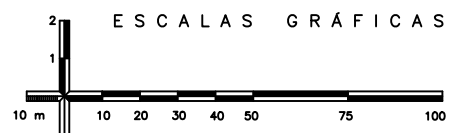
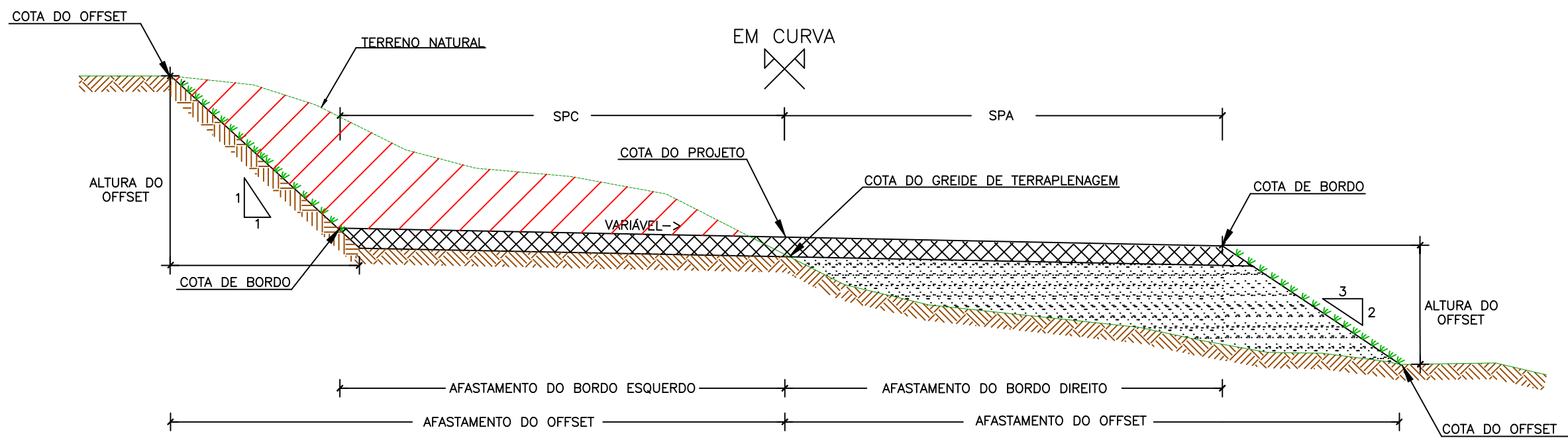


PROJETO DE TERRAPLENAGEM



MB & R ENGENHARIA E TOPOGRAFIA LTDA.
CNPJ: 30.586.318/0001-67
CREA: 77049
R. Inácia Cândida de Jesus, 324 - Sala: 01
Bairro: Jardim Teles Lima
(35) 99838 0358
CEP: 37948-000
Bom Jesus da Penha - MG

DESENHO Nº
PMM-2021-02-MG-TR-001

MES/ANO:
MAI/24

APROVAÇÃO

ELABORADO POR:
Mauro Vieira Bueno Junior
Engenheiro Civil - CREA: 144763/D-MG



PREFEITURA MUNICIPAL DE MOEMA - MINAS GERAIS
SECRETARIA DE OBRAS E SERVIÇOS

RODOVIA: MG-252

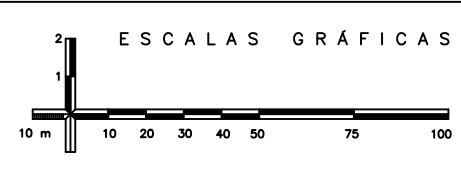
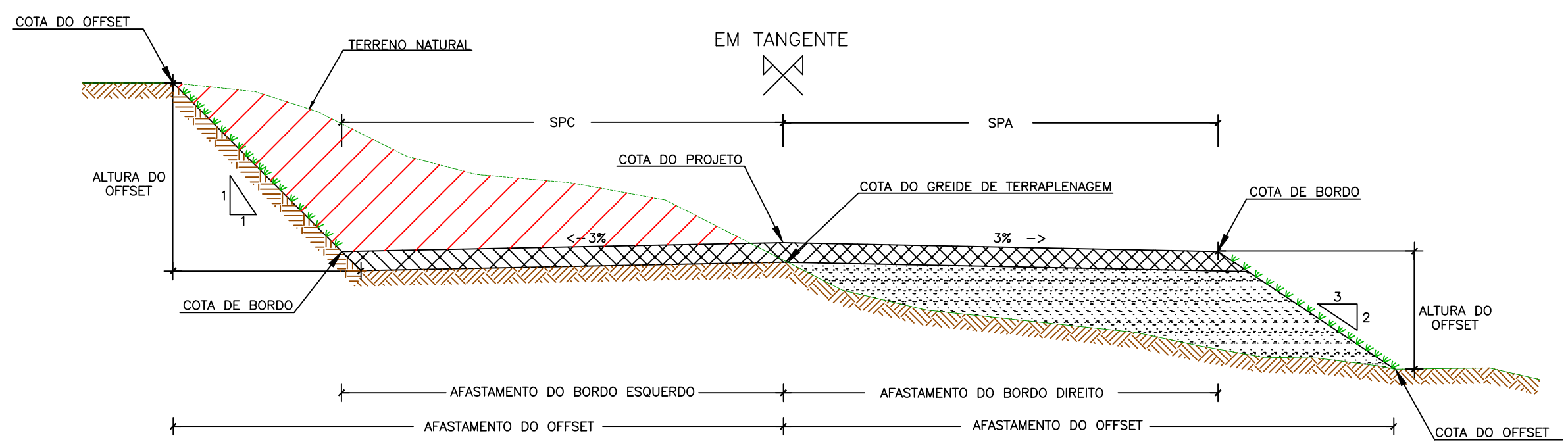
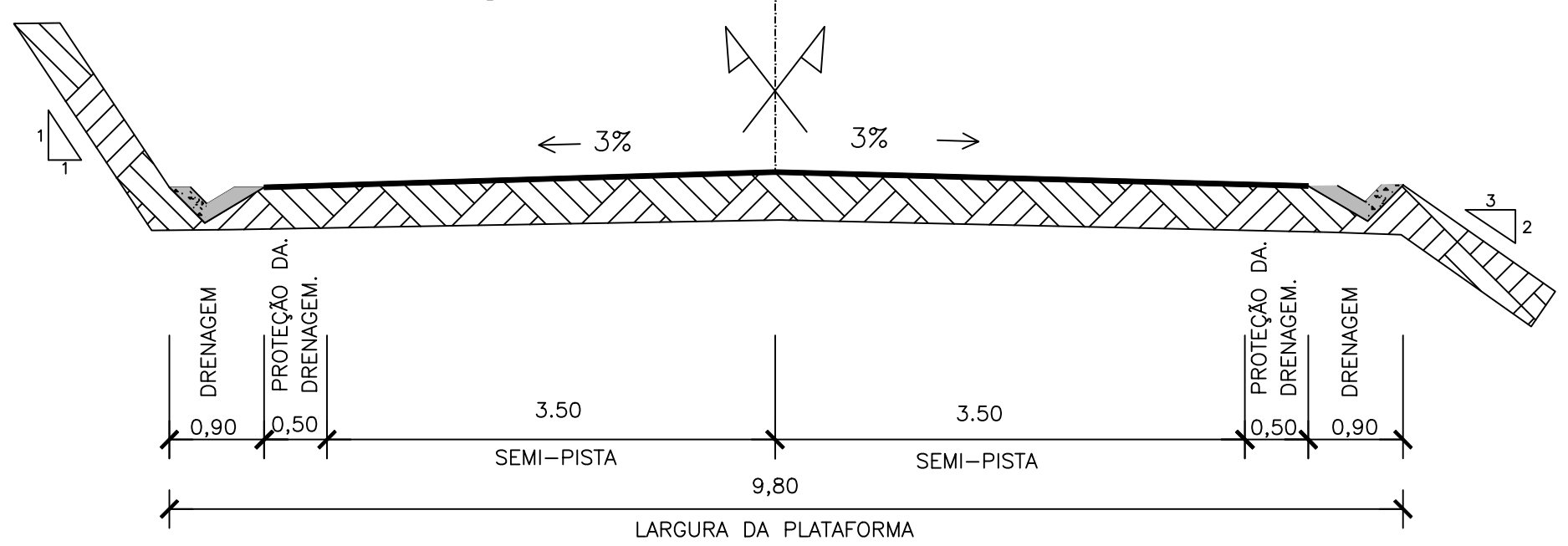
TRECHO: MG-164/MG-170 - MOEMA

PROJETO DE TERRAPLENAGEM

FOLHA:
TR-02

SEÇÃO TRANSVERSAL TIPO

S/ESCALA

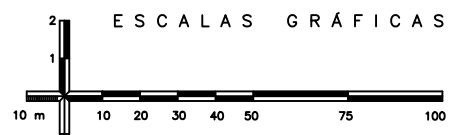
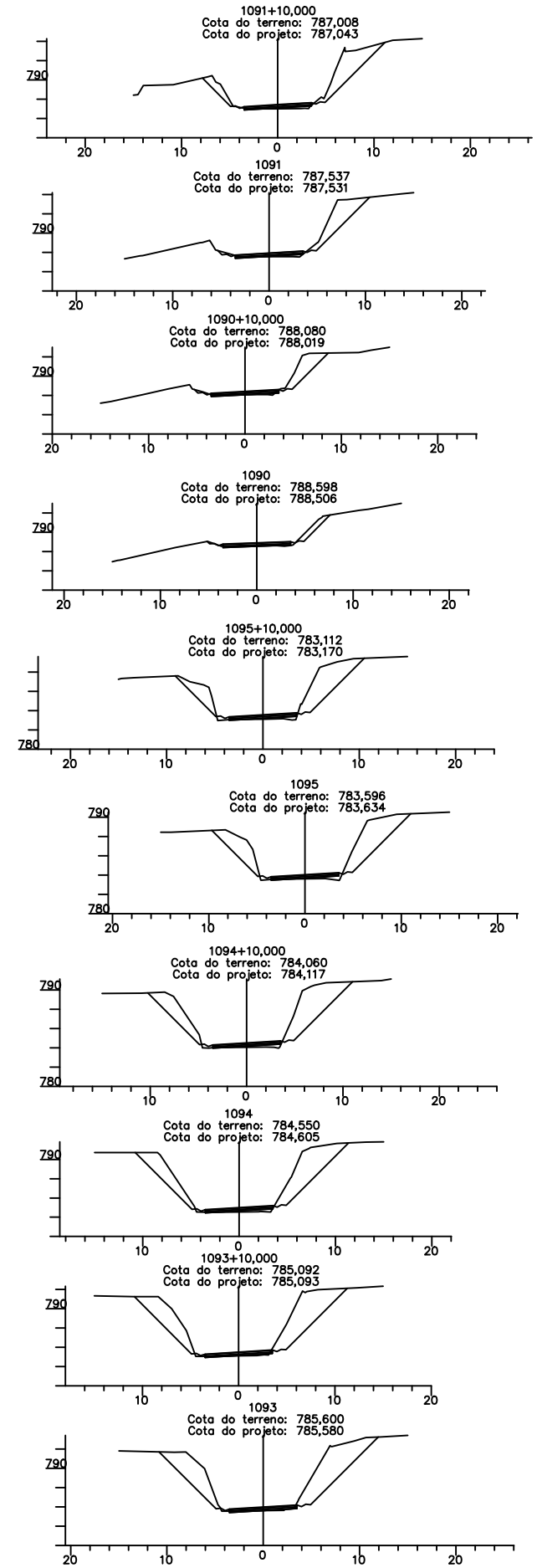
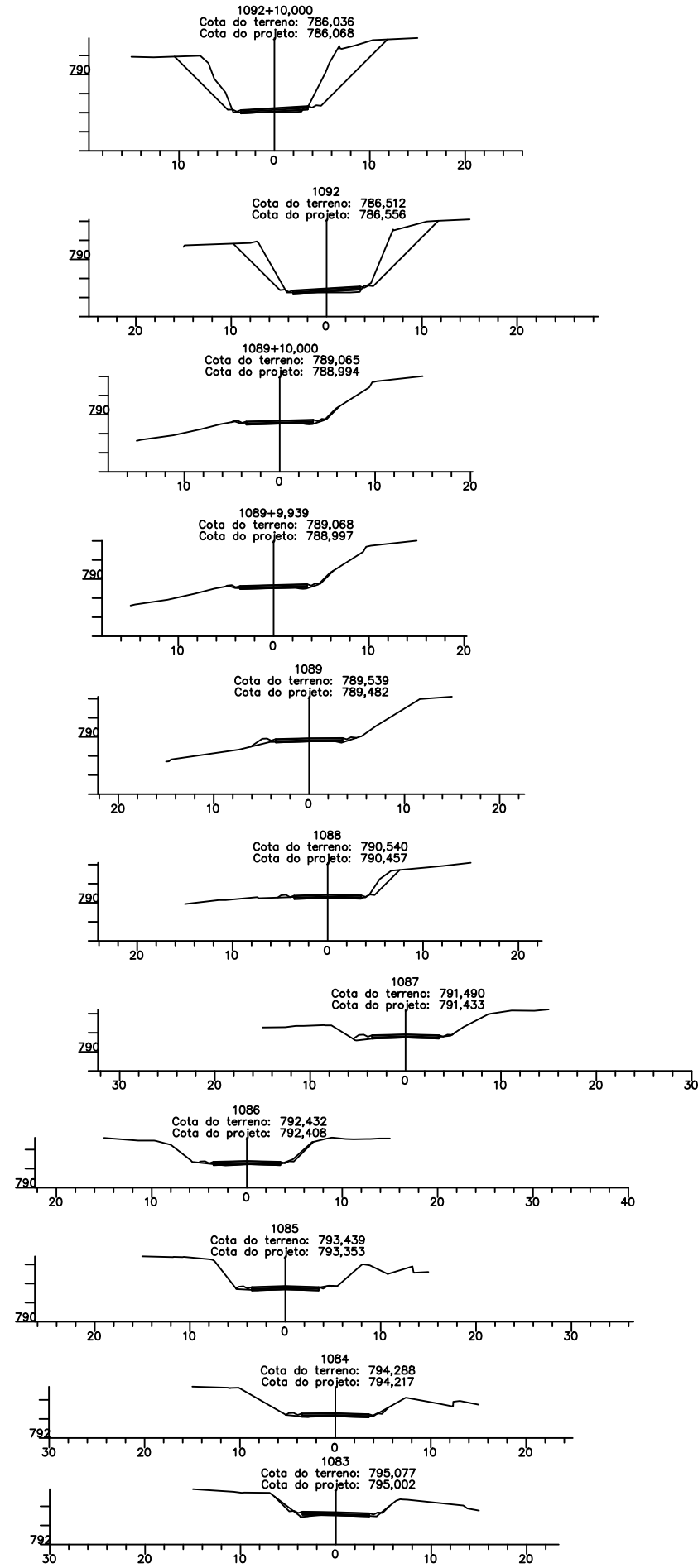
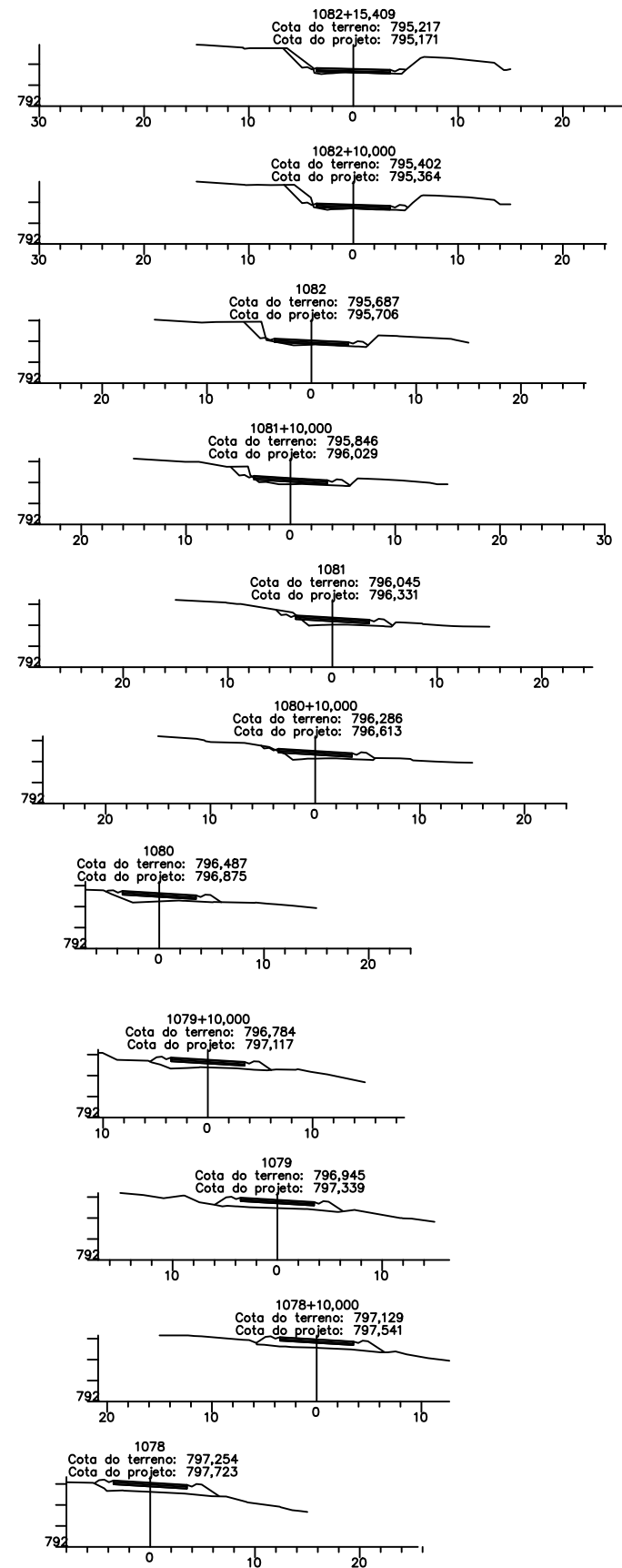


MB & R ENGENHARIA E TOPOGRAFIA LTDA.
 CNPJ: 30.586.318/0001-67
 CREA: 77049
 R. Inácia Cândida de Jesus, 324 - Sala: 01
 Bairro: Jardim Teles Lima
 (35) 99838 0358
 CEP: 37948-000
 Bom Jesus da Penha - MG

DESENHO Nº: PMM-2021-02-MG-TR-001
 MES/ANO: MAI/24
 ELABORADO POR: Mauro Vieira Bueno Junior
 Engenheiro Civil - CREA: 144763/D-MG

APROVAÇÃO

PREFEITURA MUNICIPAL DE MOEMA - MINAS GERAIS
 SECRETARIA DE OBRAS E SERVIÇOS
 RODOVIA: MG-252
 TRECHO: MG-164/MG-170 - MOEMA
 PROJETO DE TERRAPLENAGEM
 FOLHA: TR-03



MB & R ENGENHARIA E TOPOGRAFIA LTDA.
CNPJ: 30.586.318/0001-67
CREA: 77049
R. Inácia Cândida de Jesus, 324 - Sala: 01
Bairro: Jardim Teles Lima
(35) 99838 0358
CEP: 37948-000
Bom Jesus da Penha - MG

DESENHO Nº
PMM-2021-02-MG-TR-001

MES/ANO:
MAI/24

APROVAÇÃO

ELABORADO POR:
Mauro Vieira Bueno Junior
Engenheiro Civil - CREA: 144763/D-MG



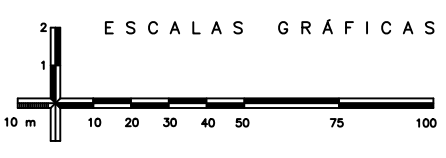
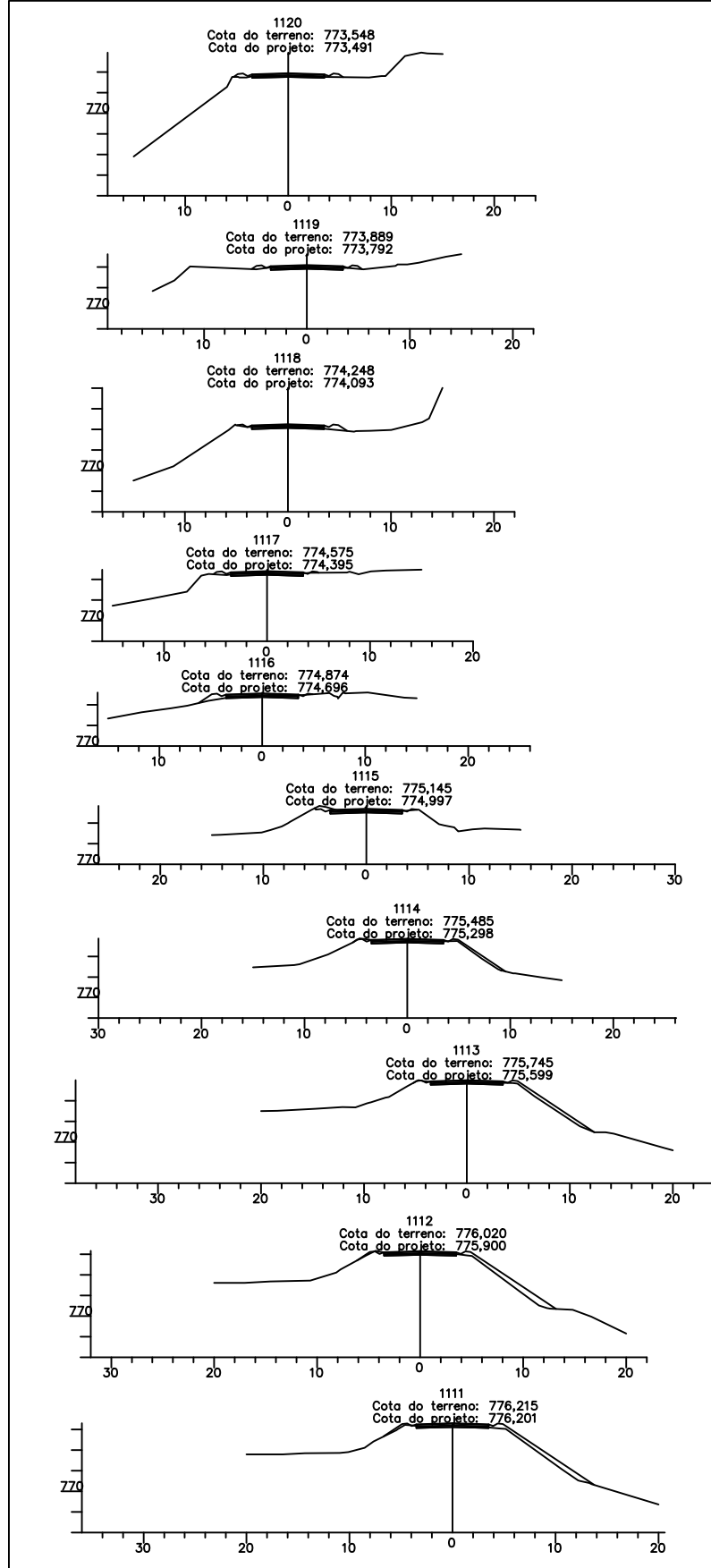
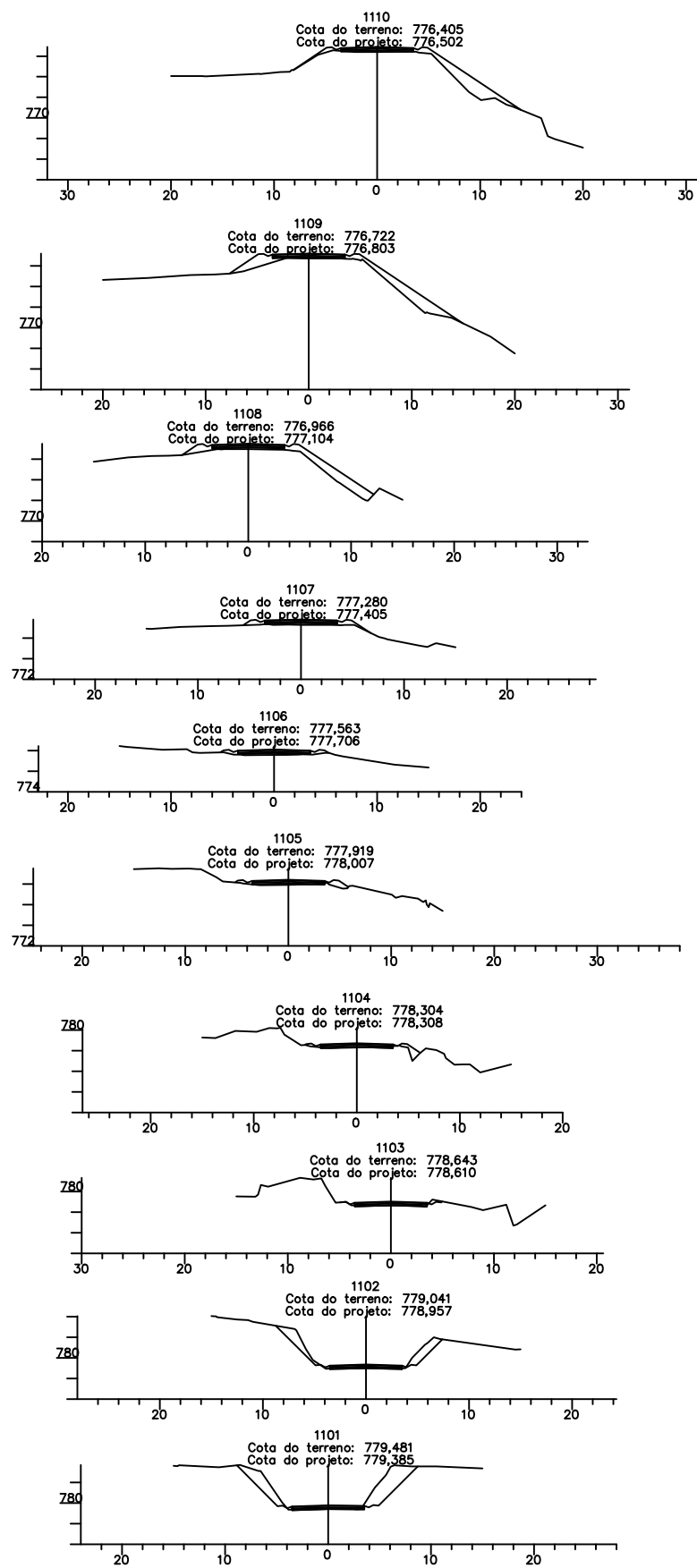
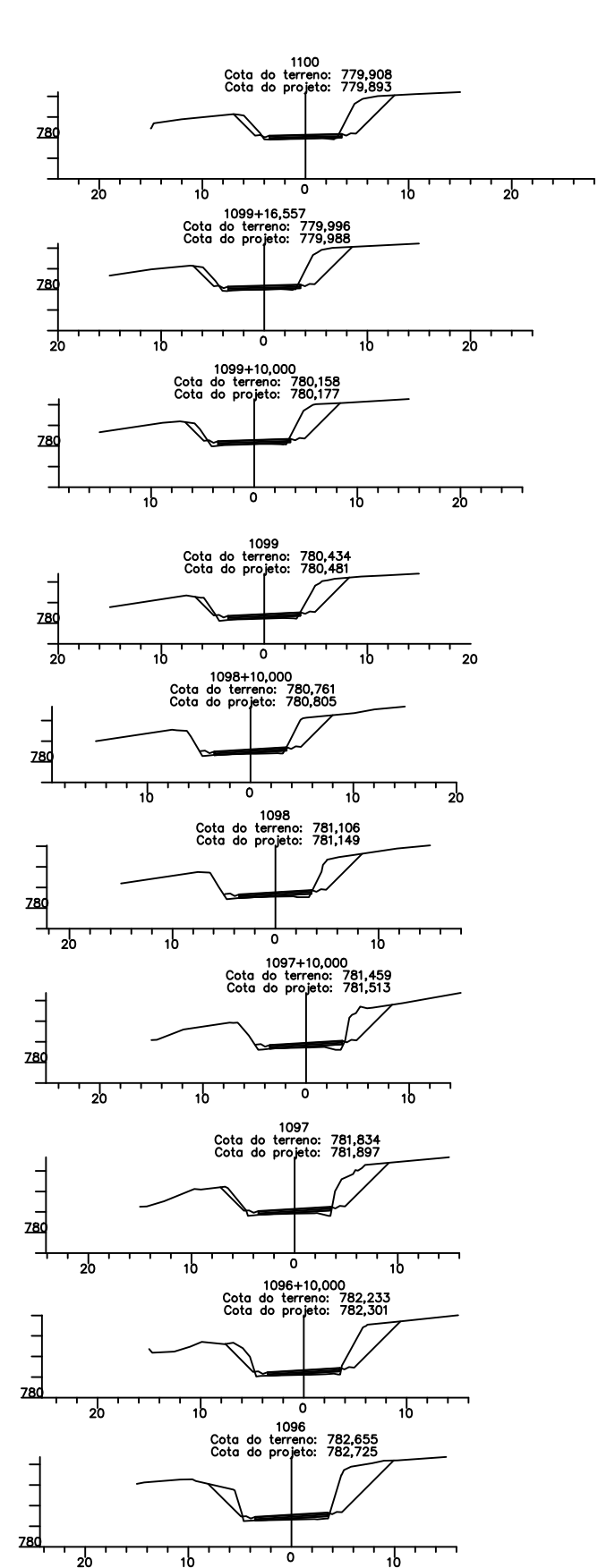
PREFEITURA MUNICIPAL DE MOEMA - MINAS GERAIS
SECRETARIA DE OBRAS E SERVIÇOS

RODOVIA: MG-252

TRECHO: MG-164/MG-170 - MOEMA

PROJETO DE TERRAPLENAGEM

FOLHA:
TR-04



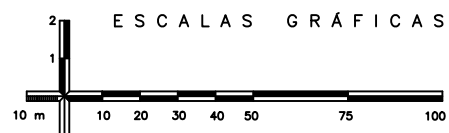
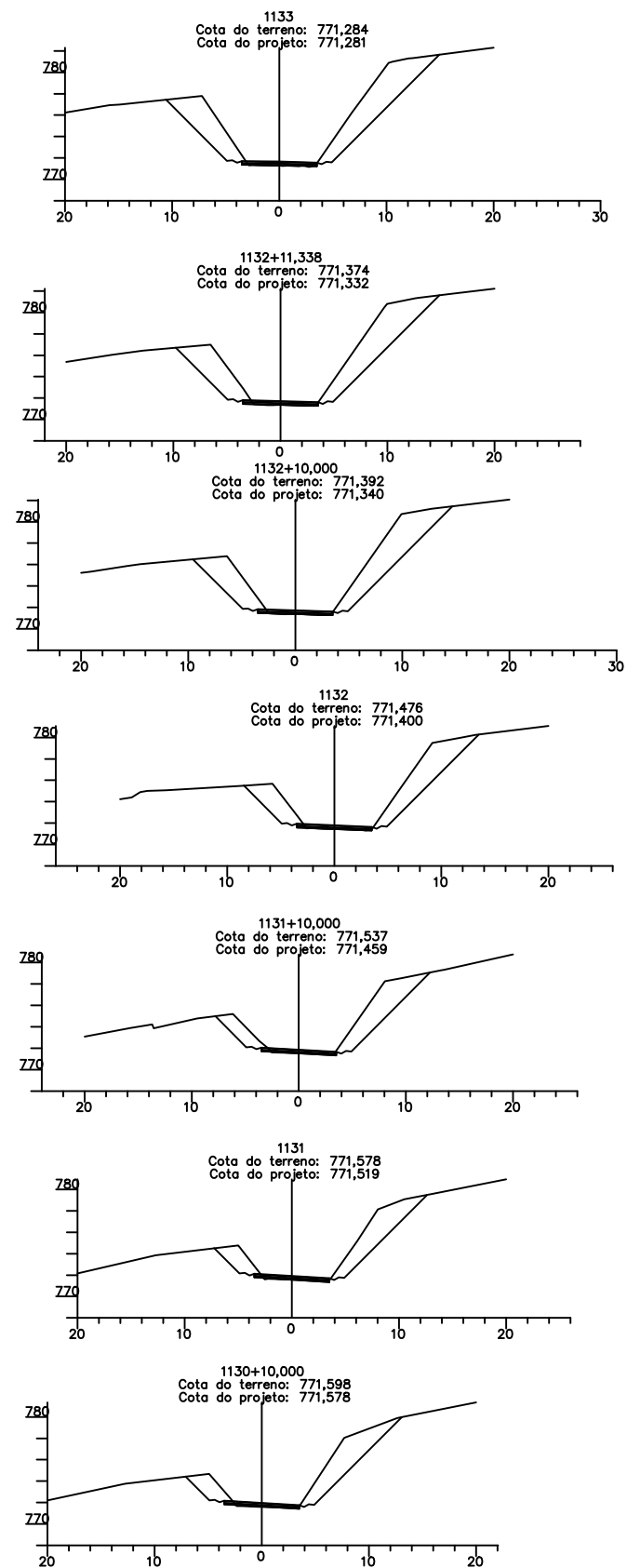
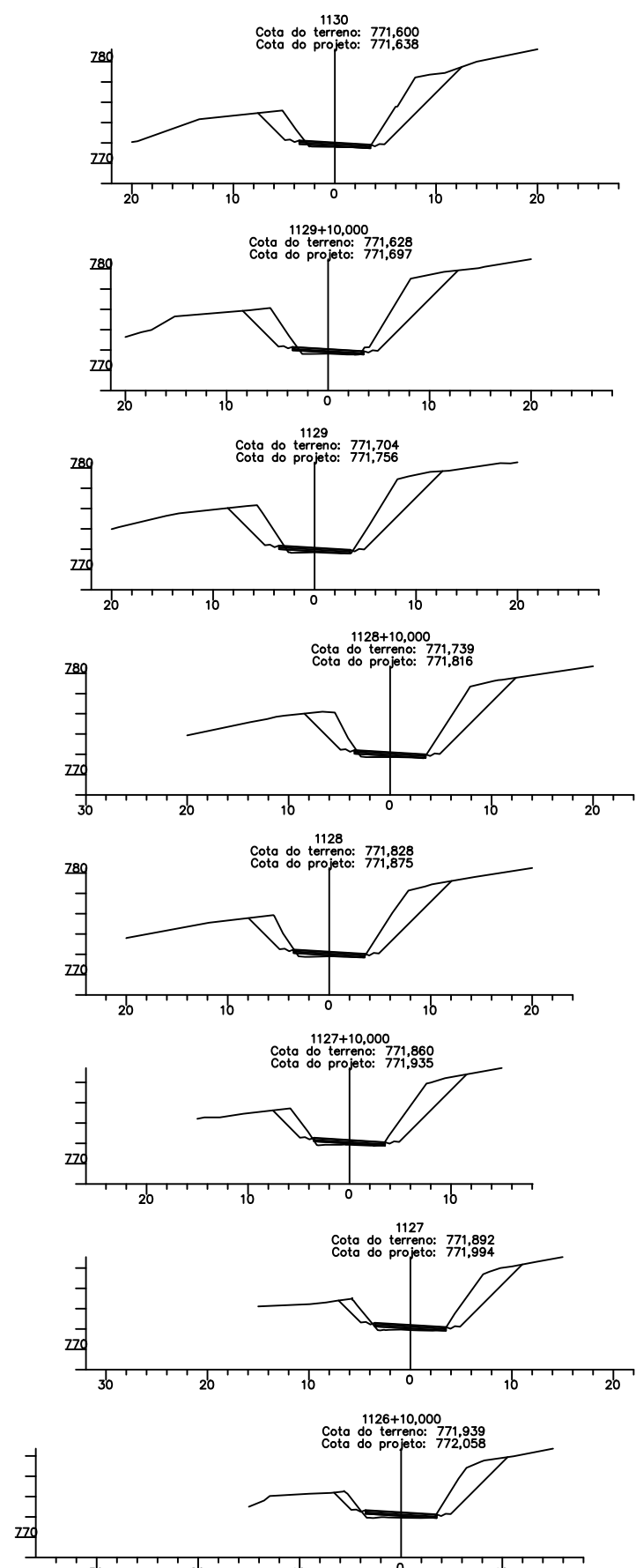
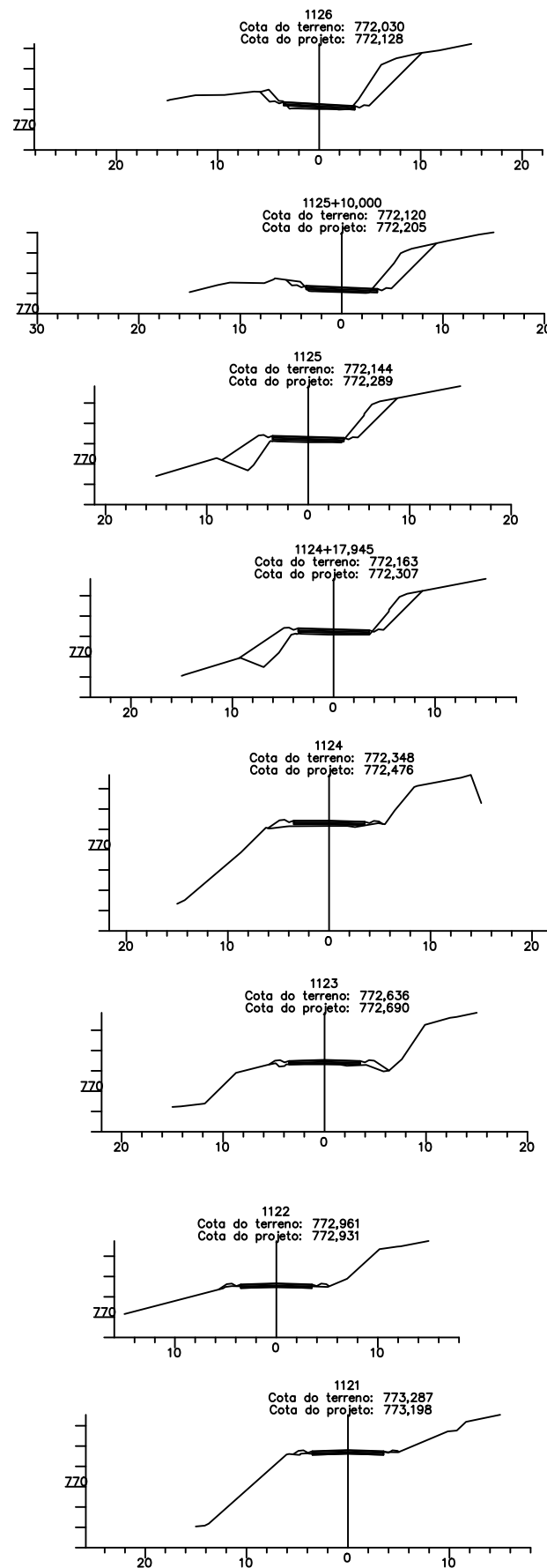
MB & R ENGENHARIA E TOPOGRAFIA LTDA.
CNPJ: 30.586.318/0001-67
CREA: 77049
R. Inácia Cândida de Jesus, 324 - Sala: 01
Bairro: Jardim Teles Lima
(35) 99838 0358
CEP: 37948-000
Bom Jesus da Penha - MG

DESENHO Nº: PMM-2021-02-MG-TR-001
MES/ANO: MAI/24
ELABORADO POR: Mauro Vieira Bueno Junior
Engenheiro Civil - CREA: 144763/D-MG

APROVAÇÃO



PREFEITURA MUNICIPAL DE MOEMA - MINAS GERAIS
SECRETARIA DE OBRAS E SERVIÇOS
RODOVIA: MG-252
TRECHO: MG-164/MG-170 - MOEMA
PROJETO DE TERRAPLENAGEM
FOLHA: TR-05



MB & R ENGENHARIA E TOPOGRAFIA LTDA.
CNPJ: 30.586.318/0001-67
CREA: 77049
R. Inácia Cândida de Jesus, 324 - Sala: 01
Bairro: Jardim Teles Lima
(35) 99838 0358
CEP: 37948-000
Bom Jesus da Penha - MG

DESENHO Nº
PMM-2021-02-MG-TR-001

MES/ANO:
MAI/24

APROVAÇÃO

ELABORADO POR:

Mauro Vieira Bueno Junior
Engenheiro Civil - CREA: 144763/D-MG



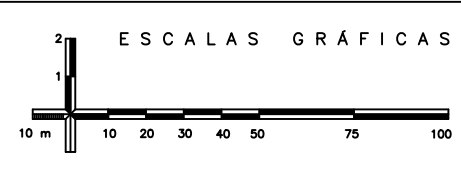
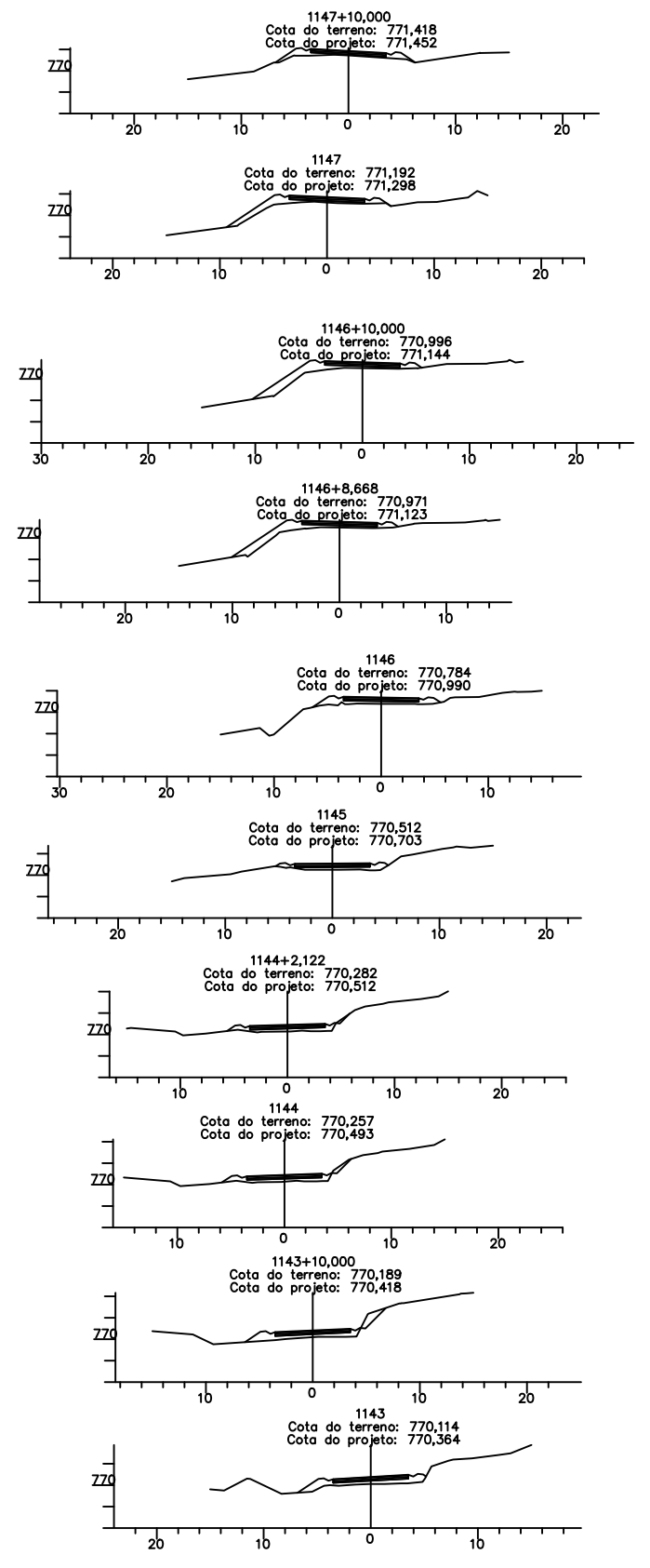
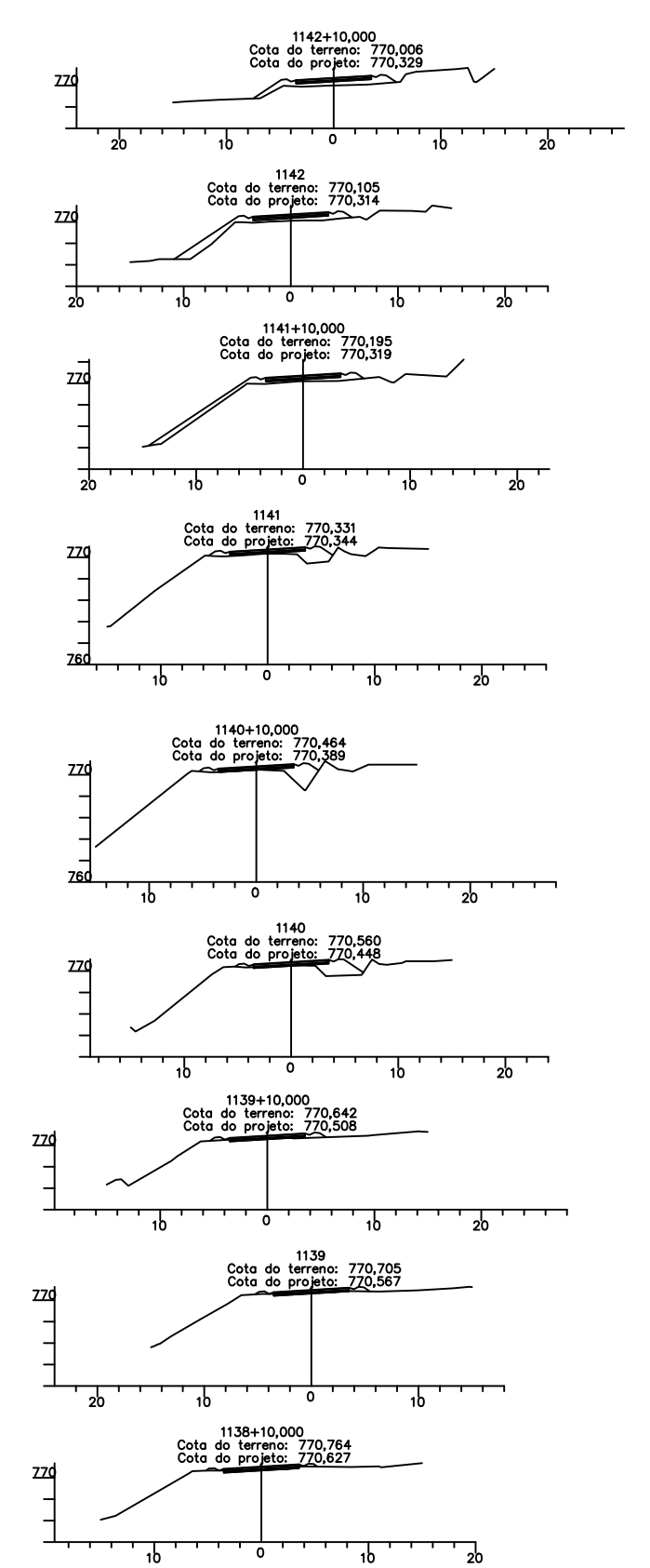
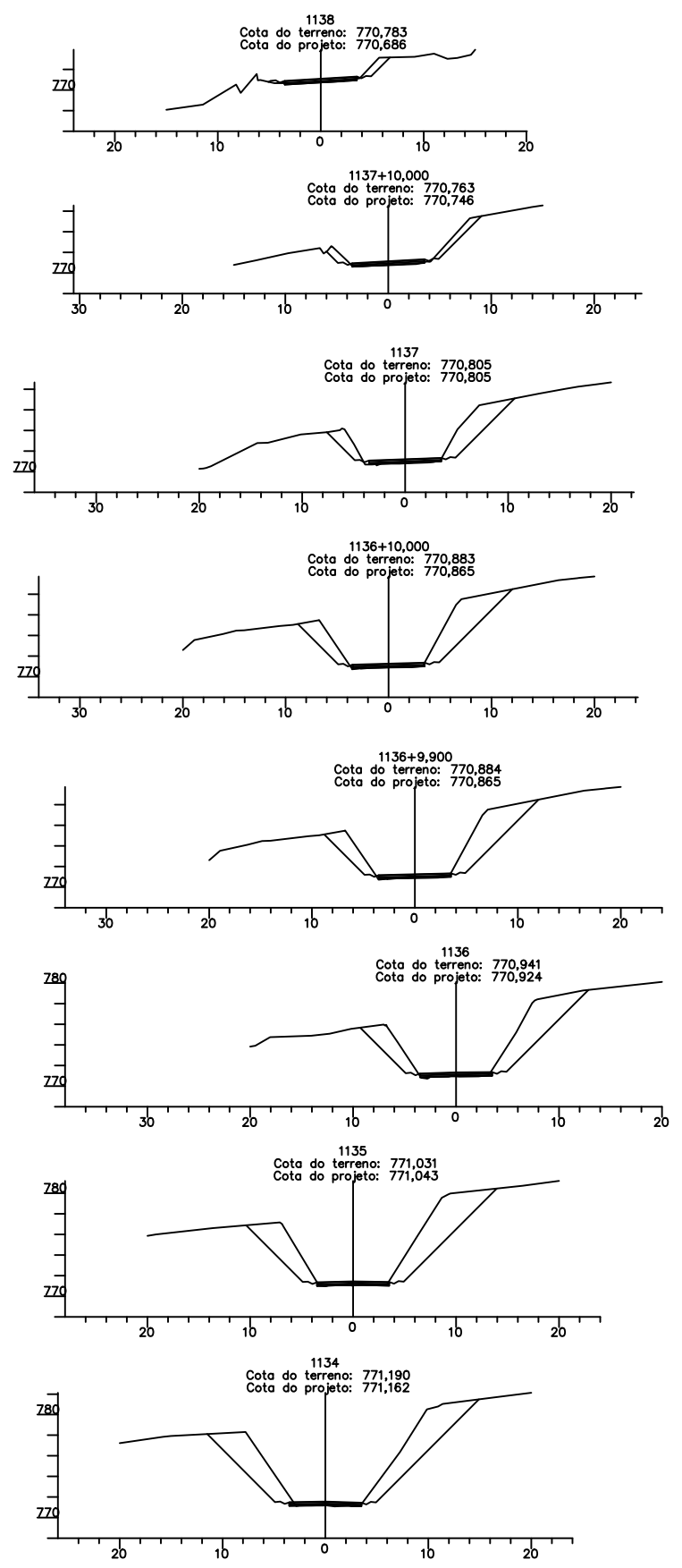
PREFEITURA MUNICIPAL DE MOEMA - MINAS GERAIS
SECRETARIA DE OBRAS E SERVIÇOS

RODOVIA: MG-252

TRECHO: MG-164/MG-170 - MOEMA

PROJETO DE TERRAPLENAGEM

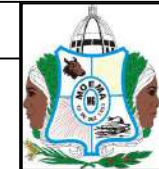
FOLHA:
TR-06



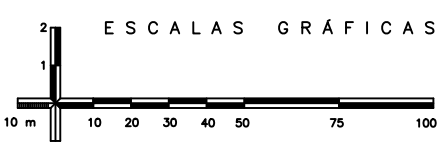
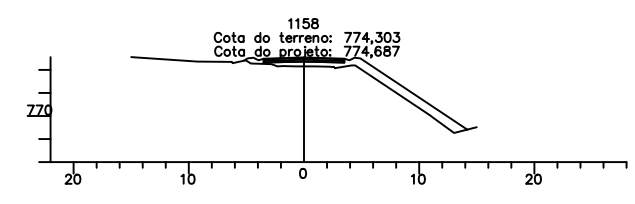
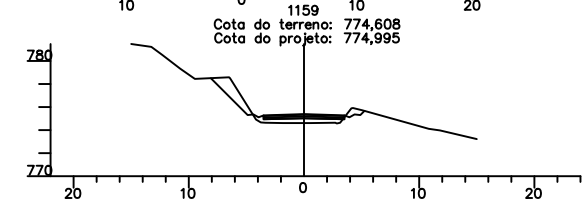
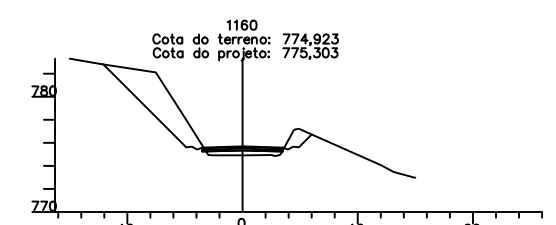
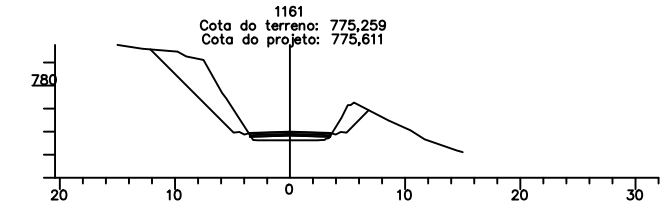
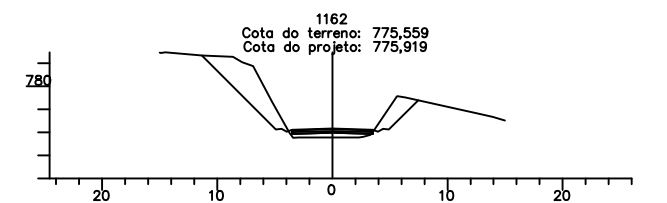
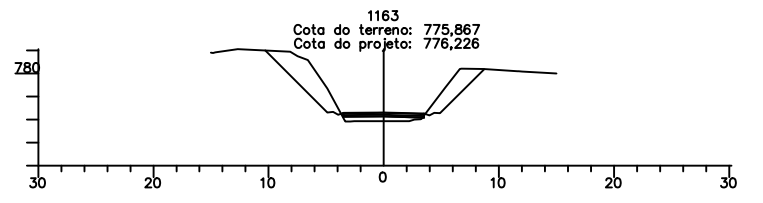
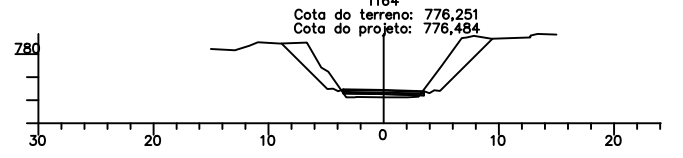
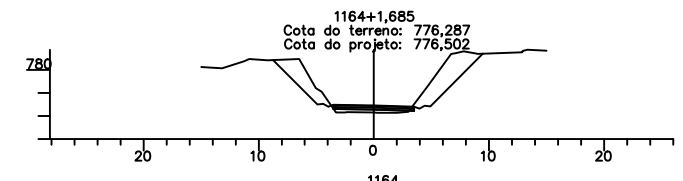
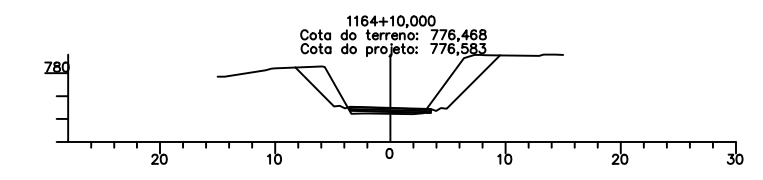
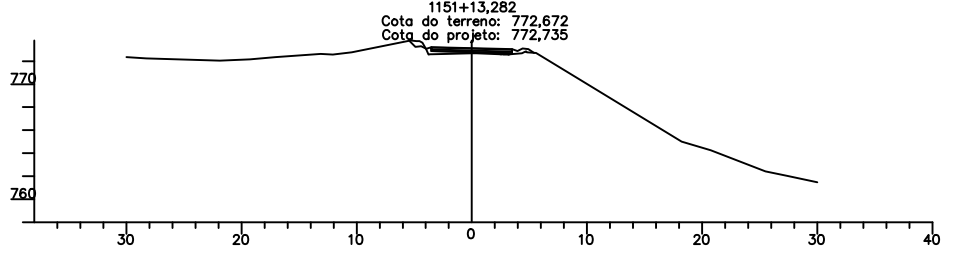
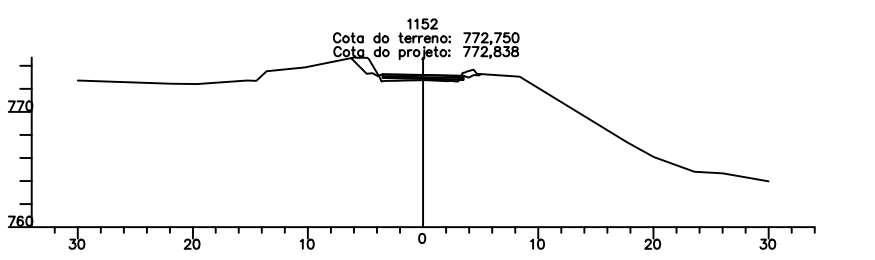
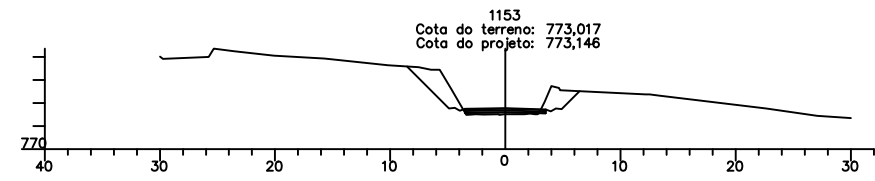
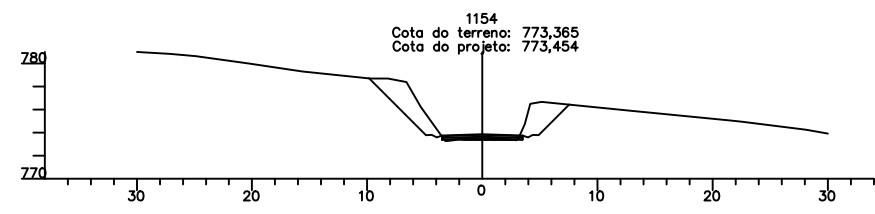
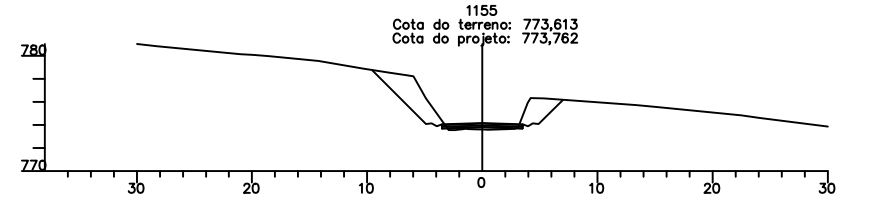
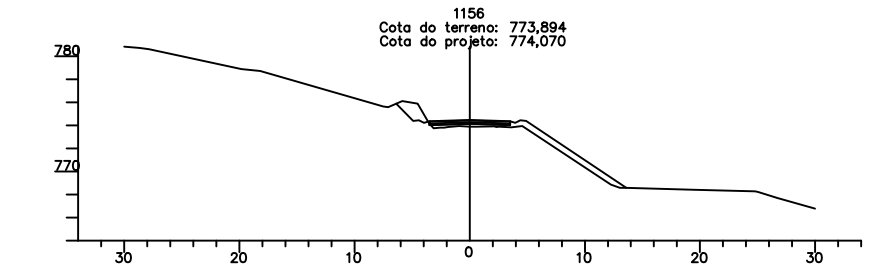
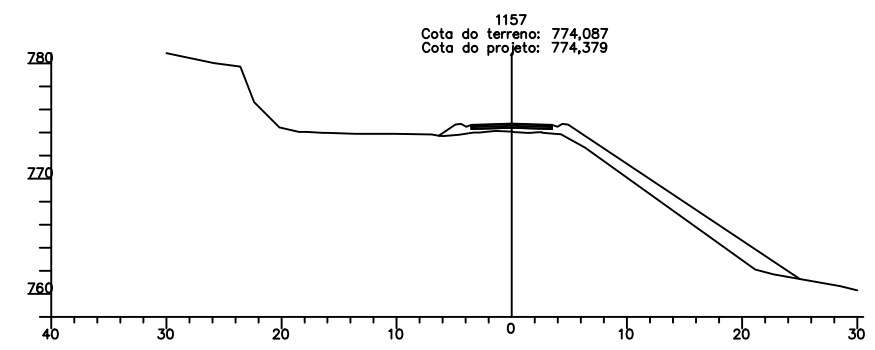
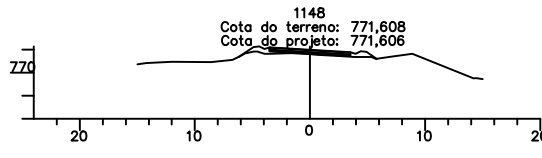
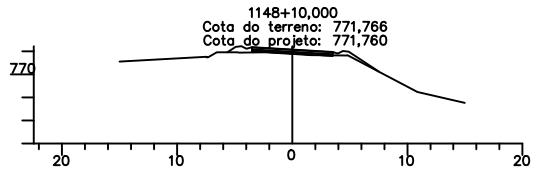
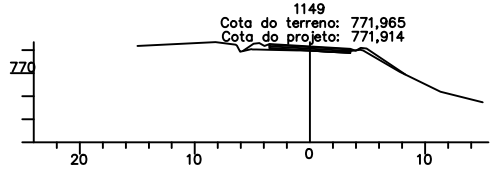
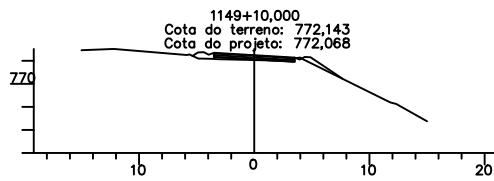
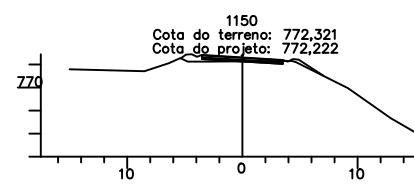
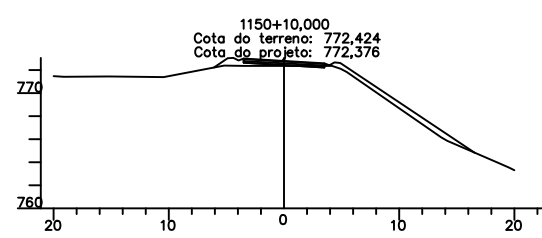
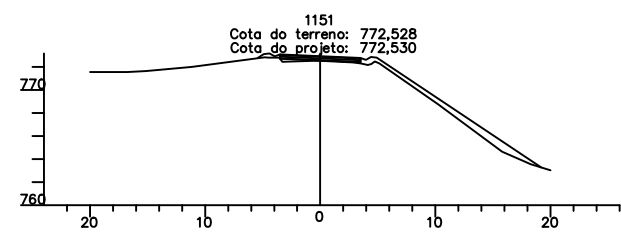
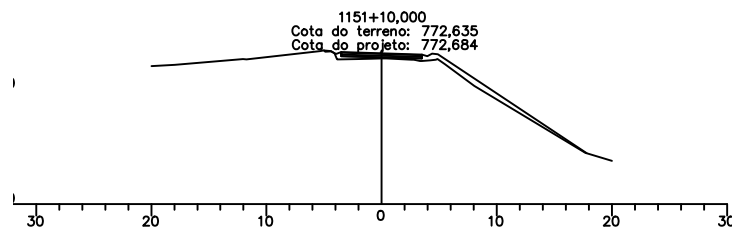
MB & R ENGENHARIA E TOPOGRAFIA LTDA.
 CNPJ: 30.586.318/0001-67
 CREA: 77049
 R. Inácia Cândida de Jesus, 324 - Sala: 01
 Bairro: Jardim Teles Lima
 (35) 99838-0358
 CEP: 37948-000
 Bom Jesus da Penha - MG

DESENHO Nº
 PMM-2021-02-MG-TR-001
 MES/ANO:
 MAI/24
 ELABORADO POR:
 Mauro Vieira Bueno Junior
 Engenheiro Civil - CREA: 144763/D-MG

APROVAÇÃO



PREFEITURA MUNICIPAL DE MOEMA - MINAS GERAIS
 SECRETARIA DE OBRAS E SERVIÇOS
 RODOVIA: MG-252
 TRECHO: MG-164/MG-170 - MOEMA
 PROJETO DE TERRAPLENAGEM
 FOLHA:
 TR-07



MB & R ENGENHARIA E TOPOGRAFIA LTDA.
CNPJ: 30.586.318/0001-67
CREA: 77049
R. Inácia Cândida de Jesus, 324 - Sala: 01
Bairro: Jardim Teles Lima
(35) 99838 0358
CEP: 37948-000
Bom Jesus da Penha - MG

DESENHO Nº
PMM-2021-02-MG-TR-001

MES/ANO:
MAI/24

ELABORADO POR:
Mauro Vieira Bueno Junior
Engenheiro Civil - CREA: 144763/D-MG

APROVAÇÃO



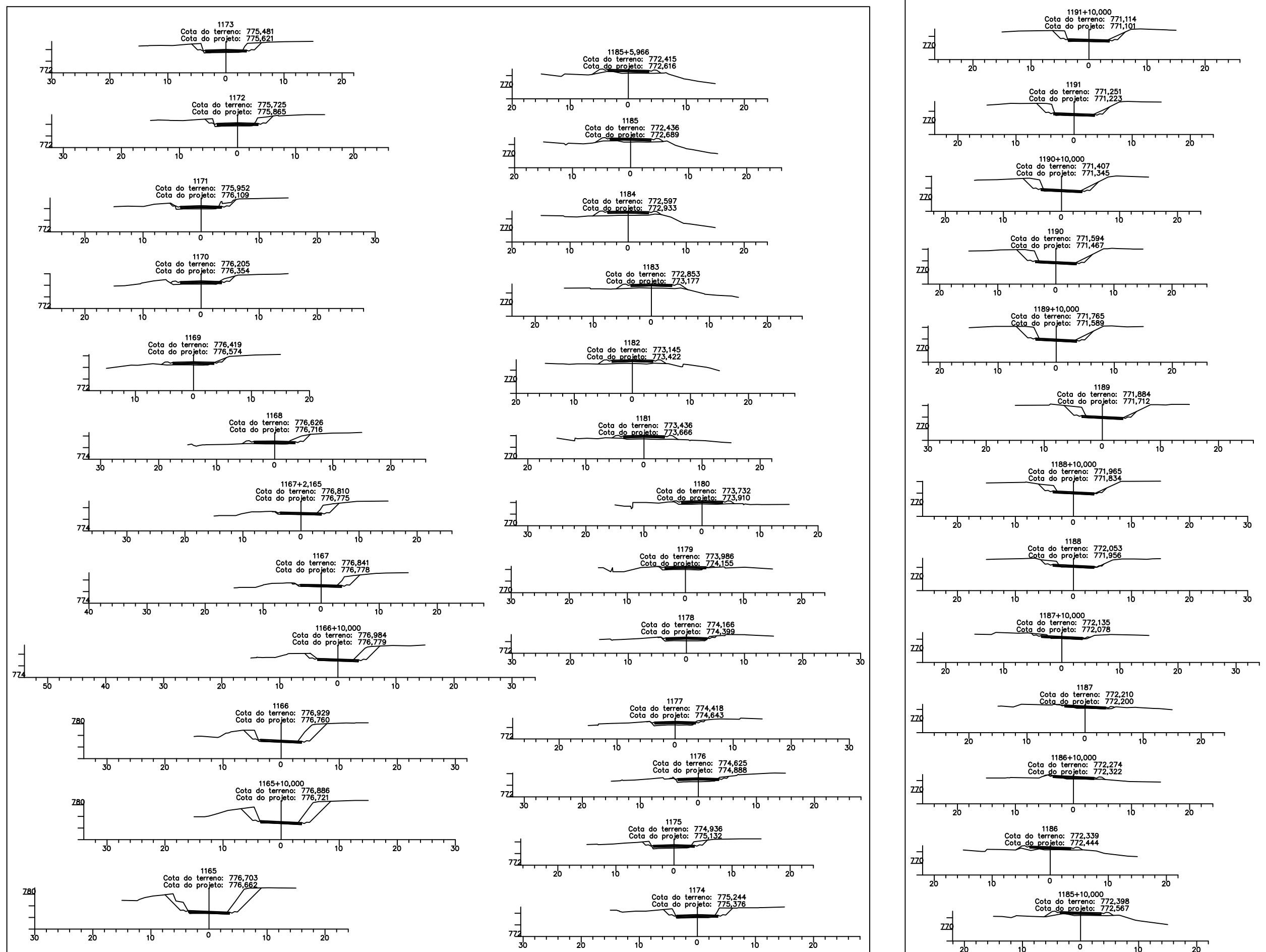
PREFEITURA MUNICIPAL DE MOEMA - MINAS GERAIS
SECRETARIA DE OBRAS E SERVIÇOS

RODOVIA: MG-252

TRECHO: MG-164/MG-170 - MOEMA

PROJETO DE TERRAPLENAGEM

FOLHA:
TR-08



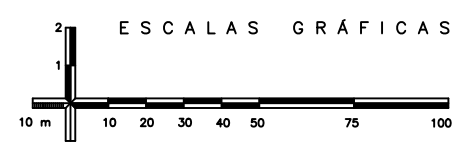
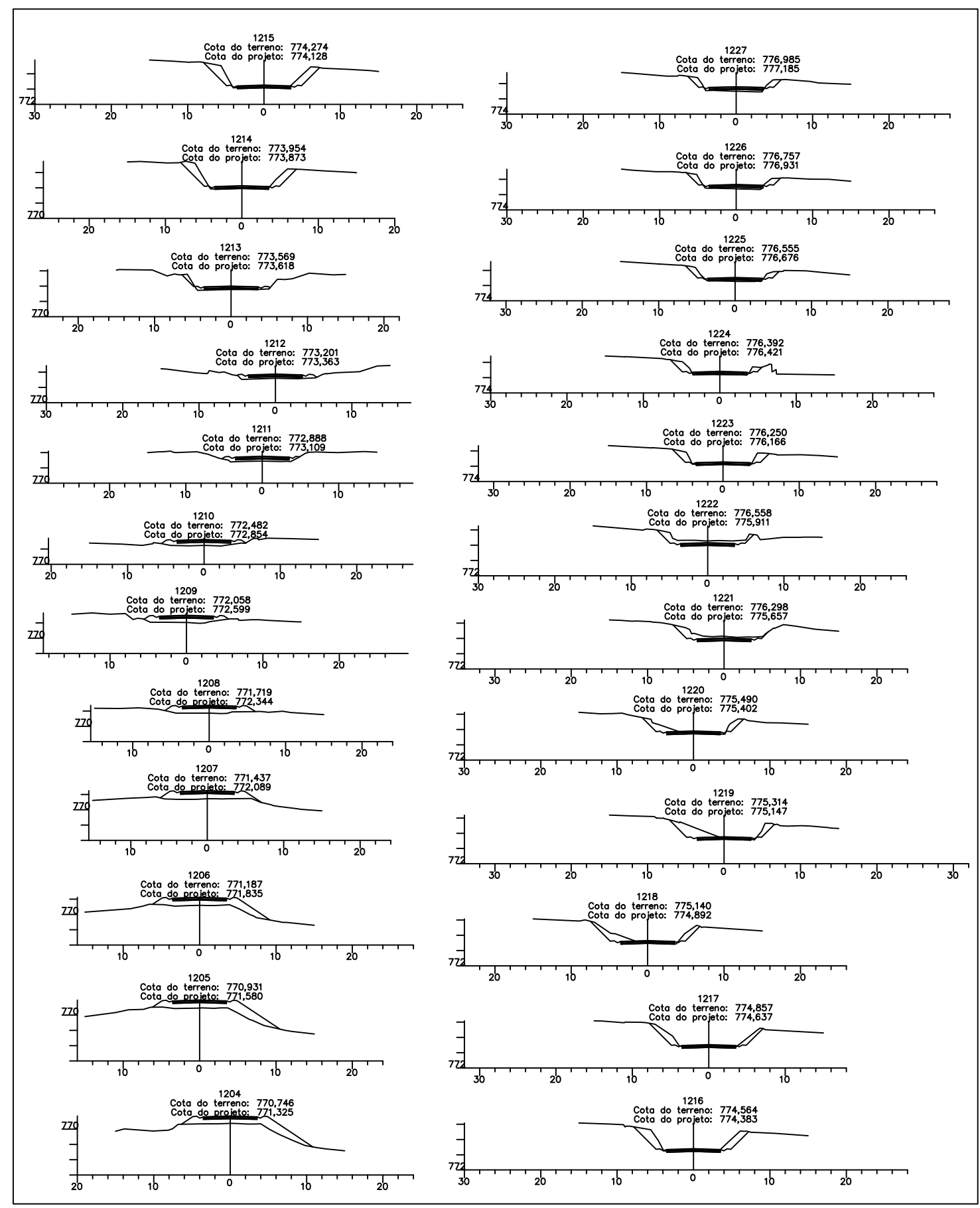
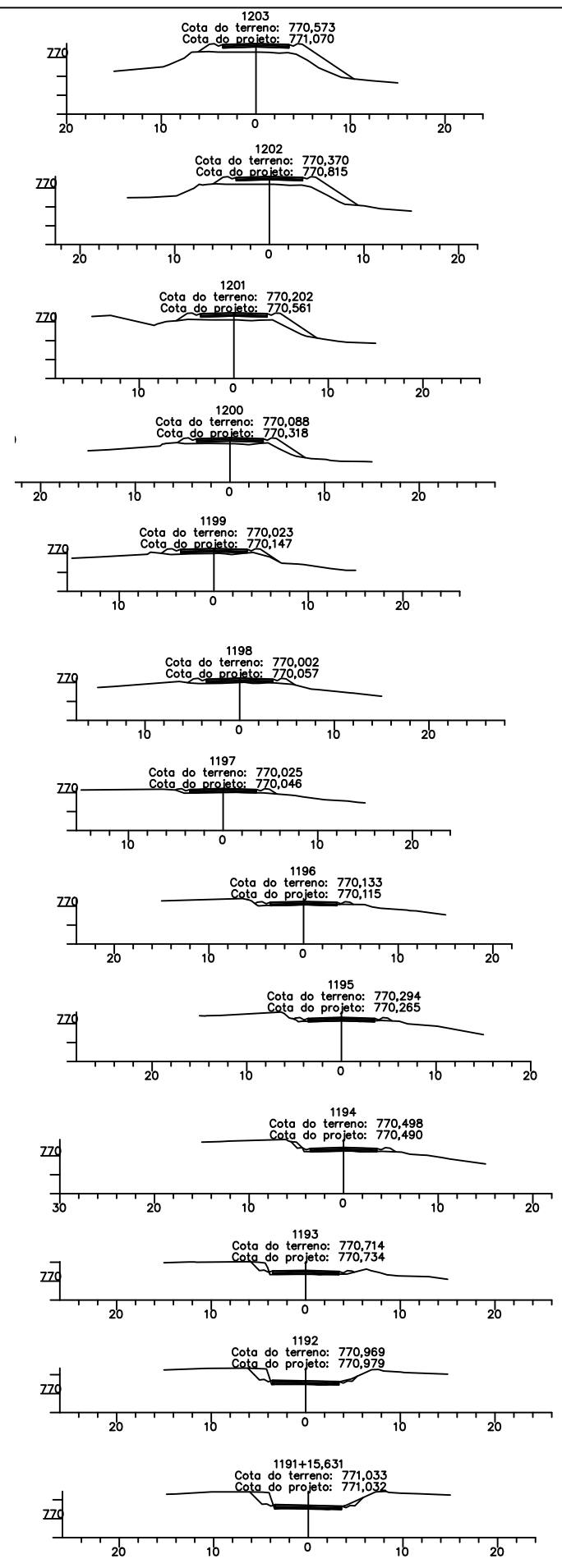
MB & R ENGENHARIA E TOPOGRAFIA LTDA.
 CNPJ: 30.586.318/0001-67
 CREA: 77049
 R. Inácia Cândida de Jesus, 324 - Sala: 01
 Bairro: Jardim Teles Lima
 (35) 99838 0358
 CEP: 37948-000
 Bom Jesus da Penha - MG

DESENHO Nº: PMM-2021-02-MG-TR-001
 MES/ANO: MAI/24
 ELABORADO POR: Mauro Vieira Bueno Junior
 Engenheiro Civil - CREA: 144763/D-MG

APROVAÇÃO



PREFEITURA MUNICIPAL DE MOEMA - MINAS GERAIS
 SECRETARIA DE OBRAS E SERVIÇOS
 RODOVIA: MG-252 TRECHO: MG-164/MG-170 - MOEMA
 PROJETO DE TERRAPLENAGEM
 FOLHA: TR-09



MB & R ENGENHARIA E TOPOGRAFIA LTDA.
 CNPJ: 30.586.318/0001-67
 CREA: 77049
 R. Inácia Cândida de Jesus, 324 - Sala: 01
 Bairro: Jardim Teles Lima
 (35) 99838 0358
 CEP: 37948-000
 Bom Jesus da Penha - MG

DESENHO Nº
 PMM-2021-02-MG-TR-001

MES/ANO:
 MAI/24

ELABORADO POR:
 Mauro Vieira Bueno Junior
 Engenheiro Civil - CREA: 144763/D-MG

APROVAÇÃO

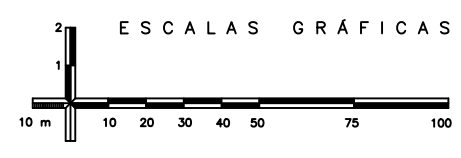
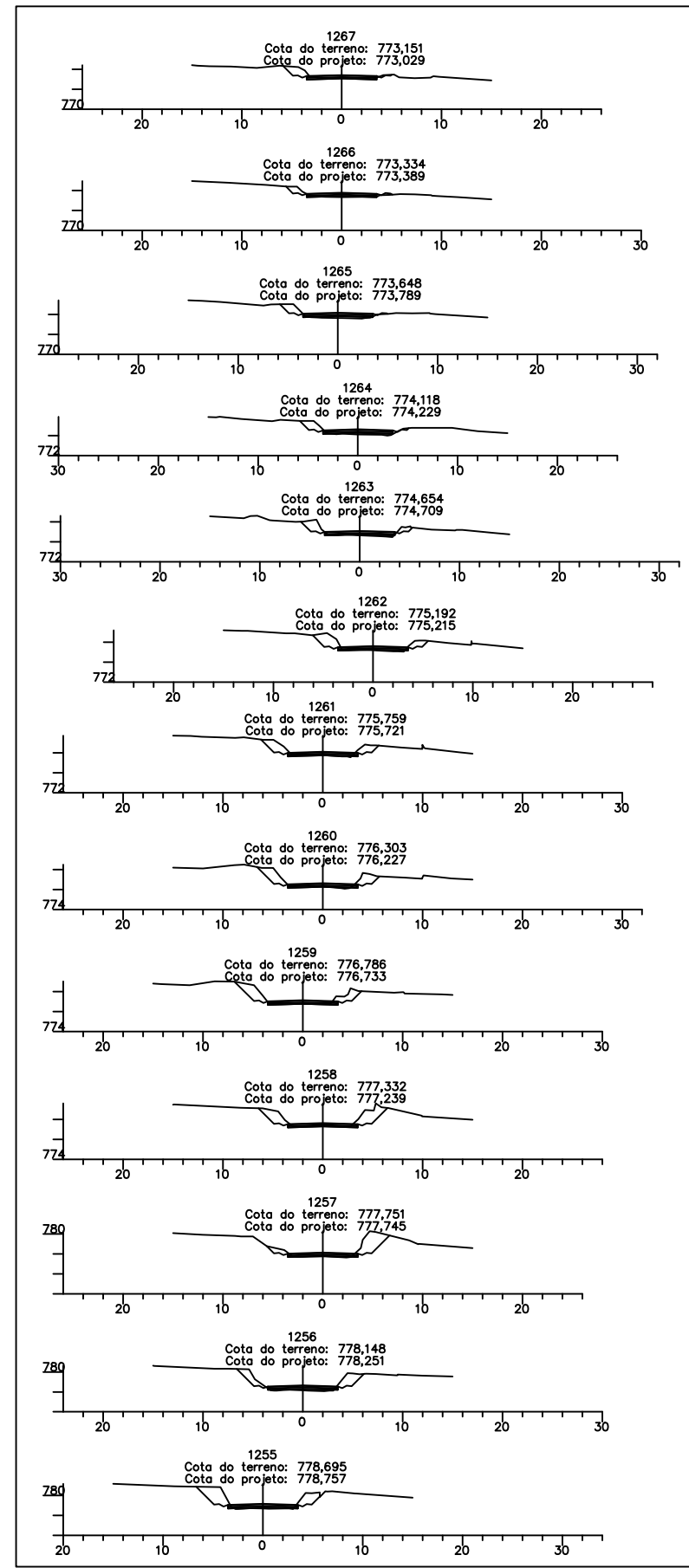
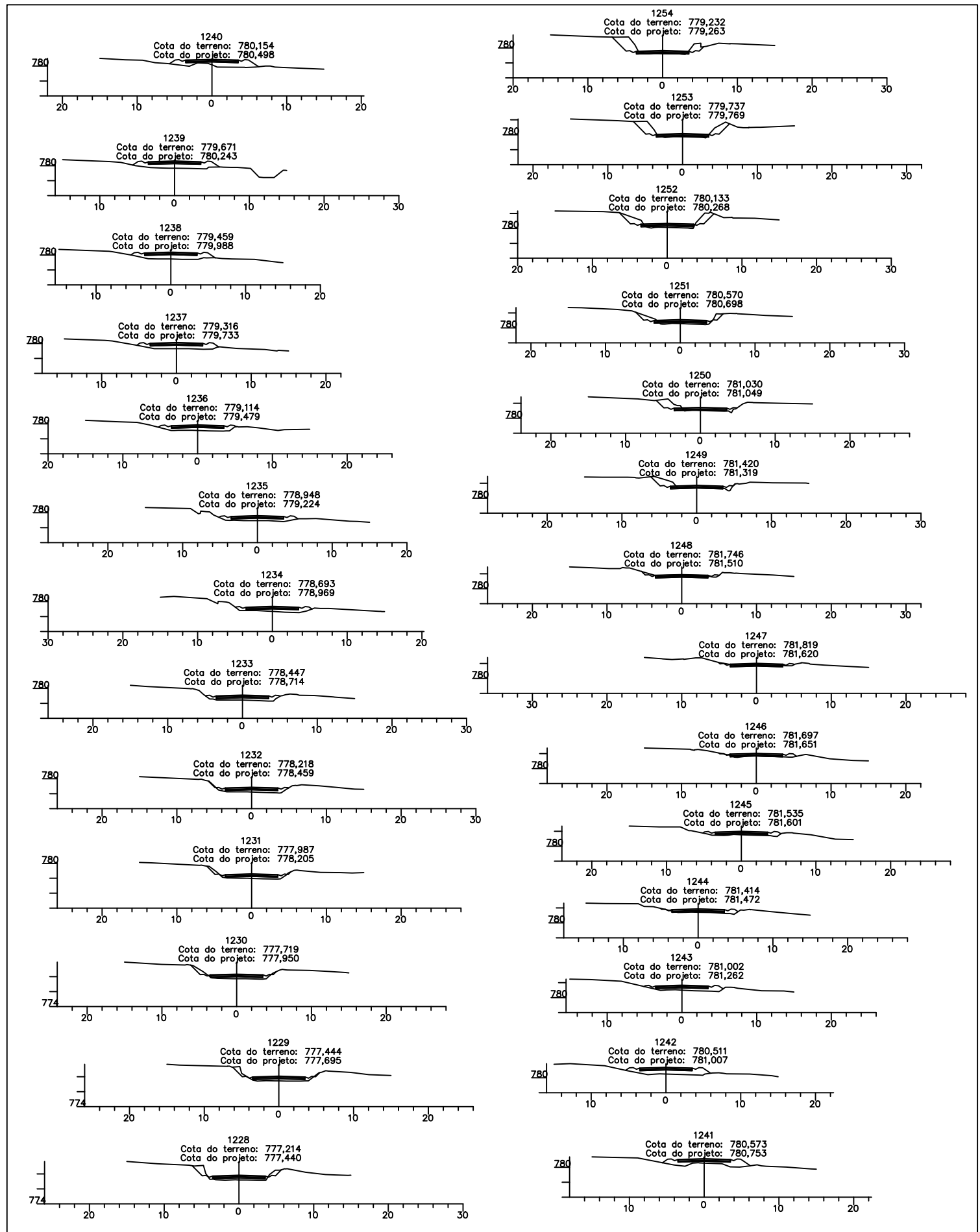
PREFEITURA MUNICIPAL DE MOEMA - MINAS GERAIS
 SECRETARIA DE OBRAS E SERVIÇOS

RODOVIA: MG-252

TRECHO: MG-164/MG-170 - MOEMA

PROJETO DE TERRAPLENAGEM

FOLHA:
 TR-10



MB & R ENGENHARIA E TOPOGRAFIA LTDA.
CNPJ: 30.586.318/0001-67
CREA: 77049
R. Inácia Cândida de Jesus, 324 - Sala: 01
Bairro: Jardim Teles Lima
(35) 99838 0358
CEP: 37948-000
Bom Jesus da Penha - MG

DESENHO Nº
PMM-2021-02-MG-TR-001

MES/ANO:
MAI/24

ELABORADO POR:
Mauro Vieira Bueno Junior
Engenheiro Civil - CREA: 144763/D-MG

APROVAÇÃO



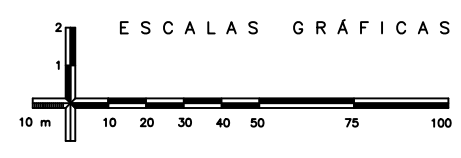
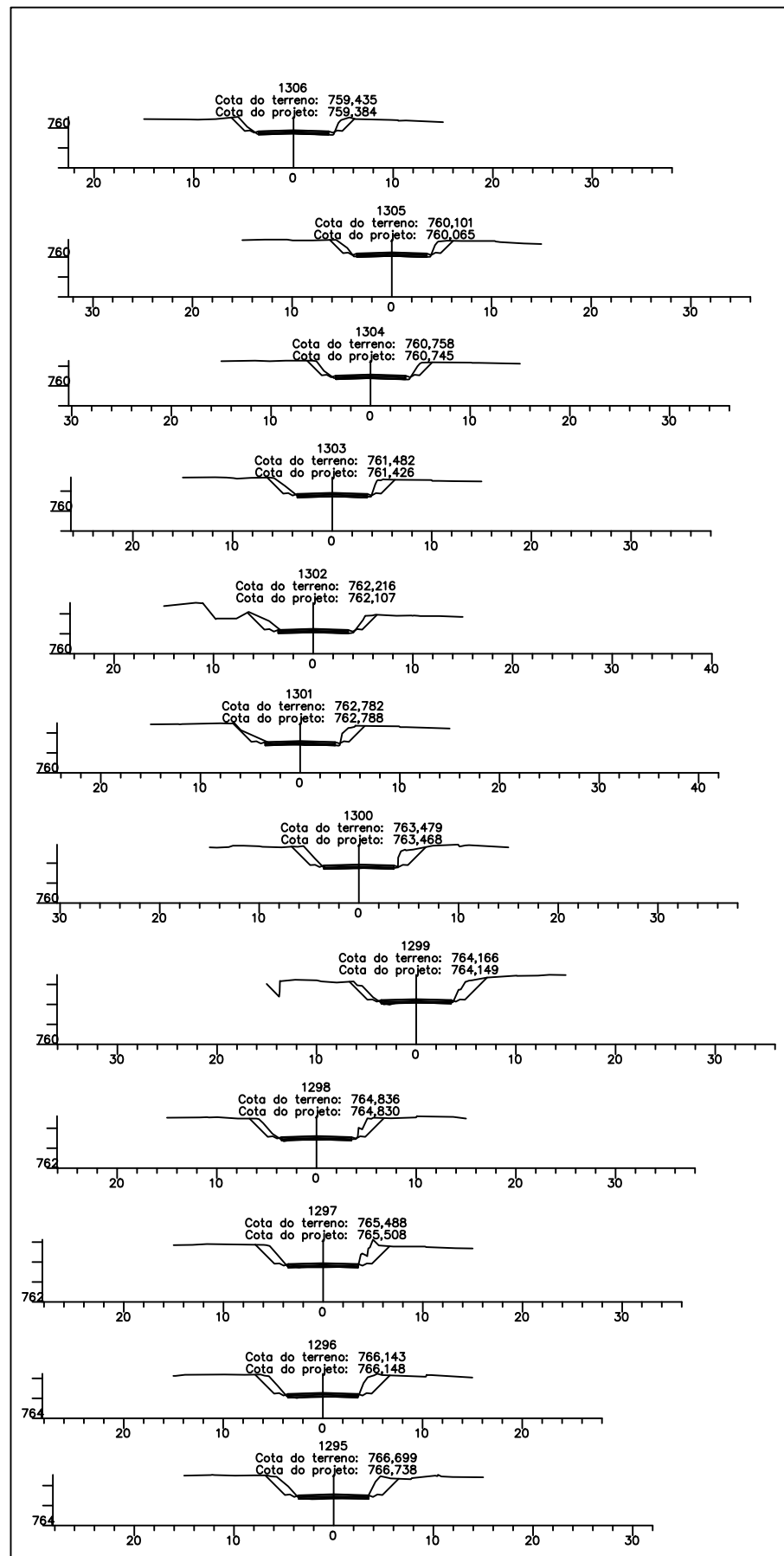
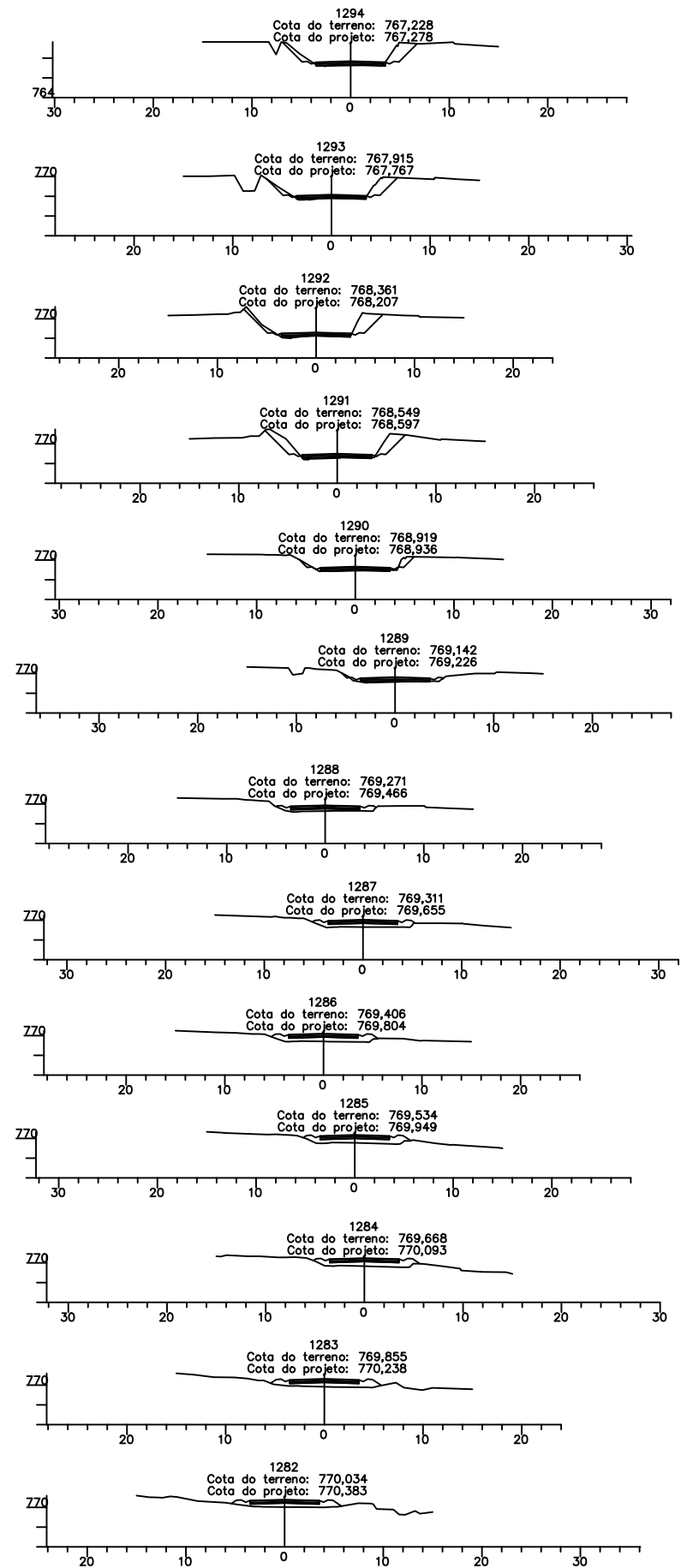
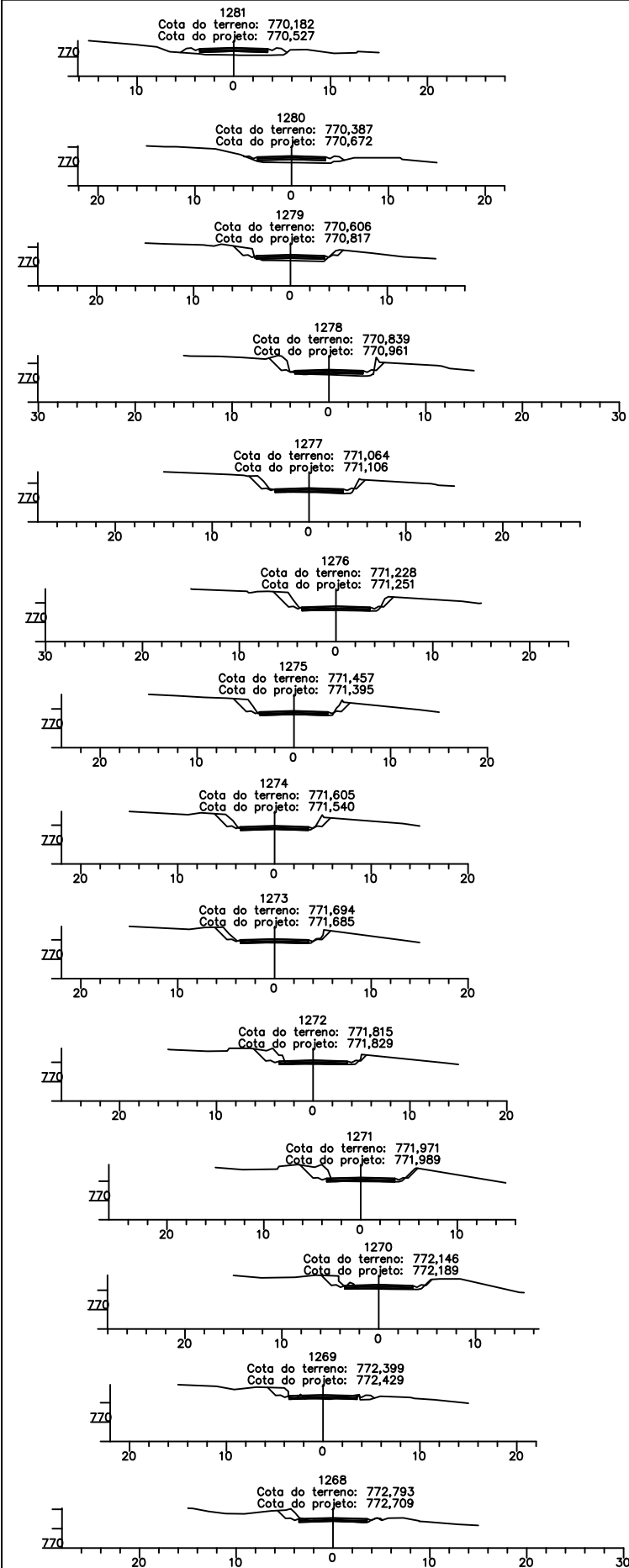
PREFEITURA MUNICIPAL DE MOEMA - MINAS GERAIS
SECRETARIA DE OBRAS E SERVIÇOS

RODOVIA: MG-252

TRECHO: MG-164/MG-170 - MOEMA

PROJETO DE TERRAPLENAGEM

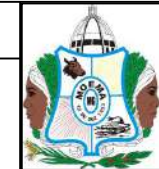
FOLHA:
TR-11



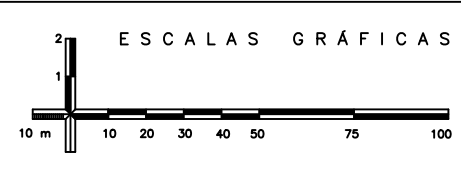
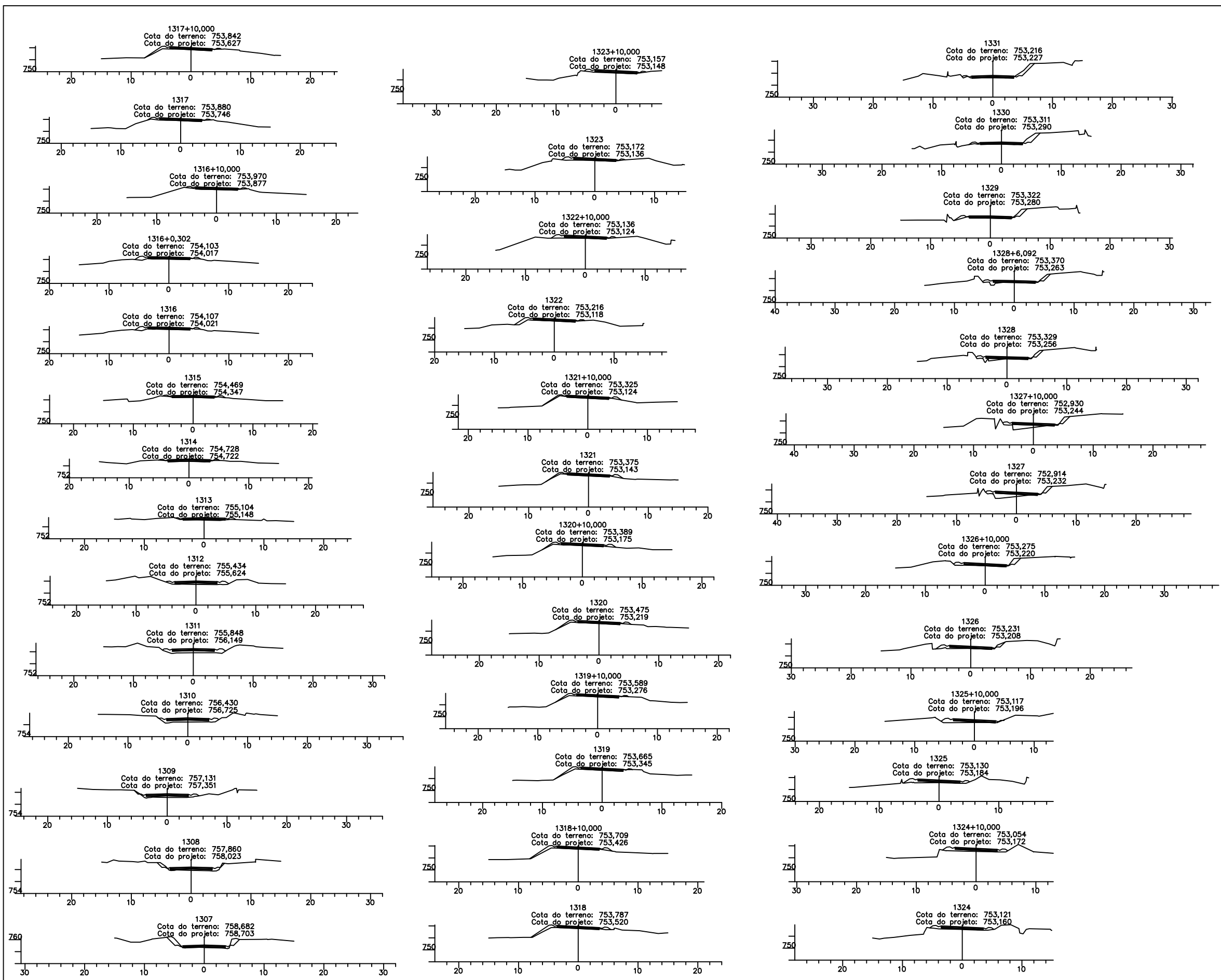
MB & R ENGENHARIA E TOPOGRAFIA LTDA.
CNPJ: 30.586.318/0001-67
CREA: 77049
R. Inácia Cândida de Jesus, 324 - Sala: 01
Bairro: Jardim Teles Lima
(35) 99838 0358
CEP: 37948-000
Bom Jesus da Penha - MG

DESENHO Nº: PMM-2021-02-MG-TR-001
MES/ANO: MAI/24
ELABORADO POR: Mauro Vieira Bueno Junior
Engenheiro Civil - CREA: 144763/D-MG

APROVAÇÃO



PREFEITURA MUNICIPAL DE MOEMA - MINAS GERAIS
SECRETARIA DE OBRAS E SERVIÇOS
RODOVIA: MG-252
TRECHO: MG-164/MG-170 - MOEMA
PROJETO DE TERRAPLENAGEM
FOLHA: TR-12



MB & R ENGENHARIA E TOPOGRAFIA LTDA.
 CNPJ: 30.586.318/0001-67
 CREA: 77049
 R. Inácia Cândida de Jesus, 324 - Sala: 01
 Bairro: Jardim Teles Lima
 (35) 99838 0358
 CEP: 37948-000
 Bom Jesus da Penha - MG

DESENHO Nº: PMM-2021-02-MG-TR-001
 MES/ANO: MAI/24
 ELABORADO POR: Mauro Vieira Bueno Junior
 Engenheiro Civil - CREA: 144763/D-MG

APROVAÇÃO



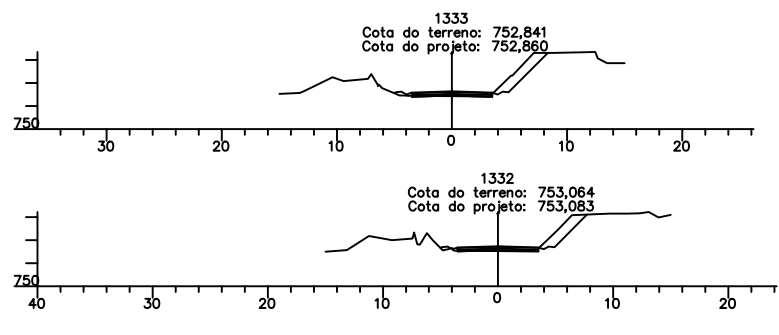
PREFEITURA MUNICIPAL DE MOEMA - MINAS GERAIS
 SECRETARIA DE OBRAS E SERVIÇOS

RODOVIA: MG-252

TRECHO: MG-164/MG-170 - MOEMA

PROJETO DE TERRAPLENAGEM

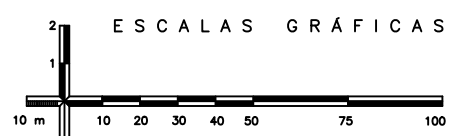
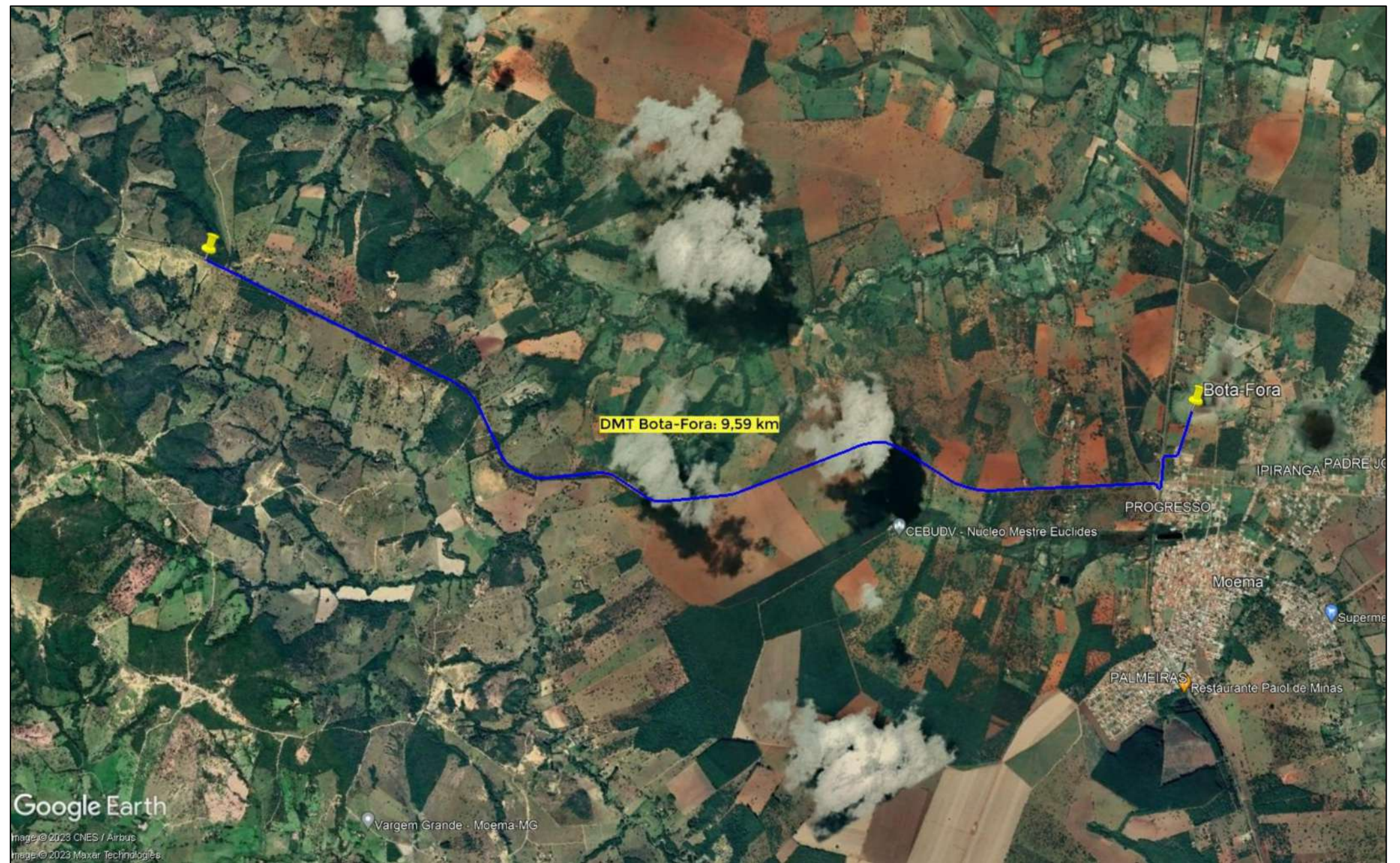
FOLHA: TR-13



DMT – BOTA-FORA

CROQUI DE LOCALIZAÇÃO

(SEM ESCALA)



MB & R ENGENHARIA E TOPOGRAFIA LTDA.
CNPJ: 30.586.318/0001-67
CREA: 77049
R. Inácia Cândida de Jesus, 324 - Sala: 01
Bairro: Jardim Teles Lima
(35) 99838 0358
CEP: 37948-000
Bom Jesus da Penha - MG

DESENHO Nº
PMM-2021-02-MG-TR-001

MES/ANO:
MAI/24

APROVAÇÃO

ELABORADO POR:

Mauro Vieira Bueno Junior
Engenheiro Civil - CREA: 144763/D-MG



PREFEITURA MUNICIPAL DE MOEMA – MINAS GERAIS
SECRETARIA DE OBRAS E SERVIÇOS

RODOVIA: MG-252

TRECHO: MG-164/MG-170 – MOEMA

PROJETO DE TERRAPLENAGEM

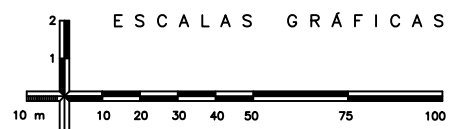
FOLHA:
TR-14

Cálculo de Volume por Comparação de Perfis: Terreno x Projeto					
Estaca	Área Corte	Área Aterro	Semi-Dis.	Vol.Corte	Vol.Aterro
1078	0,000	7,007			
			5,000	0,000	68,840
1078+10,00	0,000	6,761			
			5,000	0,000	66,155
1079	0,000	6,470			
			5,000	0,000	61,360
1079+10,00	0,000	5,802			
			5,000	0,000	52,600
1080	0,000	4,718			
			5,000	1,000	40,425
1080+10,00	0,200	3,367			
			5,000	4,450	32,635
1081	0,690	3,160			
			5,000	9,660	26,665
1081+10,00	1,242	2,173			
			5,000	14,840	17,685
1082	1,726	1,364			
			5,000	18,985	12,980
1082+10,00	2,071	1,232			
			2,705	9,182	5,858
1082+15,40	1,324	0,934			
			2,296	4,421	3,794
1083	0,602	0,719			
			10,000	11,510	11,410
1084	0,549	0,422			
			10,000	12,790	8,050
1085	0,730	0,383			
			10,000	16,050	7,410
1086	0,875	0,358			
			10,000	12,570	12,390
1087	0,382	0,881			
			10,000	32,290	12,020
1088	2,847	0,321			
			10,000	29,900	14,900
1089	0,143	1,169			
			4,970	2,669	8,751
1089+9,939	0,394	0,592			
			0,031	0,024	0,036
1089+10,00	0,402	0,589			
			5,000	13,755	4,450
1090	2,349	0,301			
			5,000	45,270	2,700
1090+10,00	6,705	0,239			
			5,000	82,240	4,040
1091	9,743	0,569			
			5,000	118,030	6,260
1091+10,00	13,863	0,683			
			5,000	183,290	7,875
1092	22,795	0,892			
			5,000	263,135	7,585
1092+10,00	29,832	0,625			
			5,000	306,810	4,770
1093	31,530	0,329			
			5,000	303,625	4,380

Cálculo de Volume por Comparação de Perfis: Terreno x Projeto					
Estaca	Área Corte	Área Aterro	Semi-Dis.	Vol.Corte	Vol.Aterro
1093+10,00	29,195	0,547			
			5,000	269,795	7,710
1094	24,764	0,995			
			5,000	249,095	11,125
1094+10,00	25,055	1,230			
			5,000	239,140	12,735
1095	22,773	1,317			
			5,000	210,400	12,945
1095+10,00	19,307	1,272			
			5,000	178,680	13,055
1096	16,429	1,339			
			5,000	143,620	13,130
1096+10,00	12,295	1,287			
			5,000	114,100	13,805
1097	10,525	1,474			
			5,000	89,685	15,640
1097+10,00	7,412	1,654			
			5,000	72,235	14,835
1098	7,035	1,313			
			5,000	66,360	12,135
1098+10,00	6,237	1,114			
			5,000	68,405	11,240
1099	7,444	1,134			
			5,000	81,490	10,185
1099+10,00	8,854	0,903			
			3,279	62,046	4,800
1099+16,55	10,071	0,561			
			1,722	35,558	1,672
1100	10,584	0,410			
			10,000	238,020	5,070
1101	13,218	0,097			
			10,000	197,180	3,010
1102	6,500	0,204			
			10,000	69,770	3,250
1103	0,477	0,121			
			10,000	6,720	16,240
1104	0,195	1,503			
			10,000	2,700	33,430
1105	0,075	1,840			
			10,000	0,750	37,000
1106	0,000	1,860			
			10,000	0,010	43,020
1107	0,001	2,442			
			10,000	0,010	122,640
1108	0,000	9,822			
			10,000	0,000	220,310
1109	0,000	12,209			
			10,000	0,150	221,300
1110	0,015	9,921			
			10,000	1,990	147,260
1111	0,184	4,805			
			10,000	12,440	96,420
1112	1,060	4,837			
			10,000	21,580	75,730

Cálculo de Volume por Comparação de Perfis: Terreno x Projeto					
Estaca	Área Corte	Área Aterro	Semi-Dis.	Vol.Corte	Vol.Aterro
1113	1,098	2,736			
			10,000	24,400	39,760
1114	1,342	1,240			
			10,000	31,430	12,990
1115	1,801	0,059			
			10,000	29,140	10,250
1116	1,113	0,966			
			10,000	23,620	14,020
1117	1,249	0,436			
			10,000	22,390	12,730
1118	0,990	0,837			
			10,000	17,230	14,920
1119	0,733	0,655			
			10,000	11,720	14,710
1120	0,439	0,816			
			10,000	11,540	13,540
1121	0,715	0,538			
			10,000	12,210	11,850
1122	0,506	0,647			
			10,000	5,110	31,460
1123	0,005	2,499			
			10,000	0,050	52,770
1124	0,000	2,778			
			8,973	44,001	113,287
1124+17,94	4,904	9,848			
			1,028	10,969	19,290
1125	5,771	8,926			
			5,000	78,060	48,865
1125+10,00	9,841	0,847			
			5,000	109,760	8,810
1126	12,111	0,915			
			5,000	133,085	11,245
1126+10,00	14,506	1,334			
			5,000	152,375	12,405
1127	15,969	1,147			
			5,000	174,900	11,020
1127+10,00	19,011	1,057			
			5,000	208,525	10,060
1128	22,694	0,955			
			5,000	247,520	8,980
1128+10,00	26,810	0,841			
			5,000	273,000	8,445
1129	27,790	0,848			
			5,000	281,475	8,575
1129+10,00	28,505	0,867			
			5,000	262,455	6,510
1130	23,986	0,435			
			5,000	242,455	2,845
1130+10,00	24,505	0,134			
			5,000	237,225	1,160
1131	22,940	0,098			
			5,000	232,775	0,640
1131+10,00	23,615	0,030			
			5,000	264,375	0,305

Cálculo de Volume por Comparação de Perfis: Terreno x Projeto					
Estaca	Área Corte	Área Aterro	Semi-Dis.	Vol.Corte	Vol.Aterro
1132	29,260	0,031			
			5,000	346,090	0,665
1132+10,00	39,958	0,102			
			0,669	54,542	0,144
1132+11,33	41,570	0,113			
			4,331	366,459	1,377
1133	43,043	0,205			
			10,000	879,620	3,430
1134	44,919	0,138			
			10,000	861,640	2,320
1135	41,245	0,094			
			10,000	724,960	3,570
1136	31,251	0,263			
			4,950	284,665	2,732
1136+9,900	26,257	0,289			
			0,050	2,623	0,029
1136+10,00	26,196	0,299			
			5,000	213,945	3,510
1137	16,593	0,403			
			5,000	106,310	3,700
1137+10,00	4,669	0,337			
			5,000	35,045	3,175
1138	2,340	0,298			
			5,000	15,020	4,020
1138+10,00	0,664	0,506			
			5,000	6,470	6,590
1139	0,630	0,812			
			5,000	5,785	9,865
1139+10,00	0,527	1,161			
			5,000	4,055	30,825
1140	0,284	5,004			
			5,000	1,925	51,020
1140+10,00	0,101	5,200			
			5,000	0,505	51,095
1141	0,000	5,019			
			5,000	0,000	64,045
1141+10,00	0,000	7,790			
			5,000	0,000	79,310
1142	0,000	8,072			
			5,000	0,000	70,295
1142+10,00	0,000	5,987			
			5,000	0,000	56,575
1143	0,000	5,328			
			5,000	6,600	48,960
1143+10,00	1,320	4,464			
			5,000	9,060	38,955
1144	0,492	3,327			
			1,061	0,723	6,868
1144+2,122	0,189	3,146			
			8,939	1,689	55,288
1145	0,000	3,039			
			10,000	0,000	72,470
1146	0,000	4,208			
			4,334	0,000	49,243



MB & R ENGENHARIA E TOPOGRAFIA LTDA.
 CNPJ: 30.586.318/0001-67
 CREA: 77049
 R. Inácia Cândida de Jesus, 324 - Sala: 01
 Bairro: Jardim Teles Lima
 (35) 99838 0358
 CEP: 37948-000
 Bom Jesus da Penha - MG

DESENHO Nº
 PMM-2021-02-MG-TR-001
 MES/ANO:
 MAI/24
 ELABORADO POR:
 Mauro Vieira Bueno Junior
 Engenheiro Civil - CREA: 144763/D-MG

APROVAÇÃO



PREFEITURA MUNICIPAL DE MOEMA - MINAS GERAIS
 SECRETARIA DE OBRAS E SERVIÇOS

RODOVIA: MG-252 TRECHO: MG-164/MG-170 - MOEMA

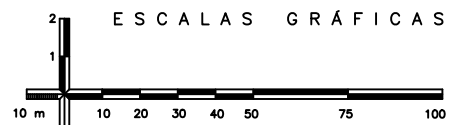
PROJETO DE TERRAPLENAGEM FOLHA: TR-15

Cálculo de Volume por Comparação de Perfis: Terreno x Projeto					
Estaca	Área Corte	Área Aterro	Semi-Dis.	Vol.Corte	Vol.Aterro
1146+8,668	0,000	7,154			
			0,666	0,000	9,915
1146+10,00	0,000	7,733			
			5,000	0,000	66,665
1147	0,000	5,600			
			5,000	0,000	45,010
1147+10,00	0,000	3,402			
			5,000	0,000	27,520
1148	0,000	2,102			
			5,000	0,105	20,175
1148+10,00	0,021	1,933			
			5,000	0,675	19,705
1149	0,114	2,008			
			5,000	2,160	20,945
1149+10,00	0,318	2,181			
			5,000	3,870	20,135
1150	0,456	1,846			
			5,000	2,955	47,305
1150+10,00	0,135	7,615			
			5,000	0,675	86,420
1151	0,000	9,669			
			5,000	0,165	83,920
1151+10,00	0,033	7,115			
			1,641	0,820	14,584
1151+13,28	0,467	1,772			
			3,359	9,593	10,195
1152	2,389	1,263			
			10,000	131,060	22,500
1153	10,717	0,987			
			10,000	282,460	15,620
1154	17,529	0,575			
			10,000	332,800	14,060
1155	15,751	0,831			
			10,000	183,260	80,430
1156	2,575	7,212			
			10,000	25,750	383,140
1157	0,000	31,102			
			10,000	0,000	434,360
1158	0,000	12,334			
			10,000	41,720	152,390
1159	4,172	2,905			
			10,000	254,000	53,450
1160	21,228	2,440			
			10,000	425,590	47,500
1161	21,331	2,310			
			10,000	409,420	47,930
1162	19,611	2,483			
			10,000	376,520	49,500
1163	18,041	2,467			
			10,000	345,310	42,000
1164	16,490	1,733			
			0,843	27,808	2,841
1164+1,685	16,516	1,639			
			4,158	141,384	11,433

Cálculo de Volume por Comparação de Perfis: Terreno x Projeto					
Estaca	Área Corte	Área Aterro	Semi-Dis.	Vol.Corte	Vol.Aterro
1164+10,00	17,491	1,111			
			5,000	154,845	7,140
1165	13,478	0,317			
			5,000	135,665	1,980
1165+10,00	13,655	0,079			
			5,000	117,860	0,905
1166	9,917	0,102			
			5,000	85,800	0,530
1166+10,00	7,243	0,004			
			5,000	57,100	0,720
1167	4,177	0,140			
			1,083	8,708	0,455
1167+2,165	3,867	0,280			
			8,918	56,038	14,955
1168	2,417	1,397			
			10,000	30,150	31,130
1169	0,598	1,716			
			10,000	18,680	34,490
1170	1,270	1,733			
			10,000	29,980	31,130
1171	1,728	1,380			
			10,000	52,060	25,420
1172	3,478	1,162			
			10,000	77,980	21,520
1173	4,320	0,990			
			10,000	85,480	19,750
1174	4,228	0,985			
			10,000	66,620	24,110
1175	2,434	1,426			
			10,000	30,000	32,910
1176	0,566	1,865			
			10,000	10,420	37,020
1177	0,476	1,837			
			10,000	8,040	37,320
1178	0,328	1,895			
			10,000	3,930	36,640
1179	0,065	1,769			
			10,000	0,650	44,690
1180	0,000	2,700			
			10,000	0,000	63,550
1181	0,000	3,655			
			10,000	0,000	79,260
1182	0,000	4,271			
			10,000	0,000	92,170
1183	0,000	4,946			
			10,000	0,000	97,210
1184	0,000	4,775			
			10,000	0,000	83,460
1185	0,000	3,571			
			2,983	0,015	20,114
1185+5,966	0,005	3,172			
			2,017	0,046	12,768
1185+10,00	0,018	3,158			
			5,000	0,090	29,025

Cálculo de Volume por Comparação de Perfis: Terreno x Projeto					
Estaca	Área Corte	Área Aterro	Semi-Dis.	Vol.Corte	Vol.Aterro
1186	0,000	2,647			
			5,000	2,050	17,580
1186+10,00	0,410	0,869			
			5,000	4,005	7,100
1187	0,391	0,551			
			5,000	8,555	4,195
1187+10,00	1,320	0,288			
			5,000	18,660	2,030
1188	2,412	0,118			
			5,000	29,775	0,740
1188+10,00	3,543	0,030			
			5,000	45,070	0,170
1189	5,471	0,004			
			5,000	63,585	0,020
1189+10,00	7,246	0,000			
			5,000	68,065	0,000
1190	6,367	0,000			
			5,000	59,110	0,140
1190+10,00	5,455	0,028			
			5,000	49,375	0,820
1191	4,420	0,136			
			5,000	40,335	2,300
1191+10,00	3,647	0,324			
			2,816	18,160	1,982
1191+15,63	2,803	0,380			
			2,185	11,333	1,807
1192	2,385	0,447			
			10,000	34,880	12,620
1193	1,103	0,815			
			10,000	14,640	17,430
1194	0,361	0,928			
			10,000	4,600	17,360
1195	0,099	0,808			
			10,000	1,990	16,710
1196	0,100	0,863			
			10,000	1,000	22,440
1197	0,000	1,381			
			10,000	0,000	36,770
1198	0,000	2,296			
			10,000	0,000	52,070
1199	0,000	2,911			
			10,000	0,000	80,630
1200	0,000	5,152			
			10,000	0,000	127,200
1201	0,000	7,568			
			10,000	0,000	174,650
1202	0,000	9,897			
			10,000	0,000	219,340
1203	0,000	12,037			
			10,000	0,000	254,710
1204	0,000	13,434			
			10,000	0,000	269,380
1205	0,000	13,504			
			10,000	0,000	249,840

Cálculo de Volume por Comparação de Perfis: Terreno x Projeto					
Estaca	Área Corte	Área Aterro	Semi-Dis.	Vol.Corte	Vol.Aterro
1206	0,000	11,480			
			10,000	0,000	203,200
1207	0,000	8,840			
			10,000	0,000	161,840
1208	0,000	7,344			
			10,000	0,000	133,130
1209	0,000	5,969			
			10,000	0,000	105,910
1210	0,000	4,622			
			10,000	0,010	75,940
1211	0,001	2,972			
			10,000	0,010	57,640
1212	0,000	2,792			
			10,000	7,470	41,960
1213	0,747	1,404			
			10,000	78,990	15,810
1214	7,152	0,177			
			10,000	151,570	2,580
1215	8,005	0,081			
			10,000	163,180	1,220
1216	8,313	0,041			
			10,000	143,560	0,690
1217	6,043	0,028			
			10,000	131,370	1,120
1218	7,094	0,084			
			10,000	159,210	1,910
1219	8,827	0,107			
			10,000	140,860	2,470
1220	5,259	0,140			
			10,000	125,050	1,400
1221	7,246	0,000			
			10,000	152,160	0,000
1222	7,970	0,000			
			10,000	119,330	1,130
1223	3,963	0,113			
			10,000	68,060	4,050
1224	2,843	0,292			
			10,000	52,300	11,190
1225	2,387	0,827			
			10,000	48,200	21,650
1226	2,433	1,338			
			10,000	48,410	28,860
1227	2,408	1,548			
			10,000	44,710	35,280
1228	2,063	1,980			
			10,000	29,170	41,410
1229	0,854	2,161			
			10,000	17,570	40,790
1230	0,903	1,918			
			10,000	14,380	40,470
1231	0,535	2,129			
			10,000	6,230	49,370
1232	0,088	2,808			
			10,000	0,880	60,260



MB & R ENGENHARIA E TOPOGRAFIA LTDA.
 CNPJ: 30.586.318/0001-67
 CREA: 77049
 R. Inácia Cândida de Jesus, 324 - Sala: 01
 Bairro: Jardim Teles Lima
 (35) 99838 0358
 CEP: 37948-000
 Bom Jesus da Penha - MG

DESENHO Nº
 PMM-2021-02-MG-TR-001

MES/ANO:
 MAI/24

ELABORADO POR:
 Mauro Vieira Bueno Junior
 Engenheiro Civil - CREA: 144763/D-MG

APROVAÇÃO



PREFEITURA MUNICIPAL DE MOEMA - MINAS GERAIS
 SECRETARIA DE OBRAS E SERVIÇOS

RODOVIA: MG-252

TRECHO: MG-164/MG-170 - MOEMA

PROJETO DE TERRAPLENAGEM

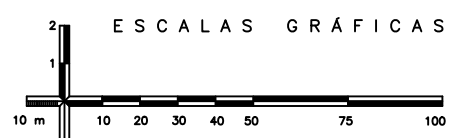
FOLHA:
 TR-16

Cálculo de Volume por Comparação de Perfis: Terreno x Projeto					
Estaca	Área Corte	Área Aterro	Semi-Dis.	Vol.Corte	Vol.Aterro
1233	0,000	3,218			
			10,000	0,000	66,120
1234	0,000	3,394			
			10,000	0,000	69,580
1235	0,000	3,564			
			10,000	0,000	77,370
1236	0,000	4,173			
			10,000	0,000	91,870
1237	0,000	5,014			
			10,000	0,000	108,800
1238	0,000	5,866			
			10,000	0,000	125,530
1239	0,000	6,687			
			10,000	0,000	128,470
1240	0,000	6,160			
			10,000	0,000	116,250
1241	0,000	5,465			
			10,000	0,000	116,920
1242	0,000	6,227			
			10,000	0,000	98,450
1243	0,000	3,618			
			10,000	0,910	50,930
1244	0,091	1,475			
			10,000	0,910	35,650
1245	0,000	2,090			
			10,000	1,300	28,910
1246	0,130	0,801			
			10,000	14,470	10,810
1247	1,317	0,280			
			10,000	31,080	5,250
1248	1,791	0,245			
			10,000	47,240	7,550
1249	2,933	0,510			
			10,000	56,790	12,540
1250	2,746	0,744			
			10,000	46,660	20,390
1251	1,920	1,295			
			10,000	59,180	24,240
1252	3,998	1,129			
			10,000	90,870	15,470
1253	5,089	0,418			
			10,000	106,180	6,700
1254	5,529	0,252			
			10,000	112,930	6,970
1255	5,764	0,445			
			10,000	96,600	11,720
1256	3,896	0,727			
			10,000	90,950	9,220
1257	5,199	0,195			
			10,000	114,200	1,950
1258	6,221	0,000			
			10,000	113,220	0,050
1259	5,101	0,005			
			10,000	98,160	1,420

Cálculo de Volume por Comparação de Perfis: Terreno x Projeto					
Estaca	Área Corte	Área Aterro	Semi-Dis.	Vol.Corte	Vol.Aterro
1260	4,715	0,137			
			10,000	84,650	2,580
1261	3,750	0,121			
			10,000	73,430	4,640
1262	3,593	0,343			
			10,000	59,140	8,900
1263	2,321	0,547			
			10,000	39,320	13,570
1264	1,611	0,810			
			10,000	30,320	17,570
1265	1,421	0,947			
			10,000	24,390	13,860
1266	1,018	0,439			
			10,000	36,650	4,570
1267	2,647	0,018			
			10,000	46,510	1,620
1268	2,004	0,144			
			10,000	41,980	7,930
1269	2,194	0,649			
			10,000	41,810	13,300
1270	1,987	0,681			
			10,000	52,490	11,280
1271	3,262	0,447			
			10,000	60,770	9,370
1272	2,815	0,490			
			10,000	45,910	6,640
1273	1,776	0,174			
			10,000	45,580	2,820
1274	2,782	0,108			
			10,000	55,920	2,780
1275	2,810	0,170			
			10,000	54,960	7,260
1276	2,686	0,556			
			10,000	44,880	14,390
1277	1,802	0,883			
			10,000	42,720	24,180
1278	2,470	1,535			
			10,000	41,190	31,500
1279	1,649	1,615			
			10,000	16,540	47,000
1280	0,005	3,085			
			10,000	0,050	72,890
1281	0,000	4,204			
			10,000	0,000	85,510
1282	0,000	4,347			
			10,000	0,000	92,070
1283	0,000	4,860			
			10,000	0,000	98,850
1284	0,000	5,025			
			10,000	0,000	101,310
1285	0,000	5,106			
			10,000	0,000	99,240
1286	0,000	4,818			
			10,000	0,000	88,360

Cálculo de Volume por Comparação de Perfis: Terreno x Projeto					
Estaca	Área Corte	Área Aterro	Semi-Dis.	Vol.Corte	Vol.Aterro
1287	0,000	4,018			
			10,000	0,000	65,900
1288	0,000	2,572			
			10,000	1,100	37,230
1289	0,110	1,151			
			10,000	13,460	16,160
1290	1,236	0,465			
			10,000	69,410	9,740
1291	5,705	0,509			
			10,000	109,190	7,970
1292	5,214	0,288			
			10,000	92,870	4,870
1293	4,073	0,199			
			10,000	85,560	5,520
1294	4,483	0,353			
			10,000	99,530	6,540
1295	5,470	0,301			
			10,000	110,800	5,410
1296	5,610	0,240			
			10,000	115,270	4,300
1297	5,917	0,190			
			10,000	99,780	3,830
1298	4,061	0,193			
			10,000	87,850	4,180
1299	4,724	0,225			
			10,000	98,950	3,910
1300	5,171	0,166			
			10,000	87,500	3,850
1301	3,579	0,219			
			10,000	74,070	3,680
1302	3,828	0,149			
			10,000	75,760	2,520
1303	3,748	0,103			
			10,000	63,500	4,090
1304	2,602	0,306			
			10,000	54,160	5,510
1305	2,814	0,245			
			10,000	54,500	4,610
1306	2,636	0,216			
			10,000	52,970	8,560
1307	2,661	0,640			
			10,000	33,960	24,920
1308	0,735	1,852			
			10,000	8,750	43,240
1309	0,140	2,472			
			10,000	1,480	58,860
1310	0,008	3,414			
			10,000	0,080	73,500
1311	0,000	3,936			
			10,000	0,000	64,780
1312	0,000	2,542			
			10,000	1,670	34,040
1313	0,167	0,862			
			10,000	4,690	13,520

Cálculo de Volume por Comparação de Perfis: Terreno x Projeto						
Estaca	Área Corte	Área Aterro	Semi-Dis.	Vol.Corte	Vol.Aterro	
1314	0,302	0,490				
			10,000	8,290	10,480	
1315	0,527	0,558				
			10,000	9,440	17,330	
1316	0,417	1,175				
			10,000	0,151	0,125	0,355
1316+0,302	0,412	1,174				
			10,000	4,849	3,816	8,268
1316+10,00	0,375	0,531				
			10,000	5,000	4,905	6,160
1317	0,606	0,701				
			10,000	5,000	7,705	10,475
1317+10,00	0,935	1,394				
			10,000	5,000	10,275	17,415
1318	1,120	2,089				
			10,000	5,000	11,670	20,365
1318+10,00	1,214	1,984				
			10,000	5,000	13,095	16,415
1319	1,405	1,299				
			10,000	5,000	13,970	11,610
1319+10,00	1,389	1,023				
			10,000	5,000	12,315	11,525
1320	1,074	1,282				
			10,000	5,000	8,940	12,985
1320+10,00	0,714	1,315				
			10,000	5,000	8,925	12,275
1321	1,071	1,140				
			10,000	5,000	10,740	10,320
1321+10,00	1,077	0,924				
			10,000	5,000	7,610	12,335
1322	0,445	1,543				
			10,000	5,000	2,950	15,685
1322+10,00	0,145	1,594				
			10,000	5,000	1,105	14,260
1323	0,076	1,258				
			10,000	5,000	0,505	11,690
1323+10,00	0,025	1,080				
			10,000	5,000	0,125	15,100
1324	0,000	1,940				
			10,000	5,000	0,000	24,095
1324+10,00	0,000	2,879				
			10,000	5,000	0,000	27,015
1325	0,000	2,524				
			10,000	5,000	0,255	24,115
1325+10,00	0,051	2,299				
			10,000	5,000	3,135	18,835
1326	0,576	1,468				
			10,000	5,000	8,960	12,070
1326+10,00	1,216	0,946				
			10,000	5,000	10,510	22,395
1327	0,886	3,533				
			10,000	5,000	9,135	34,535
1327+10,00	0,941	3,374				
			10,000	5,000	9,740	25,195



MB & R ENGENHARIA E TOPOGRAFIA LTDA.
 CNPJ: 30.586.318/0001-67
 CREA: 77049
 R. Inácia Cândida de Jesus, 324 - Sala: 01
 Bairro: Jardim Teles Lima
 (35) 99838-0358
 CEP: 37948-000
 Bom Jesus da Penha - MG

DESENHO Nº
 PMM-2021-02-MG-TR-001

MES/ANO:
 MAI/24

ELABORADO POR:
 Mauro Vieira Bueno Junior
 Engenheiro Civil - CREA: 144763/D-MG

APROVAÇÃO



PREFEITURA MUNICIPAL DE MOEMA - MINAS GERAIS
 SECRETARIA DE OBRAS E SERVIÇOS

RODOVIA: MG-252

TRECHO: MG-164/MG-170 - MOEMA

PROJETO DE TERRAPLENAGEM

FOLHA:
 TR-17

