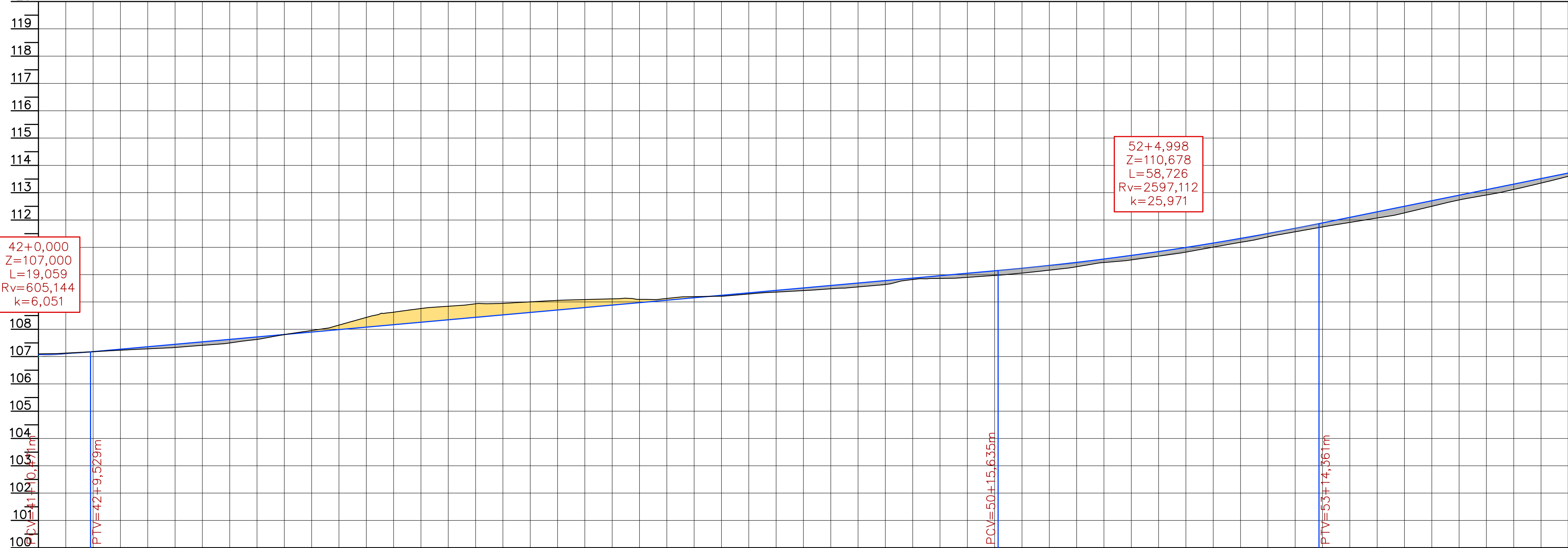
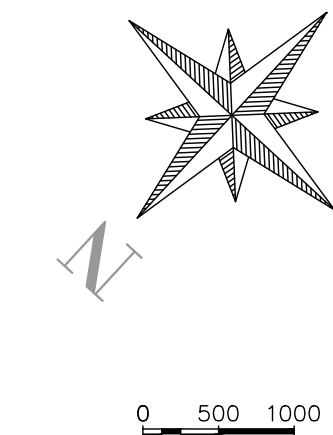


PERFIL LONGITUDINAL – ALINHAMENTO ESTRADA RIO ENGANO



ESTACAS	42	42+2,204	43	43+3,393	44	44+4,582	45	45+5,771	46	46+6,960	47	47+8,149	48	48+9,338	49	49+10,527	50	50+11,716	51	51+12,905	52	52+14,094	53	53+15,283	54	54+16,472	55	55+17,661	56					
COTAS TERRENO	107,097	107,104	107,109	107,117	107,128	107,144	107,161	107,179	107,197	107,215	107,233	107,251	107,269	107,287	107,305	107,323	107,341	107,359	107,377	107,395	107,413	107,431	107,449	107,467	107,485	107,503	107,521	107,539						
COTAS PROJETO	107,075	107,084	107,093	107,102	107,111	107,120	107,129	107,138	107,147	107,156	107,165	107,174	107,183	107,192	107,201	107,210	107,219	107,228	107,237	107,246	107,255	107,264	107,273	107,282	107,291	107,300	107,309	107,318						
ELEMENTOS HORIZONTAIS	R=377,560m Dc=42,379m		Tg=26,287m										Tg=68,944m										Tg=81,515m										R=200,000m Dc=24,997m	
ELEMENTOS VERTICAIS	Lc= 19,06m		i= 1,79% em 166,11m										Lc= 58,73m										i= 4,06% em 71,05m											



LEGENDA

POSTE EXISTENTE

CADASTRO

CERCA DE ARAME

DRENAGEM/VALA EXISTENTE

MEIO-FIO 13X15X30X100cm

CORTE

ATERRO

PAVIMENTO PROJETADO EM LAJOTAS SEXTAVADAS

BORDOS EXISTENTES

EIXO DA PISTA DE TRÁFEGO

GREIDE DE TERRAPLENAGEM

DESLOCAMENTO/DEMOLIÇÃO

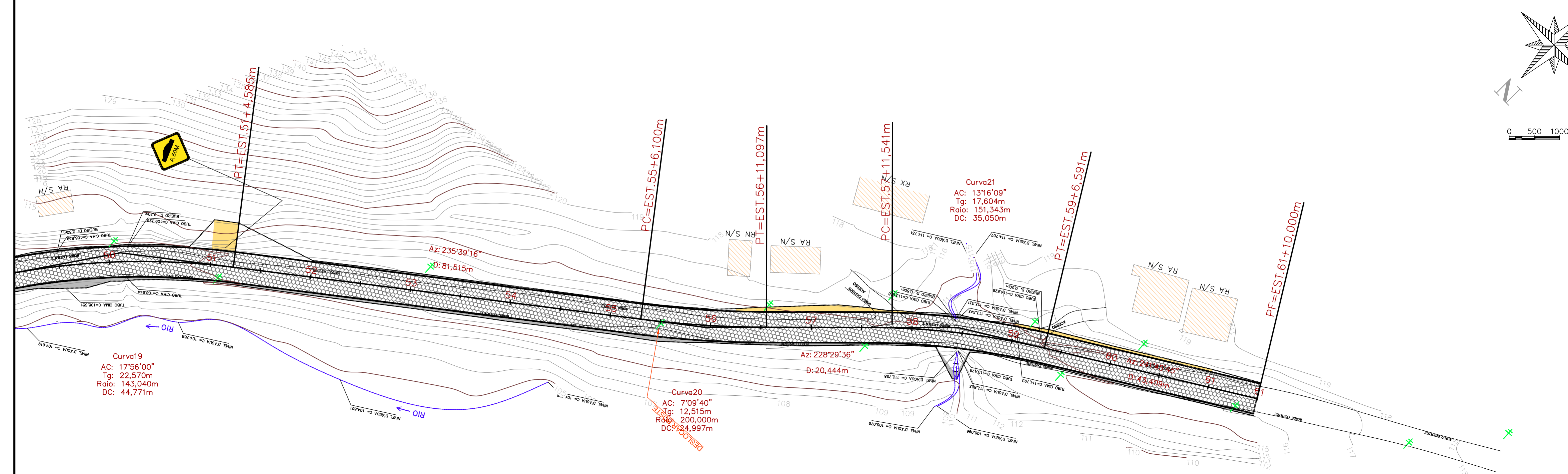
PLACA LOMBADA - A 18

PISTA SINUOSA A DIREITA - A3B

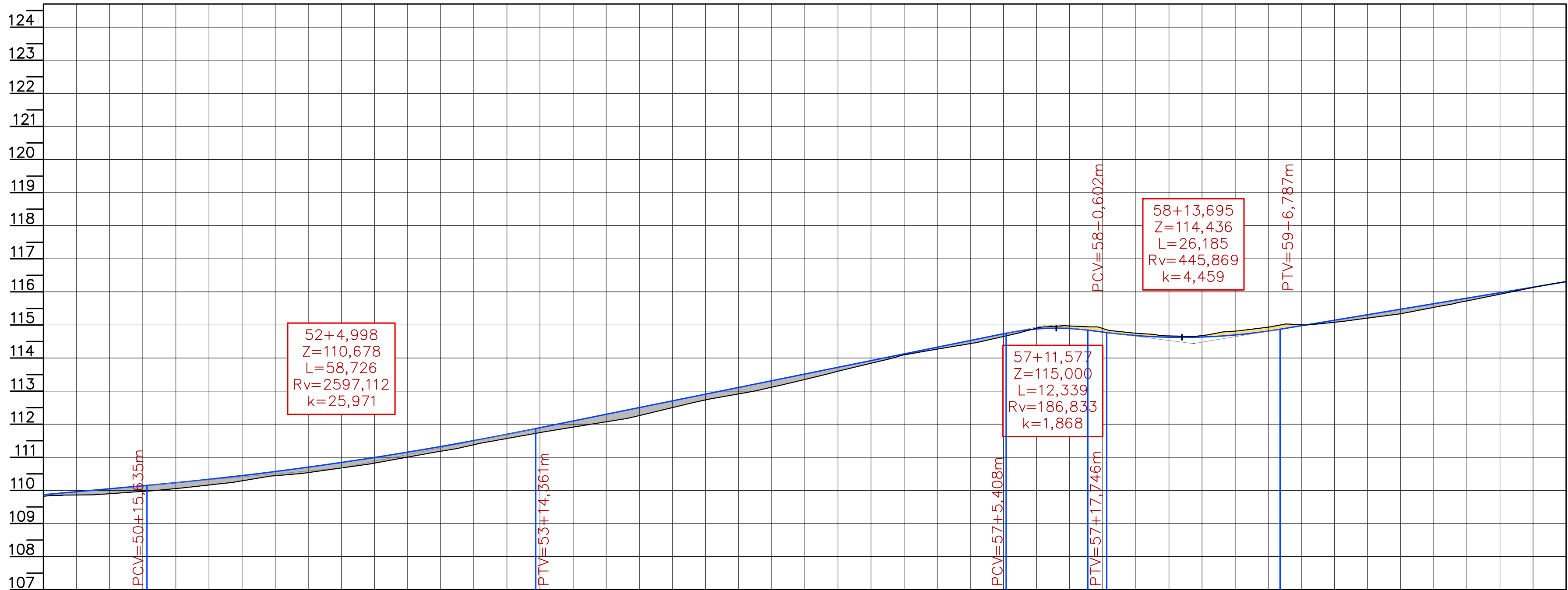
PROJETO DE PAVIMENTAÇÃO

MUNICÍPIO		ANGELINA – SC	
OBRA		CONTEÚDO	
ESTRADA GERAL RIO ENGANO – ETAPA 2 ESTACA 42 A 61+10		PROJETO DE PAVIMENTAÇÃO EM LAJOTAS SEXTAVADAS PLANTA BAIXA E PERFIL	
PROJETO		APROVAÇÃO DA PREFEITURA	
VINÍCIUS FELLER Engenheiro Civil CREA/SC 147.982-3			
REVISÃO	DATA	PRANCHA	
REV. 001	FEVEREIRO/2022	01/05	

ASSOCIAÇÃO DOS MUNICÍPIOS DA REGIÃO DA GRANDE FLORIANÓPOLIS
"GRANFOPOLIS"
ASSESSORIA DE ENGENHARIA E ARQUITETURA



PERFIL LONGITUDINAL - ALINHAMENTO ESTRADA RIO ENGANO



ESTACAS	50	50+2,199	50+5,00	50	50+15,00	51	51+4,565	51+5,00	51	51+5,00	52	52+5,00	52	52+5,00	53	53+5,00	53	53+15,00	54	54+5,00	54	54+15,00	55	55+5,00	55	55+15,00	56	56+5,00	56	56+11,097	56+15,00	57	57+11,541	57+15,00	58	58+5,00	58+9,066	58	58+15,00	59	59+5,00	59+6,591	59	59+15,00	60	60+5,00	60	60+15,00	61	61+5,00	61+10,000	
COTAS TERRENO	109,871	109,821	109,848	109,910	109,900	110,056	110,056	110,154	110,289	110,538	110,825	111,183	111,326	111,695	111,568	112,097	111,911	112,003	112,261	112,908	112,734	113,156	112,955	113,314	113,118	113,663	113,528	113,601	114,125	114,097	114,169	114,134	114,437	114,880	114,906	114,898	114,944	114,729	114,669	114,697	114,815	114,865	114,991	115,006	115,311	115,207	115,643	115,530	115,975	115,929	116,308	116,309
COTAS PROJETO	R=143,040m			Dc=44,771m			Tg=81,515m										R=200,000m			Dc=24,997m			Tg=20,444m			Dc=35,050m			Tg=43,409m																							
ELEMENTOS HORIZONTAIS	R=143,040m			Dc=44,771m			Tg=81,515m										R=200,000m			Dc=24,997m			Tg=20,444m			Dc=35,050m			Tg=43,409m																							
ELEMENTOS VERTICAIS	i= 1,79% em 166,11m		Lc= 58,73m										i= 4,06% em 71,05m		Lc= 12,34m		i= -2,55% em 2,86m		Lc= 26,18m		i= 3,32% em 43,21m																															

LEGENDA

POSTE EXISTENTE

CADASTRO

CERCA DE ARAME

DRENAGEM VALA EXISTENTE

MEIO-FIO 13X15X30X100cm

CORTE

ATERRO

PAVIMENTO PROJETADO EM LAJOTAS SEXTAVADAS

BORDOS EXISTENTES

EIXO DA PISTA DE TRÁFEGO

GREIDE DE TERRAPLENAGEM

DESLOCAMENTO/DEMOLIÇÃO

PLACA LOMBADA - A 18

PISTA SINUOSA A DIREITA - A3B

PROJETO DE PAVIMENTAÇÃO

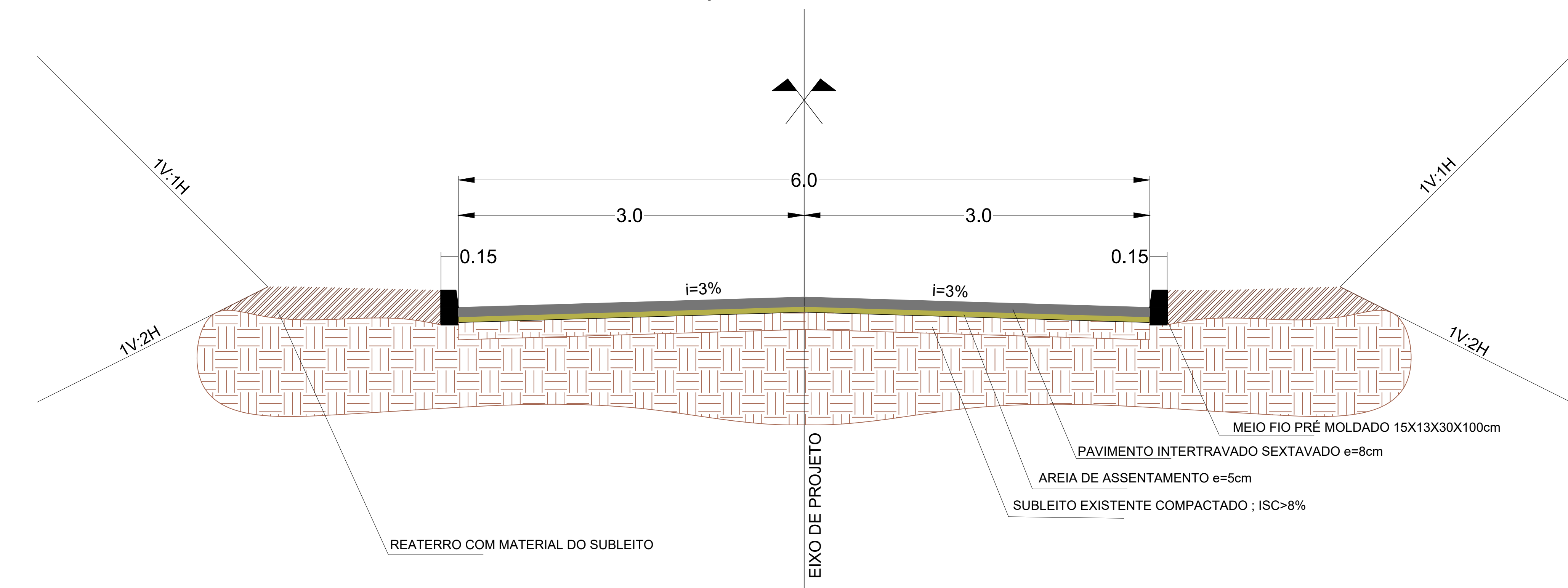
MUNICÍPIO ANGELINA – SC

OBRA	CONTEÚDO
ESTRADA GERAL RIO ENGANO – ETAPA 2 ESTACA 42 A 61+10	PROJETO DE PAVIMENTAÇÃO EM LAJOTAS SEXTAVADAS PLANTA BAIXA E PERFIL
PROJETO	APROVAÇÃO DA PREFEITURA
VINICIUS FELLER Engenheiro Civil CREA/SC 147.982-3	

REVISÃO	DATA	PRANCHA
REV. 001	FEVEREIRO/2022	02/05

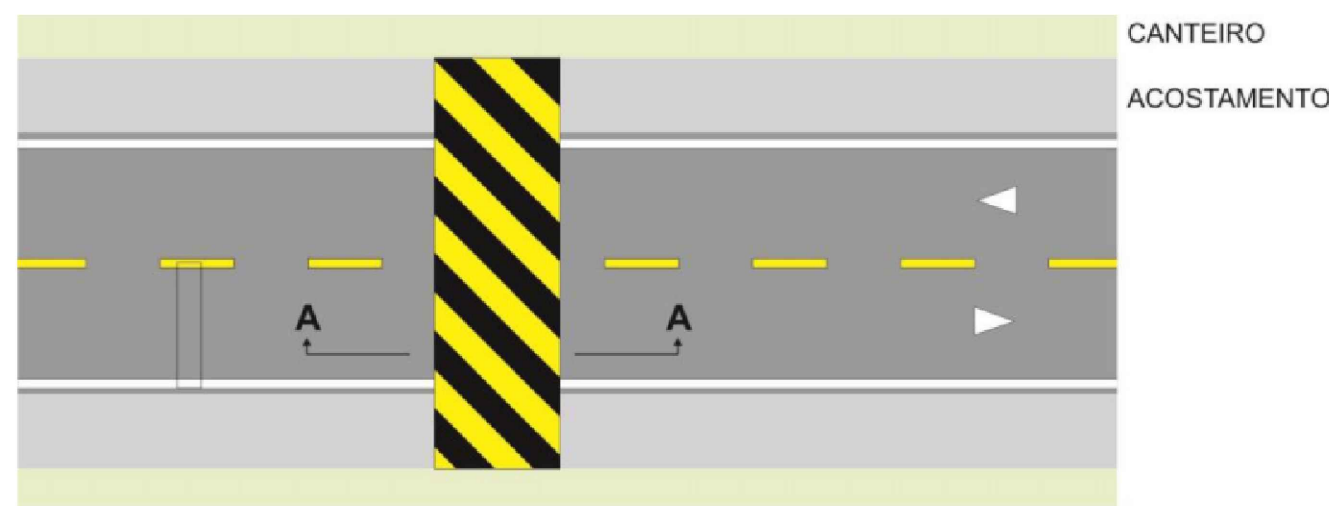
ASSOCIAÇÃO DOS MUNICÍPIOS DA REGIÃO DA GRANDE FLORIANÓPOLIS
"GRANFPOLIS"
ASSESSORIA DE ENGENHARIA E ARQUITETURA

SEÇÃO TIPO – ESC. 1:25



ONDULAÇÃO TRANSVERSAL TIPO A:

- a) L (Largura) igual à da pista, mantendo-se as condições de drenagem superficial;
b) C (Comprimento): 3,70 m;
c) H (Altura): $0,08\text{m} \leq h \leq 0,10\text{m}$



CORTE A-A

$0,08 \leq h \leq 0,10\text{m}$.

VOLUME TOTAL						
Estaca	Área de Corte (m²)	Área de Aterro (m²)	Volum. de Corte (m³)	Volum. de Aterro (m³)	Volum. Corte Acum. (m³)	Volum. Aterro Acum. (m³)
0+0,00	0,07	0,06	0,06	0,06	0,06	0,06
0+5,14	0,96	0,05	4,45	0,28	4,45	4,17
0+10,00	0,16	0,23	2,05	0,63	6,50	0,91
0+10,30	0,96	0,47	3,78	3,27	10,29	4,18
0+10,30	0,90	0,43	0,18	0,14	10,47	6,32
0+10,30	2,79	0,00	17,15	1,84	21,62	6,36
0+10,47	2,34	0,00	15,32	0,01	42,93	4,37
0+10,47	0,06	0,02	7,70	0,04	50,63	6,30
0+18,83	0,13	0,64	9,30	6,16	59,94	12,46
0+20,00	0,09	0,71	0,14	0,76	60,07	13,22
0+10,00	0,01	0,60	0,55	8,24	60,62	19,46
0+15,17	0,11	0,52	0,32	2,76	60,94	22,23
0+10,00	0,20	0,27	0,76	1,84	61,70	24,06
0+10,00	0,19	0,29	2,46	6,69	62,89	26,51
0+11,51	0,19	0,26	0,29	0,37	63,09	26,89
0+10,00	0,28	0,16	1,99	1,80	65,08	28,69
0+17,65	0,22	0,21	4,41	3,25	70,39	31,92
0+10,00	0,18	0,30	0,47	0,09	70,86	32,52
0+7,80	0,00	0,51	0,68	3,08	71,54	35,58
0+10,00	0,00	0,60	0,00	1,32	71,54	36,90
0+17,65	0,00	0,68	0,00	4,77	71,54	41,67
0+10,00	0,00	0,62	0,00	1,60	71,56	43,26
0+10,00	0,33	0,43	0,83	2,88	72,38	45,93
0+10,00	0,80	0,21	2,95	1,43	75,33	47,36
0+14,77	0,91	0,23	4,31	0,93	79,65	48,29
0+10,00	0,57	0,31	4,07	1,25	83,72	49,55
0+10,00	0,35	0,12	2,17	0,86	85,89	50,41
0+10,00	0,83	0,78	6,17	4,62	92,06	57,22
0+12,22	0,51	1,26	5,13	12,45	100,19	69,68
0+10,00	0,06	1,34	0,26	10,13	100,45	79,80
0+10,00	0,00	1,56	0,00	4,34	100,54	84,14
0+10,00	0,00	1,45	0,00	10,50	100,54	94,65
0+13,77	0,00	1,02	0,00	4,69	100,54	99,30
0+10,00	0,03	0,45	0,00	4,59	100,63	103,89
0+14,83	0,36	0,32	2,26	2,80	102,89	106,61
0+10,00	0,08	0,29	1,48	0,72	104,38	107,34
0+10,00	0,19	0,59	4,41	4,36	108,69	111,80
0+12,85	0,20	0,63	0,12	0,39	108,82	112,29
0+10,00	0,03	0,78	1,08	0,05	109,90	118,84
0+13,86	0,00	0,45	0,06	2,25	109,96	121,09

VOLUME TOTAL						
Estaca	Área de Corte (m²)	Área de Aterro (m²)	Volum. de Corte (m³)	Volum. de Aterro (m³)	Volum. Corte Acum. (m³)	Volum. Aterro Acum. (m³)
13+0,00	0,25	0,08	0,78	1,72	116,74	122,82
13+14,53	0,24	0,49	3,00	4,19	114,23	127,01
14+0,00	0,35	0,23	1,61	1,89	115,85	128,90
14+6,09	0,27	0,08	2,83	1,38	118,68	130,28
14+10,00	0,29	0,07	0,25	0,07	118,93	130,35
15+0,00	0,22	0,12	2,58	0,85	121,52	131,30
15+3,68	0,08	0,21	0,86	0,59	122,38	131,89
16+0,00	0,00	0,57	0,87	6,39	122,75	138,28
17+0,00	0,20	0,99	2,05	15,67	124,80	153,95
18+0,00	0,89	0,27	11,93	12,59	136,73	166,54
18+3,57	1,30	0,24	4,08	0,90	140,81	167,44
18+10,00	1,68	0,05	9,52	0,94	150,33	168,38
19+0,00	1,95	0,00	17,10	0,34	167,44	168,72
19+4,29	1,67	0,01	7,51	0,06	174,75	168,78
19+10,00	1,62	0,00	9,42	0,04	184,16	168,83
20+0,00	1,53	0,00	15,73	0,01	199,89	168,84
20+4,98	1,23	0,00	6,85	0,00	206,74	168,84
21+0,00	0,66	0,00	13,37	0,03	220,11	168,87
22+0,00	0,60	0,04	11,58	0,43	231,69	169,30
22+10,00	0,89	0,01	12,91	0,44	244,61	169,74
23+0,00	1,00	0,00	6,86	0,00	251,52	169,74
24+0,00	0,64	0,00	9,07	0,00	260,60	169,77
24+10,00	1,15	0,00	8,88	0,00	270,58	169,77
24+13,33	1,51	0,00	4,43	0,00	275,00	169,77
25+0,00	1,42	0,00	0,76	0,00	284,76	169,77
25+10,00	1,11	0,03	12,63	0,15	297,39	169,93
25+10,00	0,82	0,00	6,86	0,00	304,25	170,18
26+0,00	0,53	0,06	2,50	0,26	306,75	170,43
27+0,00	0,03	0,92	5,63	10,03	311,58	180,46
27+4,21	0,00	1,04	0,10	6,07	311,68	186,53
27+10,00	0,00	1,16	0,01	4,15	311,69	186,68
27+10,00	0,00	1,22	0,01	6,33	311,70	187,01
28+0,00	0,00	1,11	0,00	5,38	311,70	202,39
28+4,49	0,00	0,86	0,00	4,57	311,70	206,96
28+10,00	0,11	1,09	0,43	7,87	313,13	214,83
28+10,00	0,01	1,43	0,47	9,85	313,60	224,68
29+2,74	0,00	1,44	0,02	3,86	313,62	228,63
29+10,00	0,00	1,06	0,00	9,14	313,62	237,77
29+13,28	0,00	1,03	0,00	3,44	313,62	241,21
30+0,00	0,00	0,91	0,00	6,49	313,62	247,70

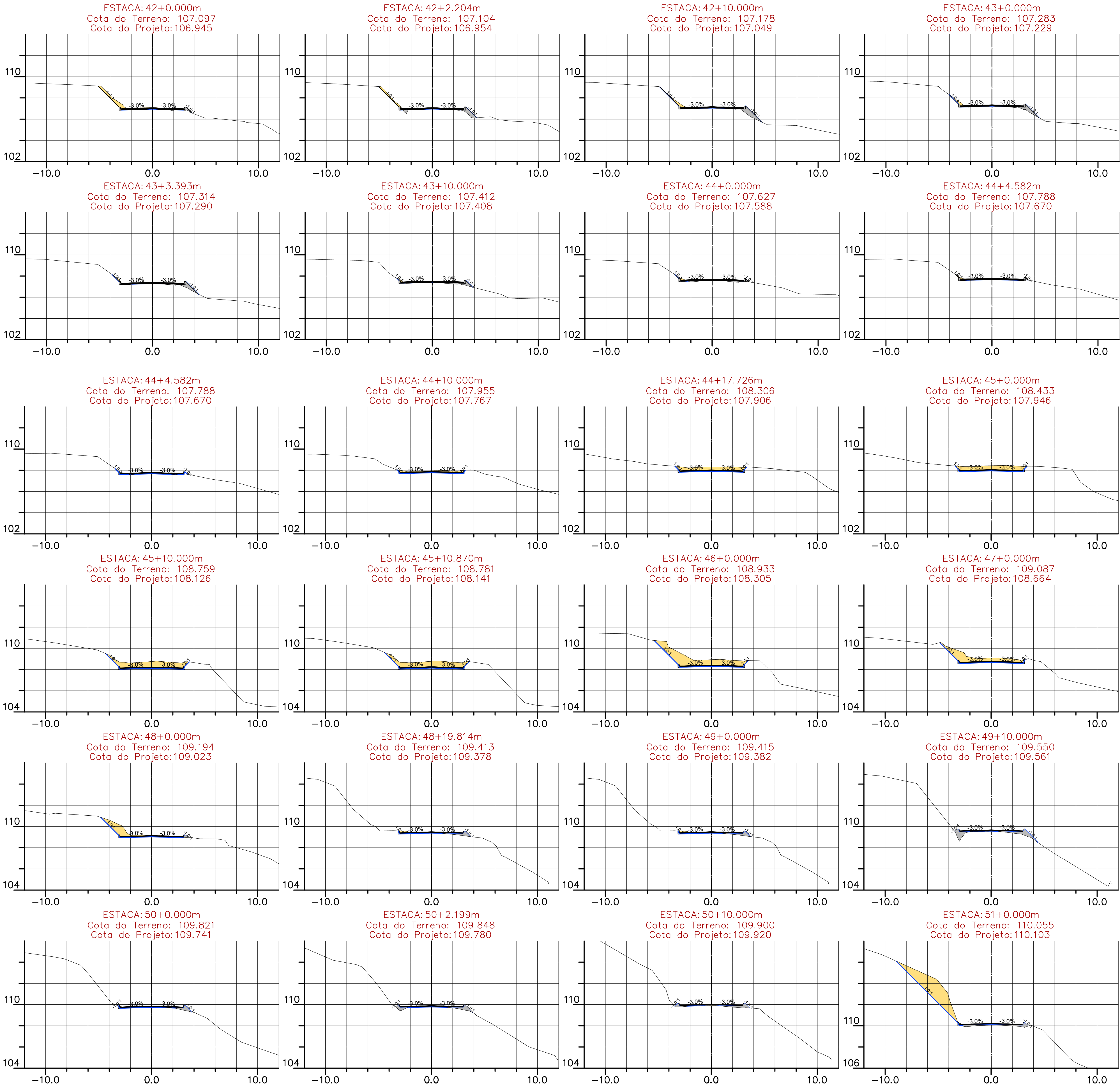
TABELA DE TANGENTES					
TANGENTE Nº	COMPRIMENTO (m)	AZIMUTE	COORDENADAS INÍCIO	COORDENADAS FINAL	ESTACA INÍCIO / ESTACA FINAL
L1	5.140	S13° 16' 47.60"W	N=200061,8911 E=100055,9330	N=200056,9888 E=100054,7524	0+0 / 0+5
L2	23.348	S53° 21' 42.52"W	N=200032,5582 E=100038,4288	N=200018,2248 E=100019,6935	1+15 / 2+19
L3	26.133	S13° 07' 23.97"W	N=199991,4390 E=100002,1389	N=199965,9881 E=99996,2034	4+12 / 5+18
L4	7.504	S36° 20' 57.75"W	N=199948,0347 E=99987,9319	N=199941,9911 E=99983,4844	6+18 / 7+5
L5	27.727	S78° 17' 46.88"W	N=199931,7284 E=99967,4847	N=199926,1041 E=99940,3345	8+4 / 9+12
L6	13.852	S84° 28' 17.17"W	N=199922,8764 E=99919,0330	N=199921,5419 E=99905,2454	10+14 / 11+8
L7	20.865	N88° 04' 09.43"W	N=199920,7251 E=99879,2388	N=199921,4280 E=99858,3858	12+14 / 13+15
L8	59.906	S72° 11' 15.45"W	N=199917,4234 E=99829,6761	N=199899,0981 E=99772,6420	15+4 / 18+4
L9	65.381	S54° 44' 19.01"W	N=199880,6651 E=99735,7305	N=199842,9203 E=99682,3455	20+5 / 23+10
L10	29.921	S57° 14' 35.92"W	N=199817,2366 E=99644,2808	N=199801,0472 E=99619,1180	25+16 / 27+6
L11	7.723	S44° 24' 00.50"W	N=199789,5278 E=99596,9829	N=199784,0102 E=99599,5016	28+4 / 28+12
L12	10.700	S31° 58' 12.84"W	N=199767,4784 E=99586,5773	N=199758,4012 E=99580,9118	29+13 / 30+4
L13	19.495	S58° 38' 17.56"W	N=199740,6053 E=99562,9143	N=199730,4700 E=99548,5621	32+0 / 32+9
L14	47.519	S63° 38' 17.56"W	N=199717,6066 E=99522,9048	N=199696,5063 E=99480,3271	33+16 / 36+3
L15	14.298	S58° 44' 11.27"W	N=199685,7569 E=99460,7842	N=199678,3364 E=99448,5621	37+6 / 37+20
L16	20.579	S53° 13' 39.98"W	N=199655,5829 E=99432,6301	N=199655,2639 E=99416,1463	38+19 / 39+20
L17	20.684	S46° 57' 16.47"W	N=199641,2221 E=99399,5577	N=199627,1039 E=99384,2419	41+2 / 42+2
L18	68.944	S37° 43' 15.86"W	N=199581,6239 E=99333,0061	N=199527,0892 E=99290,8249	45+11 / 48+20
L19	81.515	S55° 39' 16.14"W	N=199450,5133 E=99151,0781	N=199421,6107 E=99156,0632	51+5 / 55+6
L20	20.444	S48° 29' 36.04"W	N=199435,1580 E=99127,3713	N=199421,6107 E=99127,3713	56+11 / 57+12
L21	43.409	S81° 45' 45.42"W	N=199401,6158 E=99127,3713	N=199381,0778 E=99089,1281	59+7 / 61+10

TABELA DE CURVAS DO ALINHAMENTO										
CURVAS	AC	R (m)	T (m)	D (m)	PC	PT	PONTO	PC	PI	PT
Curva1	40°04'54,93"	43,356	15,815	30,330	0+5,140	1+15,470	N E	200056,9888 100054,7524	200041,5982 100051,1194	200032,5582 100038,4288
Curva2	40°14'18,55"	46,554	17,054	32,695	2+18,818	4+11,513	N E	200018,2248 100019,6935	200008,0476 100006,0090	199991,4390 100002,1389
Curva3	23°13'33,78"	49,099	10,090	19,903	5+17,646	6+17,550	N E	199965,9881 99996,2034	199956,1614 99993,9124	199948,0347 99987,9319
Curva4	41°56'49,13"	26,553	10,179	19,440	7+5,053	8+4,493	N E	199941,9911 99983,4844	199933,7931 99977,4516	199931,7284 99967,4847
Curva5	6°10'30,29"	200,000	10,788	21,555	9+12,219	10+13,775	N E	199926,1041 99940,3345	199923,9157 99929,7708	199922,8764 99919,0330
Curva6	7°27'33,40"	200,000	13,037	26,038	11+7,627	12+13,664	N E	199921,5419 99905,2454	199920,2858 99892,2687	199920,7251 99879,2388
Curva7	19°44'35,12"	84,542	14,712	29,132	13+14,529	15+3,661	N E	199892,4280 99858,3858	199892,7138 99854,6826	199891,4234 99829,6716
Curva8	17°26'56,44"	136,001	20,871	41,418	18+3,566	20+4,984	N E	199899,0981 99772,6420	199892,7138 99752,7719	199880,6651 99735,7305
Curva9	2°30'16,91"	1050,501	22,965	45,923	23+10,365	25+16,288	N E	199842,9203 99682,3455	199829,6624 99663,5939	199817,2366 99644,2808
Curva10	12°50'35,42"	81,518	9,175	18,273	27+6,209	28+4,482	N E	199801,0472 99619,1180	199789,0830 99611,4022	199789,5278 99604,9829
Curva11	12°25'47,66"	97,139	10,578	21,074	28+12,204	29+13,278	N E	199784,0102 99599,5096	199776,4523 99592,1783	199767,4784 99586,5773
Curva12	28°42'17,06"	54,798	13,007	25,541	30+3,978	31+9,519	N E	199758,4012 99580,9118	199747,3673 99574,0250	199740,6053 99562,9143
Curva13	4°57'47,66"	307,911	13,345	26,673	32+9,014	33+15,687	N E	199730,4700 99546,2111	199723,5322 99534,8616	199717,6066 99522,9048
Curva14	4°54'06,29"	260,789	11,162	22,311	36+3,206	37+5,517	N E	199696,5063 99480,3271	199691,5499 99470,3296	199685,7569 99460,7842
Curva15	5°30'31,29"	200,000	9,622	19,229	37+19,815	38+19,044	N E	199678,3364 99448,5621	199673,3429 99440,3374	199667,5829 99432,6301
Curva16	6°16'23,51"	200,000	10,960	21,898	39+16,623	41+1,520	N E	199655,2639 99416,1463	199648,7030 99407,3673	199641,2231 99390,3577
Curva17	6°25'51,89"	377,560	21,212	42,379	42+2,204	44+4,582	N E	199627,1039 99384,2419	199616,6253 99368,7402	199599,9742 99351,7143
Curva18	15°39'52,50"	96,150	13,226	26,287	44+4,582	45+10,870	N E	199595,9742 99351,7143	199592,0856 99341,0981	199581,6239 99333,0061
Curva19	17°56'00,28"	143,640	22,570	44,771	48+19,814	51+4,585	N E	199527,0892 99290,4289	199509,2639 99277,0160	199496,5063 99258,3810
Curva20	7°09'40,10"	200,000	12,515	24,997	55+6,100	56+11,097	N E	199450,5133 99110,5178	199443,4527 99180,7453	199435,1590 99127,3732
Curva21	13°16'09,37"	151,343	17,804	35,050	57+11,541	59+6,991	N E	199412,6107 99121,8017	199400,9496 99142,8801	199401,6158 99127,3731

1_1_GRANF_INFRA_PAV_ANG_RIO_ENGANO.dwg

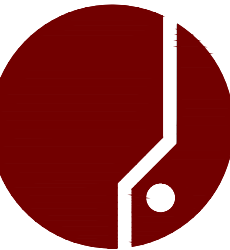
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OBRA		CONTEÚDO	
ESTRADA GERAL RIO ENGANO — ETAPA 2 EST. 42 A PF		SEÇÕES TRANSVERSAIS DE TERRAPLANAGEM	
PROJETO		APROVAÇÃO DA PREFEITURA	
VINICIUS FELLER Engenheiro Civil CREA/SC 147.982–3			
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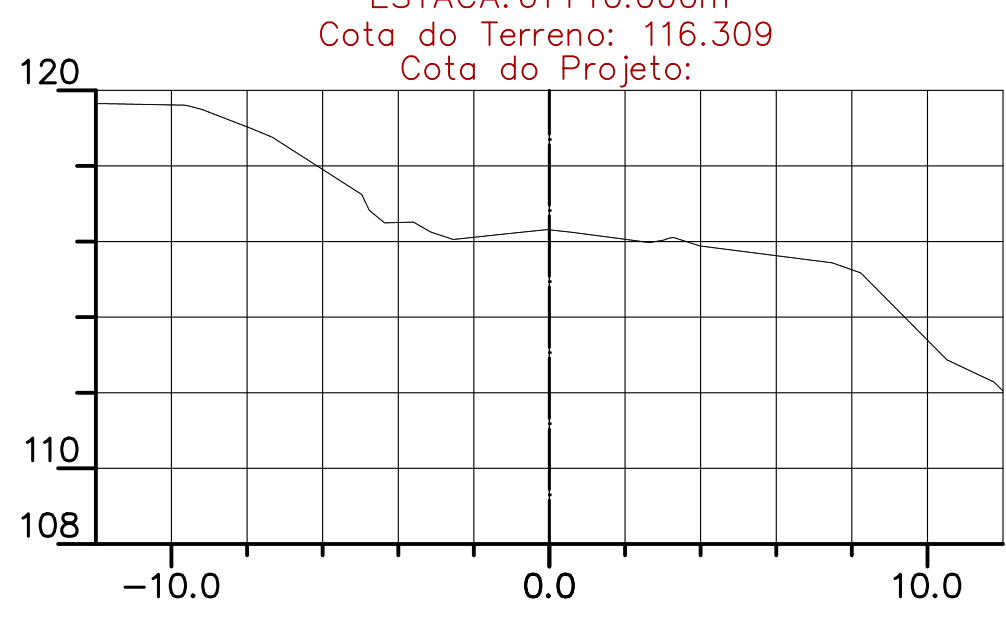
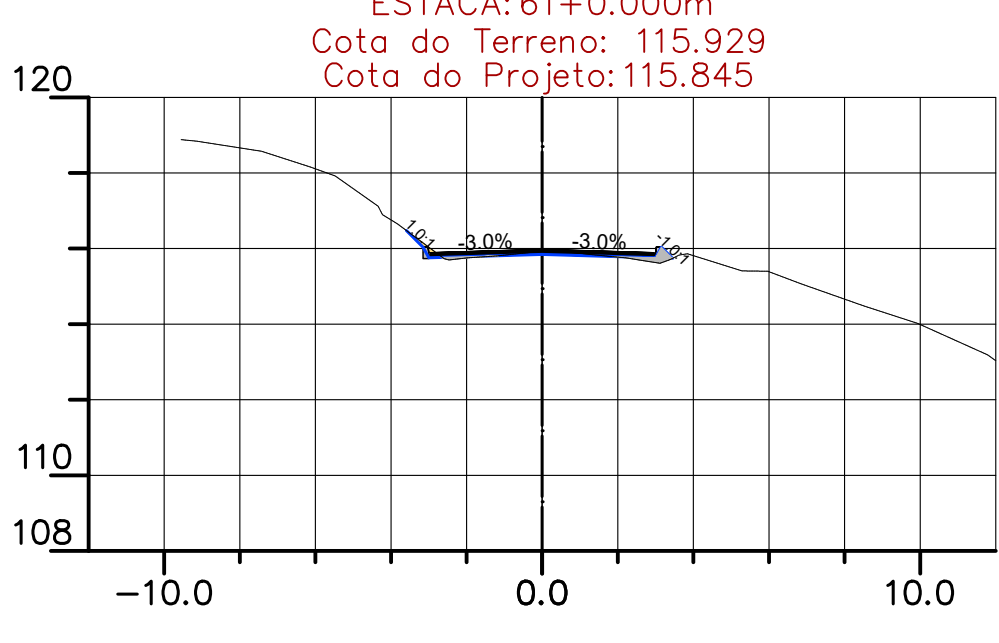
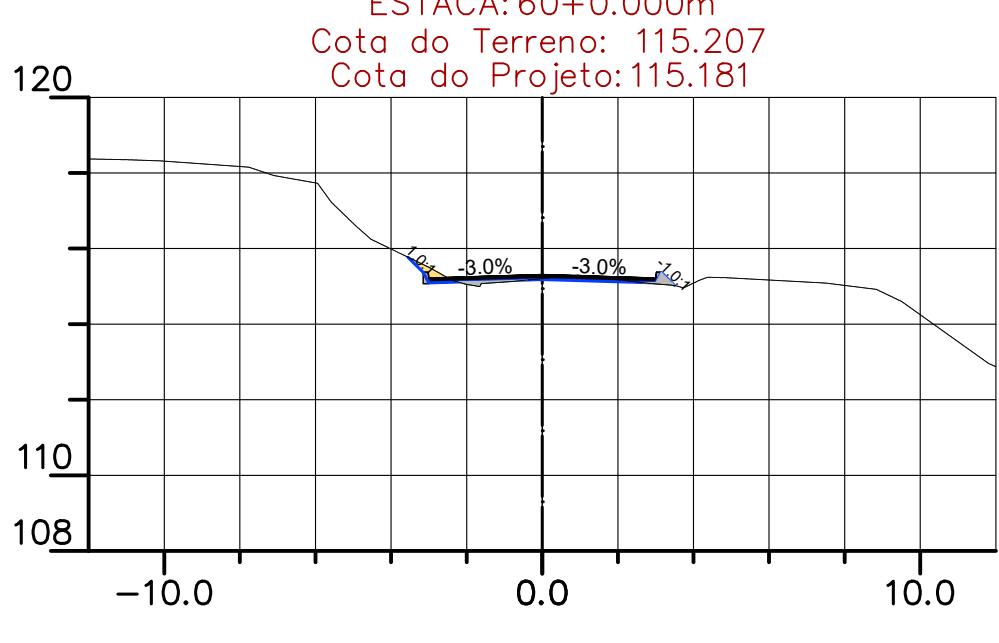
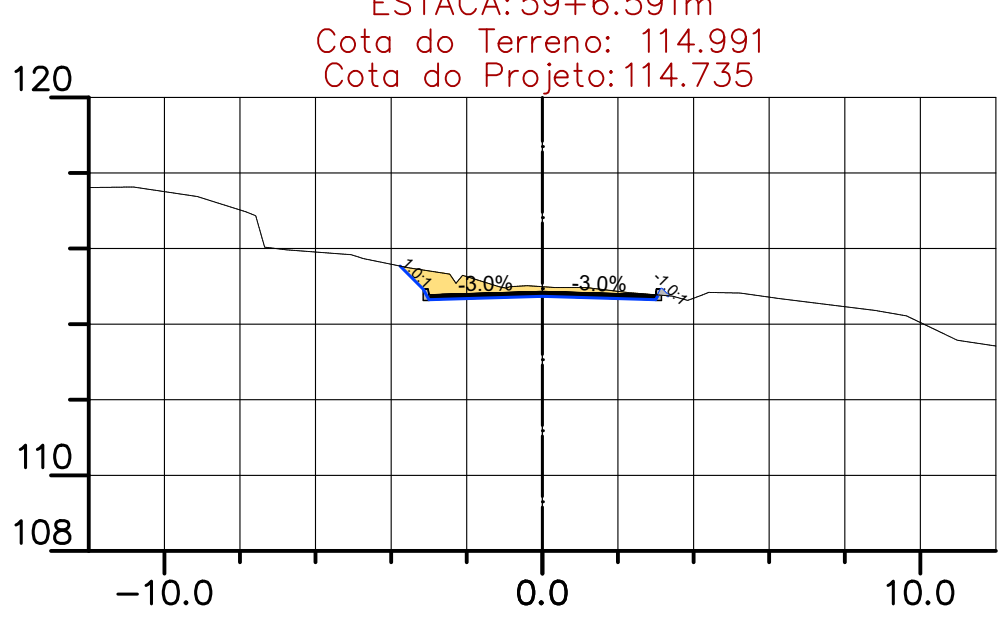
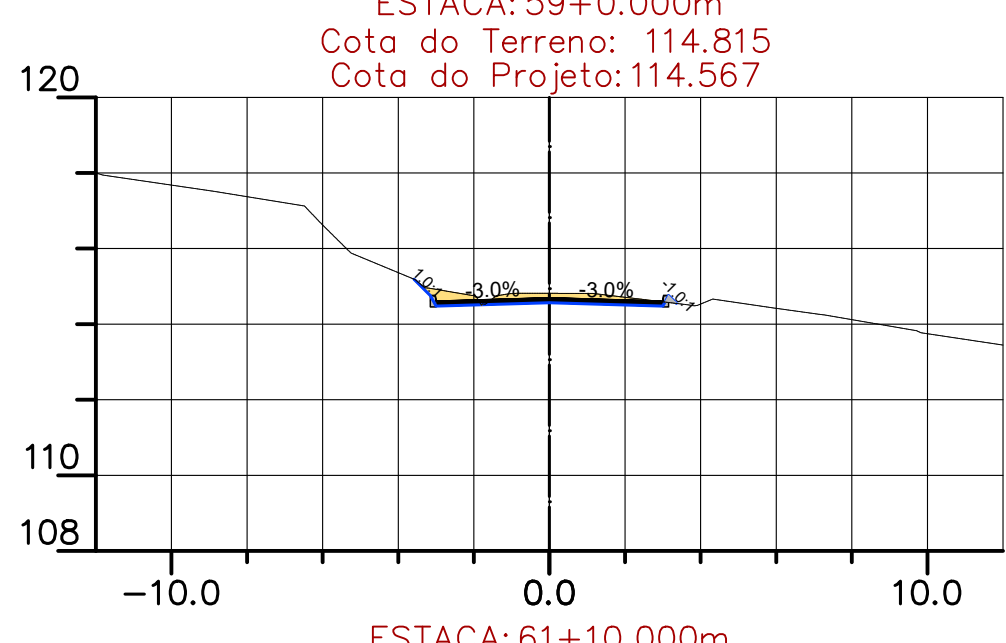
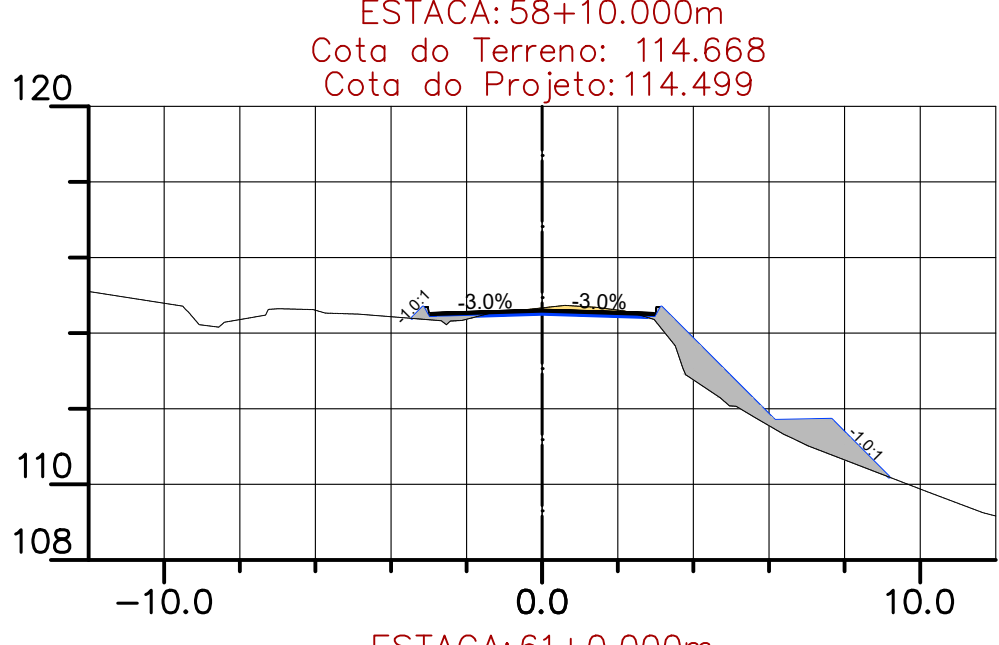
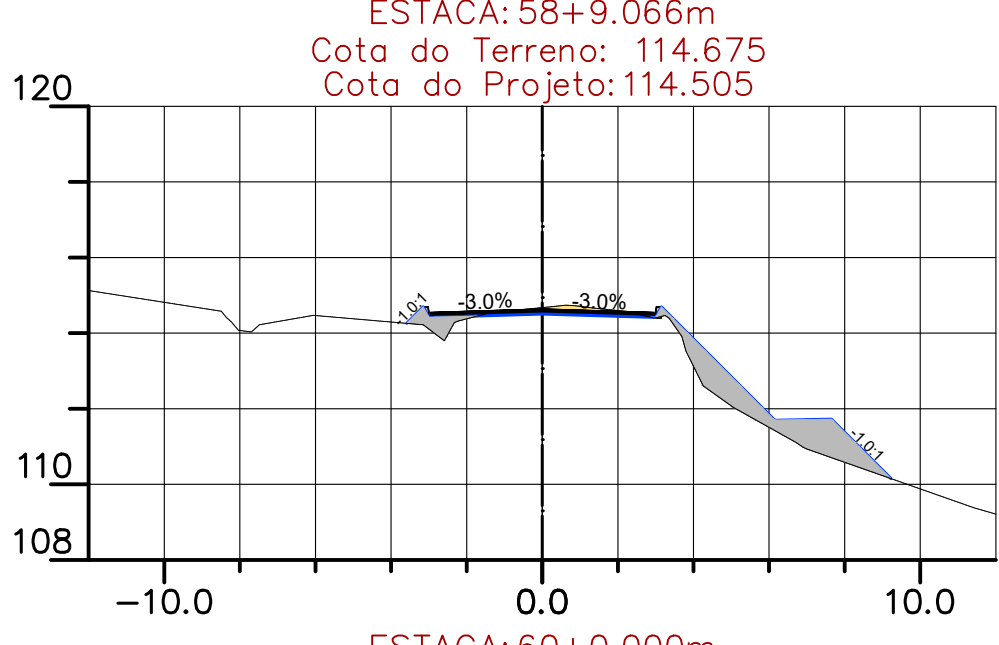
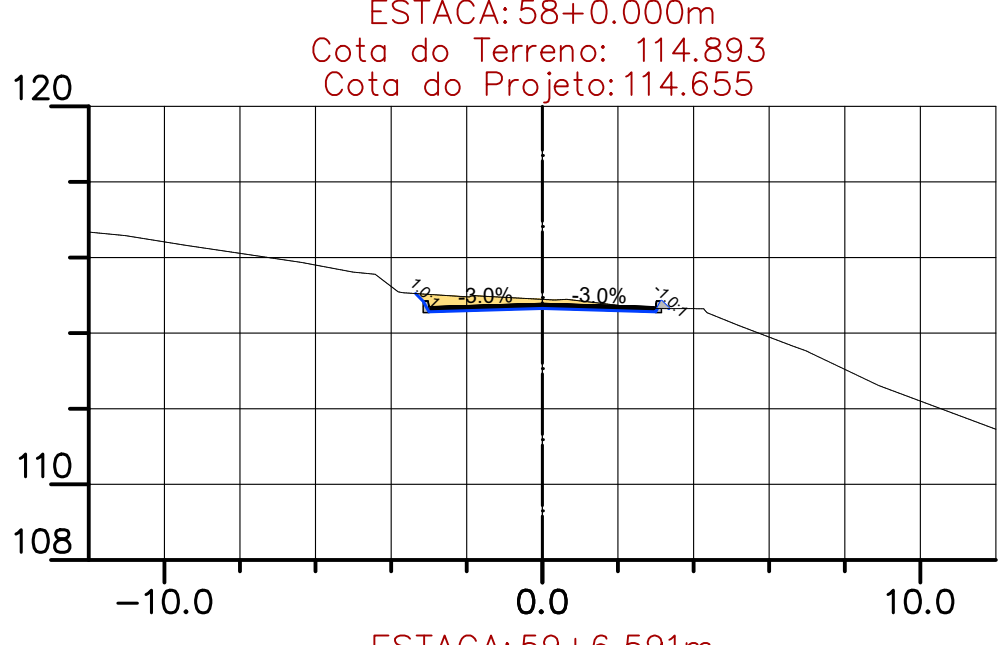
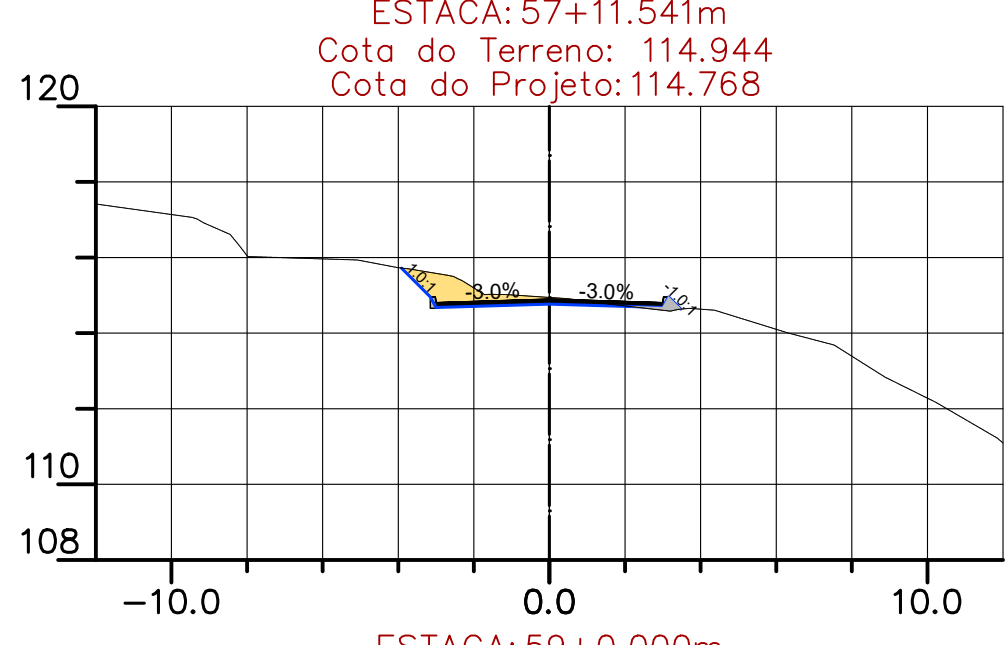
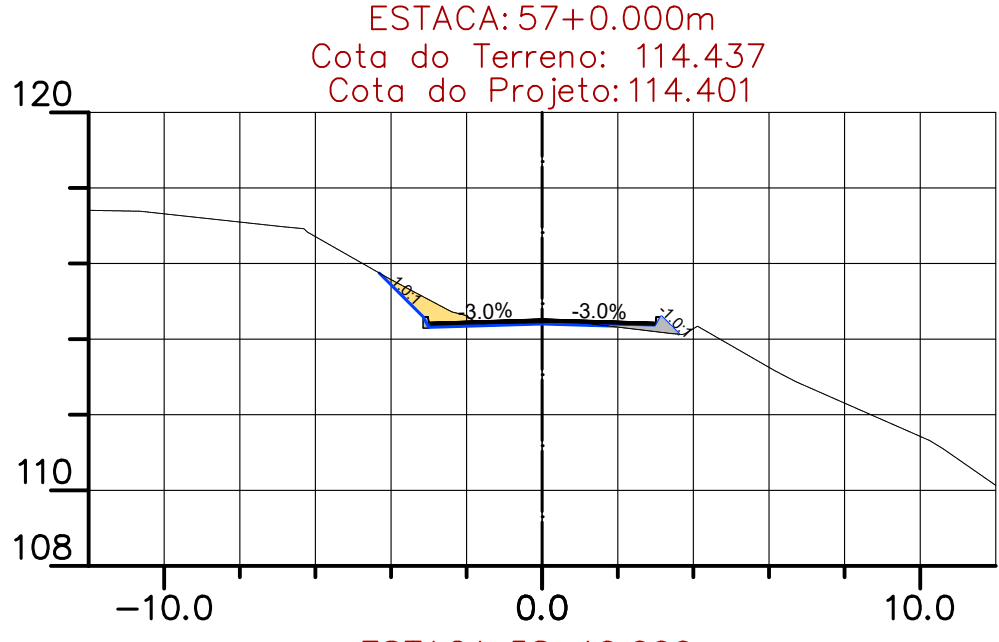
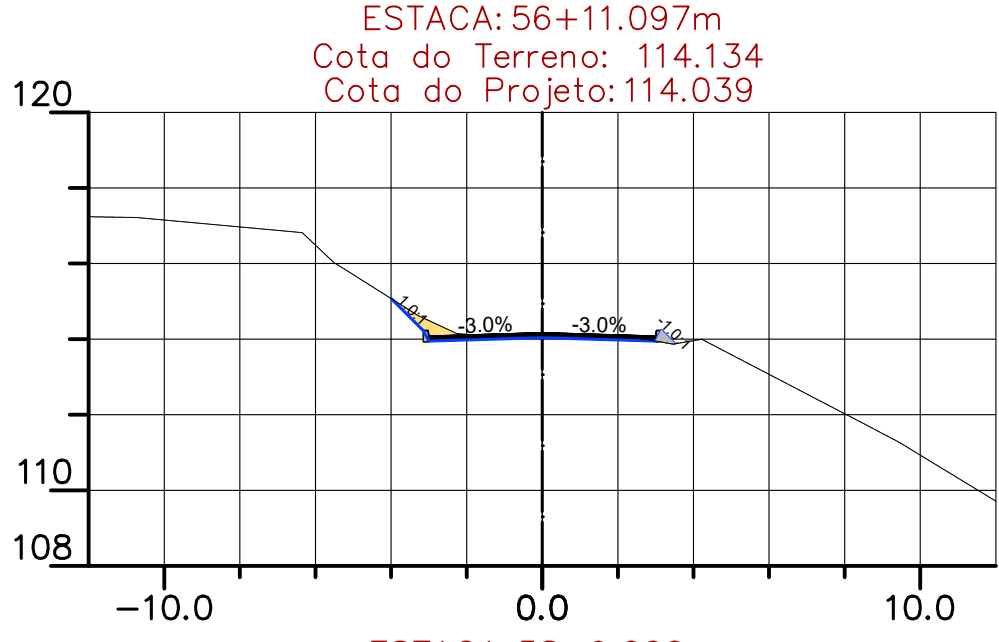
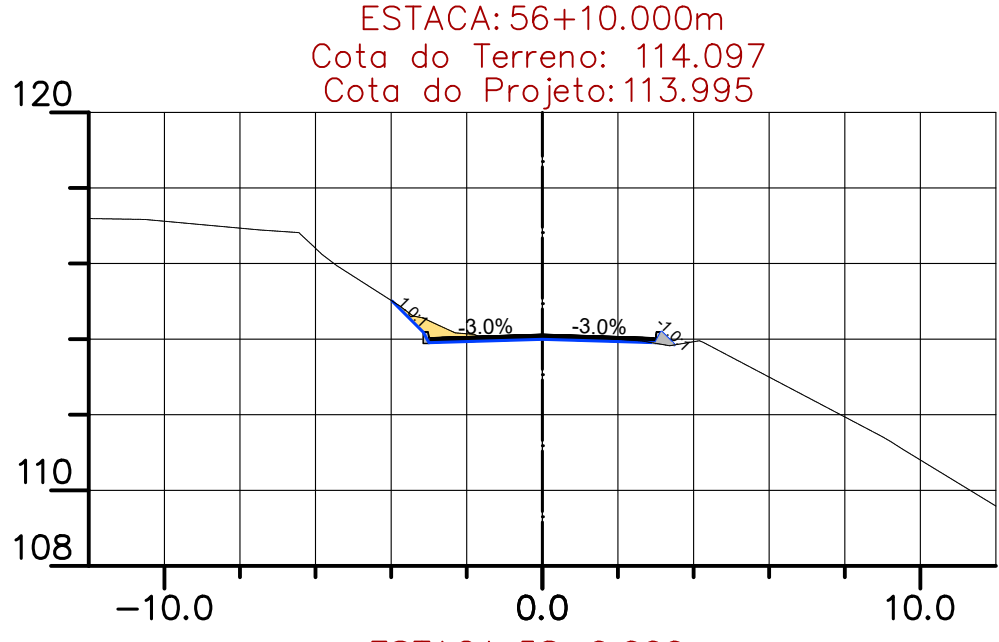
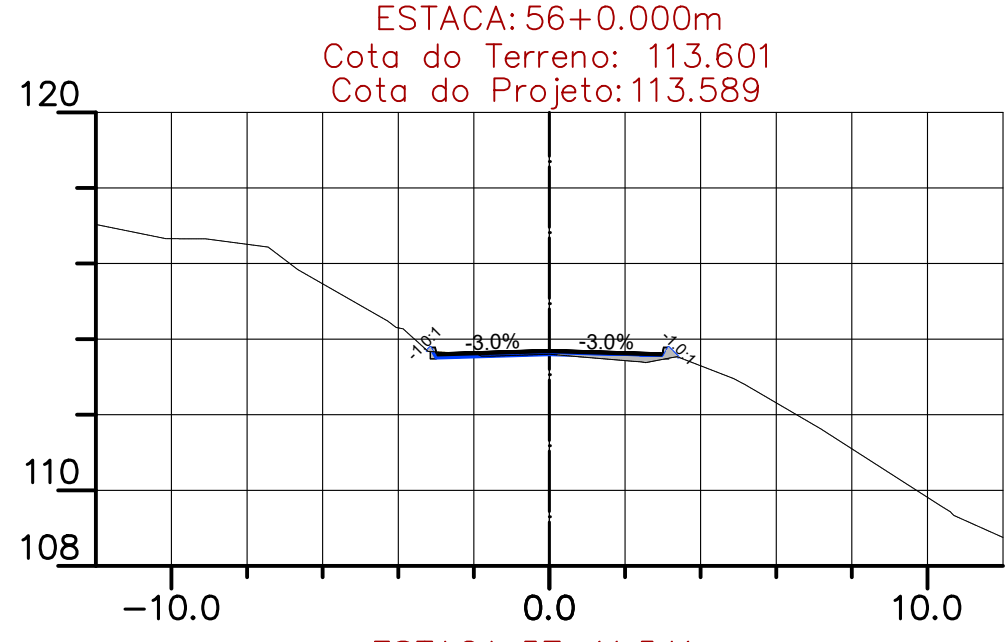
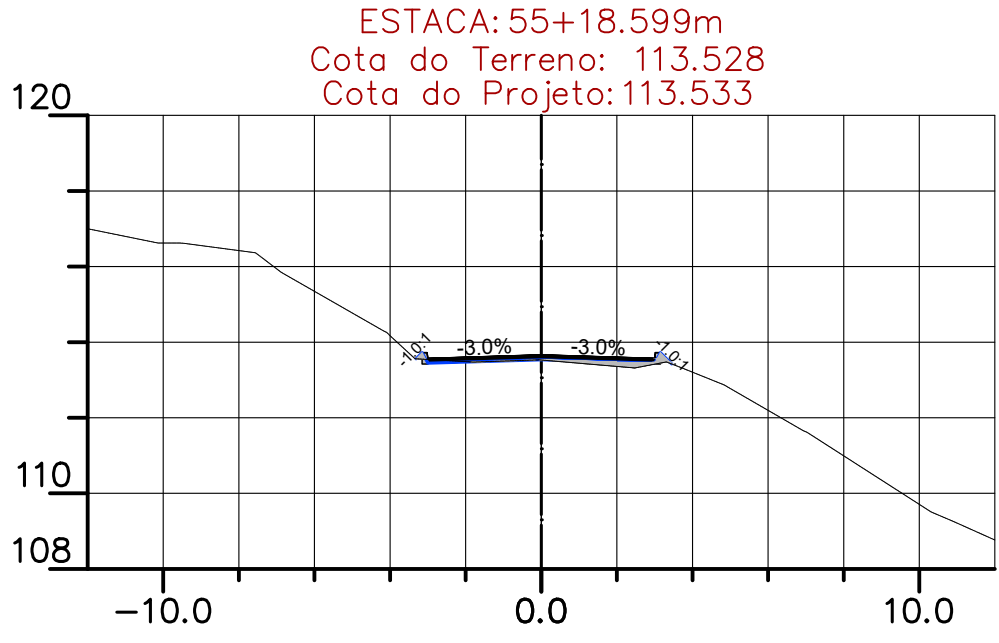
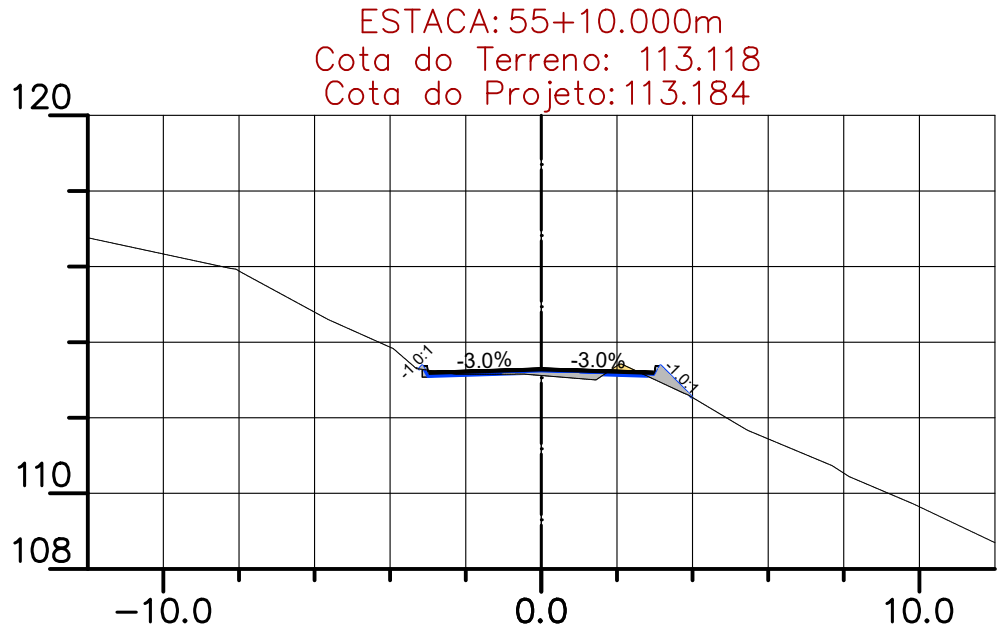
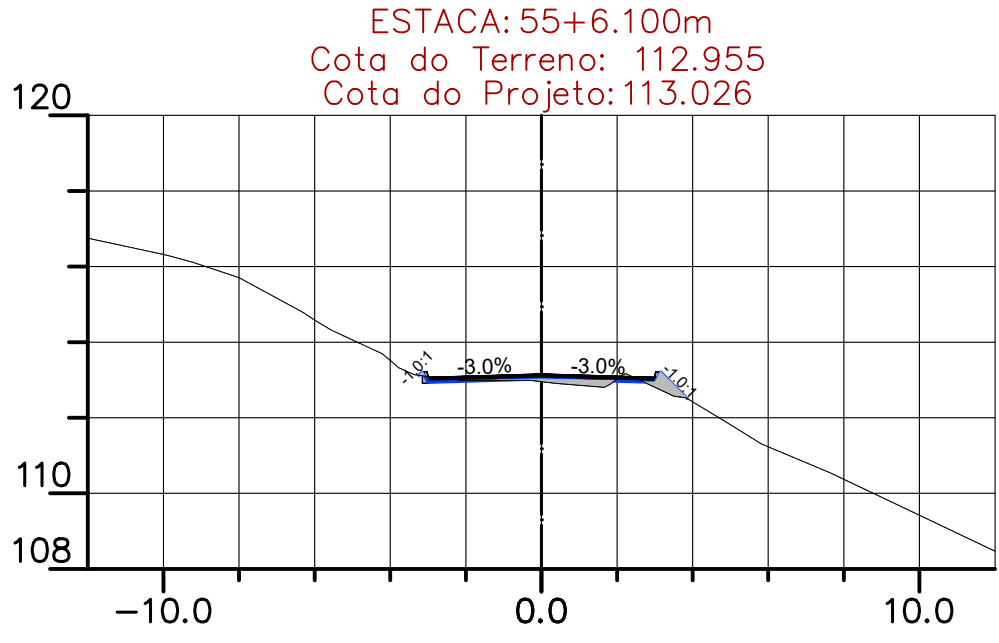
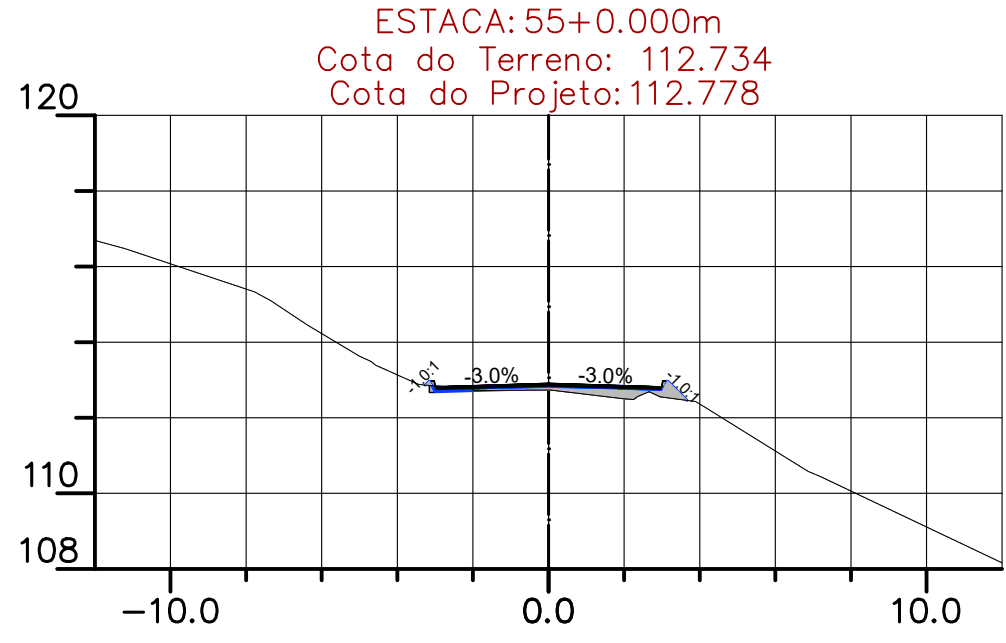
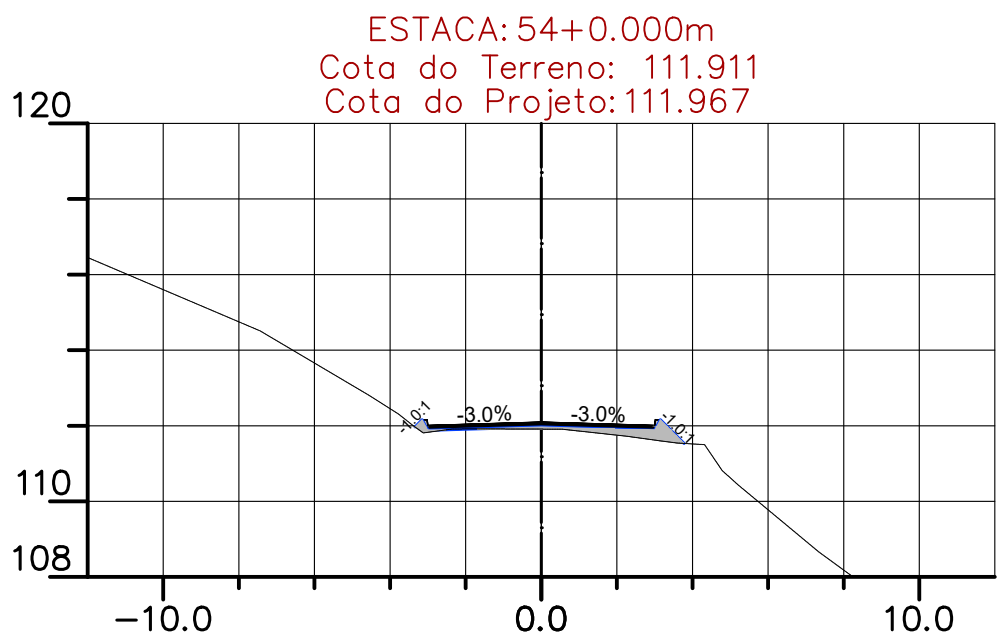
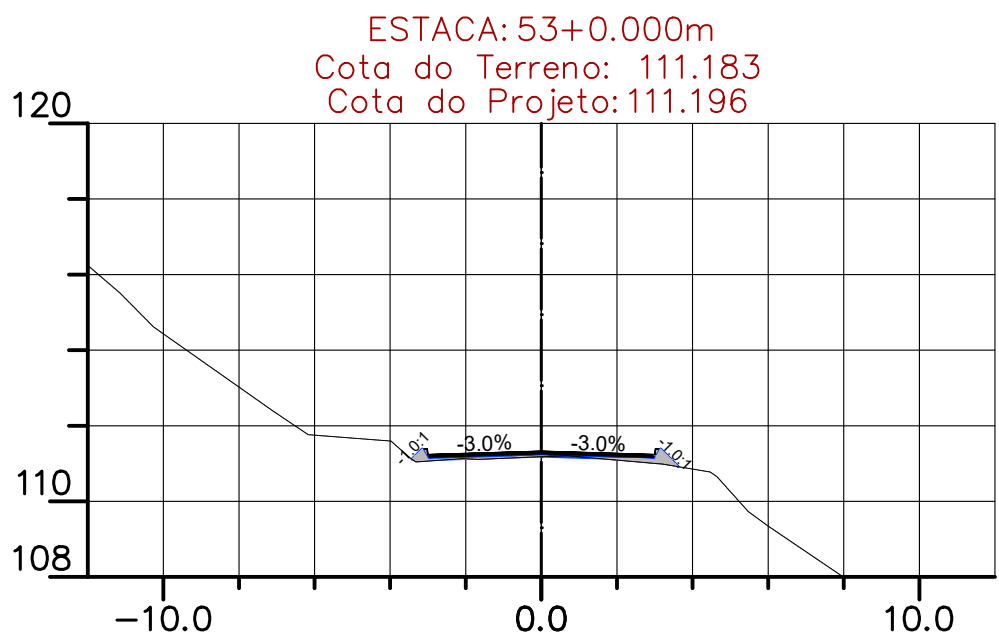
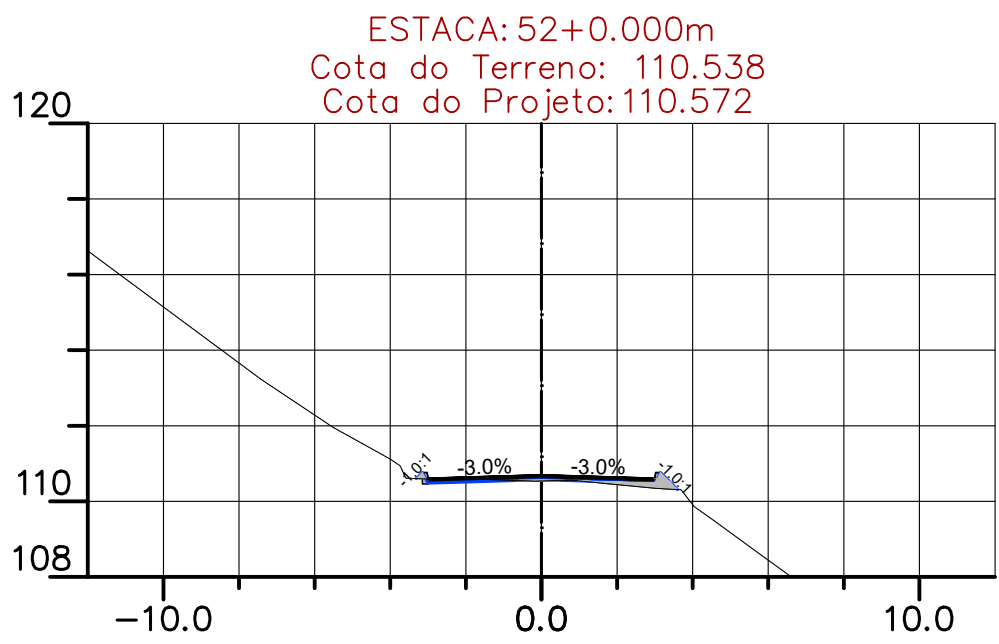
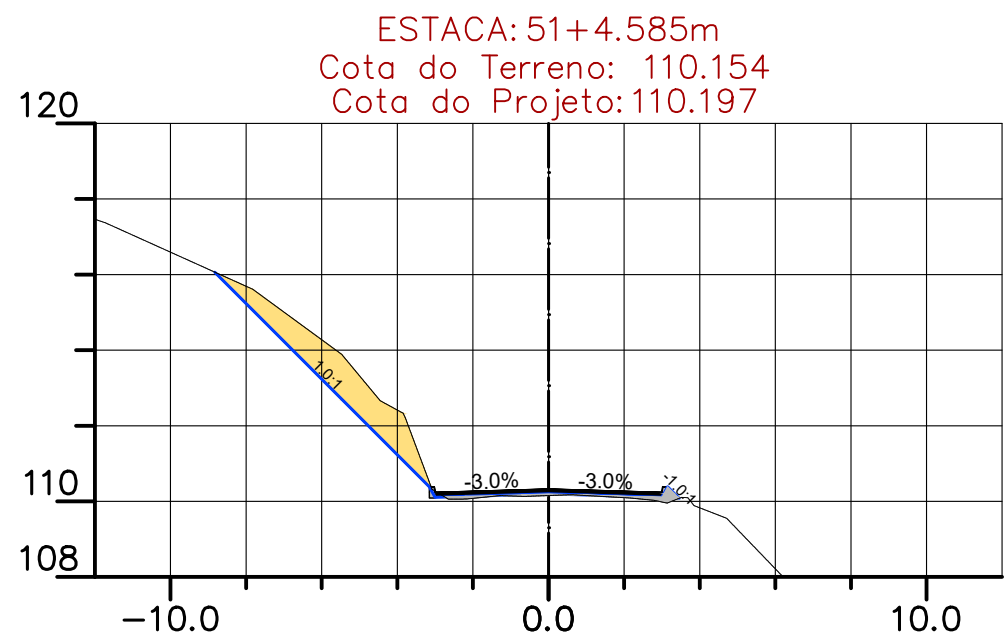


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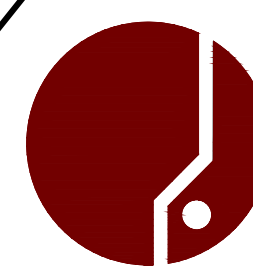


PROJETO GEOMÉTRICO

MUNICÍPIO ANGELINA – SC

OBRA	CONTEÚDO
ESTRADA GERAL RIO ENGANO – ETAPA 2 EST. 42 A PF	SEÇÕES TRANSVERSAIS DE TERRAPLANAGEM
PROJETO	APROVAÇÃO DA PREFEITURA
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