,50
22	Passagem Inferior	129,69	0,04	2.785,60	0,80	12.550,60	1.041,30
23	Passagem Inferior	148,87	0,04	3.156,50	0,80	15.707,10	1.042,10
24	Passagem Inferior	166,78	0,04	3.510,90	0,80	19.218,00	1.042,90
25	Passagem Inferior	184,31	0,04	3.869,80	0,70	23.087,80	1.043,60
26	Passagem Inferior	202,67	0,03	4.174,80	0,70	27.262,60	1.044,30
27	Passagem Inferior	214,81	0,04	4.423,50	0,80	31.686,10	1.045,10
28	Passagem Inferior	227,54	0,04	4.519,00	0,80	36.205,10	1.045,90
29	Passagem Inferior	224,36	0,04	4.506,20	0,80	40.711,30	1.046,70
30	Passagem Inferior	226,26	0,04	4.459,10	0,80	45.170,40	1.047,50
31	Passagem Inferior	219,65	0,04	4.295,50	0,80	49.465,90	1.048,30
32	Passagem Inferior	209,90	0,04	3.931,30	0,80	53.397,20	1.049,10
33	Passagem Inferior	183,23	0,04	3.454,30	0,80	56.851,50	1.049,90
34	Passagem Inferior	162,20	0,04	3.081,80	0,90	59.933,30	1.050,80
35	Passagem Inferior	145,98	0,05	2.814,20	0,90	62.747,50	1.051,70
36	Passagem Inferior	135,44	0,04	2.569,60	0,80	65.317,10	1.052,50
37	Passagem Inferior	121,52	0,04	2.329,30	0,70	67.646,40	1.053,20
38	Passagem Inferior	111,41	0,03	2.226,20	0,60	69.872,60	1.053,80
39	Passagem Inferior	111,21	0,03	1.985,20	0,60	71.857,80	1.054,40
40	Passagem Inferior	87,31	0,03	1.553,20	3,20	73.411,00	1.057,60
41	Passagem Inferior	68,01	0,29	1.250,30	8,70	74.661,30	1.066,30
42	Passagem Inferior	57,02	0,58	1.076,40	12,60	75.737,70	1.078,90
43	Passagem Inferior	50,62	0,68	942,40	20,40	76.680,10	1.099,30
44	Passagem Inferior	43,62	1,36	823,40	27,60	77.503,50	1.126,90
45	Passagem Inferior	38,72	1,40	728,30	15,20	78.231,80	1.142,10
46	Passagem Inferior	34,11	0,12	646,40	13,60	78.878,20	1.155,70
47	Passagem Inferior	30,53	1,24	585,00	47,90	79.463,20	1.203,60
48	Passagem Inferior	27,97	3,55	523,50	65,80	79.986,70	1.269,40
49	Passagem Inferior	24,38	3,03	471,60	67,80	80.458,30	1.337,20
50	Passagem Inferior	22,78	3,75	227,80	37,50	80.686,10	1.374,70

PROJETO EXECUTIVO DE ENGENHARIA PARA DUPLICAÇÃO DE RODOVIA

Rodovia: GO-330

Trecho: Entr. Avenida Juscelino K de Oliveira / Posto Polícia Rodoviária Estadual

Cálculo de Volumes de Terraplenagem

Estaca	Via	Área (m ²)		Volume (m ³)		Volume acumulado (m ³)	
		Corte	Aterro	Corte	Aterro	Corte	Aterro
48	GO-330 Norte	16,11	0,00	296,30	0,00	296,30	-
49	GO-330 Norte	13,52	0,00	263,30	0,00	559,60	-
50	GO-330 Norte	12,81	0,00	239,50	0,00	799,10	-
51	GO-330 Norte	11,14	0,00	205,70	0,00	1.004,80	-
52	GO-330 Norte	9,43	0,00	175,00	0,00	1.179,80	-
53	GO-330 Norte	8,07	0,00	142,50	0,00	1.322,30	-
54	GO-330 Norte	6,18	0,00	96,40	0,00	1.418,70	-
55	GO-330 Norte	3,46	0,00	67,00	0,00	1.485,70	-
56	GO-330 Norte	3,24	0,00	64,20	0,00	1.549,90	-
57	GO-330 Norte	3,18	0,00	60,20	0,00	1.610,10	-
58	GO-330 Norte	2,84	0,00	45,90	0,00	1.656,00	-
59	GO-330 Norte	1,75	0,00	34,70	0,00	1.690,70	-
60	GO-330 Norte	1,72	0,00	30,40	0,00	1.721,10	-
61	GO-330 Norte	1,32	0,00	18,00	0,00	1.739,10	-
62	GO-330 Norte	0,48	0,00	5,10	0,00	1.744,20	-
63	GO-330 Norte	0,03	0,00	0,30	0,00	1.744,50	-
64	GO-330 Norte	0,00	0,00	0,00	7,30	1.744,50	7,30
65	GO-330 Norte	0,00	0,73	0,00	8,90	1.744,50	16,20
66	GO-330 Norte	0,00	0,16	0,00	3,00	1.744,50	19,20
67	GO-330 Norte	0,00	0,14	0,00	1,40	1.744,50	20,60
68	GO-330 Norte	0,00	0,00	0,00	0,10	1.744,50	20,70
69	GO-330 Norte	0,00	0,01	0,00	0,60	1.744,50	21,30
70	GO-330 Norte	0,00	0,05	0,00	0,70	1.744,50	22,00
71	GO-330 Norte	0,00	0,02	0,00	0,20	1.744,50	22,20
72	GO-330 Norte	0,00	0,00	0,00	0,00	1.744,50	22,20
73	GO-330 Norte	0,00	0,00	0,00	0,00	1.744,50	22,20
74	GO-330 Norte	0,00	0,00	0,00	0,00	1.744,50	22,20
75	GO-330 Norte	0,00	0,00	2,70	0,00	1.747,20	22,20
76	GO-330 Norte	0,27	0,00	9,80	0,00	1.757,00	22,20
77	GO-330 Norte	0,71	0,00	19,30	0,00	1.776,30	22,20
78	GO-330 Norte	1,22	0,00	26,00	0,00	1.802,30	22,20
79	GO-330 Norte	1,38	0,00	29,50	0,00	1.831,80	22,20
80	GO-330 Norte	1,57	0,00	34,50	0,00	1.866,30	22,20
81	GO-330 Norte	1,88	0,00	41,50	0,00	1.907,80	22,20
82	GO-330 Norte	2,27	0,00	45,70	0,00	1.953,50	22,20
83	GO-330 Norte	2,30	0,00	44,20	0,00	1.997,70	22,20
84	GO-330 Norte	2,12	0,00	38,00	0,00	2.035,70	22,20
85	GO-330 Norte	1,68	0,00	30,50	0,00	2.066,20	22,20
86	GO-330 Norte	1,37	0,00	26,70	0,00	2.092,90	22,20
87	GO-330 Norte	1,30	0,00	25,70	0,00	2.118,60	22,20
88	GO-330 Norte	1,27	0,00	25,40	0,00	2.144,00	22,20
89	GO-330 Norte	1,27	0,00	18,50	0,30	2.162,50	22,50
90	GO-330 Norte	0,58	0,03	5,80	3,40	2.168,30	25,90
91	GO-330 Norte	0,00	0,31	17,30	13,70	2.185,60	39,60
92	GO-330 Norte	1,73	1,06	26,50	31,30	2.212,10	70,90
93	GO-330 Norte	0,92	2,07	12,80	85,80	2.224,90	156,70
94	GO-330 Norte	0,36	6,51	4,10	168,30	2.229,00	325,00
95	GO-330 Norte	0,05	10,32	0,50	219,20	2.229,50	544,20
96	GO-330 Norte	0,00	11,60	0,00	247,30	2.229,50	791,50
97	GO-330 Norte	0,00	13,13	0,00	248,30	2.229,50	1.039,80
98	GO-330 Norte	0,00	11,70	0,00	197,20	2.229,50	1.237,00
99	GO-330 Norte	0,00	8,02	0,60	210,20	2.230,10	1.447,20
100	GO-330 Norte	0,06	13,00	1,70	444,70	2.231,80	1.891,90
101	GO-330 Norte	0,11	31,47	1,70	607,90	2.233,50	2.499,80
102	GO-330 Norte	0,06	29,32	1,40	482,60	2.234,90	2.982,40
103	GO-330 Norte	0,08	18,94	2,10	240,70	2.237,00	3.223,10
104	GO-330 Norte	0,13	5,13	2,10	109,90	2.239,10	3.333,00
105	GO-330 Norte	0,08	5,86	0,80	179,80	2.239,90	3.512,80
106	GO-330 Norte	0,00	12,12	0,00	240,70	2.239,90	3.753,50
107	GO-330 Norte	0,00	11,95	0,00	205,90	2.239,90	3.959,40
108	GO-330 Norte	0,00	8,64	9,90	155,20	2.249,80	4.114,60
109	GO-330 Norte	0,99	6,88	38,20	121,90	2.288,00	4.236,50
110	GO-330 Norte	2,83	5,31	77,80	84,10	2.365,80	4.320,60
111	GO-330 Norte	4,95	3,10	105,50	55,60	2.471,30	4.376,20
112	GO-330 Norte	5,60	2,46	124,70	40,70	2.596,00	4.416,90
113	GO-330 Norte	6,87	1,61	157,80	30,30	2.753,80	4.447,20
114	GO-330 Norte	8,91	1,42	198,80	14,40	2.952,60	4.461,60
115	GO-330 Norte	10,97	0,02	206,30	0,20	3.158,90	4.461,80
116	GO-330 Norte	9,66	0,00	180,60	0,00	3.339,50	4.461,80
117	GO-330 Norte	8,40	0,00	202,80	0,00	3.542,30	4.461,80
118	GO-330 Norte	11,88	0,00	240,50	0,00	3.782,80	4.461,80

PROJETO EXECUTIVO DE ENGENHARIA PARA DUPLICAÇÃO DE RODOVIA

Rodovia: GO-330

Trecho: Entr. Avenida Juscelino K de Oliveira / Posto Polícia Rodoviária Estadual

Cálculo de Volumes de Terraplenagem

Estaca	Via	Área (m ²)		Volume (m ³)		Volume acumulado (m ³)	
		Corte	Aterro	Corte	Aterro	Corte	Aterro
119	GO-330 Norte	12,17	0,00	168,00	47,10	3.950,80	4.508,90
120	GO-330 Norte	4,63	4,71	97,70	145,40	4.048,50	4.654,30
121	GO-330 Norte	5,14	9,83	96,30	256,80	4.144,80	4.911,10
122	GO-330 Norte	4,49	15,85	74,40	339,10	4.219,20	5.250,20
123	GO-330 Norte	2,95	18,06	48,80	309,10	4.268,00	5.559,30
124	GO-330 Norte	1,93	12,85	19,30	153,40	4.287,30	5.712,70
125	GO-330 Norte	0,00	2,49	0,00	41,00	4.287,30	5.753,70
126	GO-330 Norte	0,00	1,61	0,00	51,20	4.287,30	5.804,90
127	GO-330 Norte	0,00	3,51	0,00	93,30	4.287,30	5.898,20
128	GO-330 Norte	0,00	5,82	0,00	126,80	4.287,30	6.025,00
129	GO-330 Norte	0,00	6,86	0,00	134,50	4.287,30	6.159,50
130	GO-330 Norte	0,00	6,59	0,00	121,50	4.287,30	6.281,00
131	GO-330 Norte	0,00	5,56	0,00	106,10	4.287,30	6.387,10
132	GO-330 Norte	0,00	5,05	0,00	95,00	4.287,30	6.482,10
133	GO-330 Norte	0,00	4,45	0,00	84,70	4.287,30	6.566,80
134	GO-330 Norte	0,00	4,02	0,00	78,90	4.287,30	6.645,70
135	GO-330 Norte	0,00	3,87	0,00	70,40	4.287,30	6.716,10
136	GO-330 Norte	0,00	3,17	0,00	63,20	4.287,30	6.779,30
137	GO-330 Norte	0,00	3,15	0,00	49,70	4.287,30	6.829,00
138	GO-330 Norte	0,00	1,82	0,00	31,60	4.287,30	6.860,60
139	GO-330 Norte	0,00	1,34	0,00	25,80	4.287,30	6.886,40
140	GO-330 Norte	0,00	1,24	0,00	25,00	4.287,30	6.911,40
141	GO-330 Norte	0,00	1,26	0,00	29,60	4.287,30	6.941,00
142	GO-330 Norte	0,00	1,70	0,00	31,90	4.287,30	6.972,90
143	GO-330 Norte	0,00	1,49	0,00	32,10	4.287,30	7.005,00
144	GO-330 Norte	0,00	1,72	0,00	29,80	4.287,30	7.034,80
145	GO-330 Norte	0,00	1,26	0,00	25,10	4.287,30	7.059,90
146	GO-330 Norte	0,00	1,25	0,00	20,50	4.287,30	7.080,40
147	GO-330 Norte	0,00	0,80	0,00	17,40	4.287,30	7.097,80
148	GO-330 Norte	0,00	0,94	0,00	12,10	4.287,30	7.109,90
149	GO-330 Norte	0,00	0,27	0,00	6,80	4.287,30	7.116,70
150	GO-330 Norte	0,00	0,41	0,00	9,60	4.287,30	7.126,30
151	GO-330 Norte	0,00	0,55	0,00	10,20	4.287,30	7.136,50
152	GO-330 Norte	0,00	0,47	0,00	7,00	4.287,30	7.143,50
153	GO-330 Norte	0,00	0,23	0,00	3,90	4.287,30	7.147,40
154	GO-330 Norte	0,00	0,16	0,00	1,80	4.287,30	7.149,20
155	GO-330 Norte	0,00	0,02	26,30	0,20	4.313,60	7.149,40
156	GO-330 Norte	2,63	0,00	47,00	14,50	4.360,60	7.163,90
157	GO-330 Norte	2,07	1,45	36,40	80,10	4.397,00	7.244,00
158	GO-330 Norte	1,57	6,56	32,70	164,00	4.429,70	7.408,00
159	GO-330 Norte	1,70	9,84	36,10	264,80	4.465,80	7.672,80
160	GO-330 Norte	1,91	16,64	45,50	362,10	4.511,30	8.034,90
161	GO-330 Norte	2,64	19,57	58,90	314,00	4.570,20	8.348,90
162	GO-330 Norte	3,25	11,83	56,90	287,00	4.627,10	8.635,90
163	GO-330 Norte	2,44	16,87	50,60	416,60	4.677,70	9.052,50
164	GO-330 Norte	2,62	24,79	44,90	515,30	4.722,60	9.567,80
165	GO-330 Norte	1,87	26,74	32,80	495,40	4.755,40	10.063,20
166	GO-330 Norte	1,41	22,80	20,80	400,80	4.776,20	10.464,00
167	GO-330 Norte	0,67	17,28	11,50	287,50	4.787,70	10.751,50
168	GO-330 Norte	0,48	11,47	13,40	178,00	4.801,10	10.929,50
169	GO-330 Norte	0,86	6,33	20,50	94,10	4.821,60	11.023,60
170	GO-330 Norte	1,19	3,08	31,60	33,60	4.853,20	11.057,20
171	GO-330 Norte	1,97	0,28	19,70	2,80	4.872,90	11.060,00
172	GO-330 Norte	0,00	0,00	0,00	0,00	4.872,90	11.060,00
173	GO-330 Norte	0,00	0,00	0,00	0,00	4.872,90	11.060,00
174	GO-330 Norte	0,00	0,00	0,00	0,00	4.872,90	11.060,00

PROJETO EXECUTIVO DE ENGENHARIA PARA DUPLICAÇÃO DE RODOVIA

Rodovia: GO-330

Trecho: Entr. Avenida Juscelino K de Oliveira / Posto Polícia Rodoviária Estadual

Cálculo de Volumes de Terraplenagem

Estaca	Via	Área (m ²)		Volume (m ³)		Volume acumulado (m ³)	
		Corte	Aterro	Corte	Aterro	Corte	Aterro
48	GO-330 Sul	13,25	4,02	251,50	90,00	251,50	90,00
49	GO-330 Sul	11,90	4,98	224,90	99,50	476,40	189,50
50	GO-330 Sul	10,59	4,97	191,00	86,50	667,40	276,00
51	GO-330 Sul	8,51	3,68	173,10	36,80	840,50	312,80
52	GO-330 Sul	8,80	0,00	129,60	54,20	970,10	367,00
53	GO-330 Sul	4,16	5,42	64,40	197,30	1.034,50	564,30
54	GO-330 Sul	2,28	14,31	32,50	345,70	1.067,00	910,00
55	GO-330 Sul	0,97	20,26	12,20	432,60	1.079,20	1.342,60
56	GO-330 Sul	0,25	23,00	2,50	508,90	1.081,70	1.851,50
57	GO-330 Sul	0,00	27,89	0,00	602,60	1.081,70	2.454,10
58	GO-330 Sul	0,00	32,37	0,00	639,00	1.081,70	3.093,10
59	GO-330 Sul	0,00	31,53	0,00	586,70	1.081,70	3.679,80
60	GO-330 Sul	0,00	27,14	0,00	639,50	1.081,70	4.319,30
61	GO-330 Sul	0,00	36,81	0,00	645,00	1.081,70	4.964,30
62	GO-330 Sul	0,00	27,69	0,00	628,30	1.081,70	5.592,60
63	GO-330 Sul	0,00	35,14	0,00	647,70	1.081,70	6.240,30
64	GO-330 Sul	0,00	29,63	0,00	561,30	1.081,70	6.801,60
65	GO-330 Sul	0,00	26,50	0,00	568,70	1.081,70	7.370,30
66	GO-330 Sul	0,00	30,37	0,00	638,10	1.081,70	8.008,40
67	GO-330 Sul	0,00	33,44	0,00	638,00	1.081,70	8.646,40
68	GO-330 Sul	0,00	30,36	0,00	575,40	1.081,70	9.221,80
69	GO-330 Sul	0,00	27,18	0,00	593,30	1.081,70	9.815,10
70	GO-330 Sul	0,00	32,15	0,00	679,50	1.081,70	10.494,60
71	GO-330 Sul	0,00	35,80	0,00	665,90	1.081,70	11.160,50
72	GO-330 Sul	0,00	30,79	0,00	597,70	1.081,70	11.758,20
73	GO-330 Sul	0,00	28,98	0,00	645,70	1.081,70	12.403,90
74	GO-330 Sul	0,00	35,59	0,00	688,50	1.081,70	13.092,40
75	GO-330 Sul	0,00	33,26	0,00	612,40	1.081,70	13.704,80
76	GO-330 Sul	0,00	27,98	0,00	498,90	1.081,70	14.203,70
77	GO-330 Sul	0,00	21,91	0,00	425,80	1.081,70	14.629,50
78	GO-330 Sul	0,00	20,67	0,00	403,50	1.081,70	15.033,00
79	GO-330 Sul	0,00	19,68	1,20	355,10	1.082,90	15.388,10
80	GO-330 Sul	0,12	15,83	3,40	330,40	1.086,30	15.718,50
81	GO-330 Sul	0,22	17,21	7,80	404,00	1.094,10	16.122,50
82	GO-330 Sul	0,56	23,19	8,50	507,70	1.102,60	16.630,20
83	GO-330 Sul	0,29	27,58	10,40	392,00	1.113,00	17.022,20
84	GO-330 Sul	0,75	11,62	16,60	150,20	1.129,60	17.172,40
85	GO-330 Sul	0,91	3,40	53,00	42,90	1.182,60	17.215,30
86	GO-330 Sul	4,39	0,89	184,40	8,90	1.367,00	17.224,20
87	GO-330 Sul	14,05	0,00	245,40	0,00	1.612,40	17.224,20
88	GO-330 Sul	10,49	0,00	181,70	1,90	1.794,10	17.226,10
89	GO-330 Sul	7,68	0,19	89,50	30,80	1.883,60	17.256,90
90	GO-330 Sul	1,27	2,89	40,60	68,60	1.924,20	17.325,50
91	GO-330 Sul	2,79	3,97	57,90	72,60	1.982,10	17.398,10
92	GO-330 Sul	3,00	3,29	48,10	74,90	2.030,20	17.473,00
93	GO-330 Sul	1,81	4,20	26,80	75,10	2.057,00	17.548,10
94	GO-330 Sul	0,87	3,31	16,80	55,50	2.073,80	17.603,60
95	GO-330 Sul	0,81	2,24	12,00	42,60	2.085,80	17.646,20
96	GO-330 Sul	0,39	2,02	5,40	41,10	2.091,20	17.687,30
97	GO-330 Sul	0,15	2,09	1,50	59,90	2.092,70	17.747,20
98	GO-330 Sul	0,00	3,90	0,00	117,30	2.092,70	17.864,50
99	GO-330 Sul	0,00	7,83	0,00	111,90	2.092,70	17.976,40
100	GO-330 Sul	0,00	3,36	0,00	72,00	2.092,70	18.048,40
101	GO-330 Sul	0,00	3,84	0,00	75,10	2.092,70	18.123,50
102	GO-330 Sul	0,00	3,67	0,00	118,70	2.092,70	18.242,20
103	GO-330 Sul	0,00	8,20	0,00	119,80	2.092,70	18.362,00
104	GO-330 Sul	0,00	3,78	0,00	51,60	2.092,70	18.413,60
105	GO-330 Sul	0,00	1,38	0,00	54,70	2.092,70	18.468,30
106	GO-330 Sul	0,00	4,09	0,00	89,30	2.092,70	18.557,60
107	GO-330 Sul	0,00	4,84	20,00	55,90	2.112,70	18.613,50
108	GO-330 Sul	2,00	0,75	114,30	7,50	2.227,00	18.621,00
109	GO-330 Sul	9,43	0,00	218,40	0,00	2.445,40	18.621,00
110	GO-330 Sul	12,41	0,00	125,40	28,50	2.570,80	18.649,50
111	GO-330 Sul	0,13	2,85	24,60	38,60	2.595,40	18.688,10
112	GO-330 Sul	2,33	1,01	25,20	73,80	2.620,60	18.761,90
113	GO-330 Sul	0,19	6,37	22,50	108,40	2.643,10	18.870,30
114	GO-330 Sul	2,06	4,47	68,80	59,60	2.711,90	18.929,90
115	GO-330 Sul	4,82	1,49	91,60	19,70	2.803,50	18.949,60
116	GO-330 Sul	4,34	0,48	53,70	19,90	2.857,20	18.969,50
117	GO-330 Sul	1,03	1,51	10,30	67,40	2.867,50	19.036,90
118	GO-330 Sul	0,00	5,23	0,00	125,50	2.867,50	19.162,40

PROJETO EXECUTIVO DE ENGENHARIA PARA DUPLICAÇÃO DE RODOVIA

Rodovia: GO-330

Trecho: Entr. Avenida Juscelino K de Oliveira / Posto Polícia Rodoviária Estadual

Cálculo de Volumes de Terraplenagem

Estaca	Via	Área (m ²)		Volume (m ³)		Volume acumulado (m ³)	
		Corte	Aterro	Corte	Aterro	Corte	Aterro
119	GO-330 Sul	0,00	7,32	0,00	308,70	2.867,50	19.471,10
120	GO-330 Sul	0,00	23,55	0,00	787,70	2.867,50	20.258,80
121	GO-330 Sul	0,00	55,22	0,00	1.281,40	2.867,50	21.540,20
122	GO-330 Sul	0,00	72,92	0,00	1.267,90	2.867,50	22.808,10
123	GO-330 Sul	0,00	53,87	0,00	884,90	2.867,50	23.693,00
124	GO-330 Sul	0,00	34,62	0,00	546,60	2.867,50	24.239,60
125	GO-330 Sul	0,00	20,04	0,00	319,90	2.867,50	24.559,50
126	GO-330 Sul	0,00	11,95	0,00	200,60	2.867,50	24.760,10
127	GO-330 Sul	0,00	8,11	0,00	171,40	2.867,50	24.931,50
128	GO-330 Sul	0,00	9,03	0,00	188,80	2.867,50	25.120,30
129	GO-330 Sul	0,00	9,85	0,00	200,50	2.867,50	25.320,80
130	GO-330 Sul	0,00	10,20	0,00	209,20	2.867,50	25.530,00
131	GO-330 Sul	0,00	10,72	0,00	224,60	2.867,50	25.754,60
132	GO-330 Sul	0,00	11,74	0,00	208,20	2.867,50	25.962,80
133	GO-330 Sul	0,00	9,08	0,00	182,50	2.867,50	26.145,30
134	GO-330 Sul	0,00	9,17	0,00	208,30	2.867,50	26.353,60
135	GO-330 Sul	0,00	11,66	0,00	287,00	2.867,50	26.640,60
136	GO-330 Sul	0,00	17,04	0,00	358,90	2.867,50	26.999,50
137	GO-330 Sul	0,00	18,85	0,00	385,50	2.867,50	27.385,00
138	GO-330 Sul	0,00	19,70	0,00	408,20	2.867,50	27.793,20
139	GO-330 Sul	0,00	21,12	0,00	413,50	2.867,50	28.206,70
140	GO-330 Sul	0,00	20,23	0,00	338,40	2.867,50	28.545,10
141	GO-330 Sul	0,00	13,61	0,00	251,60	2.867,50	28.796,70
142	GO-330 Sul	0,00	11,55	0,00	284,10	2.867,50	29.080,80
143	GO-330 Sul	0,00	16,86	0,00	359,80	2.867,50	29.440,60
144	GO-330 Sul	0,00	19,12	0,00	231,70	2.867,50	29.672,30
145	GO-330 Sul	0,00	4,05	0,00	214,20	2.867,50	29.886,50
146	GO-330 Sul	0,00	17,37	0,00	332,90	2.867,50	30.219,40
147	GO-330 Sul	0,00	15,92	0,00	323,10	2.867,50	30.542,50
148	GO-330 Sul	0,00	16,39	0,00	292,20	2.867,50	30.834,70
149	GO-330 Sul	0,00	12,83	0,00	318,40	2.867,50	31.153,10
150	GO-330 Sul	0,00	19,01	0,00	289,20	2.867,50	31.442,30
151	GO-330 Sul	0,00	9,91	0,00	179,30	2.867,50	31.621,60
152	GO-330 Sul	0,00	8,02	0,00	147,80	2.867,50	31.769,40
153	GO-330 Sul	0,00	6,76	0,00	119,20	2.867,50	31.888,60
154	GO-330 Sul	0,00	5,16	3,60	54,50	2.871,10	31.943,10
155	GO-330 Sul	0,36	0,29	57,50	2,90	2.928,60	31.946,00
156	GO-330 Sul	5,39	0,00	114,00	0,00	3.042,60	31.946,00
157	GO-330 Sul	6,01	0,00	109,70	0,00	3.152,30	31.946,00
158	GO-330 Sul	4,96	0,00	77,10	2,90	3.229,40	31.948,90
159	GO-330 Sul	2,75	0,29	27,50	71,70	3.256,90	32.020,60
160	GO-330 Sul	0,00	6,88	0,00	249,10	3.256,90	32.269,70
161	GO-330 Sul	0,00	18,03	0,00	384,70	3.256,90	32.654,40
162	GO-330 Sul	0,00	20,44	0,40	351,90	3.257,30	33.006,30
163	GO-330 Sul	0,04	14,75	7,70	273,00	3.265,00	33.279,30
164	GO-330 Sul	0,73	12,55	14,80	221,70	3.279,80	33.501,00
165	GO-330 Sul	0,75	9,62	19,70	168,70	3.299,50	33.669,70
166	GO-330 Sul	1,22	7,25	18,40	145,10	3.317,90	33.814,80
167	GO-330 Sul	0,62	7,26	9,80	132,40	3.327,70	33.947,20
168	GO-330 Sul	0,36	5,98	3,60	152,80	3.331,30	34.100,00
169	GO-330 Sul	0,00	9,30	0,00	249,70	3.331,30	34.349,70
170	GO-330 Sul	0,00	15,67	0,00	291,50	3.331,30	34.641,20
171	GO-330 Sul	0,00	13,48	0,00	209,40	3.331,30	34.850,60
172	GO-330 Sul	0,00	7,46	17,10	75,40	3.348,40	34.926,00
173	GO-330 Sul	1,71	0,08	49,80	0,80	3.398,20	34.926,80
174	GO-330 Sul	3,27	0,00	32,70	0,00	3.430,90	34.926,80

PROJETO EXECUTIVO DE ENGENHARIA PARA DUPLICAÇÃO DE RODOVIA

Rodovia: GO-330

Trecho: Entr. Avenida Juscelino K de Oliveira / Posto Polícia Rodoviária Estadual

Cálculo de Volumes de Terraplenagem

Estaca	Via	Área (m ²)		Volume (m ³)		Volume acumulado (m ³)	
		Corte	Aterro	Corte	Aterro	Corte	Aterro
9	Marginal Norte	0,00	0,00	0,00	0,00	-	-
10	Marginal Norte	0,00	0,00	0,00	0,00	-	-
11	Marginal Norte	0,00	0,00	0,00	0,00	-	-
12	Marginal Norte	0,00	0,00	0,00	0,00	-	-
13	Marginal Norte	0,00	0,00	0,00	0,00	-	-
14	Marginal Norte	0,00	0,00	0,00	0,00	-	-
15	Marginal Norte	0,00	0,00	0,00	0,00	-	-
16	Marginal Norte	0,00	0,00	0,00	0,00	-	-
17	Marginal Norte	0,00	0,00	0,00	0,00	-	-
18	Marginal Norte	0,00	0,00	0,00	0,00	-	-
19	Marginal Norte	0,00	0,00	0,00	0,00	-	-
20	Marginal Norte	0,00	0,00	0,00	0,00	-	-
21	Marginal Norte	0,00	0,00	0,00	0,00	-	-
22	Marginal Norte	0,00	0,00	0,00	0,00	-	-
23	Marginal Norte	0,00	0,00	0,00	0,00	-	-
24	Marginal Norte	0,00	0,00	0,00	0,00	-	-
25	Marginal Norte	0,00	0,00	8,25	3,00	8,25	3,00
26	Marginal Norte	0,83	0,30	16,50	6,00	24,75	9,00
27	Marginal Norte	0,83	0,30	16,50	6,00	41,25	15,00
28	Marginal Norte	0,83	0,30	16,50	6,00	57,75	21,00
29	Marginal Norte	0,83	0,30	16,50	6,00	74,25	27,00
30	Marginal Norte	0,83	0,30	16,50	6,00	90,75	33,00
31	Marginal Norte	0,83	0,30	16,50	6,00	107,25	39,00
32	Marginal Norte	0,83	0,30	8,25	3,00	115,50	42,00
33	Marginal Norte	0,00	0,00	0,00	0,00	115,50	42,00
34	Marginal Norte	0,00	0,00	0,00	0,00	115,50	42,00
35	Marginal Norte	0,00	0,00	0,00	0,00	115,50	42,00
36	Marginal Norte	0,00	0,00	0,00	0,00	115,50	42,00
37	Marginal Norte	0,00	0,00	0,00	0,00	115,50	42,00
38	Marginal Norte	0,00	0,00	0,00	0,00	115,50	42,00
39	Marginal Norte	0,00	0,00	0,00	0,00	115,50	42,00
40	Marginal Norte	0,00	0,00	0,00	0,00	115,50	42,00
41	Marginal Norte	0,00	0,00	0,00	0,00	115,50	42,00
42	Marginal Norte	0,00	0,00	0,00	0,00	115,50	42,00
43	Marginal Norte	0,00	0,00	0,00	0,00	115,50	42,00
44	Marginal Norte	0,00	0,00	0,00	0,00	115,50	42,00
45	Marginal Norte	0,00	0,00	0,00	0,00	115,50	42,00
46	Marginal Norte	0,00	0,00	0,00	0,00	115,50	42,00
47	Marginal Norte	0,00	0,00	0,00	0,00	115,50	42,00
48	Marginal Norte	0,00	0,00	0,00	0,00	115,50	42,00
49	Marginal Norte	0,00	0,00	0,00	0,00	115,50	42,00
50	Marginal Norte	0,00	0,00	0,00	0,00	115,50	42,00
51	Marginal Norte	0,00	0,00	0,00	0,00	115,50	42,00
52	Marginal Norte	0,00	0,00	0,00	0,00	115,50	42,00
53	Marginal Norte	0,00	0,00	0,00	0,00	115,50	42,00
54	Marginal Norte	0,00	0,00	0,00	0,00	115,50	42,00
55	Marginal Norte	0,00	0,00	0,00	0,00	115,50	42,00
56	Marginal Norte	0,00	0,00	0,00	0,00	115,50	42,00

PROJETO EXECUTIVO DE ENGENHARIA PARA DUPLICAÇÃO DE RODOVIA

Rodovia: GO-330

Trecho: Entr. Avenida Juscelino K de Oliveira / Posto Polícia Rodoviária Estadual

Cálculo de Volumes de Terraplenagem

Estaca	Via	Área (m ²)		Volume (m ³)		Volume acumulado (m ³)	
		Corte	Aterro	Corte	Aterro	Corte	Aterro
10	Via Marginal Sul	0,00	0,00	0,00	0,00	-	-
11	Via Marginal Sul	0,00	0,00	0,00	16,00	-	16,00
12	Via Marginal Sul	0,00	1,60	0,00	58,20	-	74,20
13	Via Marginal Sul	0,00	4,22	0,00	88,60	-	162,80
14	Via Marginal Sul	0,00	4,64	0,00	83,80	-	246,60
15	Via Marginal Sul	0,00	3,74	0,00	73,80	-	320,40
16	Via Marginal Sul	0,00	3,64	0,00	60,50	-	380,90
17	Via Marginal Sul	0,00	2,41	0,00	33,60	-	414,50
18	Via Marginal Sul	0,00	0,95	0,00	9,50	-	424,00
19	Via Marginal Sul	0,00	0,00	0,00	0,00	-	424,00
20	Via Marginal Sul	0,00	0,00	0,00	0,00	-	424,00
21	Via Marginal Sul	0,00	0,00	0,00	0,00	-	424,00
22	Via Marginal Sul	0,00	0,00	0,00	0,00	-	424,00
23	Via Marginal Sul	0,00	0,00	0,00	0,00	-	424,00
24	Via Marginal Sul	0,00	0,00	0,00	0,00	-	424,00
25	Via Marginal Sul	0,00	0,00	0,00	0,00	-	424,00
26	Via Marginal Sul	0,00	0,00	0,00	0,00	-	424,00
27	Via Marginal Sul	0,00	0,00	0,00	0,00	-	424,00
28	Via Marginal Sul	0,00	0,00	0,00	0,00	-	424,00
29	Via Marginal Sul	0,00	0,00	0,00	0,00	-	424,00
30	Via Marginal Sul	0,00	0,00	0,00	0,00	-	424,00
31	Via Marginal Sul	0,00	0,00	0,00	0,00	-	424,00
32	Via Marginal Sul	0,00	0,00	0,00	0,00	-	424,00
33	Via Marginal Sul	0,00	0,00	25,50	14,00	25,50	438,00
34	Via Marginal Sul	2,55	1,40	48,60	28,10	74,10	466,10
35	Via Marginal Sul	2,31	1,41	42,30	22,10	116,40	488,20
36	Via Marginal Sul	1,92	0,80	36,90	16,00	153,30	504,20
37	Via Marginal Sul	1,77	0,80	39,10	16,00	192,40	520,20
38	Via Marginal Sul	2,14	0,80	46,30	16,00	238,70	536,20
39	Via Marginal Sul	2,49	0,80	41,00	16,00	279,70	552,20
40	Via Marginal Sul	1,61	0,80	33,10	16,00	312,80	568,20
41	Via Marginal Sul	1,70	0,80	26,70	16,00	339,50	584,20
42	Via Marginal Sul	0,97	0,80	28,00	16,00	367,50	600,20
43	Via Marginal Sul	1,83	0,80	42,00	16,00	409,50	616,20
44	Via Marginal Sul	2,37	0,80	52,80	16,00	462,30	632,20
45	Via Marginal Sul	2,91	0,80	71,60	16,00	533,90	648,20
46	Via Marginal Sul	4,25	0,80	42,50	8,00	576,40	656,20

PROJETO EXECUTIVO DE ENGENHARIA PARA DUPLICAÇÃO DE RODOVIA

Rodovia: GO-330

Trecho: Entr. Avenida Juscelino K de Oliveira / Posto Polícia Rodoviária Estadual

Cálculo de Volumes de Terraplenagem

Estaca	Via	Área (m ²)		Volume (m ³)		Volume acumulado (m ³)	
		Corte	Aterro	Corte	Aterro	Corte	Aterro
0	Alça entrada Arco	0,00	0,16	0,00	1,60	-	1,60
1	Alça entrada Arco	0,00	0,00	0,00	119,90	-	121,50
2	Alça entrada Arco	0,00	11,99	0,00	374,50	-	496,00
3	Alça entrada Arco	0,00	25,46	0,00	526,90	-	1.022,90
4	Alça entrada Arco	0,00	27,23	0,00	611,70	-	1.634,60
5	Alça entrada Arco	0,00	33,94	0,00	339,40	-	1.974,00

PROJETO EXECUTIVO DE ENGENHARIA PARA DUPLICAÇÃO DE RODOVIA

Rodovia: GO-330

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Cálculo de Volumes de Terraplenagem

Estaca	Via	Área (m ²)		Volume (m ³)		Volume acumulado (m ³)	
		Corte	Aterro	Corte	Aterro	Corte	Aterro
0	Alça saída Arco	0,00	0,15	0,00	128,30	-	128,30
1	Alça saída Arco	0,00	12,68	0,00	312,30	-	440,60
2	Alça saída Arco	0,00	18,55	0,00	436,30	-	876,90
3	Alça saída Arco	0,00	25,08	0,00	554,10	-	1.431,00
4	Alça saída Arco	0,00	30,33	0,00	303,30	-	1.734,30