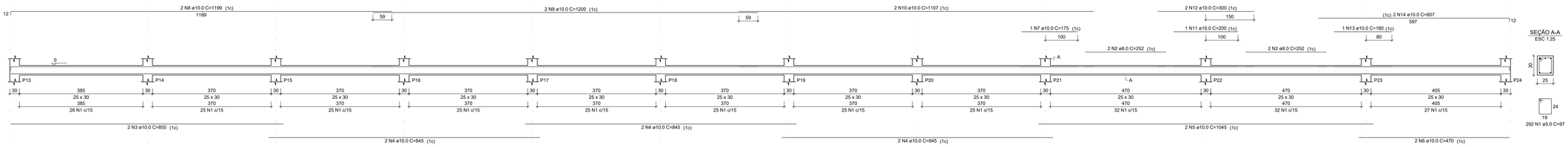
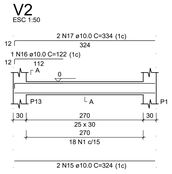
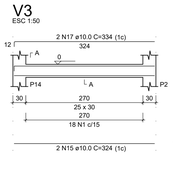
V1
ESC 1:50



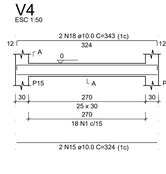
V2
ESC 1:50



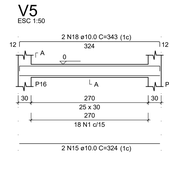
V3
ESC 1:50



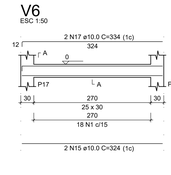
V4
ESC 1:50



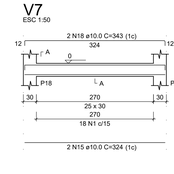
V5
ESC 1:50



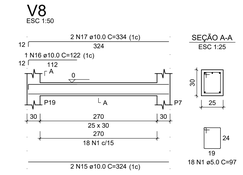
V6
ESC 1:50



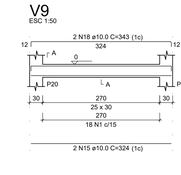
V7
ESC 1:50



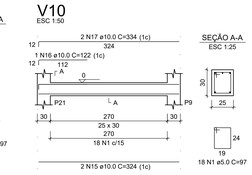
V8
ESC 1:50



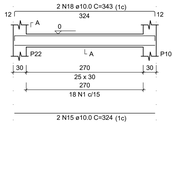
V9
ESC 1:50



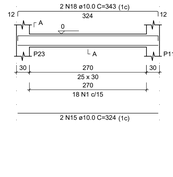
V10
ESC 1:50



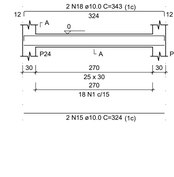
V11
ESC 1:50



V12
ESC 1:50



V13
ESC 1:50



RELAÇÃO DO AÇO

V1	V2	V3
V4	V5	V6
V7	V8	V9
V10	V11	V12
V13		

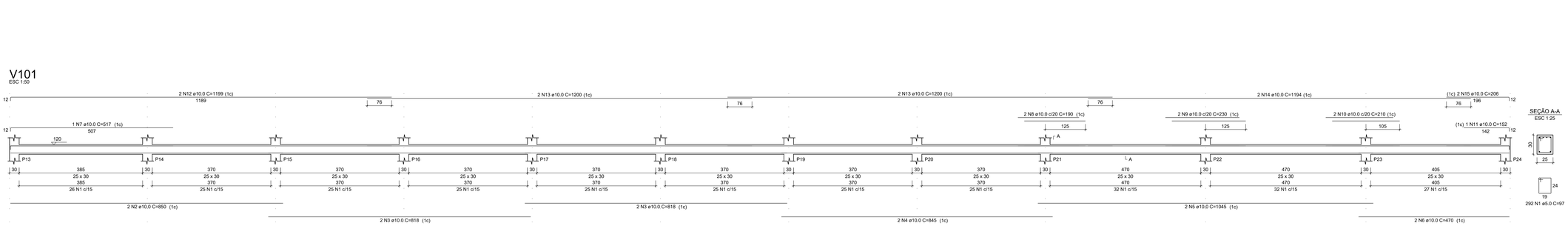
AÇO	N	DIAM (mm)	QUANT	C.UNIT (cm)	C.TOTAL (cm)
CA60	1	5.0	508	97	49276
CA50	2	8.0	4	252	1008
	3	10.0	2	850	1700
	4	10.0	6	845	5070
	5	10.0	2	1045	2090
	6	10.0	2	470	940
	7	10.0	1	175	175
	8	10.0	2	1199	2398
	9	10.0	2	1200	2400
	10	10.0	2	1107	2214
	11	10.0	1	200	200
	12	10.0	2	300	600
	13	10.0	1	180	180
	14	10.0	2	607	1214
	15	10.0	24	324	7776
	16	10.0	3	122	366
	17	10.0	10	334	3340
	18	10.0	14	343	4802

RESUMO DO AÇO

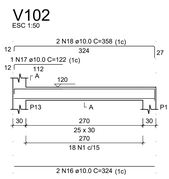
AÇO	DIAM (mm)	C.TOTAL (m)	PESO + 10% (kg)
CA50	8.0	10.1	4.4
	10.0	354.7	240.5
CA60	5.0	492.8	83.5
PESO TOTAL (kg)			
CA50	244.9		
CA60	83.5		

Volume de concreto (C-25) = 5.67 m³
Área de forma = 64.26 m²

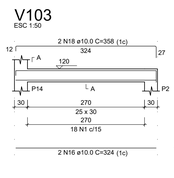
V101
ESC 1:50



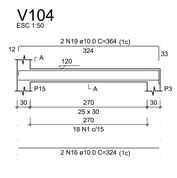
V102
ESC 1:50



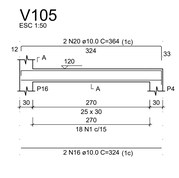
V103
ESC 1:50



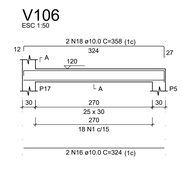
V104
ESC 1:50



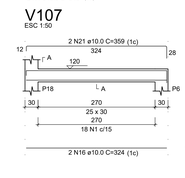
V105
ESC 1:50



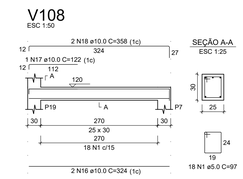
V106
ESC 1:50



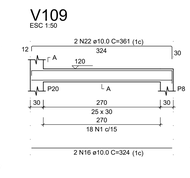
V107
ESC 1:50



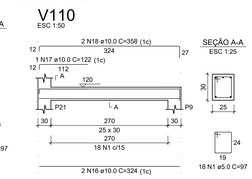
V108
ESC 1:50



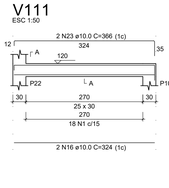
V109
ESC 1:50



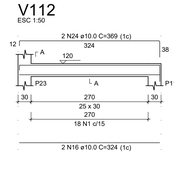
V110
ESC 1:50



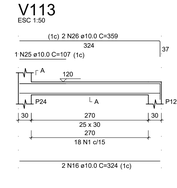
V111
ESC 1:50



V112
ESC 1:50



V113
ESC 1:50



RELAÇÃO DO AÇO

V101	V102	V103
V104	V105	V106
V107	V108	V109
V110	V111	V112
V113		

AÇO	N	DIAM (mm)	QUANT	C.UNIT (cm)	C.TOTAL (cm)
CA60	1	5.0	508	97	49276
CA50	2	10.0	2	850	1700
	3	10.0	4	818	3272
	4	10.0	2	845	1690
	5	10.0	2	1045	2090
	6	10.0	2	470	940
	7	10.0	1	517	517
	8	10.0	2	190	380
	9	10.0	2	230	460
	10	10.0	2	210	420
	11	10.0	1	152	152
	12	10.0	2	1199	2398
	13	10.0	4	1200	4800
	14	10.0	2	1194	2388
	15	10.0	2	206	412
	16	10.0	24	324	7776
	17	10.0	3	122	366
	18	10.0	10	358	3580
	19	10.0	2	364	728
	20	10.0	2	364	728
	21	10.0	2	359	718
	22	10.0	2	361	722
	23	10.0	2	366	732
	24	10.0	2	369	738
	25	10.0	1	107	107
	26	10.0	2	359	718

RESUMO DO AÇO

AÇO	DIAM (mm)	C.TOTAL (m)	PESO + 10% (kg)
CA50	10.0	385.3	261.3
CA60	5.0	492.8	83.5
PESO TOTAL (kg)			
CA50	261.3		
CA60	83.5		

Volume de concreto (C-25) = 5.67 m³
Área de forma = 64.26 m²

TRMUNCHEN ENGENHARIA
trmunchen@outlook.com (51) 9 9509 6182

OBRA:
NOVA SEDE DEFESA CIVÍL E CORPO DE BOMBEIROS

ÁREA A CONSTRUIR:
644,46 m²

LOCAL:
Rua Firmino Britz, S/N
Centro - Feliz

EQUIPE TÉCNICA:
TRMUNCHEN ENGENHARIA

PROPRIETÁRIO:
MUNICÍPIO DE FELIZ
CNPJ: 87.838.330/0001-39

RESP. TÉCNICO - ENGENHEIRO CIVIL:
TIAGO RODRIGO MÜNCHEN
CREA/RS: 251585

CONTEÚDO:
MURO VIGAS 1

PROJETO
PROJETO ESTRUTURAL

ESCALA:	DESENHISTA:	DATA:	FOLHA:
INDICADA	TIAGO RODRIGO MÜNCHEN	JUL/2026	12/ 18

DIREITOS AUTORAIS RESERVADOS. PROIBIDA A REPRODUÇÃO TOTAL OU PARCIAL.