

LEGENDA

MEIO FIO DE CONCRETO

CAIXA SIMPLES
COM ABERTURA NO MEIO FIO

BSTC Ø 0.4m - CONCRETO SIMPLES
MACHO E FÊMEA

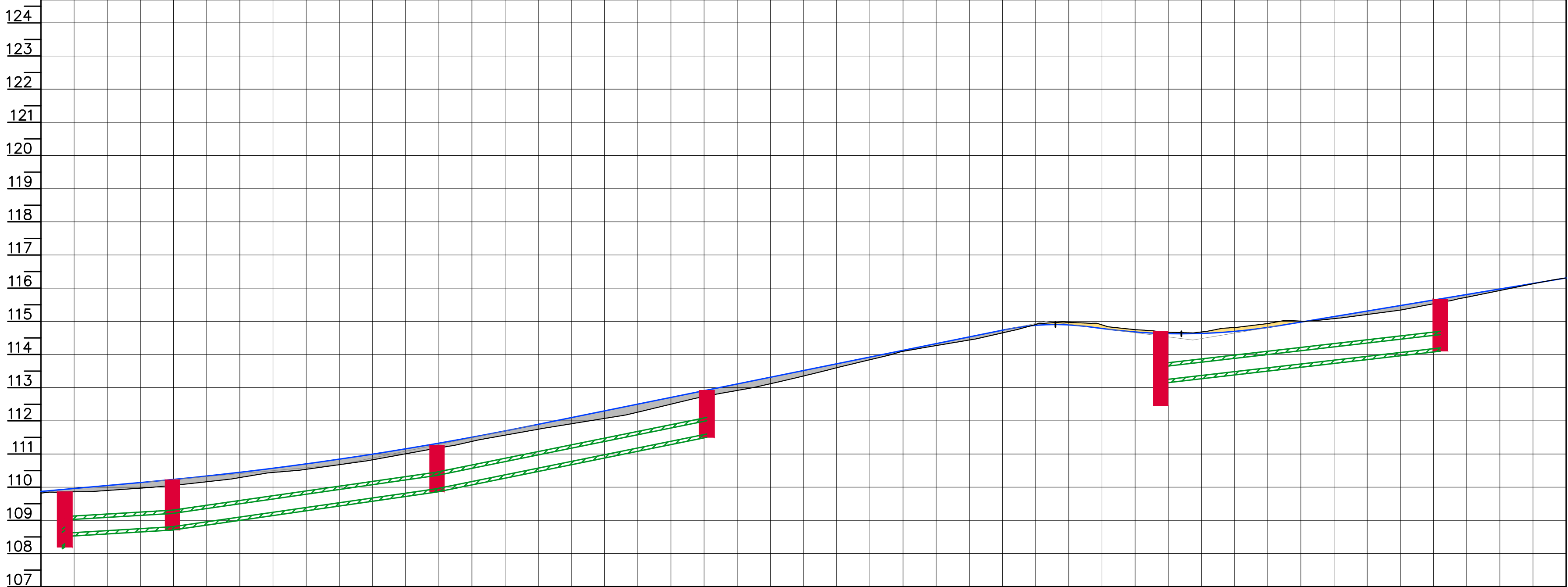
BSTC Ø 0.6m - CONCRETO SIMPLES
MACHO E FÊMEA

CADASTRO - CONSTRUÇÕES
EXISTENTES

POSTE EXISTENTE

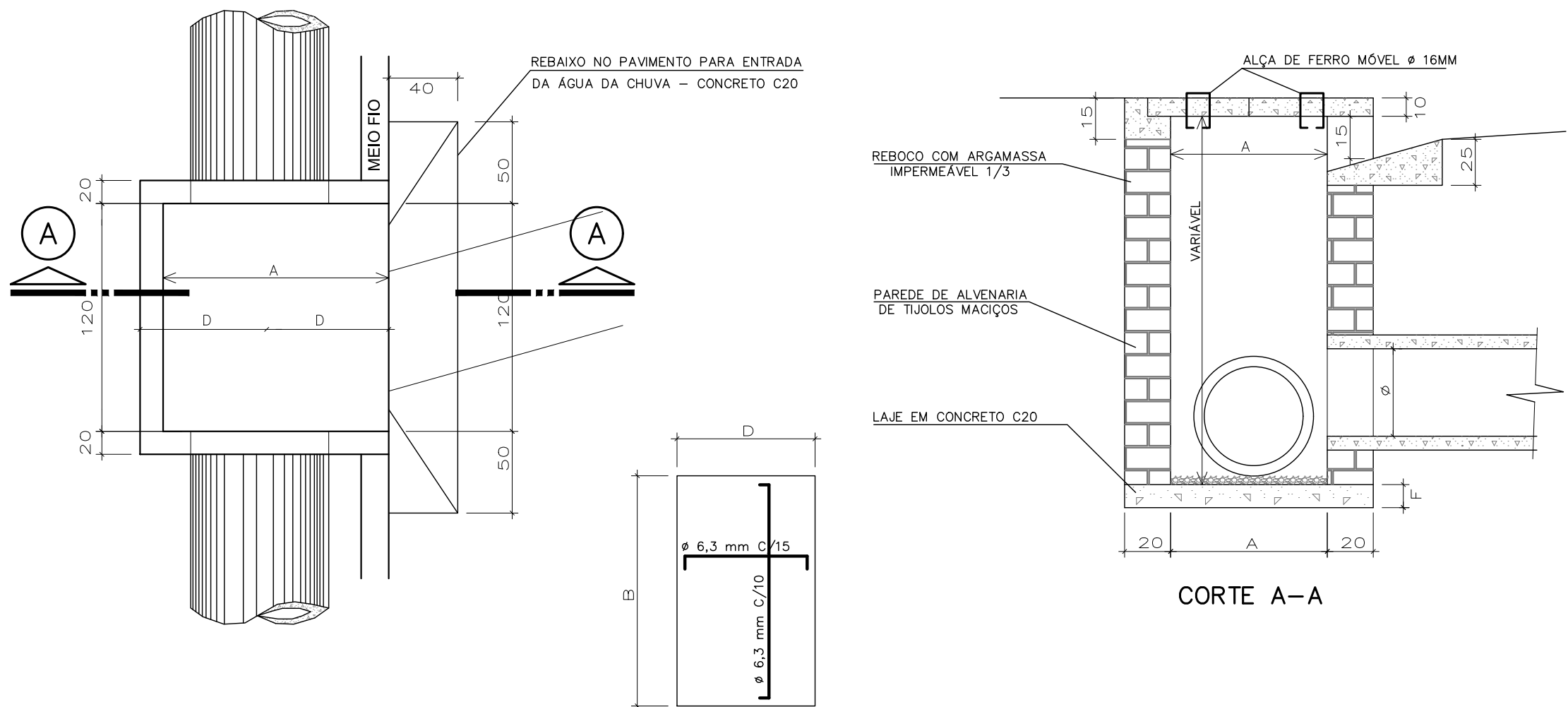
BOCA DE BUEIRO

PERFIL LONGITUDINAL – ALINHAMENTO ESTRADA RIO ENGANO



ESTACAS / COTA TERRENO	IDENTIFICAÇÃO DO PV		TAMPA PV / FUNDO PV	COMPRIMENTO DECLIVIDADE DIÂMETRO
50+00.00 109.821	CS 8004.21		109.859 109.249	3.89m 1.88% Ø400
50+10.00 109.890			16.97m 3.87% Ø400	
51+00.00 110.026			39.96m 3.87% Ø400	
110.154			1.77% Ø400	
51+10.00 110.289			1.77% Ø400	
52+00.00 110.424				
52+10.00 110.625				
53+00.00 111.183				
53+10.00 111.588				
54+00.00 111.611			CS 8004.26	
54+10.00 112.204				
55+00.00 112.865				
55+10.00 113.118				
56+00.00 113.601				
56+10.00 114.097				
114.134				
57+00.00 114.437				
57+10.00 114.844				
58+00.00 114.893	CS 8006.17			
58+10.00 114.828				
59+00.00 114.815				
60+00.00 115.207				
60+10.00 115.530				
61+00.00 115.908				
62+00.00 116.439				
63+00.00 116.971				
64+00.00 117.493				
65+00.00 118.005			CS 8004.28	
66+00.00 118.893				
67+00.00 119.385				
68+00.00 119.877				
69+00.00 120.369				
70+00.00 120.861				
71+00.00 121.353				
72+00.00 121.845				
73+00.00 122.337				
74+00.00 122.829	CS 8004.29			
75+00.00 124.305				
76+00.00 124.797				
77+00.00 125.289				
78+00.00 125.781				
79+00.00 126.273				
80+00.00 126.765				
81+00.00 127.257				
82+00.00 127.749				
83+00.00 128.241			CS 8004.30	
84+00.00 129.717				
85+00.00 130.209				
86+00.00 130.701				
87+00.00 131.193				
88+00.00 131.685				
89+00.00 132.177				
90+00.00 132.669				
91+00.00 133.161				
92+00.00 133.653	CS 8004.31			
93+00.00 135.129				
94+00.00 135.621				
95+00.00 136.113				
96+00.00 136.605				
97+00.00 137.097				
98+00.00 137.589				
99+00.00 138.081				
100+00.00 138.573				
101+00.00 139.065			CS 8004.32	
102+00.00 140.541				
103+00.00 141.033				
104+00.00 141.525				
105+00.00 142.017				
106+00.00 142.509				
107+00.00 142.997				
108+00.00 143.489				
109+00.00 143.981				
110+00.00 144.473	CS 8004.33			
111+00.00 145.949				
112+00.00 146.441				
113+00.00 146.933				
114+00.00 147.425				
115+00.00 147.917				
116+00.00 148.409				
117+00.00 148.901				
118+00.00 149.393				
119+00.00 149.885			CS 8004.34	
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121+00.00 151.853				
122+00.00 152.345				
123+00.00 152.837				
124+00.00 153.329				
125+00.00 153.821				
126+00.00 154.313				
127+00.00 154.805				
128+00.00 155.297	CS 8004.35			
129+00.00 156.773				
130+00.00 157.265				
131+00.00 157.757				
132+00.00 158.249				
133+00.00 158.741				
134+00.00 159.233				
135+00.00 159.725				
136+00.00 160.217				
137+00.00 160.709			CS 8004.36	
138+00.00 162.185				
139+00.00 162.677				
140+00.00 163.169				
141+00.00 163.661				
142+00.00 164.153				
143+00.00 164.645				
144+00.00 165.137				
145+00.00 165.629				
146+00.00 166.121	CS 8004.37			
147+00.00 167.597				
148+00.00 168.089				
149+00.00 168.581				
150+00.00 169.073				
151+00.00 169.565				
152+00.00 170.057				
153+00.00 170.549				
154+00.00 171.041				
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157+00.00 173.501				
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161+00.00 175.469				
162+00.00 175.961				
163+00.00 176.453				
164+00.00 176.945	CS 8004.39			
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166+00.00 178.913				
167+00.00 179.405				
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172+00.00 181.865				
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175+00.00 184.325				
176+00.00 184.817				
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178+00.00 185.801				
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180+00.00 186.785				
181+00.00 187.277				
182+00.00 187.769	CS 8004.41			
183+00.00 189.245				
184+00.00 189.737				
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186+00.00 190.721				
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190+00.00 192.689				
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254+00.00 231.081	CS 8004.49			
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256+00.00 233.049				
257+00.00 233.541				
258+00.00 234.033				
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260+00.00 235.017				
261+00.00 235.509				
262+00.00 235.997				
263+00.00 236.489			CS 8004.50	
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267+00.00 239.441				
268+00.00 239.933				
269+00.00 240.425				
270+00.00 240.917				
271+00.00 241.409				
272+00.00 241.901	CS 8004.51			
273+00.00 243.377				
274+00.00 243.869				
275+00.00 244.361				
276+00.00 244.853				
277+00.00 245.345				
278+00.00 245.837				
279+00.00 246.329				
280+00.00 246.821				
281+00.00 247.313			CS 8004.52	
282+00.00 248.789				
283+00.00 249.281				
284+00.00 249.773				
285+00.00 250.265				
286+00.00 250.757				
287+00.00 251.249				
288+00.00 251.741				
289+00.00 252.233				
290+00.00 252.725	CS 8004.53			
291+00.00 254.201				
292+00.00 254.693				
293+00.00 255.185				
294+00.00 255.677				
295+00.00 256.169				
296+00.00 256.661				
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299+00.00 258.137			CS 8004.54	
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319+00.00 270.929				
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344+00.00 285.197	CS 8004.59			
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347+00.00 287.657				
348+00.00 288.149				
349+00.00 288.641				
350+00.00 289.133				
351+00.00 289.625				
352+00.00 290.117				
353+00.00 290.609			CS 8004.60	
354+00.00 292.085				
355+00.00 292.577				
356+				

CS – CAIXA DE CAPTAÇÃO SIMPLES



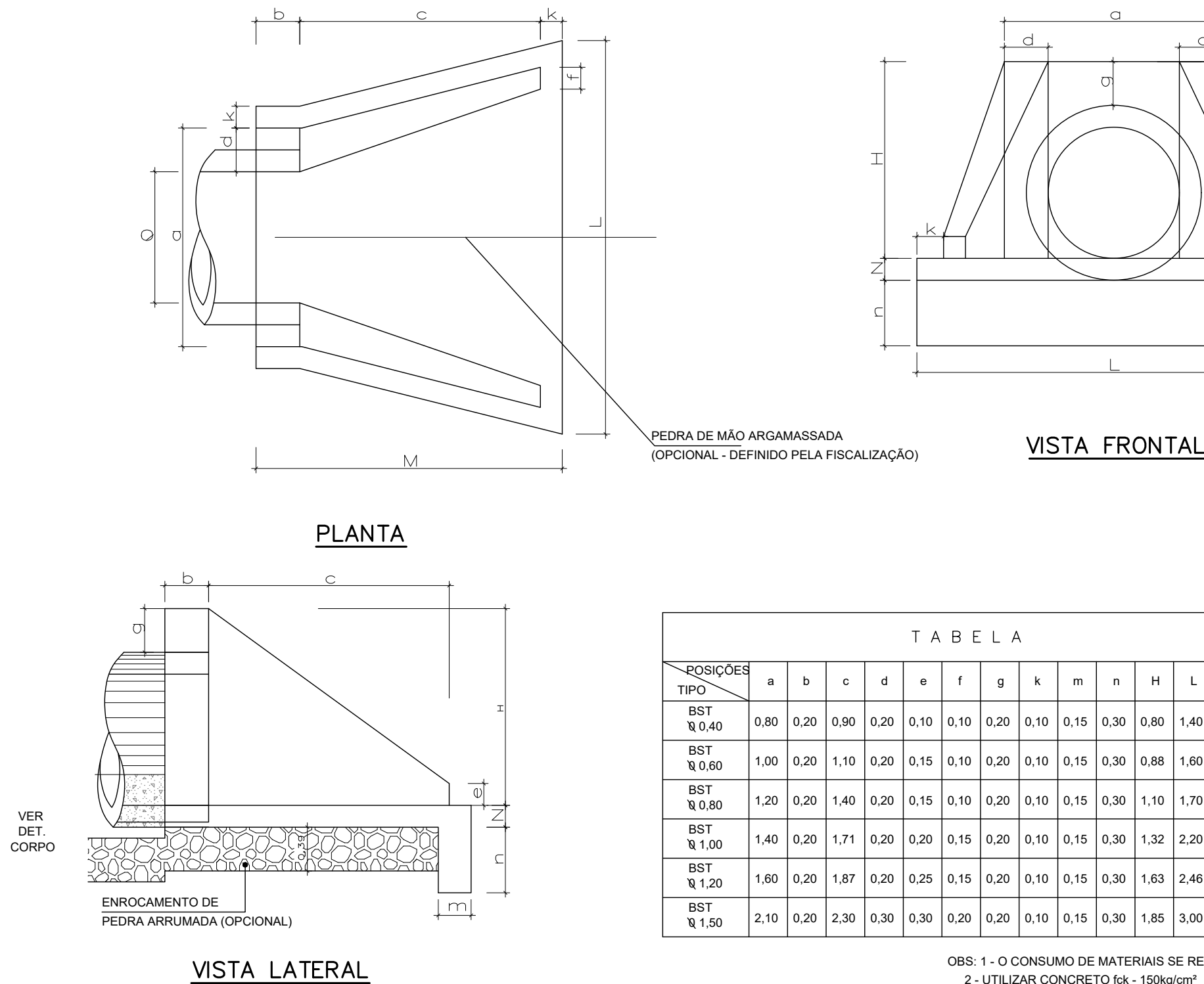
TAMPA EM CONCRETO C20

Diâmetro tubo principal	Classe	Espessura tubo	Espessura parede	Dimensões em Planta			Tampa			Laje de fundo		Consumo de Materiais					
				A	B	C	Número de Tampas	D	E	Espessura tampa	F	Concreto C20 (m³)	Alvenaria (m³)	Aço 6,3mm (kg)	Aço 16mm (kg)	Forma (M²)	Reboco interno (m²)
30	PS1	3,5	20	77	160	120	1	77	160	10	10	0,36	4,33	4,90	0,30	1,24	3,45
40	PS1	3,5	20	87	160	120	1	87	160	10	10	0,39	4,97	5,54	0,30	1,40	4,01
50	PS2	5	20	100	160	120	1	100	160	10	10	0,43	5,72	6,37	0,30	1,61	4,68
60	PS2	5,5	20	111	160	120	1	111	160	10	15	0,55	6,47	7,07	0,30	1,78	5,35
80	PA2	6,5	20	133	160	120	2	67	160	10	15	0,64	8,10	8,49	0,60	2,13	6,82
100	PA2	10	20	160	160	120	2	80	160	10	20	0,88	10,08	10,18	0,60	2,57	8,64
120	PA2	12	20	184	160	120	3	61	160	10	20	0,99	12,16	11,69	0,89	2,95	10,56
150	PA2	13	20	216	160	120	3	72	160	10	20	1,15	15,46	13,75	0,89	3,46	13,62

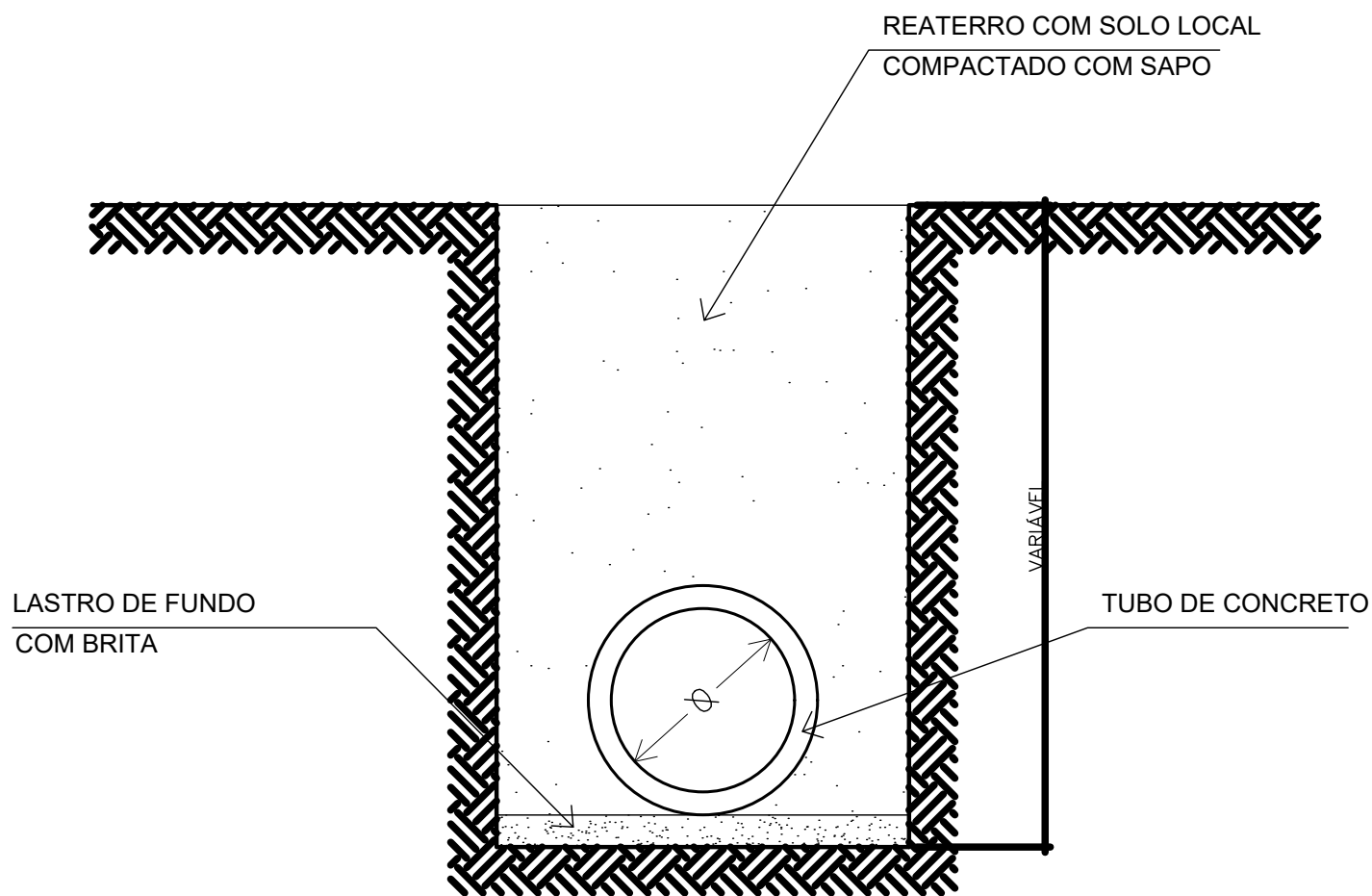
TABELA DE TUBOS DA REDE DRENAGEM			
TUBO	DN (m)	COMPRIMENTO (m)	DECLIVIDADE (%)
BSTC DN 0.40M CONCRETO - EST. 843.60	0.40	7	4.96%
BSTC DN 0.40M CONCRETO - EST. 843.60	0.40	6	0.50%
BSTC DN 0.40M CONCRETO - EST. 1019.84	0.40	17	1.17%
BSTC DN 0.40M CONCRETO - EST. 1059.71	0.40	40	2.87%
BSTC DN 0.40M CONCRETO - EST. 1100.41	0.40	41	4.05%
BSTC DN 0.40M CONCRETO - EST. 1211.03	0.40	42	2.33%
BSTC DN 0.40M CONCRETO - EST. 892.84	0.40	49	1.84%
BSTC DN 0.40M CONCRETO - EST. 1003.60	0.40	3	1.69%
BSTC DN 0.40M CONCRETO - EST. 1003.18	0.40	6	0.50%
BSTC DN 0.40M CONCRETO - EST. 895.00	0.40	7	0.60%
BSTC DN 0.40M CONCRETO - EST. 1062.20	0.40	6	1.43%
BSTC DN 0.40M CONCRETO - EST. 1104.21	0.40	7	2.19%
BSTC DN 0.40M CONCRETO - EST. 1212.03	0.40	6	1.93%
BSTC DN 0.60M CONCRETO - EST. 1168.10	0.60	2	5.00%
BSTC DN 0.60M CONCRETO - EST. 1168.86	0.60	3	5.00%
BSTC DN 0.60M CONCRETO - EST. 1168.28	0.60	6	5.00%

TABELA DE ESTRUTURAS DA REDE DRENAGEM		
NOME	COTAS	PROFUNDIDADE (m)
CS - EST. 1212.03	CT= 116.00 CF= 114.40	1.6
CS - EST. 1168.28	CT= 114.43 CF= 112.80	1.6
CS - EST. 1104.21	CT= 112.90 CF= 111.76	1.1
CS - EST. 1062.20	CT= 111.19 CF= 110.09	1.1
CS - EST. 895.00	CT= 107.77 CF= 106.67	1.1
CS - EST. 1003.60	CT= 109.88 CF= 108.29	1.6
BOCA DE BUEIRO - EST. 1003.22	CT= 109.19 CF= ???	0.5
CS - EST. 1168.86	CT= 114.70 CF= 112.56	2.1
CS - EST. 892.84	CT= 108.01 CF= 106.63	1.4
CS - EST. 843.60	CT= 107.06 CF= 105.61	1.4
CS - EST. 1211.03	CT= 115.67 CF= 114.20	1.5
BOCA DE BUEIRO - EST. 1168.10	CT= 114.20 CF= ???	???
BOCA DE BUEIRO - EST. 1169.18	CT= 113.70 CF= ???	???
CS - EST. 1100.41	CT= 112.92 CF= 111.60	1.3
CS - EST. 1059.71	CT= 111.27 CF= 109.95	1.3
CS - EST. 1019.84	CT= 110.22 CF= 108.81	1.4
CS - EST. 1003.18	CT= 109.93 CF= 108.61	1.3
CS - EST. 843.60	CT= 107.16 CF= 105.17	2.0
BOCA DE BUEIRO - EST. 845.12	CT= 105.79 CF= ???	0.5

SAÍDA DE BUEIRO



ASSENTAMENTO DE TUBO



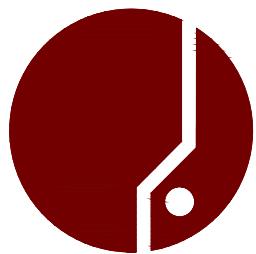
DIÂMETRO	LARGURA DA VALA
0,30	0,80
0,40	0,90
0,50	1,00
0,60	1,10
0,80	1,30
1,00	1,50
1,20	1,70

TABELA														CONSUMO DE MATERIAL			
POSICÕES TIPO	a	b	c	d	e	f	g	k	m	n	H	L	M	N	VOLUME CONCRETO m³	FORMA m²	ENROC. PEDRA ARRUM.
BST N 0,40	0,80	0,20	0,90	0,20	0,10	0,10	0,20	0,10	0,15	0,30	0,80	1,40	1,20	0,10	0,492	3,75	0,297
BST N 0,60	1,00	0,20	1,10	0,20	0,15	0,10	0,20	0,10	0,15	0,30	0,88	1,60	1,40	0,10	0,559	4,27	0,338
BST N 0,80	1,20	0,20	1,40	0,20	0,15	0,10	0,20	0,10	0,15	0,30	1,10	1,70	1,70	0,10	0,813	4,88	0,440
BST N 1,00	1,40	0,20	1,71	0,20	0,20	0,15	0,20	0,10	0,15	0,30	1,32	2,20	2,01	0,10	1,225	6,96	0,686
BST N 1,20	1,60	0,20	1,87	0,20	0,25	0,15	0,20	0,10	0,15	0,30	1,63	2,46	2,17	0,10	1,393	9,52	0,836
BST N 1,50	2,10	0,20	2,30	0,30	0,30	0,20	0,20	0,10	0,15	0,30	1,85	3,00	2,60	0,10	2,580	14,32	1,325

OBS: 1 - O CONSUMO DE MATERIAIS SE REFERE A UMA BOCA
2 - UTILIZAR CONCRETO fck - 150kg/cm²

DRENAGEM PLUVIAL

MUNICÍPIO		ANGELINA – SC	
OBRA		CONTEÚDO	
ESTRADA GERAL RIO ENGANO – ETAPA 2 EST. 42 A PF		DETALHES DE PROJETO E TABELAS	
PROJETO		APROVAÇÃO DA PREFEITURA	
VINÍCIUS FELLER Engenheiro Civil CREA/SC 147.982–3			
REVISÃO	DATA	PRANCHA	
REV .001	FEVEREIRO/2022	03/03	



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