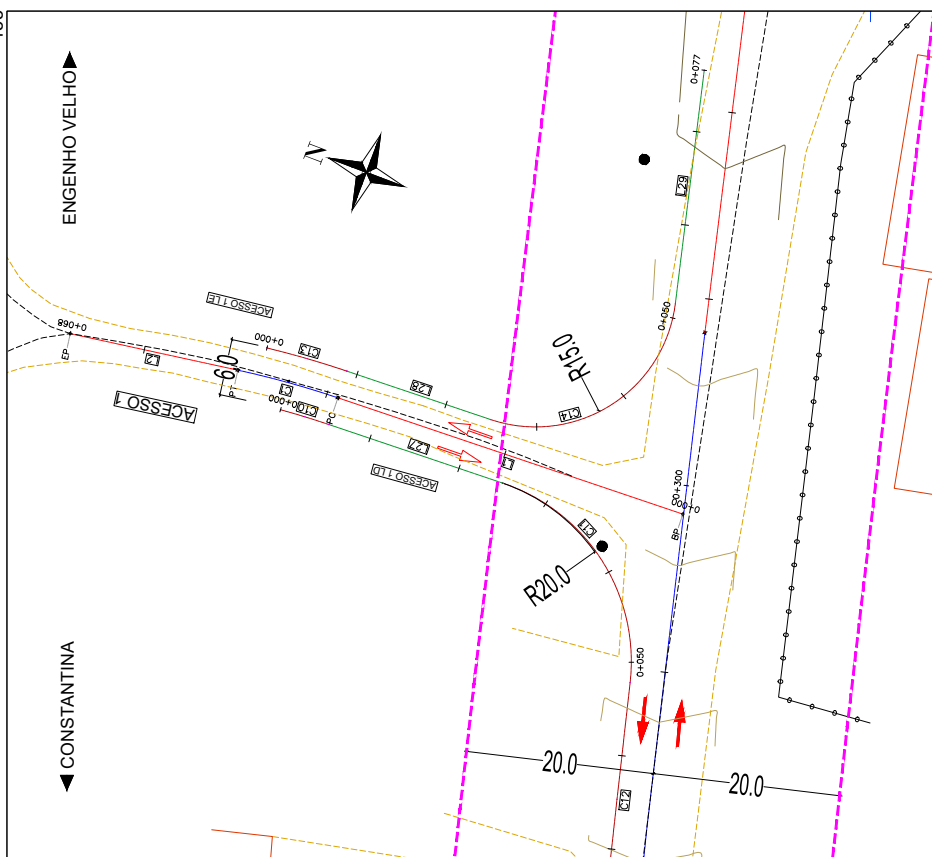




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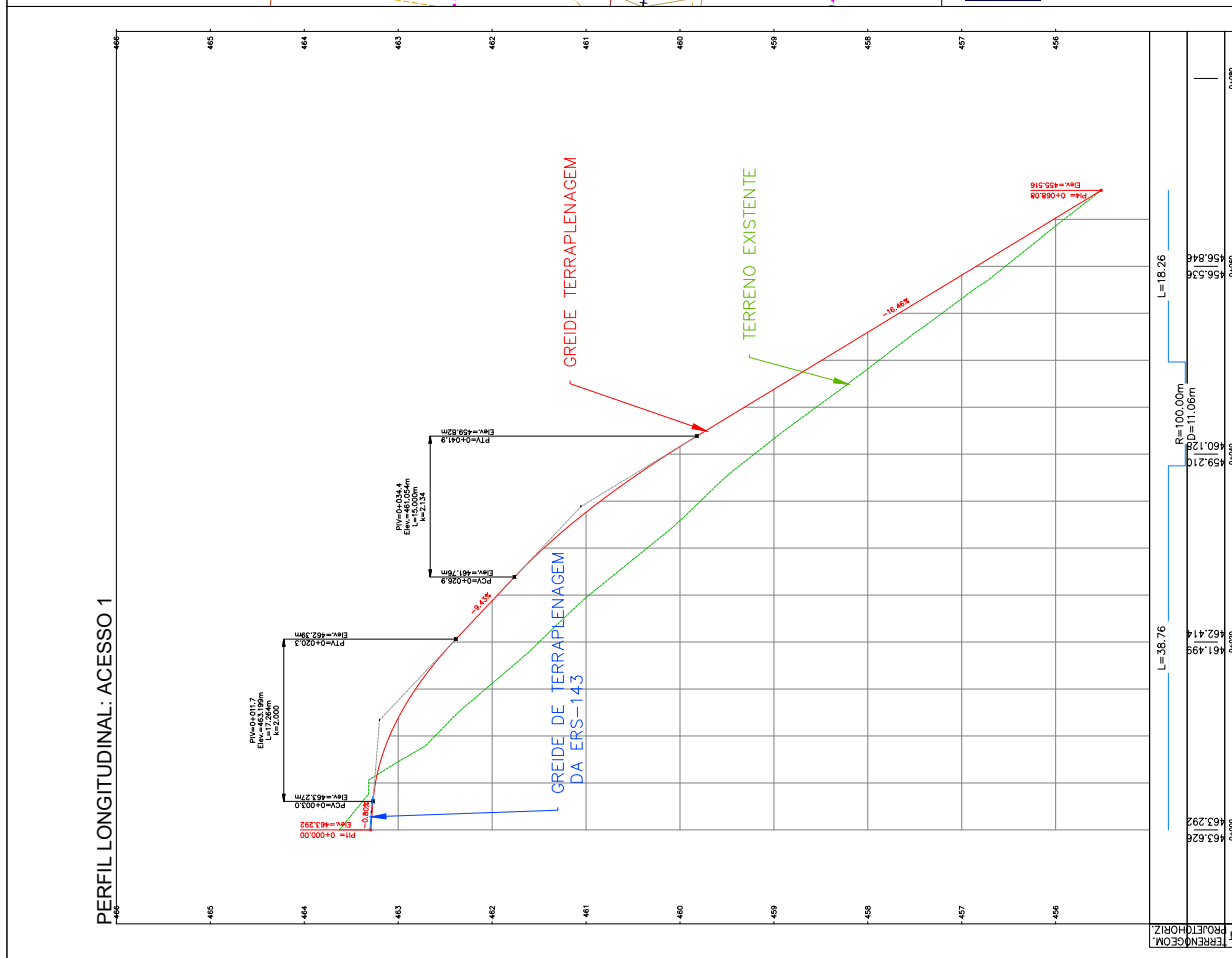


QUADRO DE CURVAS HORIZONTAIS - ACESSO 1									
Nº	DIREÇÃO AZIMUTE	AC	R (m)	Lc (m)	D/L (m)	T (m)	PC	COORDENADAS (UTM) - PI	COORDENADAS (UTM) - PT
L1	357°52'20,04"	-	-	-	-	-	38.760	D408.76 N 1931674,528 E 152194,716	N 1931713,257 E 152193,277
L2	351°32'01,48"	-	-	-	-	-	11.06	D409.82 N 1931713,257 E 152193,072	N 1931724,266 E 152192,257

QUADRO DE CURVAS HORIZONTAIS - ACESSO 110									
Nº	DIREÇÃO AZIMUTE	AC	R (m)	Lc (m)	D/L (m)	T (m)	PC	COORDENADAS (UTM) - PI	COORDENADAS (UTM) - PT
C13	175°28'58"	00°55'47,17"	103	-	-	-	8.86	D400.00 N 1931723,596 E 152195,566	N 1931733,868 E 152196,275
C14	177°52'20,04"	00°55'47,17"	103	-	-	-	8.86	D400.00 N 1931723,596 E 152195,566	N 1931733,868 E 152196,275

QUADRO DE CURVAS HORIZONTAIS - ACESSO 110									
Nº	DIREÇÃO AZIMUTE	AC	R (m)	Lc (m)	D/L (m)	T (m)	PC	COORDENADAS (UTM) - PI	COORDENADAS (UTM) - PT
C12	175°28'58"	00°55'47,17"	103	-	-	-	8.86	D400.00 N 1931723,596 E 152195,566	N 1931733,868 E 152196,275
C13	177°52'20,04"	00°55'47,17"	103	-	-	-	8.86	D400.00 N 1931723,596 E 152195,566	N 1931733,868 E 152196,275

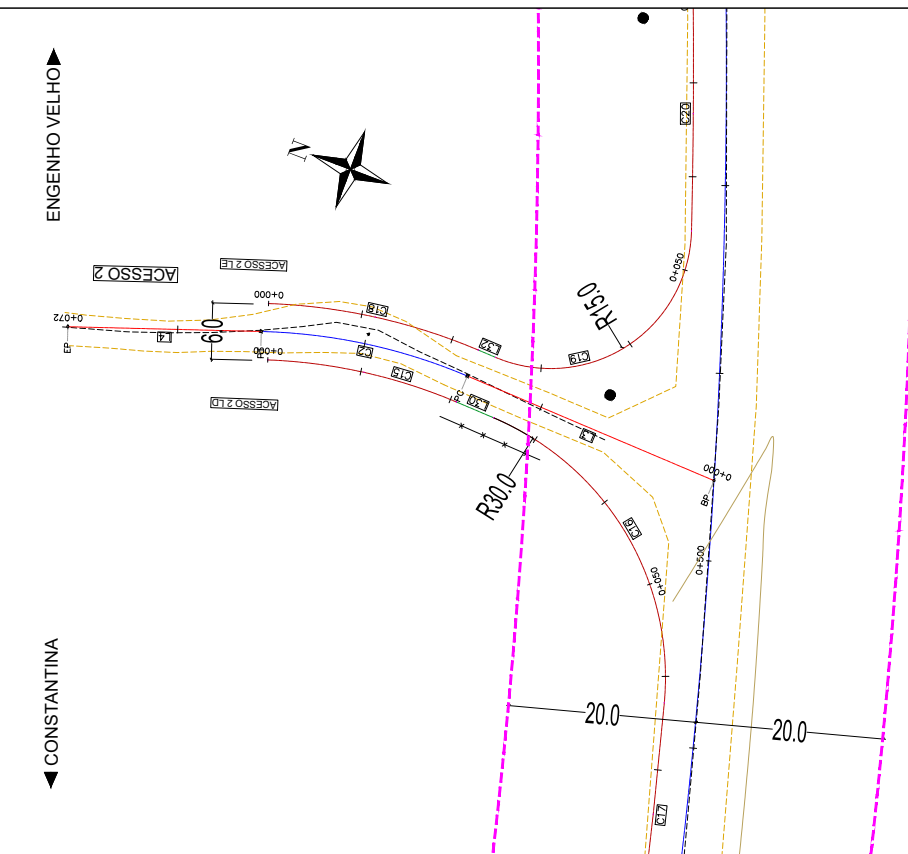
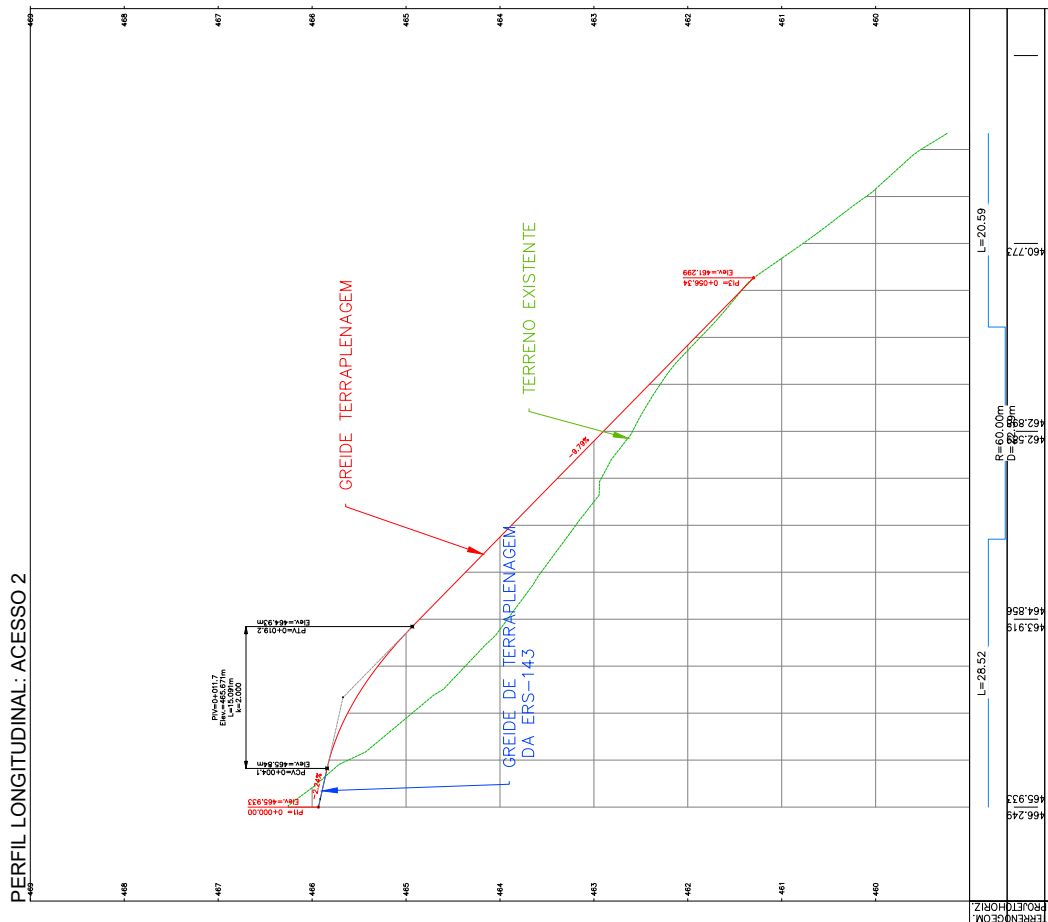
DEPARTAMENTO AUTÔNOMO DE ESTRADAS DE RODAGEM			
ST	RECUPERAÇÃO	RECONSTRUÇÃO	RECONSTRUÇÃO
ST	RECUPERAÇÃO	RECONSTRUÇÃO	RECONSTRUÇÃO
ST	RECUPERAÇÃO	RECONSTRUÇÃO	RECONSTRUÇÃO





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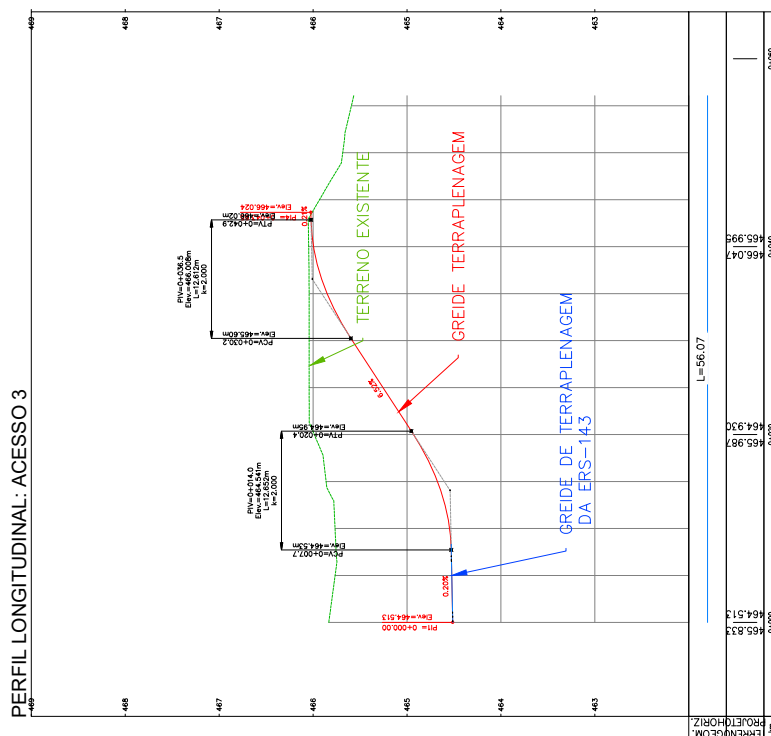
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QUADRO DE CURVAS HORIZONTAIS - ACESSO 2									
Nº	DIREÇÃO AZIMUTE	AC	R (m)	LC (m)	D/L (m)	PC	PT	COORDENADAS (UTM) - PC	COORDENADAS (UTM) - PT
13	007°13'31.04"	-	-	-	-	0+000.00	0+028.52	N 1931754.669 (E 152401.934)	N 1931754.669 (E 152401.934)
C2	351°26'24"	021°34'14.09"	60	-	-	0+051.10	0+051.10	N 1931754.669 (E 152401.934)	N 1931754.669 (E 152401.934)
14	340°39'16.95"	-	-	-	-	0+051.10	0+071.70	N 1931754.669 (E 152401.934)	N 1931754.669 (E 152401.934)
QUADRO DE CURVAS HORIZONTAIS - ACESSO 2 L.D.									
Nº	DIREÇÃO AZIMUTE	AC	R (m)	LC (m)	D/L (m)	PC	PT	COORDENADAS (UTM) - PC	COORDENADAS (UTM) - PT
C15	172°49'38"	007°47'46.94"	57	-	-	0+000.00	0+020.68	N 1931754.669 (E 152401.934)	N 1931754.669 (E 152401.934)
C16	352°13'31.04"	021°34'14.09"	60	-	-	0+051.10	0+051.10	N 1931754.669 (E 152401.934)	N 1931754.669 (E 152401.934)
C17	340°39'16.95"	-	-	-	-	0+051.10	0+071.70	N 1931754.669 (E 152401.934)	N 1931754.669 (E 152401.934)
C18	256°18'03.36"	-	-	-	-	0+071.70	0+071.70	N 1931754.669 (E 152401.934)	N 1931754.669 (E 152401.934)
QUADRO DE CURVAS HORIZONTAIS - ACESSO 2 E.B.									
Nº	DIREÇÃO AZIMUTE	AC	R (m)	LC (m)	D/L (m)	PC	PT	COORDENADAS (UTM) - PC	COORDENADAS (UTM) - PT
C19	172°49'38"	007°47'46.94"	57	-	-	0+000.00	0+020.68	N 1931754.669 (E 152401.934)	N 1931754.669 (E 152401.934)
C20	352°13'31.04"	021°34'14.09"	60	-	-	0+051.10	0+051.10	N 1931754.669 (E 152401.934)	N 1931754.669 (E 152401.934)
C21	340°39'16.95"	-	-	-	-	0+051.10	0+071.70	N 1931754.669 (E 152401.934)	N 1931754.669 (E 152401.934)
C22	256°18'03.36"	-	-	-	-	0+071.70	0+071.70	N 1931754.669 (E 152401.934)	N 1931754.669 (E 152401.934)

ST	DEPARTAMENTO AUTÔNOMO DE ESTRADAS DE RODAGEM	ATE
RECUPERAÇÃO	RECUPERAÇÃO	RECUPERAÇÃO
TRECHO	TRECHO	TRECHO
DATA	DATA	DATA
DEZ/20	DEZ/20	DEZ/20

PROJETO	PROJETO	PROJETO
PROJETO	PROJETO	PROJETO
PROJETO	PROJETO	PROJETO
PROJETO	PROJETO	PROJETO



PERFIL LONGITUDINAL: ACESSO 3

▼ CONSTANTINA

ENGENHO VELHO▲



R9.0

—20.0—

~~R45.0~~

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QUADRO DE CURVAS HORIZONTAIS - ACESSO 3									
Nº	DEFLEXÃO AZIMUTE	AC R (m)	LC (m)	DL (m)	T (m)	PC	PT	COORDENADAS (UTM) - PC	COORDENADAS (UTM) - PT
5	095°15'15,43"	-	-	-	56,07	04000,00	04056,07	N 1931778,149DE 152524,93Z	-
6	095°15'15,43"	-	-	-	56,07	04000,00	04056,07	N 1931778,149DE 152524,93Z	N 1931773,01A DE 152580,76A

Nº	DEFLEXÃO ANGULAR	AC	R (m)	QUADRO DE CURVAS HORIZONTAIS - ACESSO 3 LID							COORDENADAS (UTM) - PC	COORDENADAS (UTM) - PI	COORDENADAS (UTM) - PT
				LC (m)	DL (m)	PC	PT	COORDE. INICIAIS (UTM) - PC	COORDE. INICIAIS (UTM) - PI	COORDE. INICIAIS (UTM) - PT			
L33	275° 52' 15,43"	-	-	-	12,50	0+0+00	0+120	N 1931776,3500 E 152597,252	-	N 1931777,8950 E 152564,804	-	N 1931779,4460 E 152561,119	
L34	347° 36' 32"	-	-	-	22,78	0+0+20	0+052,23	N 1931777,8950 E 152564,804	-	N 1931779,4460 E 152561,119	-	N 1931806,7720 E 152802,574	
C21	059° 55' 48,00"	144° 40' 33,49"	-	-	25,00	0+052,23	0+137,23	N 1931779,4460 E 152561,119	-	N 1931806,7720 E 152802,574	-	N 1931806,7720 E 152802,574	

Nº	COORDENADA UTM	QUADRO DE CURVAS HORIZONTAIS - ACESSO ILE					COORDENADAS (UTM)	PC	COORDENADAS (UTM)	PI	COORDENADAS (UTM)	PT
		AC	R (m)	LC (m)	UV (m)	T (m)						
L35	2797'514,45"	-	-	-	-	25,00	040510,00	040510,00	040510,00	040510,00	040510,00	040510,00
C22	299'35,01"	032°07'29,33"	45	-	25,34	-	040505,00	040505,00	040505,00	040505,00	040505,00	040505,00

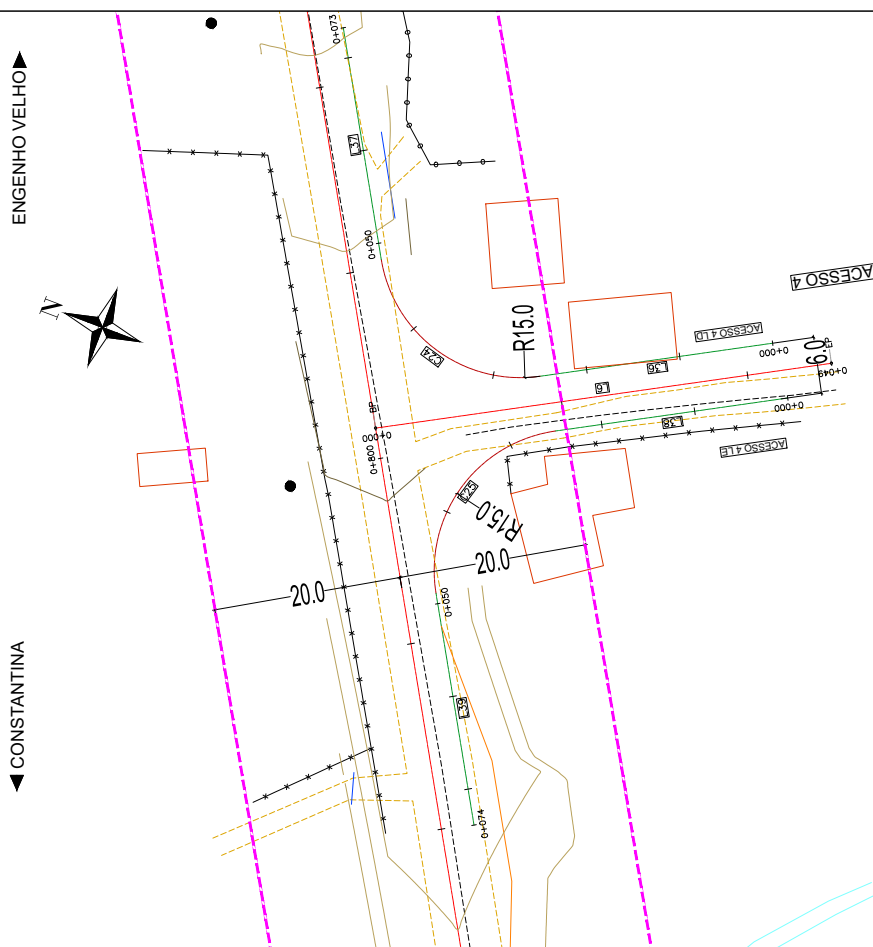
ELEMENTOS GEOMÉTRICOS – ACESSO 3											
Nº	DEFLEXÃO/ (^o)	AC (^o)	R (^o)	L _C (^o)	D (^o)	L (^o)	PC/EC/TE	PT/GE/ET	PC/EC/TE	PI	PT/GE/ET

	ST	DEPARTAMENTO AUTÔNOMO DE ESTRADAS DE RODAGEM	ATE
	ESCALA: H-1:500 V-1:500	RODOVIA: ERS-143 TRECHO: ENTR. ERS-148 - ENGENHO VELHO	REG. Nº: FOLHA: FL-4)
	DATA: DEZ/25	PROJETO GEOMÉTRICO - ACESSO 3 - km 0+644 LOCALIZAÇÃO: R-148	



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QUADRO DE CURVAS HORIZONTAIS - ACESSO 4										
Nº	DEFLEXÃO AZIMUTE	AC	R (m)	LC (m)	DL (m)	T (m)	PC	PT	COORDENADAS (UTM) - PC	COORDENADAS (UTM) - PT
16.	151,7001078 21°				49,02	0,000001	HD49,02	N 1934835,761 E 152662,973	N 1931814,329 E 152698,674	

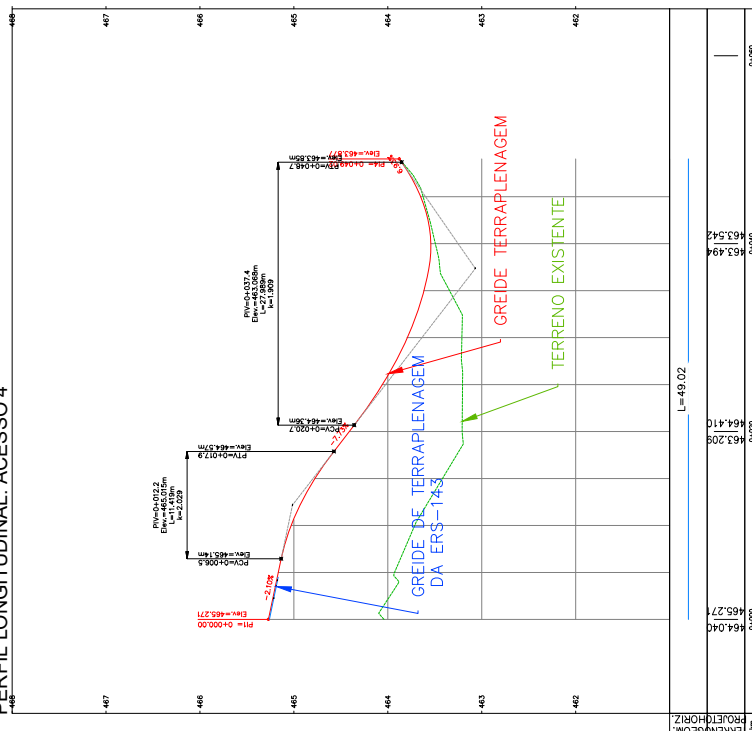
QUADRO DE CURVAS HORIZONTAIS - ACESSO 4 LD										
Nº	DEFLEXÃO AZIMUTE	AC	R (m)	LC (m)	DL (m)	T (m)	PC	PT	COORDENADAS (UTM) - PC	COORDENADAS (UTM) - PT
136	331°09'00" N	1	25,00	140,00	140,00	140,00	1931855,918	1931856,475	N 1931848,879 E 15261,345	N 1931848,879 E 15261,345
137	325°25'29" S	15	23,24	140,00	140,00	140,00	1931848,232	1931848,232	N 1931856,050 E 15260,947	N 1931856,050 E 15260,947
137	095°25'29" S	15	23,24	140,00	140,00	140,00	1931848,232	1931848,232	N 1931856,050 E 15260,947	N 1931856,050 E 15260,947
137	095°25'29" S	15	23,24	140,00	140,00	140,00	1931848,232	1931848,232	N 1931856,050 E 15260,947	N 1931856,050 E 15260,947

QUADRO DE CURVAS HORIZONTAIS - ACESSO 4 E										
Nº	DEFLEXÃO AZIMUTE	AC	R (m)	LC (m)	DL (m)	T (m)	PC	PT	COORDENADAS (UTM) - PC	COORDENADAS (UTM) - PT
L38	331,055083 11°	-	-	25,00	140,00	107,00	N 193812,7274 E 152688,523	N 193812,7274 E 152688,523	N 1938189,7205 E 152662,495	N 1938189,7205 E 152662,495
C15	268° 12' 30"	15°	-	21,88	-	10,00	N 193810,5104 E 152669,450	N 193810,5104 E 152669,450	N 193810,5104 E 152669,450	N 193810,5104 E 152669,450
C16	228° 00' 00"	-	-	-	-	30,00	N 193810,5104 E 152669,450	N 193810,5104 E 152669,450	N 193810,5104 E 152669,450	N 193810,5104 E 152669,450

ST	DEPARTAMENTO AUTÔNOMO DE ESTRADAS DE RODAGEM	ATE
RECALHA	RECALHA ERS-143	RECALHA
TRECHO	TRECHO ENR-143-ENGENHO VELHO	TRECHO
DATA	PROJETO GEOMÉTRICO - ACESSO 4 - em 04/03	DATA
DEZ/20	DEZ/20	DEZ/20



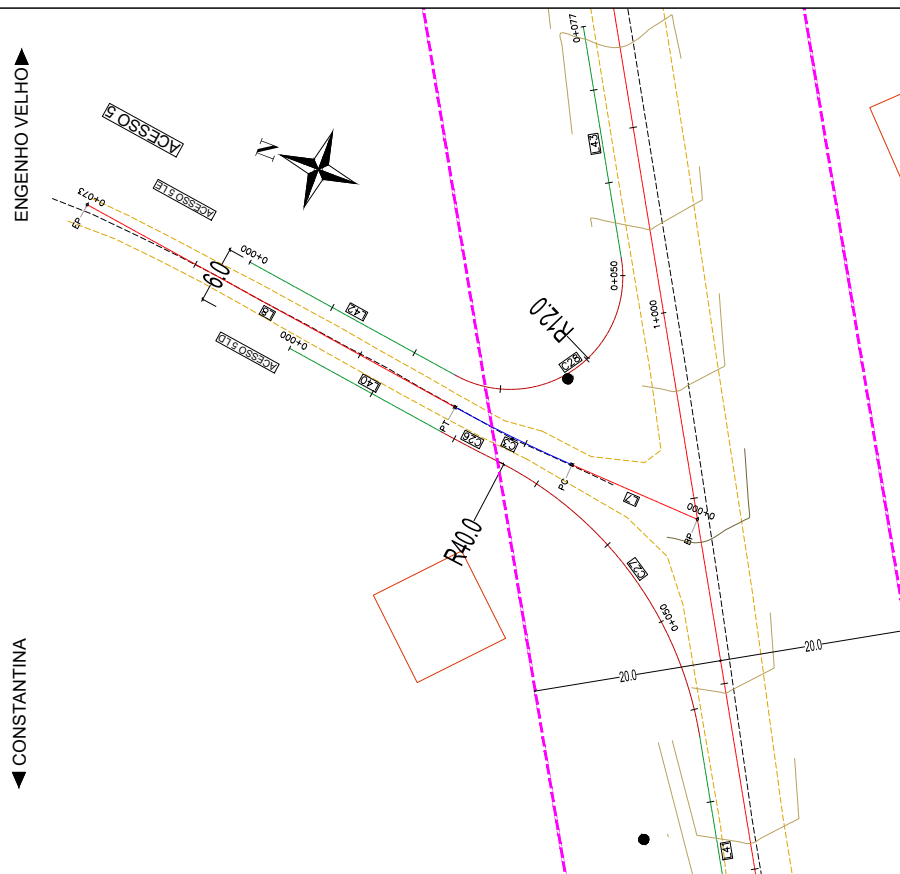
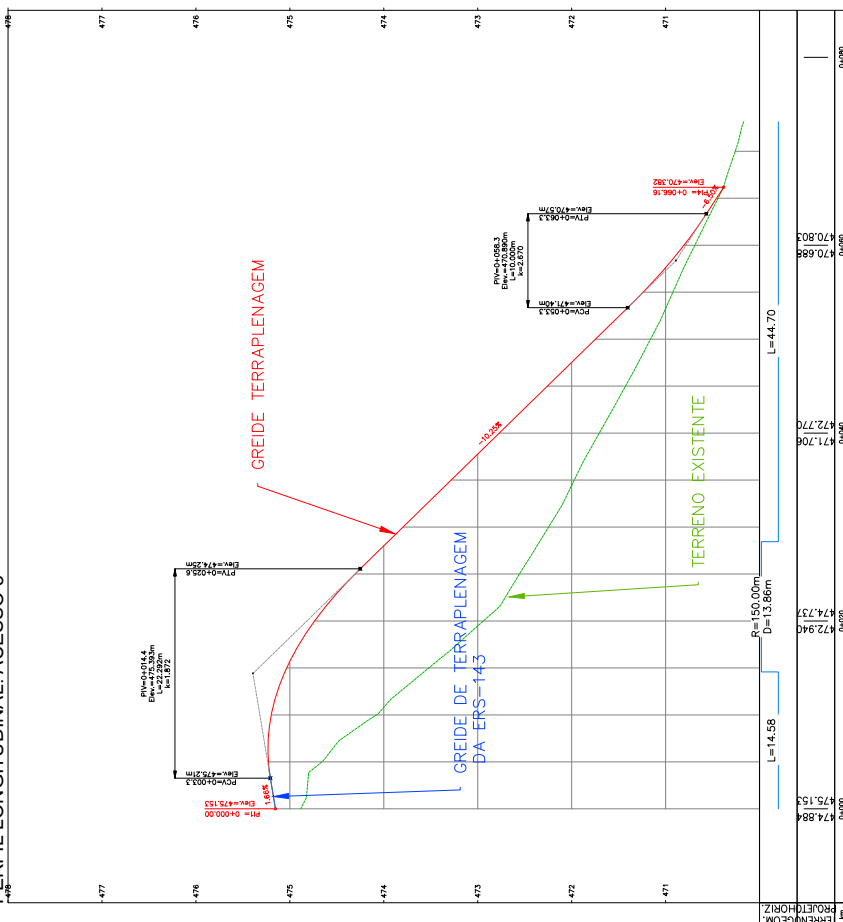
PERFIL LONGITUDINAL: ACESSO 4



ELEMENTOS GEOMÉTRICOS — ACESSO 4

Nº	DEFLEXÃO/AZIMUTE	AC	R (m)	Lc (m)	D (m)	PC/EC/TE	PT/CE/ET	PC/EC/TE
L6	151°09'03.71"	-	-	-	-	0+000.00	0+049.02	N 1931857.261 E 152662.973

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Nº	DEFERIDO ANÁLISE	QUADRO DE CURVAS HORIZONTAIS - ACESSO S									
		AC	R (m)	Lc (m)	D/L (%)	(m)	PC	PT	PC	COORDENADAS (UTM) - PI	COORDENADAS (UTM) - P6
17	007'45,48" N	14,5000	14,5000	14,5000	14,5000	14,5000	14,5000	14,5000	N 193959,240/E 120814,64	N 193959,240/E 120814,64	
18	007'45,48" N	14,5000	14,5000	14,5000	14,5000	14,5000	14,5000	14,5000	N 193959,240/E 120815,075	N 193959,240/E 120815,075	
19	007'45,48" N	14,5000	14,5000	14,5000	14,5000	14,5000	14,5000	14,5000	N 193974,030/E 120815,975	N 193974,030/E 120815,975	
20	008'04,33" N	18,2600	18,2600	18,2600	18,2600	18,2600	18,2600	18,2600	N 193966,165/E 120815,001	N 193966,165/E 120815,001	
21	008'04,33" N	18,2600	18,2600	18,2600	18,2600	18,2600	18,2600	18,2600	N 193974,030/E 120815,975	N 193974,030/E 120815,975	

N°	DEFINICIÓN ZONIFICADA	QUANTO DE CURVAS HORIZONTALES				COORDENADAS UTM-PC				COORDENADAS UTM-PI			
		AC	R (m)	LC (m)	PC	UTM-E	UTM-N	UTM-E	UTM-N	UTM-E	UTM-N	UTM-E	UTM-N
040	1800 x 35,08'			34,47	05401,01	10339,94	237,0	125815,95					
041	2100 x 35,08'			34,47	05401,01	10339,94	237,0	125815,95					
042	1100 x 35,08'			34,47	05401,01	10339,94	237,0	125815,95					
043	1800 x 35,08'			34,47	05401,01	10339,94	237,0	125815,95					
044	2100 x 35,08'			34,47	05401,01	10339,94	237,0	125815,95					
045	1100 x 35,08'			34,47	05401,01	10339,94	237,0	125815,95					
046	1800 x 35,08'			34,47	05401,01	10339,94	237,0	125815,95					
047	2100 x 35,08'			34,47	05401,01	10339,94	237,0	125815,95					
048	1100 x 35,08'			34,47	05401,01	10339,94	237,0	125815,95					
049	1800 x 35,08'			34,47	05401,01	10339,94	237,0	125815,95					
050	2100 x 35,08'			34,47	05401,01	10339,94	237,0	125815,95					
051	1100 x 35,08'			34,47	05401,01	10339,94	237,0	125815,95					
052	1800 x 35,08'			34,47	05401,01	10339,94	237,0	125815,95					
053	2100 x 35,08'			34,47	05401,01	10339,94	237,0	125815,95					
054	1100 x 35,08'			34,47	05401,01	10339,94	237,0	125815,95					
055	1800 x 35,08'			34,47	05401,01	10339,94	237,0	125815,95					
056	2100 x 35,08'			34,47	05401,01	10339,94	237,0	125815,95					
057	1100 x 35,08'			34,47	05401,01	10339,94	237,0	125815,95					
058	1800 x 35,08'			34,47	05401,01	10339,94	237,0	125815,95					
059	2100 x 35,08'			34,47	05401,01	10339,94	237,0	125815,95					
060	1100 x 35,08'			34,47	05401,01	10339,94	237,0	125815,95					
061	1800 x 35,08'			34,47	05401,01	10339,94	237,0	125815,95					
062	2100 x 35,08'			34,47	05401,01	10339,94	237,0	125815,95					
063	1100 x 35,08'			34,47	05401,01	10339,94	237,0	125815,95					
064	1800 x 35,08'			34,47	05401,01	10339,94	237,0	125815,95					
065	2100 x 35,08'			34,47	05401,01	10339,94	237,0	125815,95					
066	1100 x 35,08'			34,47	05401,01	10339,94	237,0	125815,95					
067	1800 x 35,08'			34,47	05401,01	10339,94	237,0	125815,95					
068	2100 x 35,08'			34,47	05401,01	10339,94	237,0	125815,95					
069	1100 x 35,08'			34,47	05401,01	10339,94	237,0	125815,95					
070	1800 x 35,08'			34,47	05401,01	10339,94	237,0	125815,95					

QUANTO DE CURVAS VERTICALES - ACROSS 518													
N°	DEFINICIÓN ZONIFICADA	CURVA VERTICAL				COORDENADAS UTM-PC				COORDENADAS UTM-PI			
		AC	R (m)	LC (m)	PC	UTM-E	UTM-N	UTM-E	UTM-N	UTM-E	UTM-N	UTM-E	UTM-N
071	1800 x 35,08'			34,47	05401,01	10339,94	237,0	125815,95					
072	2100 x 35,08'			34,47	05401,01	10339,94	237,0	125815,95					
073	1100 x 35,08'			34,47	05401,01	10339,94	237,0	125815,95					
074	1800 x 35,08'			34,47	05401,01	10339,94	237,0	125815,95					
075	2100 x 35,08'			34,47	05401,01	10339,94	237,0	125815,95					
076	1100 x 35,08'			34,47	05401,01	10339,94	237,0	125815,95					
077	1800 x 35,08'			34,47	05401,01	10339,94	237,0	125815,95					
078	2100 x 35,08'			34,47	05401,01	10339,94	237,0	125815,95					
079	1100 x 35,08'			34,47	05401,01	10339,94	237,0	125815,95					
080	1800 x 35,08'			34,47	05401,01	10339,94	237,0	125815,95					
081	2100 x 35,08'			34,47	05401,01	10339,94	237,0	125815,95					
082	1100 x 35,08'			34,47	05401,01	10339,94	237,0	125815,95					
083	1800 x 35,08'			34,47	05401,01	10339,94	237,0	125815,95					
084	2100 x 35,08'			34,47	05401,01	10339,94	237,0	125815,95					
085	1100 x 35,08'			34,47	05401,01	10339,94	237,0	125815,95					
086	1800 x 35,08'			34,47	05401,01	10339,94	237,0	125815,95					
087	2100 x 35,08'			34,47	05401,01	10339,94	237,0	125815,95					
088	1100 x 35,08'			34,47	05401,01	10339,94	237,0	125815,95					
089	1800 x 35,08'			34,47	05401,01	10339,94	237,0	125815,95					
090	2100 x 35,08'			34,47	05401,01	10339,94	237,0	125815,95					
091	1100 x 35,08'			34,47	05401,01	10339,94	237,0	125815,95					
092	1800 x 35,08'			34,47	05401,01	10339,94	237,0	125815,95					
093	2100 x 35,08'			34,47	05401,01	10339,94	237,0	125815,95					
094	1100 x 35,08'			34,47	05401,01	10339,94	237,0	125815,95					
095	1800 x 35,08'			34,47	05401,01	10339,94	237,0	125815,95					
096	2100 x 35,08'			34,47	05401,01	10339,94	237,0	125815,95					
097	1100 x 35,08'			34,47	05401,01	10339,94	237,0	125815,95					
098	1800 x 35,08'			34,47	05401,01	10339,94	237,0	125815,95					
099	2100 x 35,08'			34,47	05401,01	10339,94	237,0	125815,95					
100	1100 x 35,08'			34,47	05401,01	10339,94	237,0	125815,95					

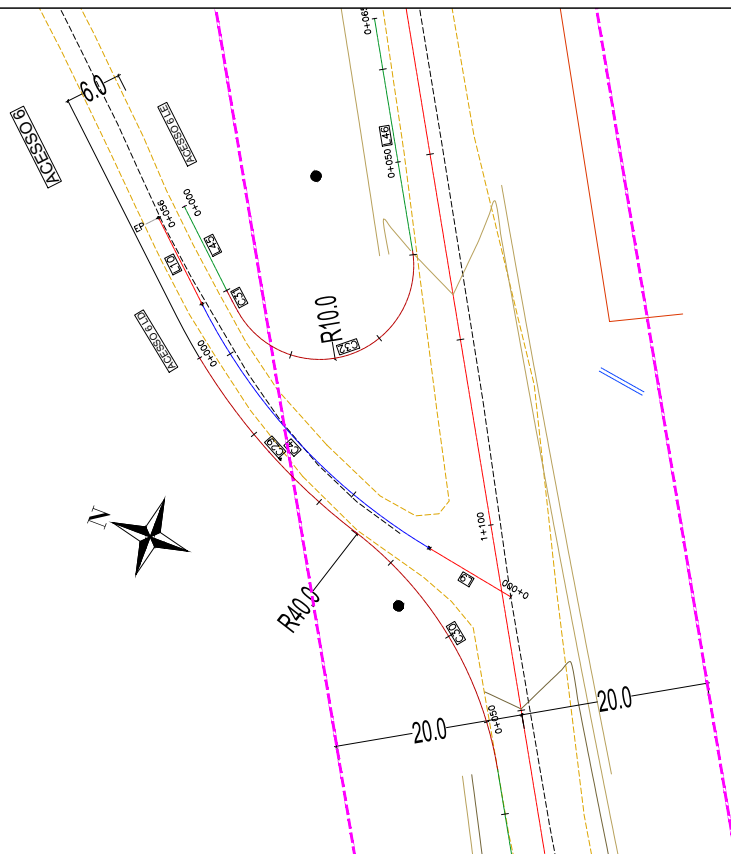
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ST		DEPARTAMENTO AUTÔNOMO DE ESTRADAS DE RODAGEM		REG.		ATE
ESCALA:		RODOVIA: ERS-143		Nº :		
H=1:500						
V=1:50		TRECHO: ENTR. ERS-143 - ENGENHO VELHO				
DATA		PROJETO GEOMÉTRICO - ACESSO 5 - km 0+078		FOLHA:		
DEZ/25		LOCALIZ. - 88.800		FLU(6)		



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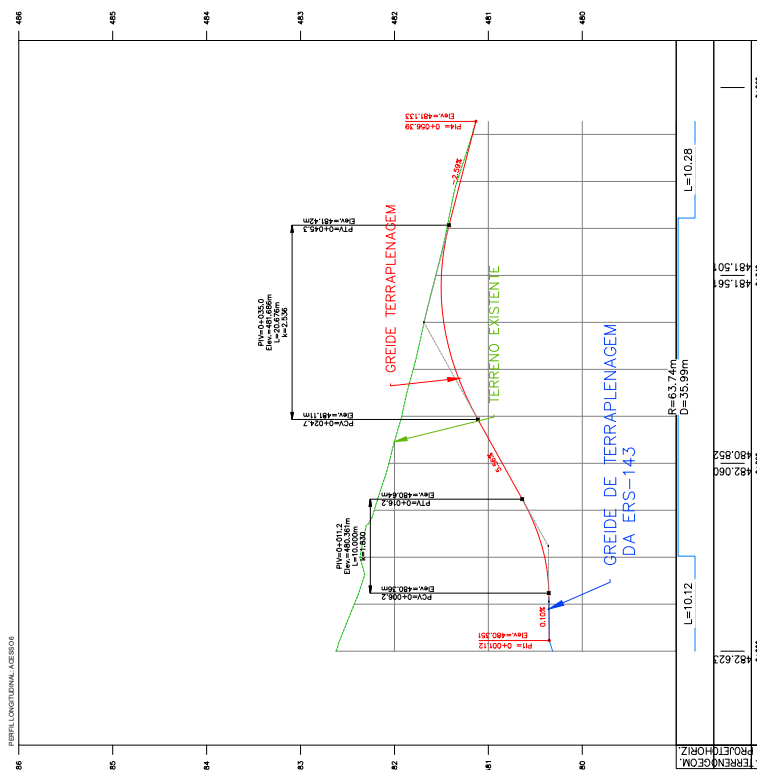


QUADRO DE CURVAS HORIZONTAIS - ACESSO 6									
Nº	DEFLEÇÃO AZIMUTE	AC	R (m)	Lc (m)	D/L (m)	T (m)	PC	PT	COORDENADAS (UTM) - PI
19	010722.00°	-	-	-	-	10,120	0+000,00	0+010,12	N 1932001,249 E 152913,373
C4	026° 17' 50"	037° 20' 56,18"	63,74	-	35,99	18,489	0+010,12	0+046,11	N 1932011,201 E 152915,151
110	04272818,18°	-	-	-	-	18,260	0+046,11	0+066,39	N 1932043,040 E 152930,884

QUADRO DE CURVAS HORIZONTAIS - ACESSO 6 L/D									
Nº	DEFLEÇÃO AZIMUTE	AC	R (m)	Lc (m)	D/L (m)	T (m)	PC	PT	COORDENADAS (UTM) - PI
C59	234° 36' 48"	037° 20' 56,18"	63,74	-	35,99	18,489	0+010,12	0+046,11	N 1932011,201 E 152915,151
144	239° 55' 48,50"	047° 14' 00,55"	40	-	30,18	-	0+066,39	0+096,57	N 1932043,040 E 152930,884

QUADRO DE CURVAS HORIZONTAIS - ACESSO 6 L/E									
Nº	DEFLEÇÃO AZIMUTE	AC	R (m)	Lc (m)	D/L (m)	T (m)	PC	PT	COORDENADAS (UTM) - PI
C31	221° 20' 36"	007° 15' 24,13"	60,74	-	2,39	-	0+066,39	0+068,78	N 1932043,040 E 152930,884
C32	140° 04' 21"	060° 17' 06,13"	10	-	27,97	-	0+068,78	0+096,75	N 1932043,040 E 152930,884

ST	DEPARTAMENTO AUTÔNOMO DE ESTRADAS DE RODAGEM	ATE
REGIAO	RIOGRANDENSE DO SUL	REGIAO
TRECHO	ENTRADA ENGENHO VELHO	TRECHO
DATA	PROJETO GEOMÉTRICO - ACESSO 6 - em 14/03	DATA
DEZ2023	USPAP 14/03	DEZ2023



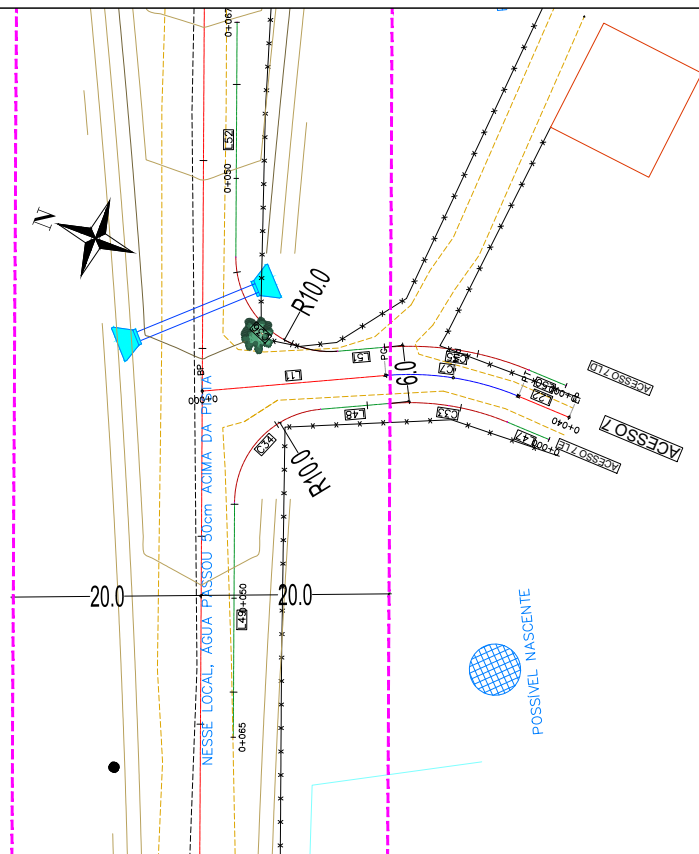


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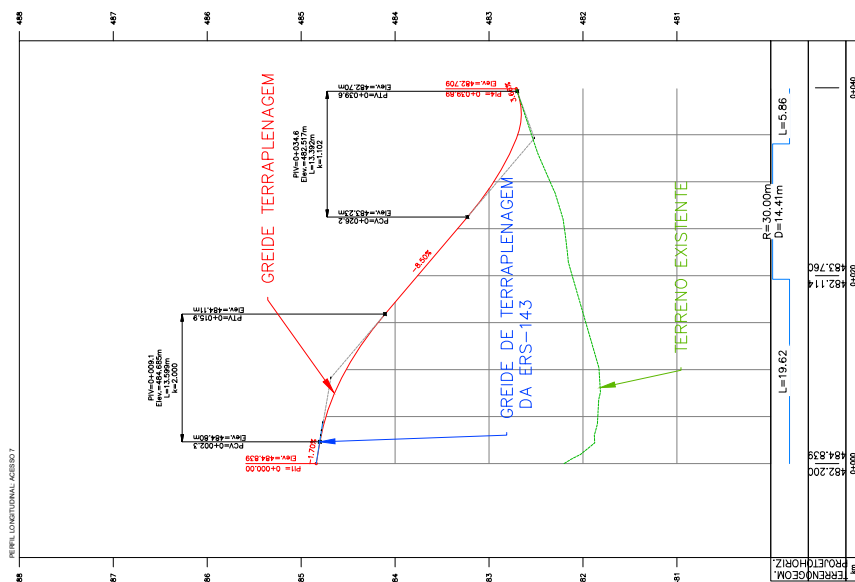
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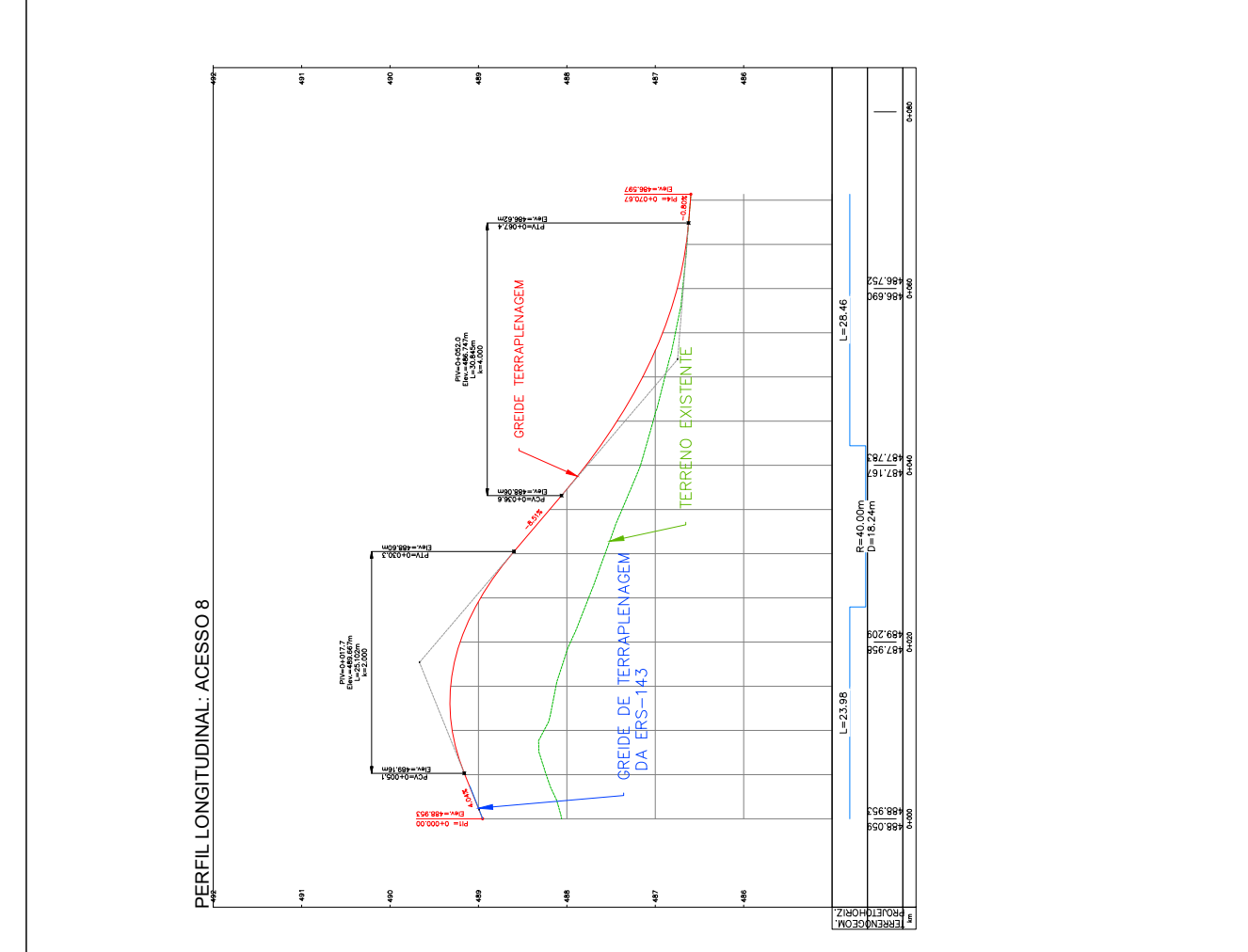
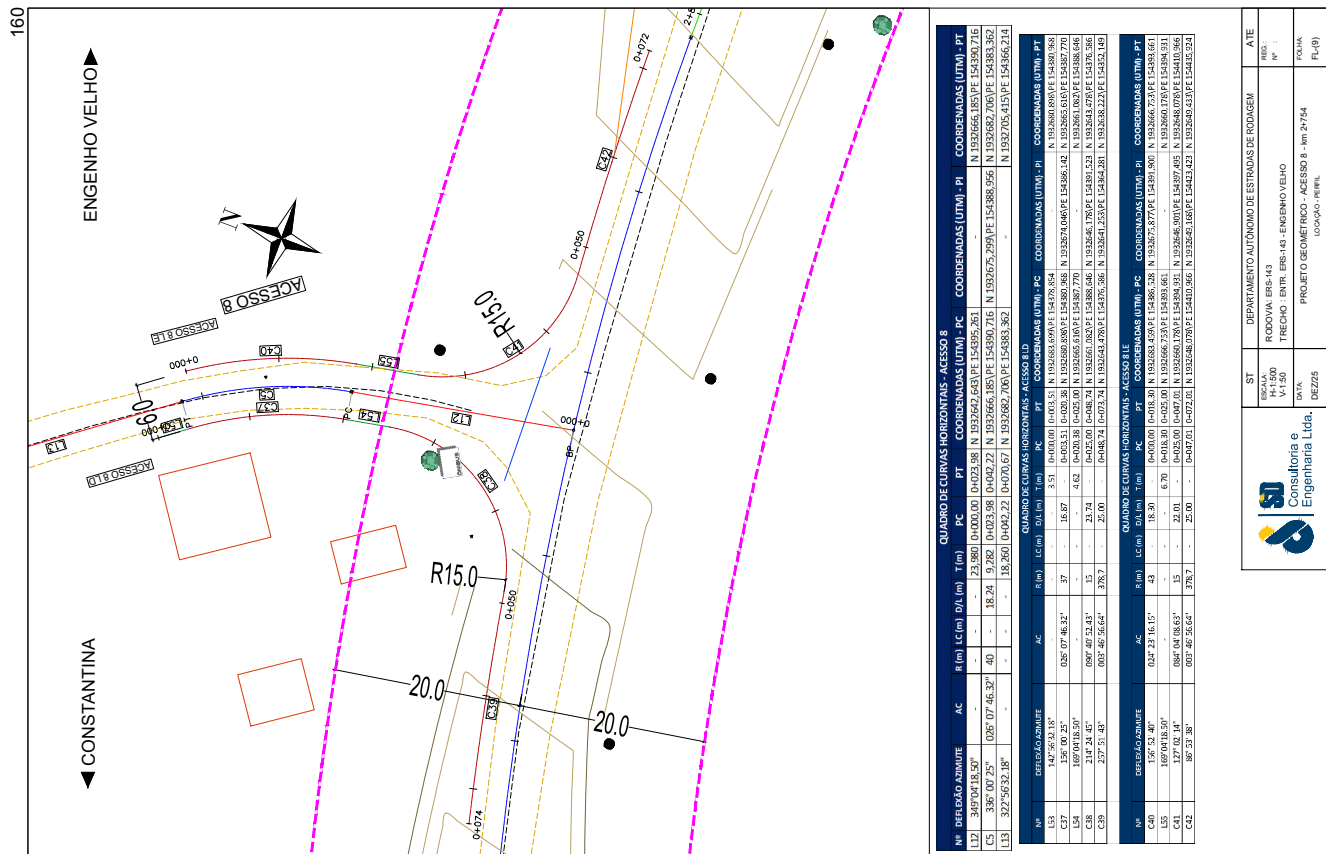
ENGENHO VELHO ▶



QUADRO DE CURVAS HORIZONTAIS - ACESSO 7									
Nº	DIREÇÃO AZIMUTE	AC	R (m)	Lc (m)	D/L (m)	T (m)	PC	PT	COORDENADAS (UTM) - PC
L11	154° 22' 13,95"	-	-	19,620	0,000	0,000	0,000	0,000	N 193224,627 P 153420,405
C7	168° 07' 46"	027° 31' 05,09"	30	14,41	7,346	0,019	0,019	0,019	N 193224,942 P 153428,989
L22	181° 53' 19,04"	-	-	18,260	0,019	0,019	0,019	0,019	N 193225,117 P 153431,652
QUADRO DE CURVAS HORIZONTAIS - ACESSO 71E									
Nº	DIREÇÃO AZIMUTE	AC	R (m)	Lc (m)	D/L (m)	T (m)	PC	PT	COORDENADAS (UTM) - PC
L47	089° 53' 19,04"	-	-	4,79	0,000	0,000	0,000	0,000	N 193226,284 P 153428,688
C34	348° 07' 46"	027° 31' 05,09"	27	14,41	7,346	0,019	0,019	0,019	N 193226,600 P 153436,986
L49	298° 32' 52,91"	-	-	25,00	0,019	0,019	0,019	0,019	N 193226,926 P 153440,563
QUADRO DE CURVAS HORIZONTAIS - ACESSO 71D									
Nº	DIREÇÃO AZIMUTE	AC	R (m)	Lc (m)	D/L (m)	T (m)	PC	PT	COORDENADAS (UTM) - PC
L50	089° 53' 19,04"	-	-	4,77	0,000	0,000	0,000	0,000	N 193226,611 P 153436,702
C35	348° 07' 46"	027° 31' 05,09"	33	15,65	8,000	0,021	0,021	0,021	N 193226,926 P 153440,563
L51	348° 07' 46"	027° 31' 05,09"	33	15,65	8,000	0,021	0,021	0,021	N 193227,242 P 153444,140
L52	069° 32' 52,91"	-	-	25,00	0,021	0,021	0,021	0,021	N 193227,558 P 153447,717

ST	ATE
RECUPERAÇÃO	RECUPERAÇÃO
TRONCO	TRONCO
DEZ/2025	DEZ/2025





QUADRO DE CURVAS HORIZONTAIS - ACESSO 8									
Nº	DEFLEXÃO AZIMUTE	AC	R (m)	LC (m)	D/L (m)	T (m)	PC	PT	COORDENADAS (UTM) - PI
127	349°04'18.50"	-	-	-	-	23.980	D000.00	D003.98	N 1932647.643 E 154930.716
128	349°04'18.50"	0.06° 07' 46.32"	40	18.24	9.282	4.023	D003.98	D004.22	N 1932666.183 E 154930.716
129	349°04'18.50"	-	-	-	-	18.260	D004.22	D007.67	N 1932682.700 E 154930.716
130	349°04'18.50"	-	-	-	-	18.260	D007.67	D010.93	N 1932698.217 E 154930.716
131	349°04'18.50"	-	-	-	-	18.260	D010.93	D014.19	N 1932714.734 E 154930.716
132	349°04'18.50"	-	-	-	-	18.260	D014.19	D017.45	N 1932731.251 E 154930.716
133	349°04'18.50"	-	-	-	-	18.260	D017.45	D020.71	N 1932747.768 E 154930.716
134	349°04'18.50"	-	-	-	-	18.260	D020.71	D023.98	N 1932764.285 E 154930.716
135	349°04'18.50"	-	-	-	-	18.260	D023.98	D027.24	N 1932780.802 E 154930.716
136	349°04'18.50"	-	-	-	-	18.260	D027.24	D030.50	N 1932797.319 E 154930.716
137	349°04'18.50"	-	-	-	-	18.260	D030.50	D033.76	N 1932813.836 E 154930.716
138	349°04'18.50"	-	-	-	-	18.260	D033.76	D037.02	N 1932830.353 E 154930.716
139	349°04'18.50"	-	-	-	-	18.260	D037.02	D040.28	N 1932846.870 E 154930.716
140	349°04'18.50"	-	-	-	-	18.260	D040.28	D043.54	N 1932863.387 E 154930.716
141	349°04'18.50"	-	-	-	-	18.260	D043.54	D046.80	N 1932879.904 E 154930.716
142	349°04'18.50"	-	-	-	-	18.260	D046.80	D050.06	N 1932896.421 E 154930.716
143	349°04'18.50"	-	-	-	-	18.260	D050.06	D053.32	N 1932912.938 E 154930.716
144	349°04'18.50"	-	-	-	-	18.260	D053.32	D056.58	N 1932929.455 E 154930.716
145	349°04'18.50"	-	-	-	-	18.260	D056.58	D059.84	N 1932945.972 E 154930.716
146	349°04'18.50"	-	-	-	-	18.260	D059.84	D063.10	N 1932962.489 E 154930.716
147	349°04'18.50"	-	-	-	-	18.260	D063.10	D066.36	N 1932978.006 E 154930.716
148	349°04'18.50"	-	-	-	-	18.260	D066.36	D069.62	N 1932994.523 E 154930.716
149	349°04'18.50"	-	-	-	-	18.260	D069.62	D072.88	N 1933010.040 E 154930.716
150	349°04'18.50"	-	-	-	-	18.260	D072.88	D076.14	N 1933026.557 E 154930.716
151	349°04'18.50"	-	-	-	-	18.260	D076.14	D079.40	N 1933042.074 E 154930.716
152	349°04'18.50"	-	-	-	-	18.260	D079.40	D082.66	N 1933058.591 E 154930.716
153	349°04'18.50"	-	-	-	-	18.260	D082.66	D085.92	N 1933074.108 E 154930.716
154	349°04'18.50"	-	-	-	-	18.260	D085.92	D089.18	N 1933089.625 E 154930.716
155	349°04'18.50"	-	-	-	-	18.260	D089.18	D092.44	N 1933105.142 E 154930.716
156	349°04'18.50"	-	-	-	-	18.260	D092.44	D095.70	N 1933120.659 E 154930.716
157	349°04'18.50"	-	-	-	-	18.260	D095.70	D098.96	N 1933136.176 E 154930.716
158	349°04'18.50"	-	-	-	-	18.260	D098.96	D102.22	N 1933151.693 E 154930.716
159	349°04'18.50"	-	-	-	-	18.260	D102.22	D105.48	N 1933167.210 E 154930.716
160	349°04'18.50"	-	-	-	-	18.260	D105.48	D108.74	N 1933182.727 E 154930.716
161	349°04'18.50"	-	-	-	-	18.260	D108.74	D112.00	N 1933198.244 E 154930.716
162	349°04'18.50"	-	-	-	-	18.260	D112.00	D115.26	N 1933213.761 E 154930.716
163	349°04'18.50"	-	-	-	-	18.260	D115.26	D118.52	N 1933229.278 E 154930.716
164	349°04'18.50"	-	-	-	-	18.260	D118.52	D121.78	N 1933244.795 E 154930.716
165	349°04'18.50"	-	-	-	-	18.260	D121.78	D125.04	N 1933260.312 E 154930.716
166	349°04'18.50"	-	-	-	-	18.260	D125.04	D128.30	N 1933275.829 E 154930.716
167	349°04'18.50"	-	-	-	-	18.260	D128.30	D131.56	N 1933291.346 E 154930.716
168	349°04'18.50"	-	-	-	-	18.260	D131.56	D134.82	N 1933306.863 E 154930.716
169	349°04'18.50"	-	-	-	-	18.260	D134.82	D138.08	N 1933322.380 E 154930.716
170	349°04'18.50"	-	-	-	-	18.260	D138.08	D141.34	N 1933337.897 E 154930.716
171	349°04'18.50"	-	-	-	-	18.260	D141.34	D144.60	N 1933353.414 E 154930.716
172	349°04'18.50"	-	-	-	-	18.260	D144.60	D147.86	N 1933368.931 E 154930.716
173	349°04'18.50"	-	-	-	-	18.260	D147.86	D151.12	N 1933384.448 E 154930.716
174	349°04'18.50"	-	-	-	-	18.260	D151.12	D154.38	N 1933399.965 E 154930.716
175	349°04'18.50"	-	-	-	-	18.260	D154.38	D157.64	N 1933415.482 E 154930.716
176	349°04'18.50"	-	-	-	-	18.260	D157.64	D160.90	N 1933430.999 E 154930.716
177	349°04'18.50"	-	-	-	-	18.260	D160.90	D164.16	N 1933446.516 E 154930.716
178	349°04'18.50"	-	-	-	-	18.260	D164.16	D167.42	N 1933462.033 E 154930.716
179	349°04'18.50"	-	-	-	-	18.260	D167.42	D170.68	N 1933477.550 E 154930.716
180	349°04'18.50"	-	-	-	-	18.260	D170.68	D173.94	N 1933493.067 E 154930.716
181	349°04'18.50"	-	-	-	-	18.260	D173.94	D177.20	N 1933508.584 E 154930.716
182	349°04'18.50"	-	-	-	-	18.260	D177.20	D180.46	N 1933524.101 E 154930.716
183	349°04'18.50"	-	-	-	-	18.260	D180.46	D183.72	N 1933539.618 E 154930.716
184	349°04'18.50"	-	-	-	-	18.260	D183.72	D186.98	N 1933555.135 E 154930.716
185	349°04'18.50"	-	-	-	-	18.260	D186.98	D190.24	N 1933570.652 E 154930.716
186	349°04'18.50"	-	-	-	-	18.260	D190.24	D193.50	N 1933586.169 E 154930.716
187	349°04'18.50"	-	-	-	-	18.260	D193.50	D196.76	N 1933601.686 E 154930.716
188	349°04'18.50"	-	-	-	-	18.260	D196.76	D200.02	N 1933617.203 E 154930.716
189	349°04'18.50"	-	-	-	-	18.260	D200.02	D203.28	N 1933632.720 E 154930.716
190	349°04'18.50"	-	-	-	-	18.260	D203.28	D206.54	N 1933648.237 E 154930.716
191	349°04'18.50"	-	-	-	-	18.260	D206.54	D209.80	N 1933663.754 E 154930.716
192	349°04'18.50"	-	-	-	-	18.260	D209.80	D213.06	N 1933679.271 E 154930.716
193	349°04'18.50"	-	-	-	-	18.260	D213.06	D216.32	N 1933694.788 E 154930.716
194	349°04'18.50"	-	-	-	-	18.260	D216.32	D219.58	N 1933710.305 E 154930.716
195	349°04'18.50"	-	-	-	-	18.260	D219.58	D222.84	N 1933725.822 E 154930.716
196	349°04'18.50"	-	-	-	-	18.260	D222.84	D226.10	N 1933741.339 E 154930.716
197	349°04'18.50"	-	-	-	-	18.260	D226.10	D229.36	N 1933756.856 E 154930.716
198	349°04'18.50"	-	-	-	-	18.260	D229.36	D232.62	N 1933772.373 E 154930.716
199	349°04'18.50"	-	-	-	-	18.260	D232.62	D235.88	N 1933787.890 E 154930.716
200	349°04'18.50"	-	-	-	-	18.260	D235.88	D239.14	N 1933803.407 E 154930.716
201	349°04'18.50"	-	-	-	-	18.260	D239.14	D242.40	N 1933818.924 E 154930.716
202	349°04'18.50"	-	-	-	-	18.260	D242.40	D245.66	N 1933834.441 E 154930.716
203	349°04'18.50"	-	-	-	-	18.260	D245.66	D248.92	N 1933849.958 E 154930.716
204	349°04'18.50"	-	-	-	-	18.260	D248.92	D252.18	N 1933865.475 E 154930.716
205	349°04'18.50"	-	-	-	-	18.260	D252.18	D255.44	N 1933880.992 E 154930.716
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207	349°04'18.50"	-	-	-	-	18.260	D258.70	D261.96	N 1933912.026 E 154930.716
208	349°04'18.50"	-	-	-	-	18.260	D261.96	D265.22	N 1933927.543 E 154930.716
209	349°04'18.50"	-	-	-	-	18.260	D265.22	D268.48	N 1933943.060 E 154930.716
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212	349°04'18.50"	-	-	-	-	18.260	D275.00	D278.26	N 1933989.611 E 154930.716
213	349°04'18.50"	-	-	-	-	18.260	D278.26	D281.52	N 1934005.128 E 154930.716
214	349°04'18.50"	-	-	-	-	18.260	D281.52	D284.78	N 1934020.645 E 154930.716
215	349°04'18.50"	-	-	-	-	18.260	D284.78	D288.04	N 1934036.162 E 154930.716
216	349°04'18.50"	-	-	-	-	18.260	D288.04	D291.30	N 1934051.679 E 154930.716
217	349°04'18.50"	-	-	-	-	18.260	D291.30	D294.56	N 1934067.196 E 154930.716
218	349°04'18.50"	-	-	-	-	18.260	D294.56	D297.82	N 1934082.713 E 154930.716
219	349°04'18.50"	-	-	-	-	18.260	D297.82	D301.08	N 1934098.230 E 154930.716
220	349°04'18.50"	-	-	-	-	18.260	D301.08	D304.34	N 1934113.747 E 154930.716
221	349°04'18.50"	-	-	-	-	18.260	D304.34	D307.60	N 1934129.264 E 154930.716
222	349°04'18.50"	-	-	-	-	18.260	D307.60	D310.86	N 1934144.781 E 154930.716
223	349°04'18.50"	-	-	-	-	18.260	D310.86	D314.12	N 1934160.298 E 154930.716
224	349°04'18.50"	-	-	-	-	18.260	D314.12	D317.38	N 1934175.815 E 154930.716
225	349°04'18.50"	-	-	-	-	18.260	D317.38	D320.64	N 1934191.332 E 154930.716
226	349°04'18.50"	-	-	-	-	18.260	D320.64	D323.90	N 1934206.849 E 154930.716
227	349°04'18.50"	-	-	-	-	18.260	D323.90	D327.16	N 1934222.366 E 154930.716
228	349°04'18.50"	-	-	-	-	18.260	D327.16	D330.42	N 1934237.883 E 154930.716
229	349°04'18.50"	-	-	-	-	18.260	D330.42	D333.68	N 1934253.400 E 154930.716
230	349°04'18.50"	-	-	-	-	18.260	D333.68	D336.94	N 1934268.917 E 154930.716
231	349°04'18.50"	-	-	-	-	18.260	D336.94	D340.20	N 1934284.434 E 154930.716
232	349°04'18.50"	-	-	-	-	18.260	D340.20	D343.46	N 1934299.951 E 154930.716
233	349°04'18.50"	-	-	-	-	18.260	D343.46	D346.72	N 1934315.468 E 154930.716
234	349°04'18.50"	-	-	-	-	18.260	D346.72	D349.98	N 1934330.985 E 154930.716
235	349°04'18.50"	-	-	-	-	18.260	D349.98	D353.24	N 1934346.502 E 154930.716
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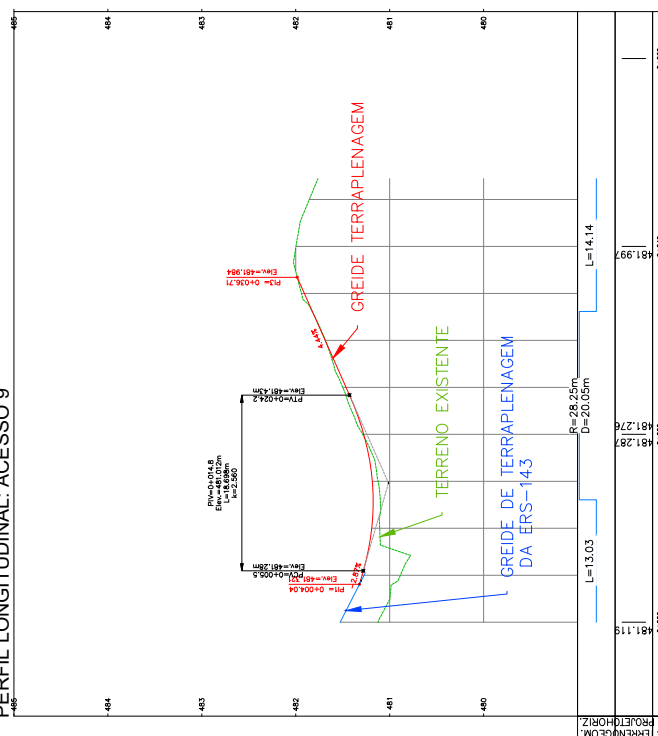
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CONSTANTINA

ENGENHO VELHO



PERFIL LONGITUDINAL: ACESSO 9



QUADRO DE CURVAS HORIZONTAIS - ACESSO 9									
Nº	DELEÇÃO ADJUNTA	AC	R (m)	LC (m)	DL (m)	T (m)	PC	PT	COORDENADAS (UTM) - PC
L18	152° 19' 36,77"	040° 39' 46,89"	28,25	-	20,05	13,03	04000,00	04013,03	N 1932643,830/E 154511,852
L19	177° 39' 39"	040° 39' 46,89"	28,25	-	20,05	10,468	04013,03	04033,08	N 1932652,229/E 154511,852
L20	327° 36' 32,38"	-	-	-	-	18,260	04033,08	04047,22	N 1932612,828/E 154514,361
QUADRO DE CURVAS HORIZONTAIS - ACESSO 10									
Nº	DELEÇÃO ADJUNTA	AC	R (m)	LC (m)	DL (m)	T (m)	PC	PT	COORDENADAS (UTM) - PC
L21	102° 59' 23,65"	025° 58' 32,27"	31,25	-	14,00	11,09	04047,22	04058,31	N 1932637,989/E 154518,886
L22	352° 38' 38"	025° 58' 32,27"	31,25	-	14,00	04058,31	04072,31	04086,31	N 1932637,989/E 154518,886
L23	352° 38' 38"	025° 58' 32,27"	31,25	-	14,00	04086,31	04100,31	04114,31	N 1932637,989/E 154518,886
L24	352° 38' 38"	025° 58' 32,27"	31,25	-	14,00	04114,31	04128,31	04142,31	N 1932637,989/E 154518,886
L25	352° 38' 38"	025° 58' 32,27"	31,25	-	14,00	04142,31	04156,31	04170,31	N 1932637,989/E 154518,886
L26	352° 38' 38"	025° 58' 32,27"	31,25	-	14,00	04170,31	04184,31	04198,31	N 1932637,989/E 154518,886
L27	352° 38' 38"	025° 58' 32,27"	31,25	-	14,00	04198,31	04212,31	04226,31	N 1932637,989/E 154518,886
L28	352° 38' 38"	025° 58' 32,27"	31,25	-	14,00	04226,31	04240,31	04254,31	N 1932637,989/E 154518,886
L29	352° 38' 38"	025° 58' 32,27"	31,25	-	14,00	04254,31	04268,31	04282,31	N 1932637,989/E 154518,886
L30	352° 38' 38"	025° 58' 32,27"	31,25	-	14,00	04282,31	04296,31	04310,31	N 1932637,989/E 154518,886
L31	352° 38' 38"	025° 58' 32,27"	31,25	-	14,00	04310,31	04324,31	04338,31	N 1932637,989/E 154518,886
L32	352° 38' 38"	025° 58' 32,27"	31,25	-	14,00	04338,31	04352,31	04366,31	N 1932637,989/E 154518,886
L33	352° 38' 38"	025° 58' 32,27"	31,25	-	14,00	04366,31	04380,31	04394,31	N 1932637,989/E 154518,886
L34	352° 38' 38"	025° 58' 32,27"	31,25	-	14,00	04394,31	04408,31	04422,31	N 1932637,989/E 154518,886
L35	352° 38' 38"	025° 58' 32,27"	31,25	-	14,00	04422,31	04436,31	04450,31	N 1932637,989/E 154518,886
L36	352° 38' 38"	025° 58' 32,27"	31,25	-	14,00	04450,31	04464,31	04478,31	N 1932637,989/E 154518,886
L37	352° 38' 38"	025° 58' 32,27"	31,25	-	14,00	04478,31	04492,31	04506,31	N 1932637,989/E 154518,886
L38	352° 38' 38"	025° 58' 32,27"	31,25	-	14,00	04506,31	04520,31	04534,31	N 1932637,989/E 154518,886
L39	352° 38' 38"	025° 58' 32,27"	31,25	-	14,00	04534,31	04548,31	04562,31	N 1932637,989/E 154518,886
L40	352° 38' 38"	025° 58' 32,27"	31,25	-	14,00	04562,31	04576,31	04590,31	N 1932637,989/E 154518,886
L41	352° 38' 38"	025° 58' 32,27"	31,25	-	14,00	04590,31	04604,31	04618,31	N 1932637,989/E 154518,886
L42	352° 38' 38"	025° 58' 32,27"	31,25	-	14,00	04618,31	04632,31	04646,31	N 1932637,989/E 154518,886
L43	352° 38' 38"	025° 58' 32,27"	31,25	-	14,00	04646,31	04660,31	04674,31	N 1932637,989/E 154518,886
L44	352° 38' 38"	025° 58' 32,27"	31,25	-	14,00	04674,31	04688,31	04702,31	N 1932637,989/E 154518,886
L45	352° 38' 38"	025° 58' 32,27"	31,25	-	14,00	04702,31	04716,31	04730,31	N 1932637,989/E 154518,886
L46	352° 38' 38"	025° 58' 32,27"	31,25	-	14,00	04730,31	04744,31	04758,31	N 1932637,989/E 154518,886
L47	352° 38' 38"	025° 58' 32,27"	31,25	-	14,00	04758,31	04772,31	04786,31	N 1932637,989/E 154518,886
L48	352° 38' 38"	025° 58' 32,27"	31,25	-	14,00	04786,31	04800,31	04814,31	N 1932637,989/E 154518,886
L49	352° 38' 38"	025° 58' 32,27"	31,25	-	14,00	04814,31	04828,31	04842,31	N 1932637,989/E 154518,886
L50	352° 38' 38"	025° 58' 32,27"	31,25	-	14,00	04842,31	04856,31	04870,31	N 1932637,989/E 154518,886
L51	352° 38' 38"	025° 58' 32,27"	31,25	-	14,00	04870,31	04884,31	04898,31	N 1932637,989/E 154518,886
L52	352° 38' 38"	025° 58' 32,27"	31,25	-	14,00	04898,31	04912,31	04926,31	N 1932637,989/E 154518,886
L53	352° 38' 38"	025° 58' 32,27"	31,25	-	14,00	04926,31	04940,31	04954,31	N 1932637,989/E 154518,886
L54	352° 38' 38"	025° 58' 32,27"	31,25	-	14,00	04954,31	04968,31	04982,31	N 1932637,989/E 154518,886
L55	352° 38' 38"	025° 58' 32,27"	31,25	-	14,00	04982,31	04996,31	05010,31	N 1932637,989/E 154518,886
L56	352° 38' 38"	025° 58' 32,27"	31,25	-	14,00	05010,31	05024,31	05038,31	N 1932637,989/E 154518,886
L57	352° 38' 38"	025° 58' 32,27"	31,25	-	14,00	05038,31	05052,31	05066,31	N 1932637,989/E 154518,886
L58	352° 38' 38"	025° 58' 32,27"	31,25	-	14,00	05066,31	05080,31	05094,31	N 1932637,989/E 154518,886
L59	352° 38' 38"	025° 58' 32,27"	31,25	-	14,00	05094,31	05108,31	05122,31	N 1932637,989/E 154518,886
L60	352° 38' 38"	025° 58' 32,27"	31,25	-	14,00	05122,31	05136,31	05150,31	N 1932637,989/E 154518,886
L61	352° 38' 38"	025° 58' 32,27"	31,25	-	14,00	05150,31	05164,31	05178,31	N 1932637,989/E 154518,886
L62	352° 38' 38"	025° 58' 32,27"	31,25	-	14,00	05178,31	05192,31	05206,31	N 1932637,989/E 154518,886
L63	352° 38' 38"	025° 58' 32,27"	31,25	-	14,00	05206,31	05220,31	05234,31	N 1932637,989/E 154518,886
L64	352° 38' 38"	025° 58' 32,27"	31,25	-	14,00	05234,31	05248,31	05262,31	N 1932637,989/E 154518,886
L65	352° 38' 38"	025° 58' 32,27"	31,25	-	14,00	05262,31	05276,31	05290,31	N 1932637,989/E 154518,886
L66	352° 38' 38"	025° 58' 32,27"	31,25	-	14,00	05290,31	05304,31	05318,31	N 1932637,989/E 154518,886
L67	352° 38' 38"	025° 58' 32,27"	31,25	-	14,00	05318,31	05332,31	05346,31	N 1932637,989/E 154518,886
L68	352° 38' 38"	025° 58' 32,27"	31,25	-	14,00	05346,31	05360,31	05374,31	N 1932637,989/E 154518,886
L69	352° 38' 38"	025° 58' 32,27"	31,25	-	14,00	05374,31	05388,31	05402,31	N 1932637,989/E 154518,886
L70	352° 38' 38"	025° 58' 32,27"	31,25	-	14,00	05402,31	05416,31	05430,31	N 1932637,989/E 154518,886
L71	352° 38' 38"	025° 58' 32,27"	31,25	-	14,00	05430,31	05444,31	05458,31	N 1932637,989/E 154518,886
L72	352° 38' 38"	025° 58' 32,27"	31,25	-	14,00	05458,31	05472,31	05486,31	N 1932637,989/E 154518,886
L73	352° 38' 38"	025° 58' 32,27"	31,25	-	14,00	05486,31	05500,31	05514,31	N 1932637,989/E 154518,886
L74	352° 38' 38"	025° 58' 32,27"	31,25	-	14,00	05514,31	05528,31	05542,31	N 1932637,989/E 154518,886
L75	352° 38' 38"	025° 58' 32,27"	31,25	-	14,00	05542,31	05556,31	05570,31	N 1932637,989/E 154518,886
L76	352° 38' 38"	025° 58' 32,27"	31,25	-	14,00	05570,31	05584,31	05598,31	N 1932637,989/E 154518,886
L77	352° 38' 38"	025° 58' 32,27"	31,25	-	14,00	05598,31	05612,31	05626,31	N 1932637,989/E 154518,886
L78	352° 38' 38"	025° 58' 32,27"	31,25	-	14,00	05626,31	05640,31	05654,31	N 1932637,989/E 154518,886
L79	352° 38' 38"	025° 58' 32,27"	31,25	-	14,00	05654,31	05668,31	05682,31	N 1932637,989/E 154518,886
L80	352° 38' 38"	025° 58' 32,27"	31,25	-	14,00	05682,31	05696,31	05710,31	N 1932637,989/E 154518,886
L81	352° 38' 38"	025° 58' 32,27"	31,25	-	14,00	05710,31	05724,31	05738,31	N 1932637,989/E 154518,886
L82	352° 38' 38"	025° 58' 32,27"	31,25	-	14,00	05738,31	05752,31	05766,31	N 1932637,989/E 154518,886
L83	352° 38' 38"	025° 58' 32,27"	31,25	-	14,00	05766,31	05780,31	05794,31	N 1932637,989/E 154518,886
L84	352° 38' 38"	025° 58' 32,27"	31,25	-	14,00	05794,31	05808,31	05822,31	N 1932637,989/E 154518,886
L85	352° 38' 38"	025° 58' 32,27"	31,25	-	14,00	05822,31	05836,31	05850,31	N 1932637,989/E 154518,886
L86	352° 38' 38"	025° 58' 32,27"	31,25	-	14,00	05850,31	05864,31	05878,31	N 1932637,989/E 154518,886
L87	352° 38' 38"	025° 58' 32,27"	31,25	-	14,00	05878,31	05892,31	05906,31	N 1932637,989/E 154518,886
L88	352° 38' 38"	025° 58' 32,27"	31,25	-	14,00	05906,31	05920,31	05934,31	N 1932637,989/E 154518,886
L89	352° 38' 38"	025° 58' 32,27"	31,25	-	14,00	05934,31	05948,31	05962,31	N 1932637,989/E 154518,886
L90	352° 38' 38"	025° 58' 32,27"	31,25	-	14,00	05962,31	05976,31	05990,31	N 1932637,989/E 154518,886
L91	352° 38' 38"	025° 58' 32,27"	31,25	-	14,00	05990,31	06004,31	06018,31	N 1932637,989/E 154518,886
L92	352° 38' 38"	025° 58' 32,27"	31,25	-	14,00	06018,31	06032,31	06046,31	N 1932637,989/E 154518,886
L93	352° 38' 38"	025° 58' 32,27"	31,25	-	14,00	06046,31	06060,31	06074,31	N 1932637,989/E 154518,886
L94	352° 38' 38"	025° 58' 32,27"	31,25	-	14,00	06074,31	06088,31	06102,31	N 1932637,989/E 154518,886
L95	352° 38' 38"	025° 58' 32,27"	31,25	-	14,00	06102,31	06116,31	06130,31	N 1932637,989/E 154518,886
L96	352° 38' 38"	025° 58' 32,27"	31,25	-	14,00	06130,31	06144,31	06158,31	N 1932637,989/E 154518,886
L97	352° 38' 38"	025° 58' 32,27"	31,25	-	14,00	06158,31	06172,31	06186,31	N 1932637,989/E 154518,886
L98	352° 38' 38"	025° 58' 32,27"	31,25	-	14,00	06186,31	06200,31	06214,31	N 1932637,989/E 154518,886
L99	352° 38' 38"	025° 58' 32,27"	31,25	-	14,00	06214,31	06228,31	06242,31	N 1932637,989/E 154518,88

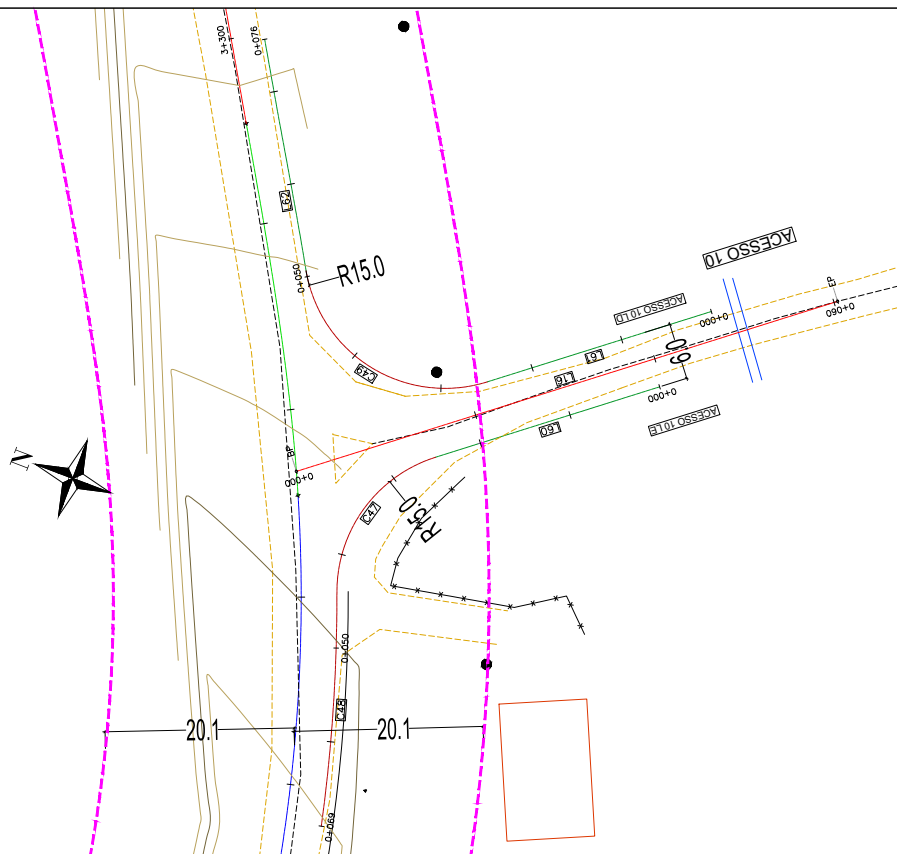


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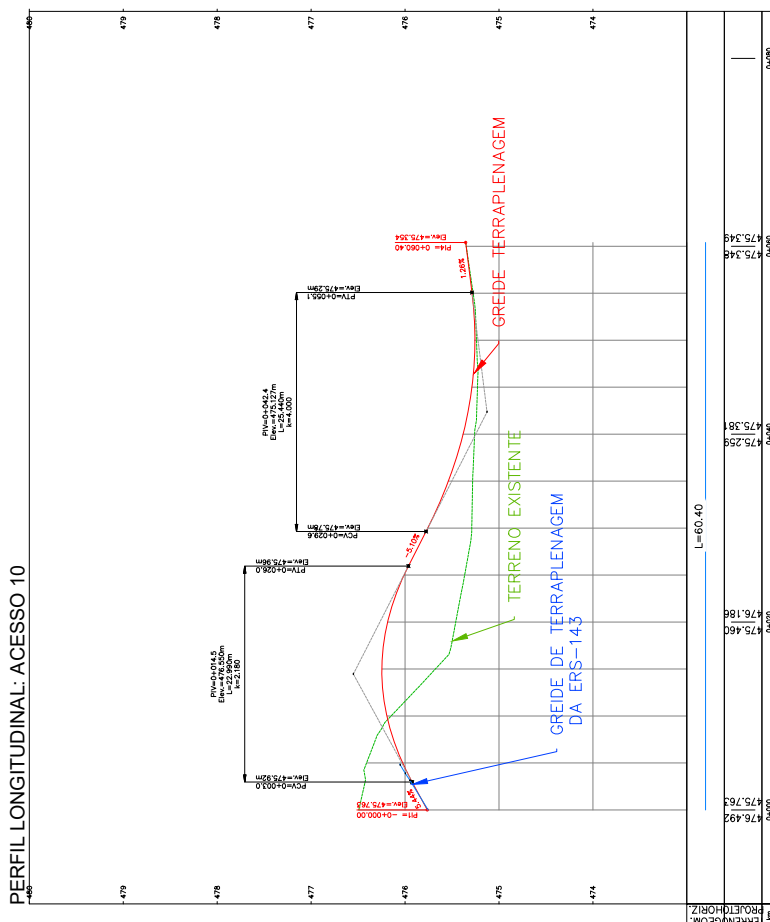
ENGENHO VELHO ▶



QUADRO DE CURVAS HORIZONTAIS - ACESSO 10									
Nº	DEFINIÇÃO ADMITIR	AC	R (m)	LC (m)	Δ (m)	T (m)	PC	PT	COORDENADAS (UTM) - PC
161	131° 48' 03,13"	0,000,00	15,00	15,00	0,000,00	0,000,00	15,000,00	15,000,00	15,000,00
162	131° 48' 03,13"	0,000,00	15,00	15,00	0,000,00	0,000,00	15,000,00	15,000,00	15,000,00

QUADRO DE CURVAS HORIZONTAIS - ACESSO 11									
Nº	DEFINIÇÃO ADMITIR	AC	R (m)	LC (m)	Δ (m)	T (m)	PC	PT	COORDENADAS (UTM) - PC
163	131° 48' 03,13"	0,000,00	15,00	15,00	0,000,00	0,000,00	15,000,00	15,000,00	15,000,00
164	131° 48' 03,13"	0,000,00	15,00	15,00	0,000,00	0,000,00	15,000,00	15,000,00	15,000,00

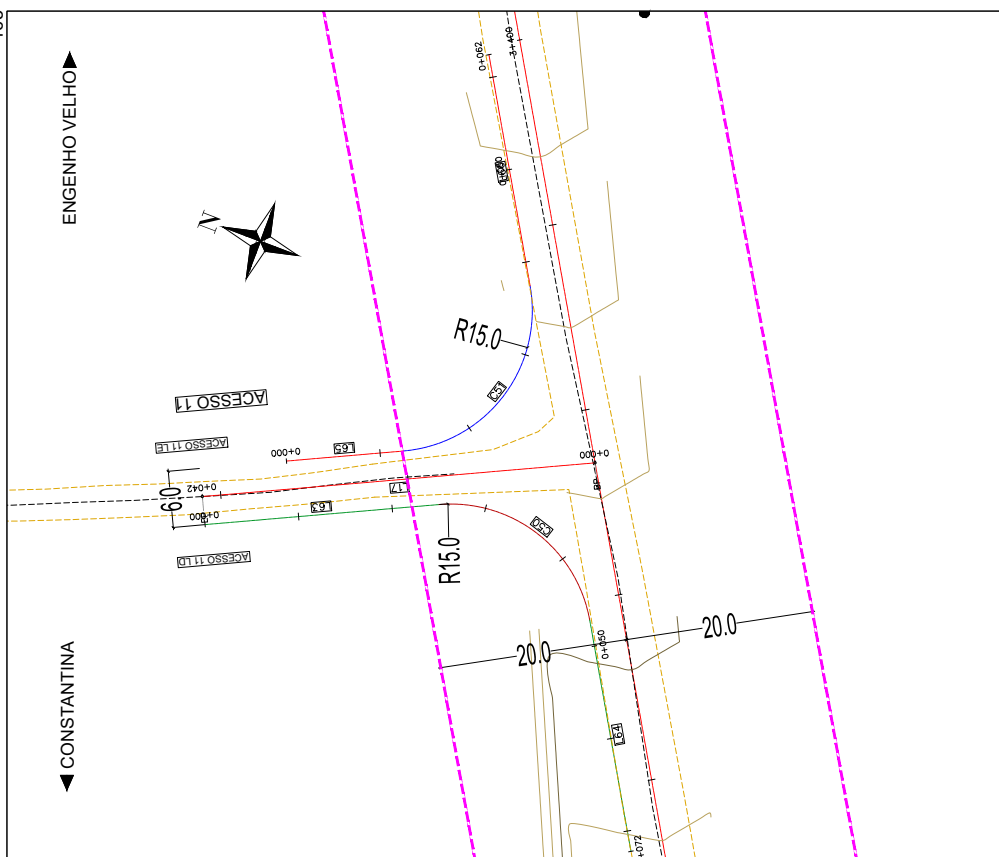
ST	DEPARTAMENTO AUTÔNOMO DE ESTRADAS DE RODAGEM
RECADA	RECADA ERS-143
TRECHO	TRECHO ENTR. ERS-143 - ENGENHO VELHO
DATA	02/2025
PROJETO	PROJETO GEOMÉTRICO - ACESSO 10 - km 3+253
FOLHA	FOLHA
FECHAMENTO	FECHAMENTO





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QUADRO DE CURVAS HORIZONTAIS - ACESSO 11									
Nº	DEFINIÇÃO ANTE	AC	R (m)	LC (m)	Δ (m)	PC	COORDENADAS (UTM) - PC	COORDENADAS (UTM) - PI	COORDENADAS (UTM) - PT
11.1	234°20'56.17"	-	-	-	-	0+000.00	0+000.00	0+000.00	0+000.00

QUADRO DE CURVAS HORIZONTAIS - ACESSO 11LD									
Nº	DEFINIÇÃO ANTE	AC	R (m)	LC (m)	Δ (m)	PC	COORDENADAS (UTM) - PC	COORDENADAS (UTM) - PI	COORDENADAS (UTM) - PT
11.1LD	234°20'56.17"	-	-	-	-	0+000.00	0+000.00	0+000.00	0+000.00

QUADRO DE CURVAS HORIZONTAIS - ACESSO 11									
Nº	DEFINIÇÃO ANTE	AC	R (m)	LC (m)	Δ (m)	PC	COORDENADAS (UTM) - PC	COORDENADAS (UTM) - PI	COORDENADAS (UTM) - PT
11.1	234°20'56.17"	-	-	-	-	0+000.00	0+000.00	0+000.00	0+000.00

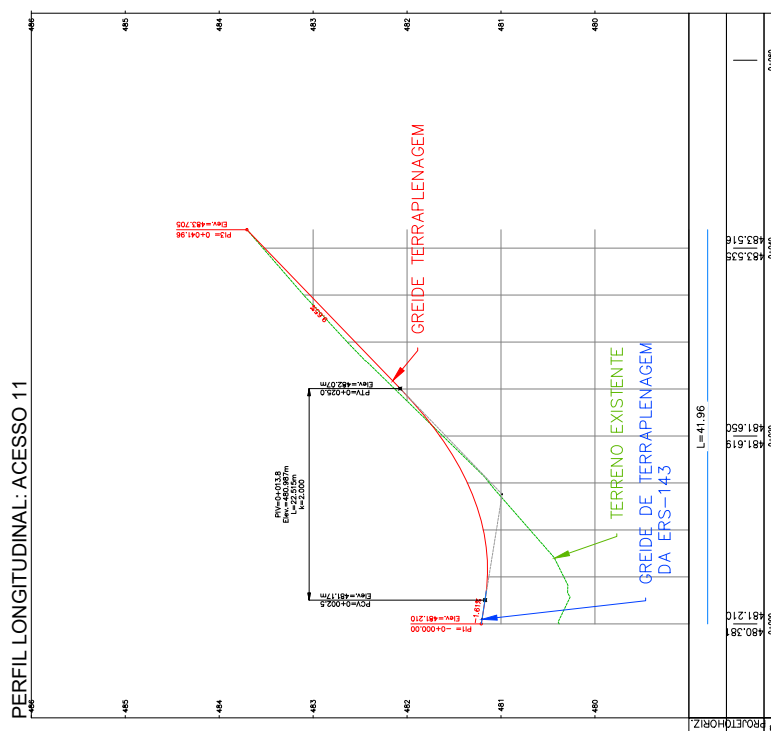
QUADRO DE CURVAS HORIZONTAIS - ACESSO 11LD									
Nº	DEFINIÇÃO ANTE	AC	R (m)	LC (m)	Δ (m)	PC	COORDENADAS (UTM) - PC	COORDENADAS (UTM) - PI	COORDENADAS (UTM) - PT
11.1LD	234°20'56.17"	-	-	-	-	0+000.00	0+000.00	0+000.00	0+000.00

QUADRO DE CURVAS HORIZONTAIS - ACESSO 11									
Nº	DEFINIÇÃO ANTE	AC	R (m)	LC (m)	Δ (m)	PC	COORDENADAS (UTM) - PC	COORDENADAS (UTM) - PI	COORDENADAS (UTM) - PT
11.1	234°20'56.17"	-	-	-	-	0+000.00	0+000.00	0+000.00	0+000.00

QUADRO DE CURVAS HORIZONTAIS - ACESSO 11LD									
Nº	DEFINIÇÃO ANTE	AC	R (m)	LC (m)	Δ (m)	PC	COORDENADAS (UTM) - PC	COORDENADAS (UTM) - PI	COORDENADAS (UTM) - PT
11.1LD	234°20'56.17"	-	-	-	-	0+000.00	0+000.00	0+000.00	0+000.00

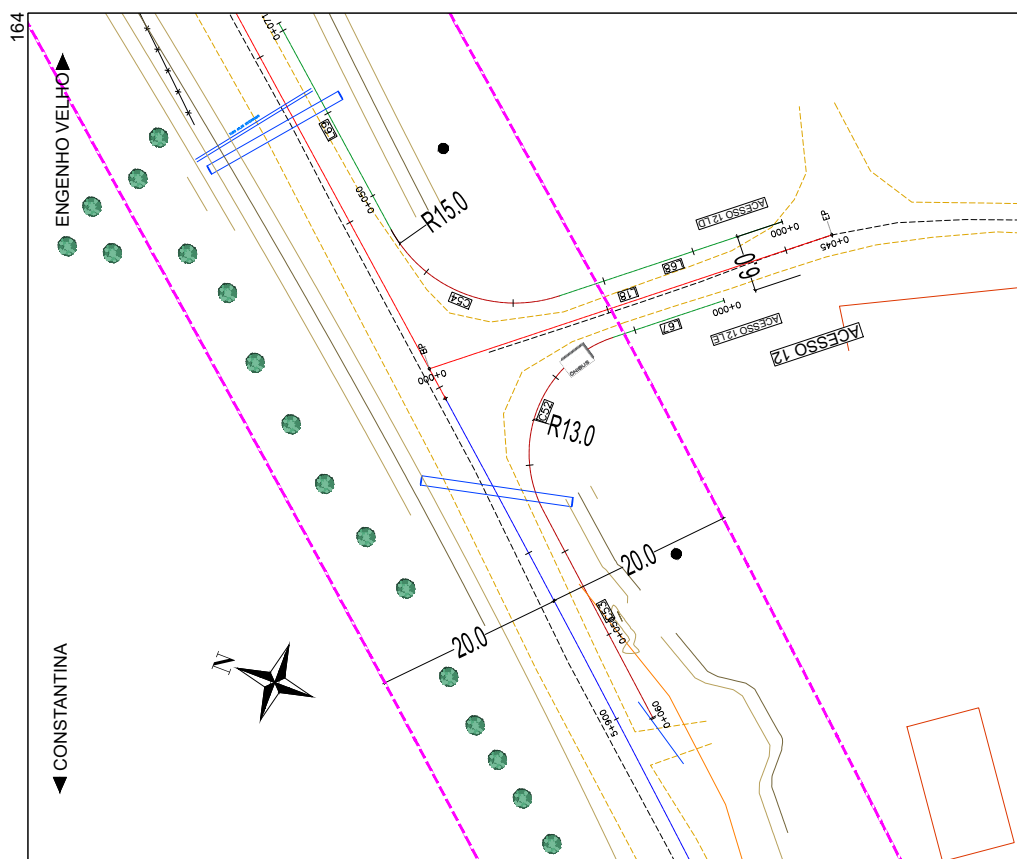
QUADRO DE CURVAS HORIZONTAIS - ACESSO 11									
Nº	DEFINIÇÃO ANTE	AC	R (m)	LC (m)	Δ (m)	PC	COORDENADAS (UTM) - PC	COORDENADAS (UTM) - PI	COORDENADAS (UTM) - PT
11.1	234°20'56.17"	-	-	-	-	0+000.00	0+000.00	0+000.00	0+000.00

QUADRO DE CURVAS HORIZONTAIS - ACESSO 11LD									
Nº	DEFINIÇÃO ANTE	AC	R (m)	LC (m)	Δ (m)	PC	COORDENADAS (UTM) - PC	COORDENADAS (UTM) - PI	COORDENADAS (UTM) - PT
11.1LD	234°20'56.17"	-	-	-	-	0+000.00	0+000.00	0+000.00	0+000.00





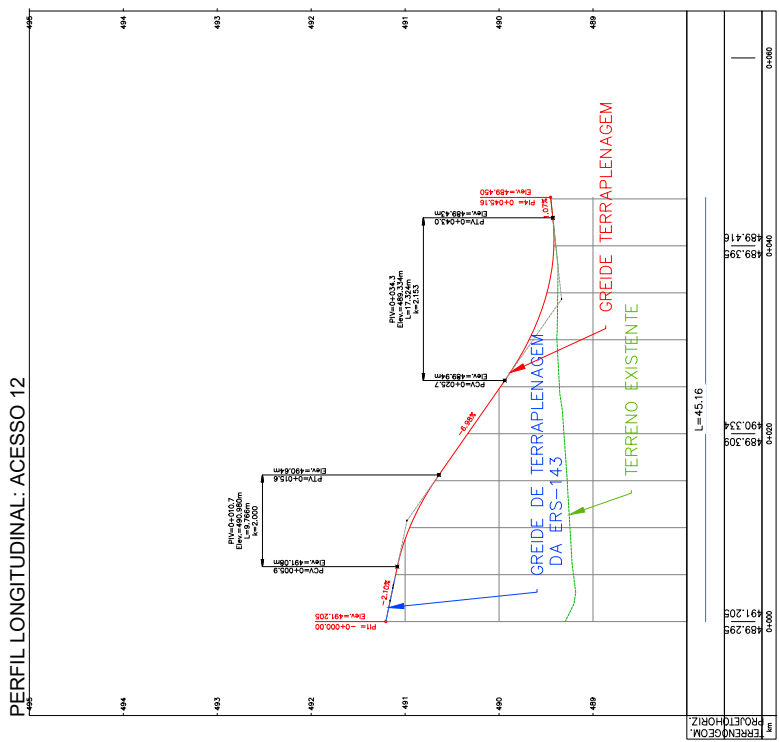
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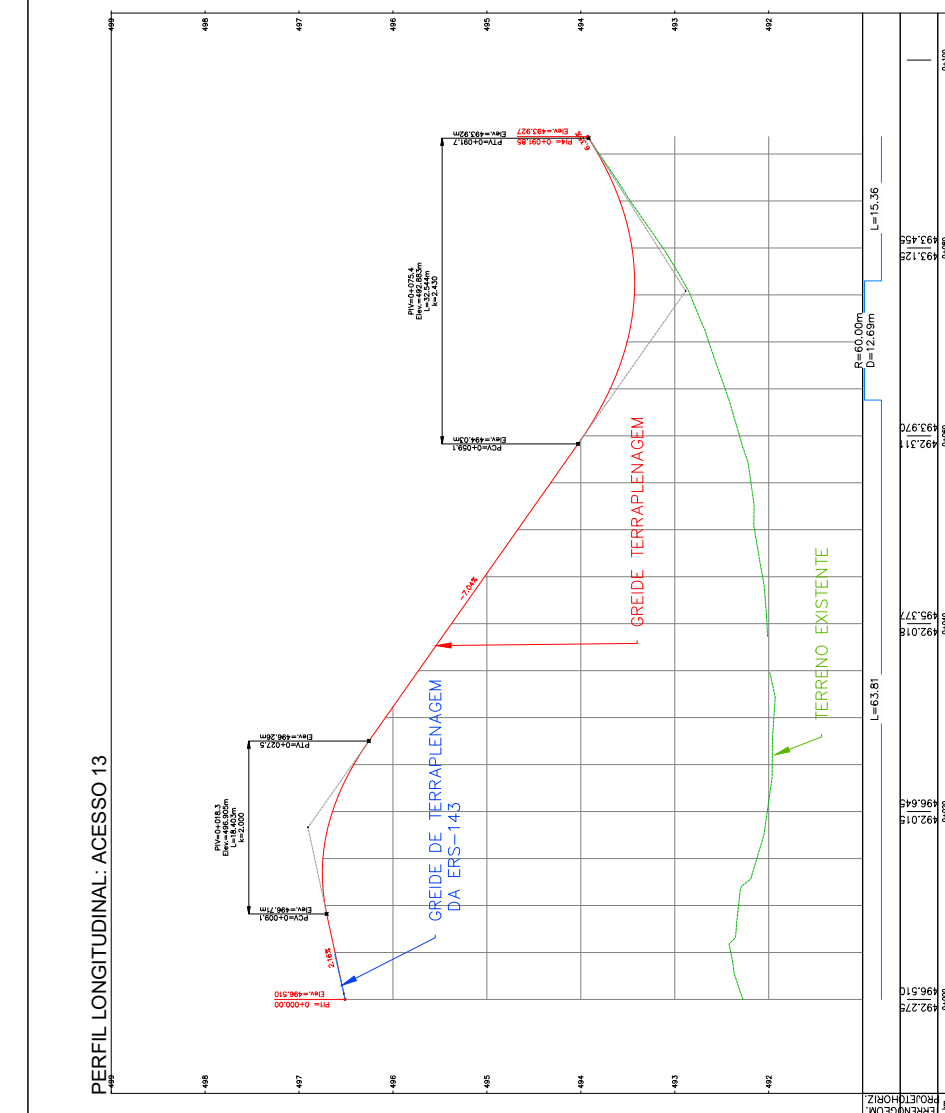
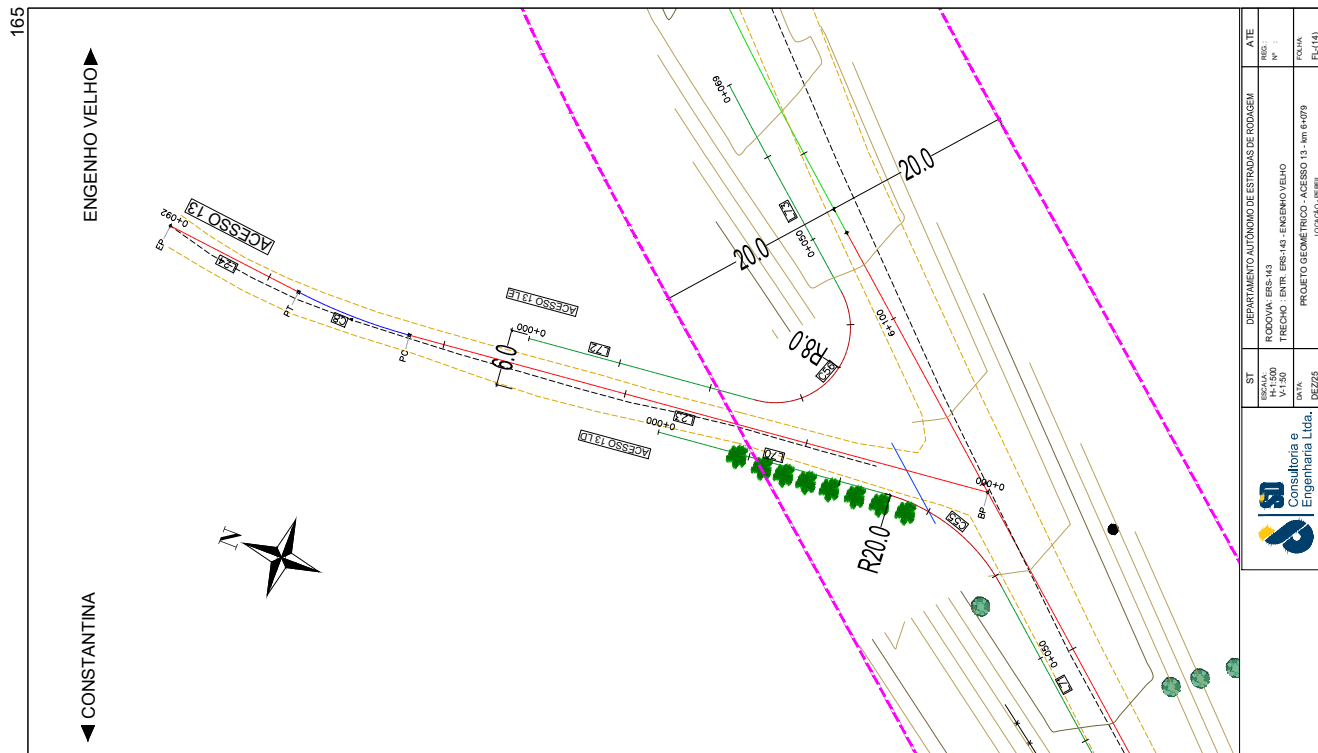


QUADRO DE CURVAS HORIZONTAIS - ACESSO 12									
Nº	DEFLEÇÃO ADIUNTA	AC (m)	R (m)	LC (m)	D/L (m)	T (m)	PC	PT	COORDENADAS (UTM) - PI
138	140°50'51,90"	-	-	-	-	45,16	0+000,00	0+045,16	N 1932960,100 E 157126,669

QUADRO DE CURVAS HORIZONTAIS - ACESSO 12 LD									
Nº	DEFLEÇÃO ADIUNTA	AC (m)	R (m)	LC (m)	D/L (m)	T (m)	PC	PT	COORDENADAS (UTM) - PC
139	140°50'51,90"	-	-	-	-	45,16	0+000,00	0+045,16	N 1932960,100 E 157126,669
140	140°50'51,90"	-	-	-	-	45,16	0+000,00	0+045,16	N 1932960,100 E 157126,669
141	140°50'51,90"	-	-	-	-	45,16	0+000,00	0+045,16	N 1932960,100 E 157126,669
142	140°50'51,90"	-	-	-	-	45,16	0+000,00	0+045,16	N 1932960,100 E 157126,669
143	140°50'51,90"	-	-	-	-	45,16	0+000,00	0+045,16	N 1932960,100 E 157126,669
144	140°50'51,90"	-	-	-	-	45,16	0+000,00	0+045,16	N 1932960,100 E 157126,669
145	140°50'51,90"	-	-	-	-	45,16	0+000,00	0+045,16	N 1932960,100 E 157126,669
146	140°50'51,90"	-	-	-	-	45,16	0+000,00	0+045,16	N 1932960,100 E 157126,669
147	140°50'51,90"	-	-	-	-	45,16	0+000,00	0+045,16	N 1932960,100 E 157126,669
148	140°50'51,90"	-	-	-	-	45,16	0+000,00	0+045,16	N 1932960,100 E 157126,669
149	140°50'51,90"	-	-	-	-	45,16	0+000,00	0+045,16	N 1932960,100 E 157126,669
150	140°50'51,90"	-	-	-	-	45,16	0+000,00	0+045,16	N 1932960,100 E 157126,669
151	140°50'51,90"	-	-	-	-	45,16	0+000,00	0+045,16	N 1932960,100 E 157126,669
152	140°50'51,90"	-	-	-	-	45,16	0+000,00	0+045,16	N 1932960,100 E 157126,669
153	140°50'51,90"	-	-	-	-	45,16	0+000,00	0+045,16	N 1932960,100 E 157126,669
154	140°50'51,90"	-	-	-	-	45,16	0+000,00	0+045,16	N 1932960,100 E 157126,669
155	140°50'51,90"	-	-	-	-	45,16	0+000,00	0+045,16	N 1932960,100 E 157126,669
156	140°50'51,90"	-	-	-	-	45,16	0+000,00	0+045,16	N 1932960,100 E 157126,669
157	140°50'51,90"	-	-	-	-	45,16	0+000,00	0+045,16	N 1932960,100 E 157126,669
158	140°50'51,90"	-	-	-	-	45,16	0+000,00	0+045,16	N 1932960,100 E 157126,669
159	140°50'51,90"	-	-	-	-	45,16	0+000,00	0+045,16	N 1932960,100 E 157126,669
160	140°50'51,90"	-	-	-	-	45,16	0+000,00	0+045,16	N 1932960,100 E 157126,669
161	140°50'51,90"	-	-	-	-	45,16	0+000,00	0+045,16	N 1932960,100 E 157126,669
162	140°50'51,90"	-	-	-	-	45,16	0+000,00	0+045,16	N 1932960,100 E 157126,669
163	140°50'51,90"	-	-	-	-	45,16	0+000,00	0+045,16	N 1932960,100 E 157126,669
164	140°50'51,90"	-	-	-	-	45,16	0+000,00	0+045,16	N 1932960,100 E 157126,669

QUADRO DE CURVAS HORIZONTAIS - ACESSO 12 E		QUADRO DE CURVAS HORIZONTAIS - ACESSO 12 E	
Nº	DEFLEÇÃO ADIUNTA	Nº	DEFLEÇÃO ADIUNTA
165	140°50'51,90"	166	140°50'51,90"
167	140°50'51,90"	168	140°50'51,90"
169	140°50'51,90"	170	140°50'51,90"
171	140°50'51,90"	172	140°50'51,90"
173	140°50'51,90"	174	140°50'51,90"
175	140°50'51,90"	176	140°50'51,90"
177	140°50'51,90"	178	140°50'51,90"
179	140°50'51,90"	180	140°50'51,90"
181	140°50'51,90"	182	140°50'51,90"
183	140°50'51,90"	184	140°50'51,90"
185	140°50'51,90"	186	140°50'51,90"
187	140°50'51,90"	188	140°50'51,90"
189	140°50'51,90"	190	140°50'51,90"
191	140°50'51,90"	192	140°50'51,90"
193	140°50'51,90"	194	140°50'51,90"
195	140°50'51,90"	196	140°50'51,90"
197	140°50'51,90"	198	140°50'51,90"
199	140°50'51,90"	200	140°50'51,90"
201	140°50'51,90"	202	140°50'51,90"
203	140°50'51,90"	204	140°50'51,90"
205	140°50'51,90"	206	140°50'51,90"
207	140°50'51,90"	208	140°50'51,90"
209	140°50'51,90"	210	140°50'51,90"
211	140°50'51,90"	212	140°50'51,90"
213	140°50'51,90"	214	140°50'51,90"
215	140°50'51,90"	216	140°50'51,90"
217	140°50'51,90"	218	140°50'51,90"
219	140°50'51,90"	220	140°50'51,90"
221	140°50'51,90"	222	140°50'51,90"
223	140°50'51,90"	224	140°50'51,90"
225	140°50'51,90"	226	140°50'51,90"
227	140°50'51,90"	228	140°50'51,90"
229	140°50'51,90"	230	140°50'51,90"
231	140°50'51,90"	232	140°50'51,90"
233	140°50'51,90"	234	140°50'51,90"
235	140°50'51,90"	236	140°50'51,90"
237	140°50'51,90"	238	140°50'51,90"
239	140°50'51,90"	240	140°50'51,90"
241	140°50'51,90"	242	140°50'51,90"
243	140°50'51,90"	244	140°50'51,90"
245	140°50'51,90"	246	140°50'51,90"
247	140°50'51,90"	248	140°50'51,90"
249	140°50'51,90"	250	140°50'51,90"
251	140°50'51,90"	252	140°50'51,90"
253	140°50'51,90"	254	140°50'51,90"
255	140°50'51,90"	256	140°50'51,90"
257	140°50'51,90"	258	140°50'51,90"
259	140°50'51,90"	260	140°50'51,90"
261	140°50'51,90"	262	140°50'51,90"
263	140°50'51,90"	264	140°50'51,90"
265	140°50'51,90"	266	140°50'51,90"
267	140°50'51,90"	268	140°50'51,90"
269	140°50'51,90"	270	140°50'51,90"
271	140°50'51,90"	272	140°50'51,90"
273	140°50'51,90"	274	140°50'51,90"
275	140°50'51,90"	276	140°50'51,90"
277	140°50'51,90"	278	140°50'51,90"
279	140°50'51,90"	280	140°50'51,90"
281	140°50'51,90"	282	140°50'51,90"
283	140°50'51,90"	284	140°50'51,90"
285	140°50'51,90"	286	140°50'51,90"
287	140°50'51,90"	288	140°50'51,90"
289	140°50'51,90"	290	140°50'51,90"
291	140°50'51,90"	292	140°50'51,90"
293	140°50'51,90"	294	140°50'51,90"
295	140°50'51,90"	296	140°50'51,90"
297	140°50'51,90"	298	140°50'51,90"
299	140°50'51,90"	300	140°50'51,90"





QUADRO DE CURVAS HORIZONTAIS - ACESSO 13									
Nº	DEFLEXÃO/	AC	R (m)	LC (m)	Δ (gr)	PC	PT	COORDENADAS (UTM) - PC	COORDENADAS (UTM) - PT
123	352°43'36.62"	60	12.69	18.360	04063.48	04063.48	04063.48	N 1933133.537 E 157299.059	N 1933133.537 E 157299.059
124	322°46'32.18"	60	18.360	18.360	04063.48	04063.48	04063.48	N 1933133.537 E 157299.059	N 1933133.537 E 157299.059
125	124°29'16.66"	8	18.07	18.07	04063.48	04063.48	04063.48	N 1933133.537 E 157299.059	N 1933133.537 E 157299.059
126	107°35'30.08"	8	18.07	18.07	04063.48	04063.48	04063.48	N 1933133.537 E 157299.059	N 1933133.537 E 157299.059
127	040°23'18.25"	8	18.07	18.07	04063.48	04063.48	04063.48	N 1933133.537 E 157299.059	N 1933133.537 E 157299.059

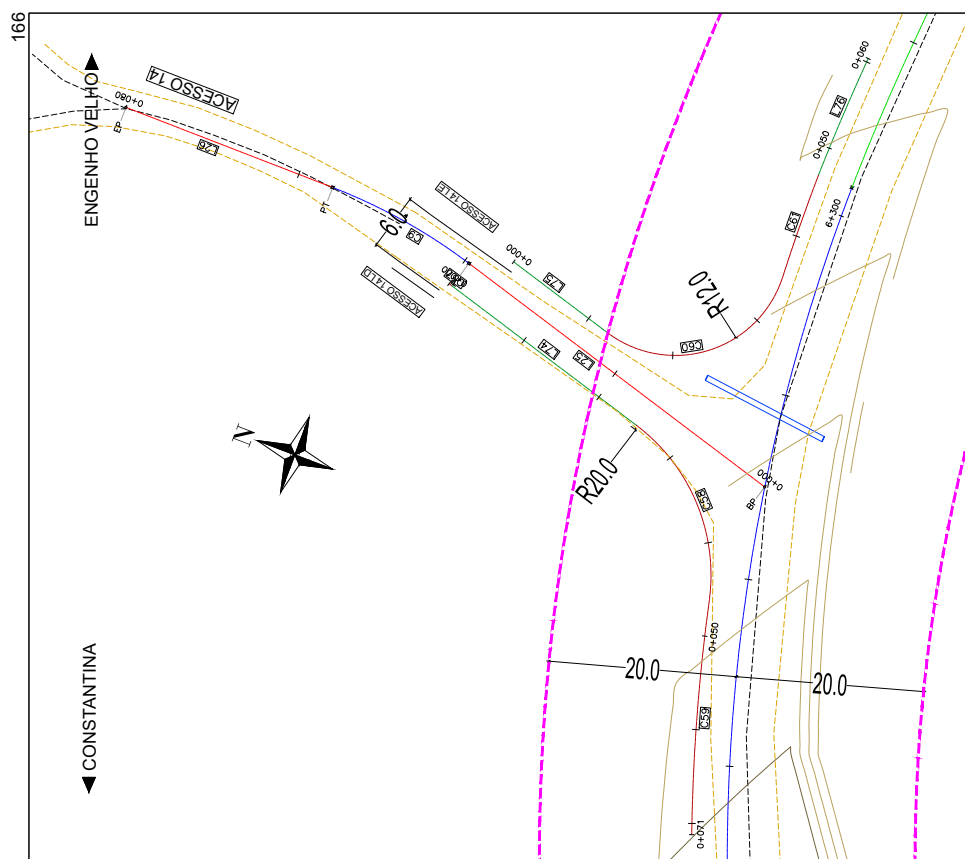
ELEMENTOS GEOMÉTRICOS - ACESSO 13

ST	DEPARTAMENTO AUTÔNOMO DE ESTRADAS DE RODAGEM	ATE
ESCALA	PROJETO: 1:500	REGISTRO Nº
DATA	02/2025	FOLHA
Consultoria e Engenharia Ltda.		PROJETO GEOMÉTRICO - ACESSO 13 - km 4+079



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◀ CONSTANTINA



QUADRO DE CURVAS HORIZONTAIS - ACESSO 14									
Nº	EXTENSÃO ADMITIDA	AC	II (m)	LC (m)	D (m)	T (m)	PC	PT	COORDENADAS (UTM) - PI
136	015° 54' 48.15"	60	16.66	8.386	0.00347	0.00513	N 193207.18 E 157380.077	N 193215.36 E 157382.430	N 193227.650 E 157382.604
137	327° 56' 32.18"	20	20.00	10.260	0.005613	0.002974	N 193223.652 E 157382.400	N 193247.254 E 157382.651	N 193247.254 E 157382.651

QUADRO DE CURVAS HORIZONTAIS - ACESSO 14B									
Nº	EXTENSÃO ADMITIDA	AC	II (m)	LC (m)	D (m)	T (m)	PC	PT	COORDENADAS (UTM) - PI
138	186° 07' 46"	20	20.00	10.260	0.005613	0.002974	N 193223.652 E 157382.400	N 193247.254 E 157382.651	N 193247.254 E 157382.651
139	186° 07' 46"	20	20.00	10.260	0.005613	0.002974	N 193223.652 E 157382.400	N 193247.254 E 157382.651	N 193247.254 E 157382.651

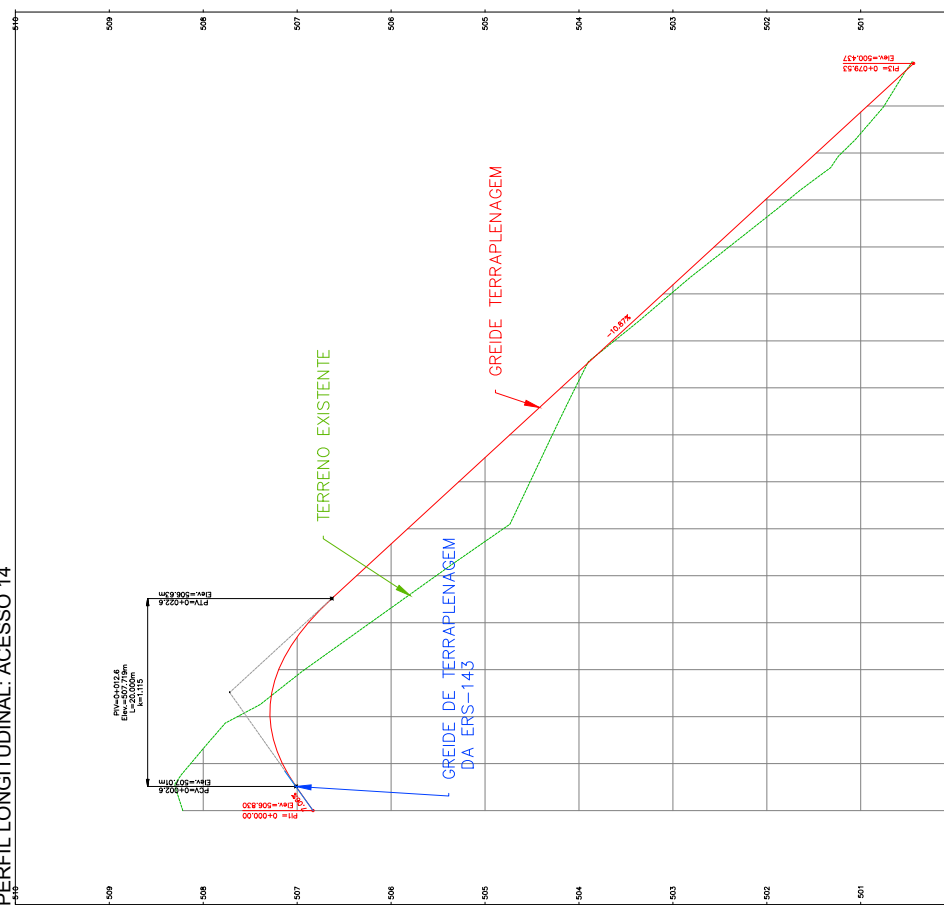
QUADRO DE CURVAS HORIZONTAIS - ACESSO 14E									
Nº	EXTENSÃO ADMITIDA	AC	II (m)	LC (m)	D (m)	T (m)	PC	PT	COORDENADAS (UTM) - PI
140	186° 07' 46"	20	20.00	10.260	0.005613	0.002974	N 193223.652 E 157382.400	N 193247.254 E 157382.651	N 193247.254 E 157382.651
141	186° 07' 46"	20	20.00	10.260	0.005613	0.002974	N 193223.652 E 157382.400	N 193247.254 E 157382.651	N 193247.254 E 157382.651

ST		DEPARTAMENTO AUTÔNOMO DE ESTRADAS DE RODAGEM
RECEITA	RECIBO	
Nº	Nº	
TRECHO	TRECHO	
DATA	DATA	
DEZ/20	DEZ/20	

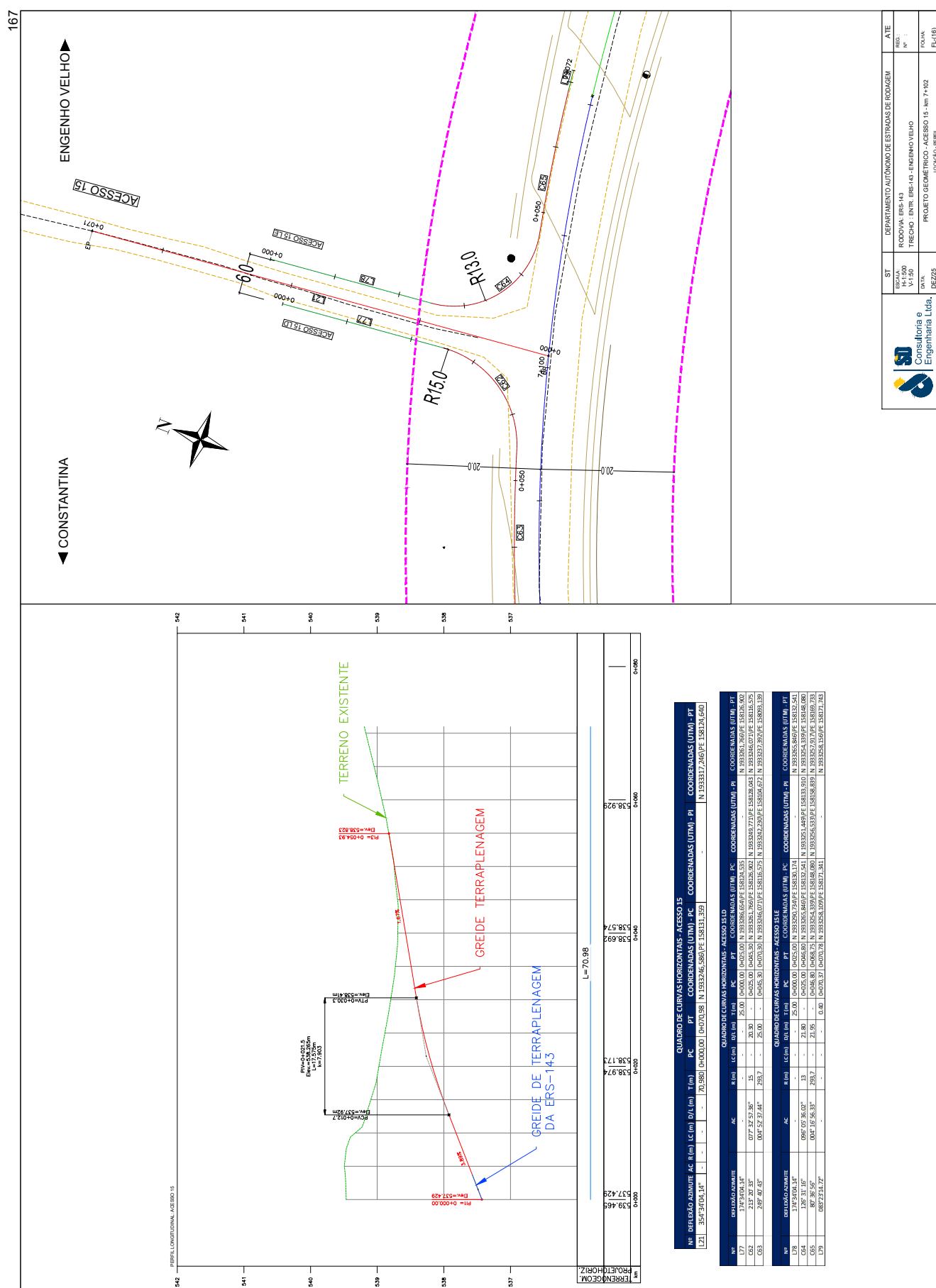


Consultoria e Engenharia Ltda.

PERFIL LONGITUDINAL: ACESSO 14



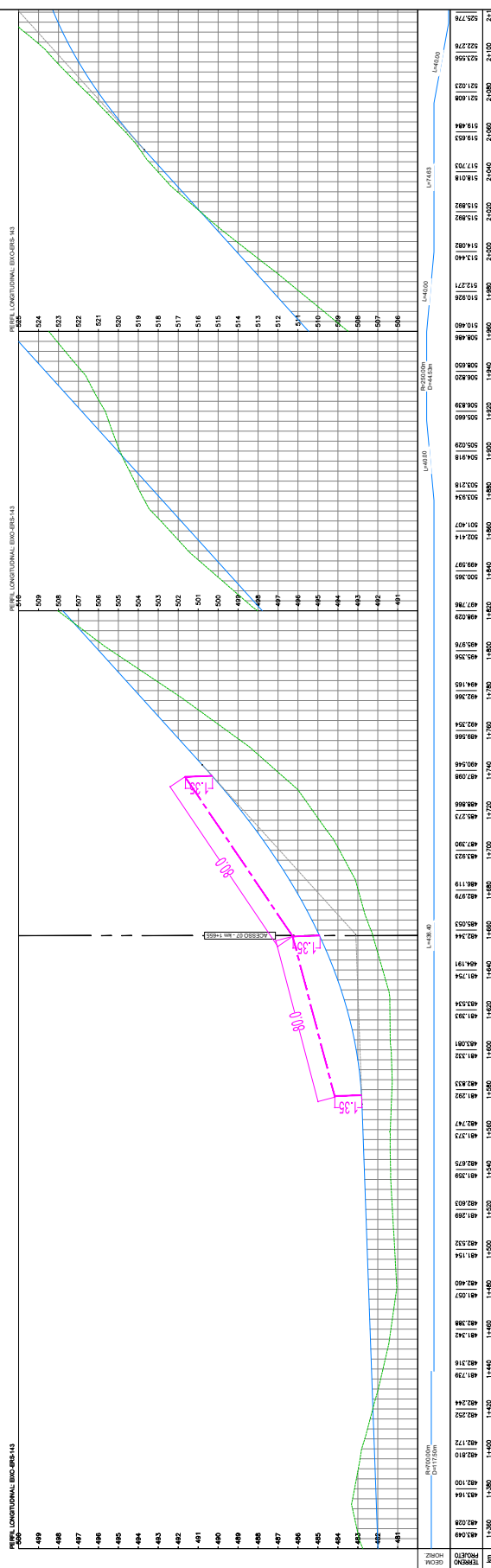
ESTRELAÇÃO	ESTRELAÇÃO	ESTRELAÇÃO	ESTRELAÇÃO	ESTRELAÇÃO	ESTRELAÇÃO	ESTRELAÇÃO	ESTRELAÇÃO	ESTRELAÇÃO	ESTRELAÇÃO
0+000	0+000	0+000	0+000	0+000	0+000	0+000	0+000	0+000	0+000
0+000	0+000	0+000	0+000	0+000	0+000	0+000	0+000	0+000	0+000
0+000	0+000	0+000	0+000	0+000	0+000	0+000	0+000	0+000	0+000
0+000	0+000	0+000	0+000	0+000	0+000	0+000	0+000	0+000	0+000
0+000	0+000	0+000	0+000	0+000	0+000	0+000	0+000	0+000	0+000
0+000	0+000	0+000	0+000	0+000	0+000	0+000	0+000	0+000	0+000
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0+000	0+000	0+000	0+000	0+000	0+000	0+000	0+000	0+000	0+000
0+000	0+000	0+000	0+000	0+000	0+000	0+000	0+000	0+000	0+000



	ST	DEPARTAMENTO AUTÔNOMO DE ESTRADAS DE RODAGEM	ATE
	RODOVIA: ERS-143 TRECHO: ENTR. ERS-143 - ENGENHO VELHO DATA: DEZ/25	PROJETO GEOMÉTRICO - ACESSO 15 - km 7+102 (LOCAL: 10+800)	REG.: Nº.: FOLHA:



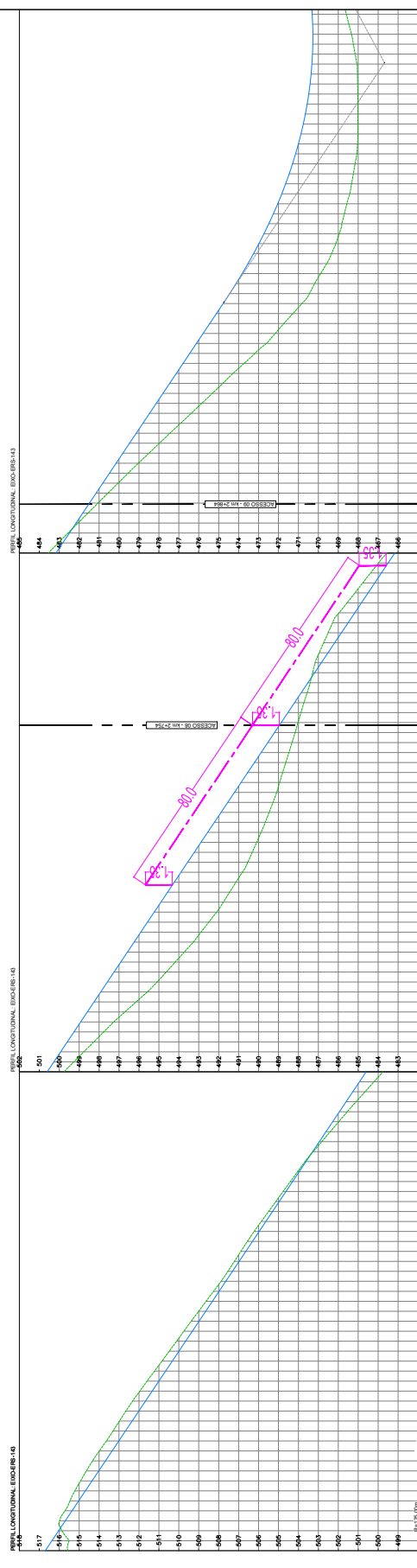
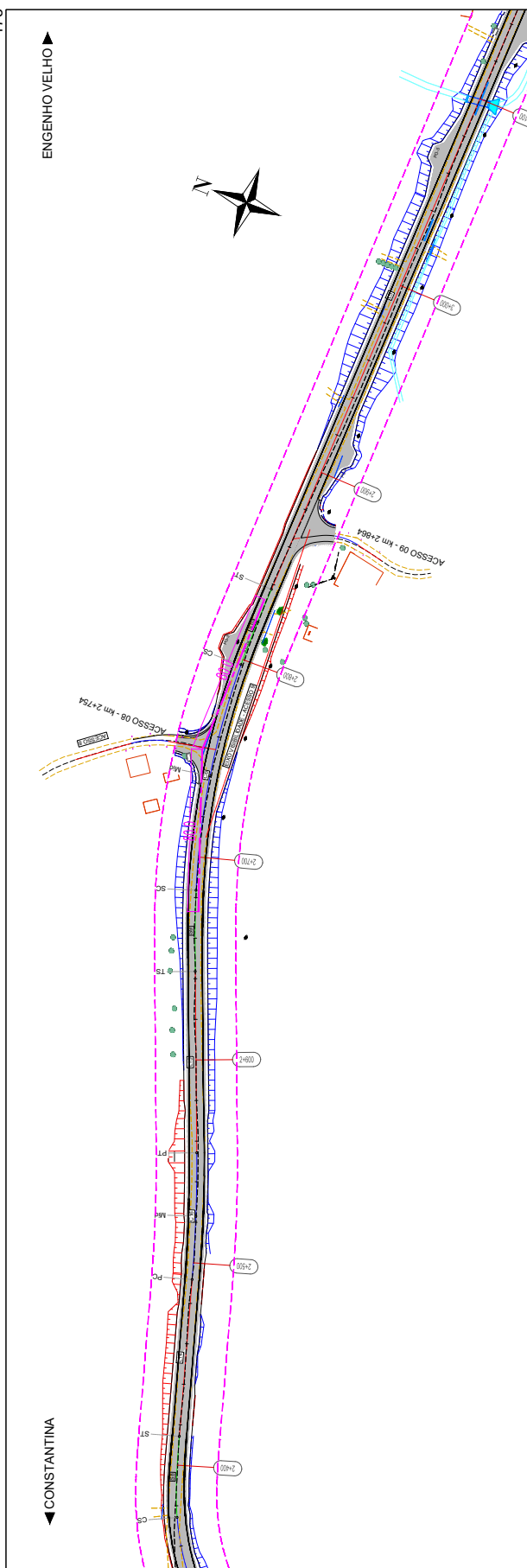


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L+0+00		L+0+25		L+0+50		L+0+75		L+1+00		L+1+25		L+1+50		L+1+75		L+2+00		L+2+25		L+2+50		L+2+75		L+3+00		L+3+25		L+3+50		L+3+75		L+4+00		L+4+25		L+4+50		L+4+75		L+5+00		L+5+25		L+5+50		L+5+75		L+6+00		L+6+25		L+6+50		L+6+75		L+7+00		L+7+25		L+7+50		L+7+75		L+8+00		L+8+25		L+8+50		L+8+75		L+9+00		L+9+25		L+9+50		L+9+75		L+10+00		L+10+25		L+10+50		L+10+75		L+11+00		L+11+25		L+11+50		L+11+75		L+12+00		L+12+25		L+12+50		L+12+75		L+13+00		L+13+25		L+13+50		L+13+75		L+14+00		L+14+25		L+14+50		L+14+75		L+15+00		L+15+25		L+15+50		L+15+75		L+16+00		L+16+25		L+16+50		L+16+75		L+17+00		L+17+25		L+17+50		L+17+75		L+18+00		L+18+25		L+18+50		L+18+75		L+19+00		L+19+25		L+19+50		L+19+75		L+20+00		L+20+25		L+20+50		L+20+75		L+21+00		L+21+25		L+21+50		L+21+75		L+22+00		L+22+25		L+22+50		L+22+75		L+23+00		L+23+25		L+23+50		L+23+75		L+24+00		L+24+25		L+24+50		L+24+75		L+25+00		L+25+25		L+25+50		L+25+75		L+26+00		L+26+25		L+26+50		L+26+75		L+27+00		L+27+25		L+27+50		L+27+75		L+28+00		L+28+25		L+28+50		L+28+75		L+29+00		L+29+25		L+29+50		L+29+75		L+30+00		L+30+25		L+30+50		L+30+75		L+31+00		L+31+25		L+31+50		L+31+75		L+32+00		L+32+25		L+32+50		L+32+75		L+33+00		L+33+25		L+33+50		L+33+75		L+34+00		L+34+25		L+34+50		L+34+75		L+35+00		L+35+25		L+35+50		L+35+75		L+36+00		L+36+25		L+36+50		L+36+75		L+37+00		L+37+25		L+37+50		L+37+75		L+38+00		L+38+25		L+38+50		L+38+75		L+39+00		L+39+25		L+39+50		L+39+75		L+40+00		L+40+25		L+40+50		L+40+75		L+41+00		L+41+25		L+41+50		L+41+75		L+42+00		L+42+25		L+42+50		L+42+75		L+43+00		L+43+25		L+43+50		L+43+75		L+44+00		L+44+25		L+44+50		L+44+75		L+45+00		L+45+25		L+45+50		L+45+75		L+46+00		L+46+25		L+46+50		L+46+75		L+47+00		L+47+25		L+47+50		L+47+75		L+48+00		L+48+25		L+48+50		L+48+75		L+49+00		L+49+25		L+49+50		L+49+75		L+50+00		L+50+25		L+50+50		L+50+75		L+51+00		L+51+25		L+51+50		L+51+75		L+52+00		L+52+25		L+52+50		L+52+75		L+53+00		L+53+25		L+53+50		L+53+75		L+54+00		L+54+25		L+54+50		L+54+75		L+55+00		L+55+25		L+55+50		L+55+75		L+56+00		L+56+25		L+56+50		L+56+75		L+57+00		L+57+25		L+57+50		L+57+75		L+58+00		L+58+25		L+58+50		L+58+75		L+59+00		L+59+25		L+59+50		L+59+75		L+60+00		L+60+25		L+60+50		L+60+75		L+61+00		L+61+25		L+61+50		L+61+75		L+62+00		L+62+25		L+62+50		L+62+75		L+63+00		L+63+25		L+63+50		L+63+75		L+64+00		L+64+25		L+64+50		L+64+75		L+65+00		L+65+25		L+65+50		L+65+75		L+66+00		L+66+25		L+66+50		L+66+75		L+67+00		L+67+25		L+67+50		L+67+75		L+68+00		L+68+25		L+68+50		L+68+75		L+69+00		L+69+25		L+69+50		L+69+75		L+70+00		L+70+25		L+70+50		L+70+75		L+71+00		L+71+25		L+71+50		L+71+75		L+72+00		L+72+25		L+72+50		L+72+75		L+73+00		L+73+25		L+73+50		L+73+75		L+74+00		L+74+25		L+74+50		L+74+75		L+75+00		L+75+25		L+75+50		L+75+75		L+76+00		L+76+25		L+76+50		L+76+75		L+77+00		L+77+25		L+77+50		L+77+75		L+78+00		L+78+25		L+78+50		L+78+75		L+79+00		L+79+25		L+79+50		L+79+75		L+80+00		L+80+25		L+80+50		L+80+75		L+81+00		L+81+25		L+81+50		L+81+75		L+82+00		L+82+25		L+82+50		L+82+75		L+83+00		L+83+25		L+83+50		L+83+75		L+84+00		L+84+25		L+84+50		L+84+75		L+85+00		L+85+25		L+85+50		L+85+75		L+86+00		L+86+25		L+86+50		L+86+75		L+87+00		L+87+25		L+87+50		L+87+75		L+88+00		L+88+25		L+88+50		L+88+75		L+89+00		L+89+25		L+89+50		L+89+75		L+90+00		L+90+25		L+90+50		L+90+75		L+91+00		L+91+25		L+91+50		L+91+75		L+92+00		L+92+25		L+92+50		L+92+75		L+93+00		L+93+25		L+93+50		L+93+75		L+94+00		L+94+25		L+94+50		L+94+75		L+95+00		L+95+25		L+95+50		L+95+75		L+96+00		L+96+25		L+96+50		L+96+75		L+97+00		L+97+25		L+97+50		L+97+75		L+98+00		L+98+25		L+98+50		L+98+75		L+99+00		L+99+25		L+99+50		L+99+75		L+100+00		L+100+25		L+100+50		L+100+75		L+101+00		L+101+25		L+101+50		L+101+75		L+102+00		L+102+25		L+102+50		L+102+75		L+103+00		L+103+25		L+103+50		L+103+75		L+104+00		L+104+25		L+104+50		L+104+75		L+105+00		L+105+25		L+105+50		L+105+75		L+106+00		L+106+25		L+106+50		L+106+75		L+107+00		L+107+25		L+107+50		L+107+75		L+108+00		L+108+25		L+108+50		L+108+75		L+109+00		L+109+25		L+109+50		L+109+75		L+110+00		L+110+25		L+110+50		L+110+75		L+111+00		L+111+25		L+111+50		L+111+75		L+112+00		L+112+25		L+112+50		L+112+75		L+113+00		L+113+25		L+113+50		L+113+75		L+114+00		L+114+25		L+114+50		L+114+75		L+115+00		L+115+25		L+115+50		L+115+75		L+116+00		L+116+25		L+116+50		L+116+75		L+117+00		L+117+25		L+117+50		L+117+75		L+118+00		L+118+25		L+118+50		L+118+75		L+119+00		L+119+25		L+119+50		L+119+75		L+120+00		L+120+25		L+120+50		L+120+75		L+121+00		L+121+25		L+121+50		L+121+75		L+122+00		L+122+25		L+122+50		L+122+75		L+123+00		L+123+25		L+123+50		L+123+75		L+124+00		L+124+25		L+124+50		L+124+75		L+125+00		L+125+25		L+125+50		L+125+75		L+126+00		L+126+25		L+126+50		L+126+75		L+127+00		L+127+25		L+127+50		L+127+75		L+128+00		L+128+25		L+128+50		L+128+75		L+129+00		L+129+25		L+129+50		L+129+75		L+130+00		L+130+25		L+130+50		L+130+75		L+131+00		L+131+25		L+131+50		L+131+75		L+132+00		L+132+25		L+132+50		L+132+75		L+133+00		L+133+25		L+133+50		L+133+75		L+134+00		L+134+25		L+134+50		L+134+75		L+135+00		L+135+25		L+135+50		L+135+75		L+136+00		L+136+25		L+136+50		L+136+75		L+137+00		L+137+25		L+137+50		L+137+75		L+138+00		L+138+25		L+138+50		L+138+75		L+139+00		L+139+25		L+139+50		L+139+75		L+140+00		L+140+25		L+140+50		L+140+75		L+141+00		L+141+25		L+141+50		L+141+75		L+142+00		L+142+25		L+142+50		L+142+75		L+143+00		L+143+25		L+143+50		L+143+75		L+144+00		L+144+25		L+144+50		L+144+75		L+145+00		L+145+25		L+145+50		L+145+75		L+146+00		L+146+25		L+146+50		L+146+75		L+147+00		L+147+25		L+147+50		L+147+75		L+148+00		L+148+25		L+148+50		L+148+75		L+149+00		L+149+25		L+149+50		L+149+75		L+150+00		L+150+25		L+150+50		L+150+75		L+151+00		L+151+25		L+151+50		L+151+75		L+152+00		L+152+25		L+152+50		L+152+75		L+153+00		L+153+25		L+153+50		L+153+75		L+154+00		L+154+25		L+154+50		L+154+75		L+155+00		L+155+25		L+155+50		L+155+75		L+156+00		L+156+25		L+156+50		L+156+75		L+157+00		L+157+25		L+157+50		L+157+75		L+158+00		L+158+25		L+158+50		L+158+75		L+159+00		L+159+25		L+159+50		L+159+75		L+160+00		L+160+25		L+160+50		L+160+75		L+161+00		L+161+25		L+161+50		L+161+75		L+162+00		L+162+25		L+162+50		L+162+75		L+163+00		L+163+25		L+163+50		L+163+75		L+164+00		L+164+25		L+164+50		L+164+75		L+165+00		L+165+25		L+165+50		L+165+75		L+166+00		L+166+25		L+166+50		L+166+75		L+167+00		L+167+25		L+167+50		L+167+75		L+168+00		L+168+25		L+168+50		L+168+75		L+169+00		L+169+25		L+169+50		L+169+75		L+170+00		L+170+25		L+170+50		L+170+75		L+171+00		L+171+25		L+171+50		L+171+75		L+172+00		L+172+25		L+172+50		L+172+75		L+173+00		L+173+25		L+173+50		L+173+75		L+174+00		L+174+25		L+174+50		L+174+75		L+175+00		L+175+25		L+175+50		L+175+75		L+176+00		L+176+25		L+176+50		L+176+75		L+177+00		L+177+25		L+177+50		L+177+75		L+178+00		L+178+25		L+178+50		L+178+75		L+179+00		L+179+25		L+179+50		L+179+75		L+180+00		L+180+25		L+180+50		L+180+75		L+181+00		L+181+25		L+181+50		L+181+75		L+182+00		L+182+25		L+182+50		L+182+75		L+183+00		L+183+25		L+183+50		L+183+75		L+184+00		L+184+25		L+184+50		L+184+75		L+185+00		L+185+25		L+185+50		L+185+75		L+186+00		L+186+25		L+186+50		L+186+75		L+187+00		L+187+25		L+187+50		L+187+75		L+188+00		L+188+25		L+188+50		L+188+75		L+189+00		L+189+25		L+189+50		L+189+75		L+190+00		L+190+25		L+190+50		L+190+75		L+191+00		L+191+25		L+191+50		L+191+75		L+192+00		L+192+25		L+192+50		L+192+75		L+193+00		L+193+25		L+193+50		L+193+75		L+194+00		L+194+25		L+194+50		L+194+75		L+195+00		L+195+25		L+195+50		L+195+75		L+196+00		L+196+25		L+196+50		L+196+75		L+197+00		L+197+25		L+197+50		L+197+75		L+198+00		L+198+25		L+198+50+	
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