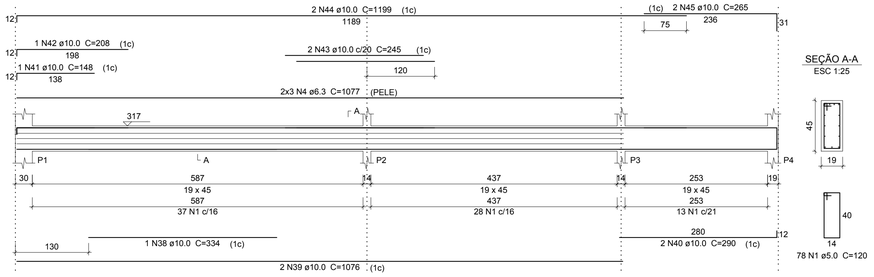
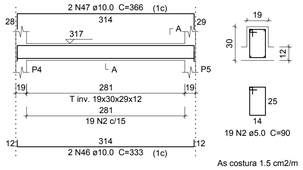
V1
ESC 1:50



SEÇÃO A-A
ESC 1:25

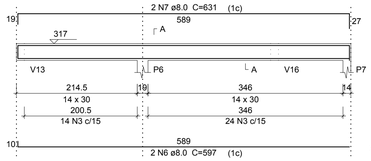
V2
ESC 1:50



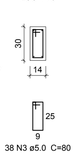
SEÇÃO A-A
ESC 1:25

As costura 1.5 cm2/m

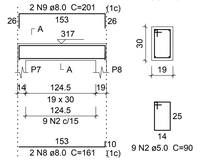
V3
ESC 1:50



SEÇÃO A-A
ESC 1:25

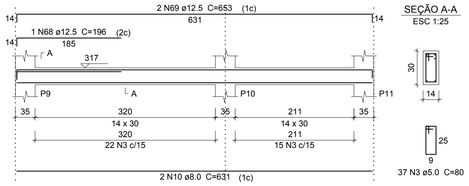


V4
ESC 1:50



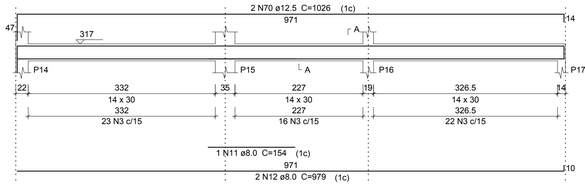
SEÇÃO A-A
ESC 1:25

V5
ESC 1:50

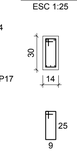


SEÇÃO A-A
ESC 1:25

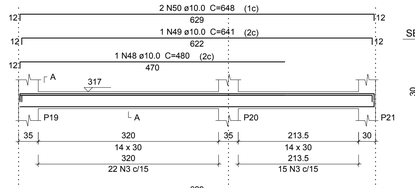
V6
ESC 1:50



SEÇÃO A-A
ESC 1:25

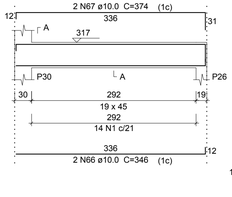


V7
ESC 1:50

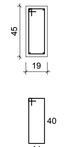


SEÇÃO A-A
ESC 1:25

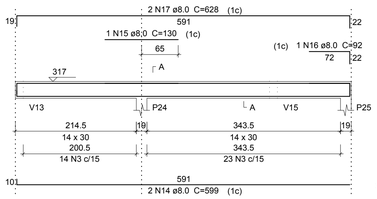
V18
ESC 1:50



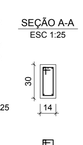
SEÇÃO A-A
ESC 1:25



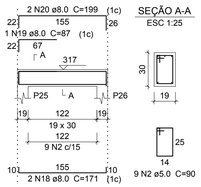
V8
ESC 1:50



SEÇÃO A-A
ESC 1:25

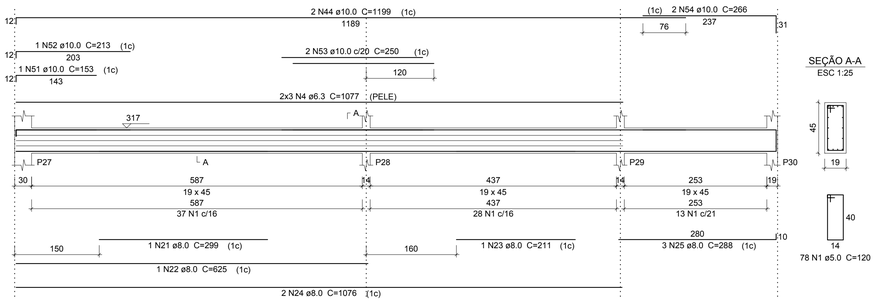


V9
ESC 1:50



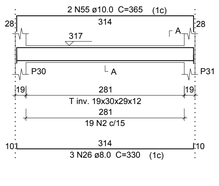
SEÇÃO A-A
ESC 1:25

V10
ESC 1:50

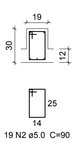


SEÇÃO A-A
ESC 1:25

V11
ESC 1:50

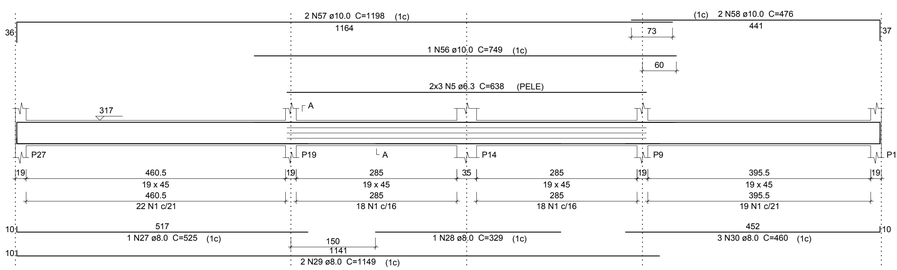


SEÇÃO A-A
ESC 1:25

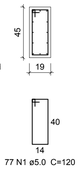


As costura 1.5 cm2/m

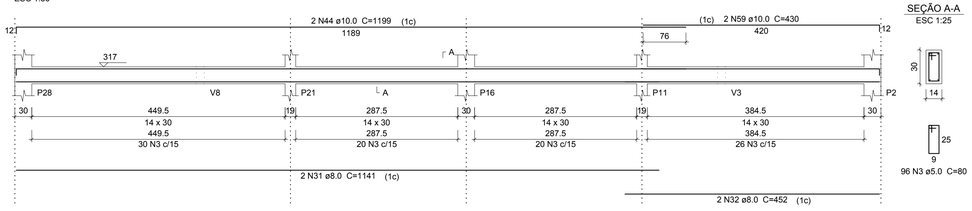
V12
ESC 1:50



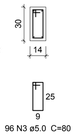
SEÇÃO A-A
ESC 1:25



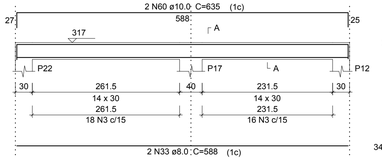
V13
ESC 1:50



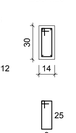
SEÇÃO A-A
ESC 1:25



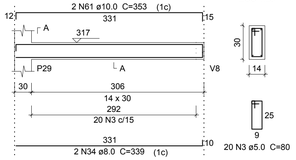
V14
ESC 1:50



SEÇÃO A-A
ESC 1:25

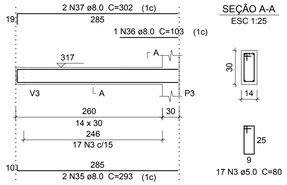


V15
ESC 1:50



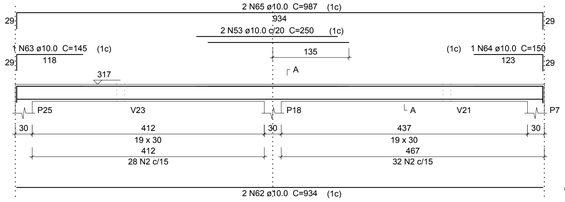
SEÇÃO A-A
ESC 1:25

V16
ESC 1:50

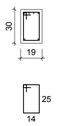


SEÇÃO A-A
ESC 1:25

V17
ESC 1:50



SEÇÃO A-A
ESC 1:25



Relação do aço

V1	V2	V3	
V4	V5	V6	
V7	V8	V9	
V10	V11	V12	
V13	V14	V15	
V16	V17	V18	

AÇO	N	DIAM (mm)	QUANT	C.UNIT (cm)	C.TOTAL (cm)
CA60	1	5.0	247	120	29640
	2	5.0	116	90	10440
	3	5.0	377	80	30160
CA50	4	6.3	12	1077	12924
	5	6.3	6	638	3828
	6	8.0	2	597	1194
	7	8.0	2	631	1262
	8	8.0	2	161	322
	9	8.0	2	201	402
	10	8.0	2	631	1262
	11	8.0	1	154	154
	12	8.0	2	979	1958
	13	8.0	2	637	1274
	14	8.0	2	599	1198
	15	8.0	1	130	130
	16	8.0	1	92	92
	17	8.0	2	628	1256
	18	8.0	2	171	342
	19	8.0	1	87	87
	20	8.0	2	199	398
	21	8.0	1	299	299
	22	8.0	1	625	625
	23	8.0	1	211	211
	24	8.0	2	1076	2152
	25	8.0	3	288	864
	26	8.0	3	330	990
	27	8.0	1	525	525
	28	8.0	1	329	329
	29	8.0	2	1149	2298
	30	8.0	3	460	1380
	31	8.0	2	1141	2282
	32	8.0	2	452	904
	33	8.0	2	588	1176
	34	8.0	2	339	678
	35	8.0	2	293	586
	36	8.0	1	103	103
	37	8.0	2	302	604
	38	10.0	1	334	334
	39	10.0	2	1076	2152
	40	10.0	2	290	580
	41	10.0	1	148	148
	42	10.0	1	208	208
	43	10.0	2	245	490
	44	10.0	6	1199	7194
	45	10.0	2	265	530
	46	10.0	2	333	666
	47	10.0	2	366	732
	48	10.0	1	480	480
	49	10.0	1	641	641
	50	10.0	2	648	1296
	51	10.0	1	153	153
	52	10.0	1	213	213
	53	10.0	4	250	1000
	54	10.0	2	266	532
	55	10.0	2	365	730
	56	10.0	1	749	749
	57	10.0	2	1198	2396
	58	10.0	2	476	952
	59	10.0	2	430	860
	60	10.0	2	635	1270
	61	10.0	2	353	706
	62	10.0	2	934	1868
	63	10.0	1	145	145
	64	10.0	1	150	150
	65	10.0	2	987	1974
	66	10.0	2	346	692
	67	10.0	2	374	748
	68	12.5	1	196	196
	69	12.5	2	653	1306
	70	12.5	2	1026	2052

Resumo do aço

AÇO	DIAM (mm)	C.TOTAL (m)	PESO + 10 % (kg)
CA50	6.3	167.6	45.1
	8.0	273.4	118.7
	10.0	305.9	207.5
	12.5	35.6	37.7
CA60	5.0	702.4	119.1
PESO TOTAL (kg)			
CA50	408.9		
CA60	119.1		

Volume de concreto (C-25) = 7.6 m³
Área de forma = 108.02 m²

INSTITUTO FEDERAL
FARROUPILHA

PRÓ-REITORIA DE ADMINISTRAÇÃO
COORDENAÇÃO DE ENGENHARIA E ARQUITETURA
Rua Esmeralda, 430 - Faixa Nova - Camobi - CEP 97110-767 - Santa Maria - Rio Grande do Sul.
Telefone: (55) 3226-6630

OBRA: **SALAS DE AULA E SANITÁRIOS/VESTIÁRIOS**

LOCAL: **IF FARROUPILHA - CAMPUS SANTO ÂNGELO**

PROJETO: **ESTRUTURAL PRÉDIO SANITÁRIOS**

ÁREA: **662,73 m²**

CONTEÚDO: **VIGAS NÍVEL LAJE**

ESCALA: **1/50**

PROPRIETÁRIO:
INSTITUTO FEDERAL FARROUPILHA

DATA: **Março/2017**

DESENHO: **Cristina**

RESPONSÁVEL:
ENG. CIVIL CRISTINA SILVA FELTRIN

PRANCHA: **DET EST 05/19**