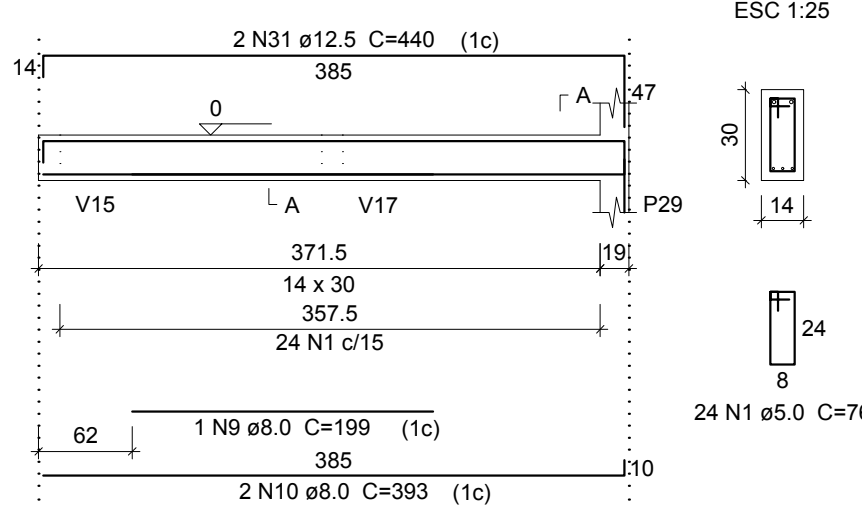
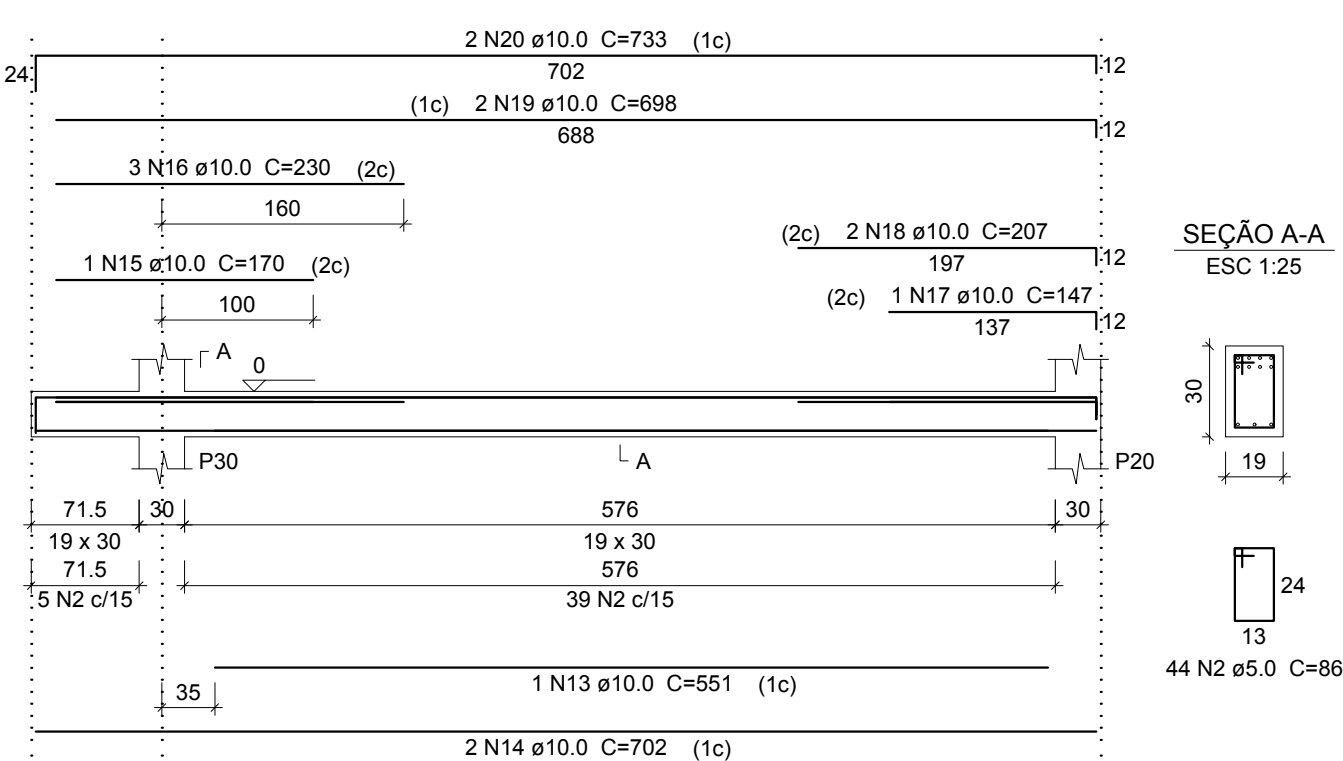


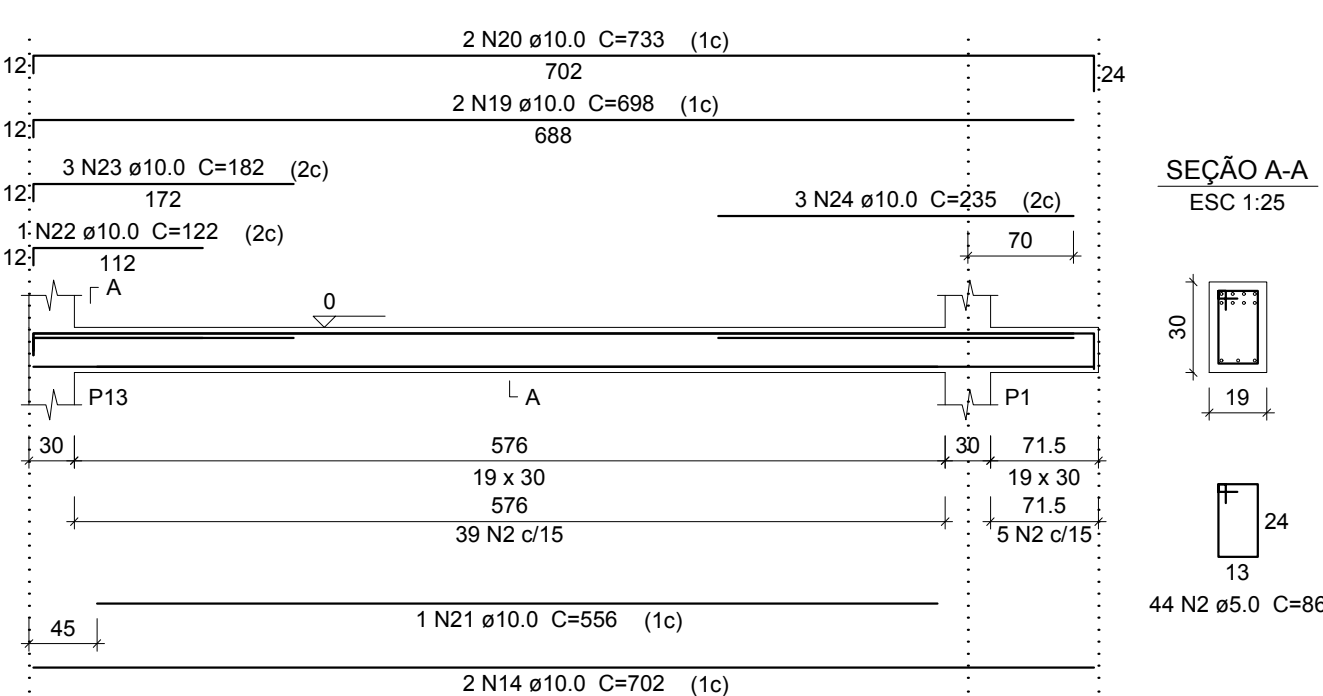
V5
ESC 1:50



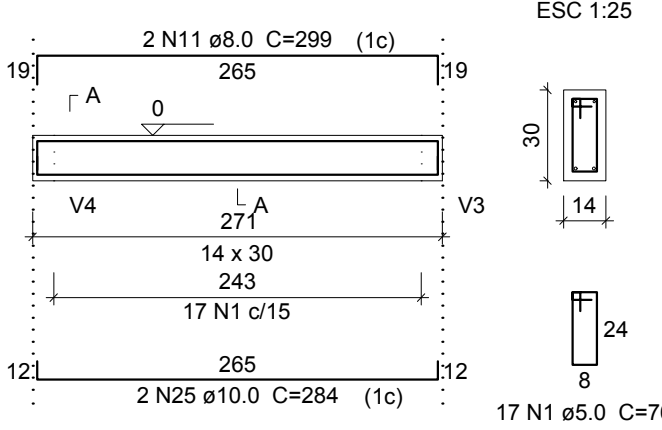
V7
ESC 1:50



V8
ESC 1:50



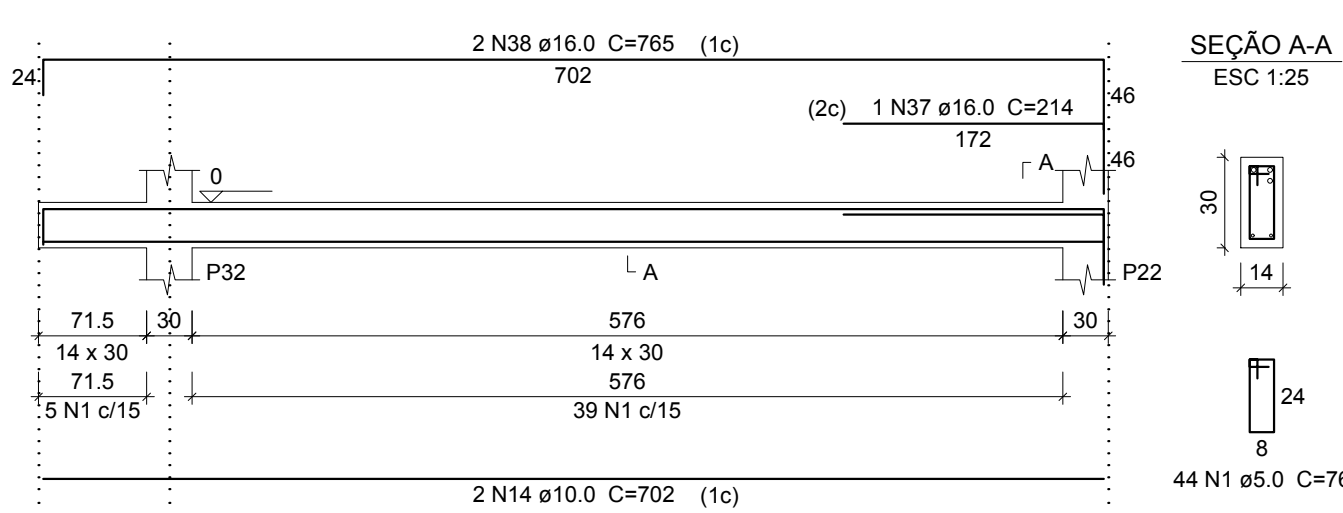
V9
ESC 1:50



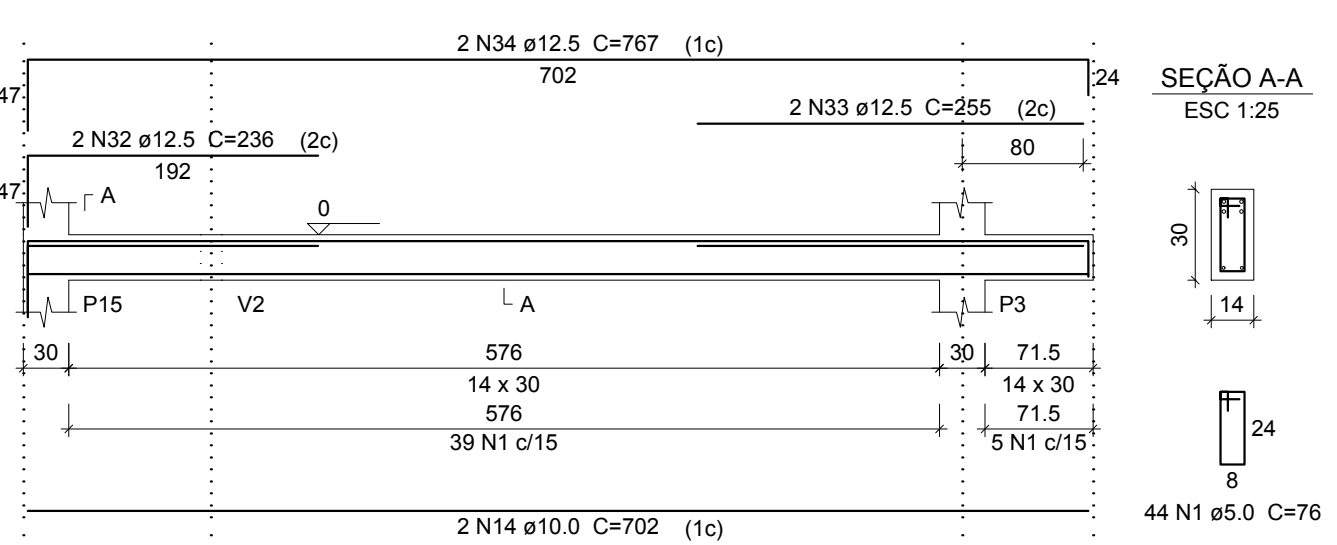
Relação do aço

AÇO	N	DIAM (mm)	QUANT	C.UNIT (cm)	C.TOTAL (cm)
CA60	1	5.0	736	76	55936
V5	2	5.0	86	86	7568
V7	3	8.0	2	236	472
V9	4	8.0	2	266	532
V15	5	8.0	4	1085	4340
	6	8.0	1	234	234
	7	8.0	4	1065	4272
	8	8.0	4	1074	4296
	9	8.0	1	199	199
	10	8.0	2	393	786
	11	8.0	2	299	598
	12	10.0	2	270	540
	13	10.0	1	551	551
	14	10.0	14	702	9828
	15	10.0	1	170	170
	16	10.0	3	230	690
	17	10.0	1	147	147
	18	10.0	2	207	414
	19	10.0	4	698	2792
	20	10.0	4	733	2932
	21	10.0	1	556	556
	22	10.0	1	122	122
	23	10.0	3	182	546
	24	10.0	3	235	705
	25	10.0	2	284	568
	26	10.0	2	138	276
	27	10.0	2	79	158
	28	12.5	4	1197	4788
	29	12.5	4	1200	4800
	30	12.5	4	1089	4356
	31	12.5	2	440	880
	32	12.5	2	236	472
	33	12.5	2	255	510
	34	12.5	2	767	1534
	35	12.5	2	181	362
	36	12.5	2	615	1232
	37	16.0	1	214	214
	38	16.0	2	765	1530
	39	16.0	6	779	4674
	40	16.0	1	260	260
	41	16.0	1	228	228
	42	16.0	2	769	1538

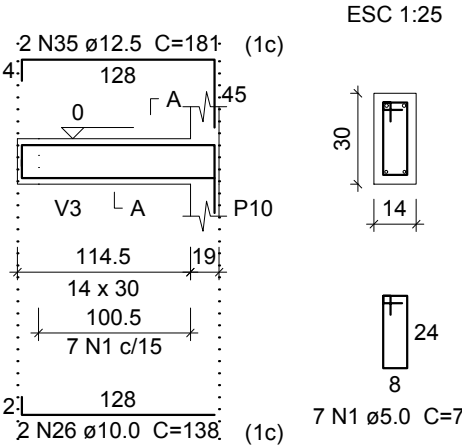
V10
ESC 1:50



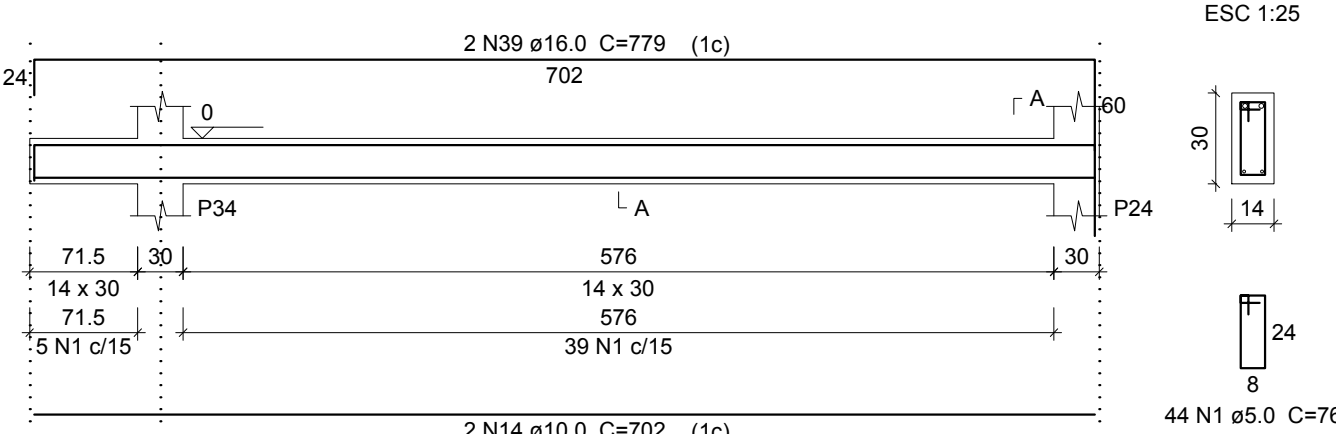
V11
ESC 1:50



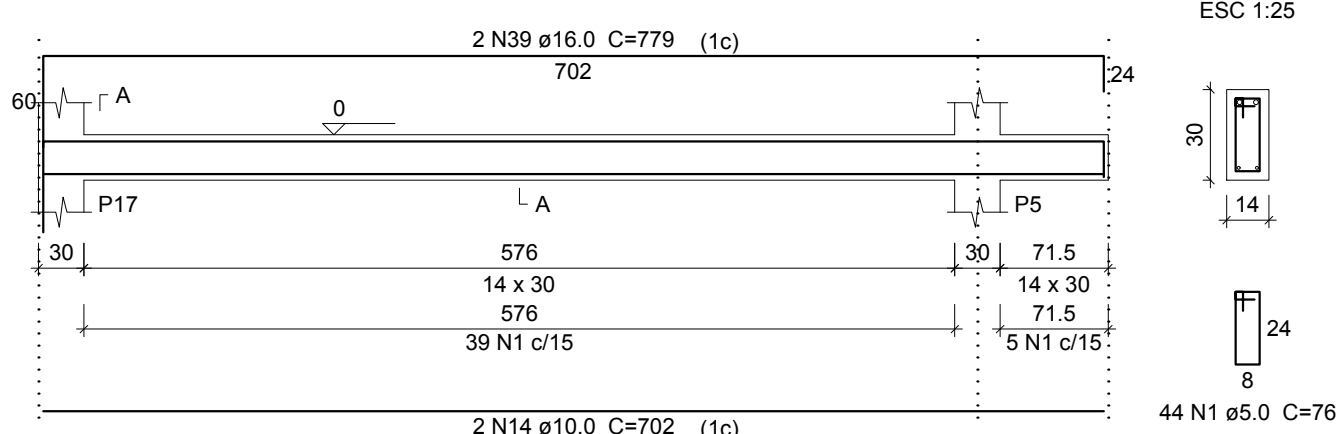
V12
ESC 1:50



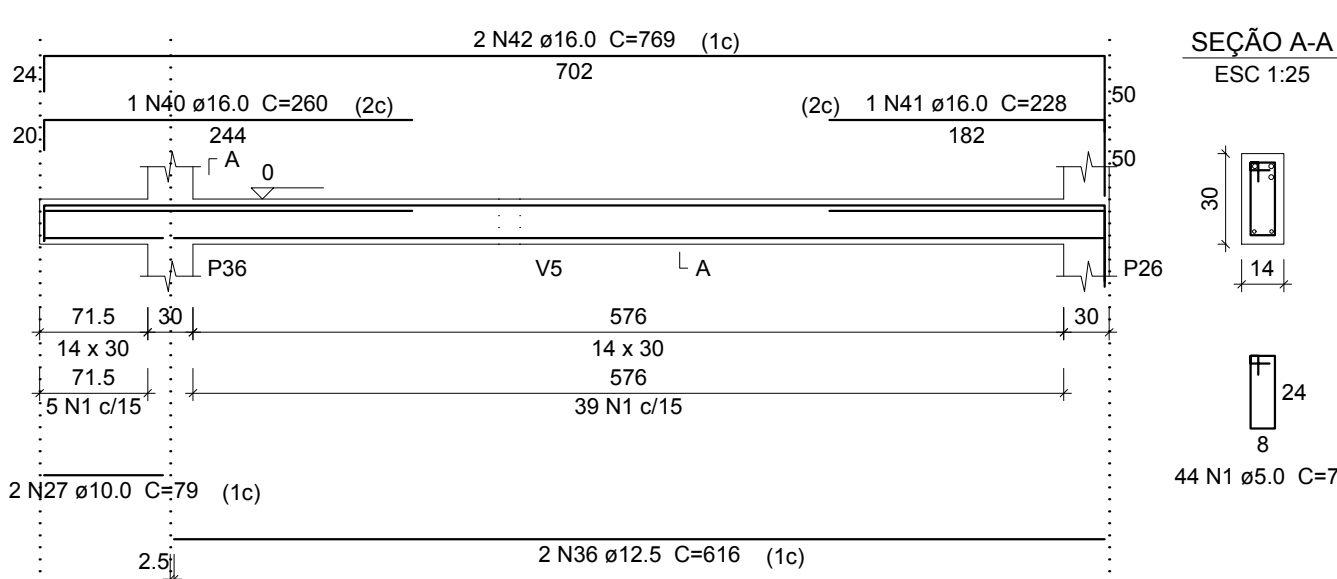
V13
ESC 1:50



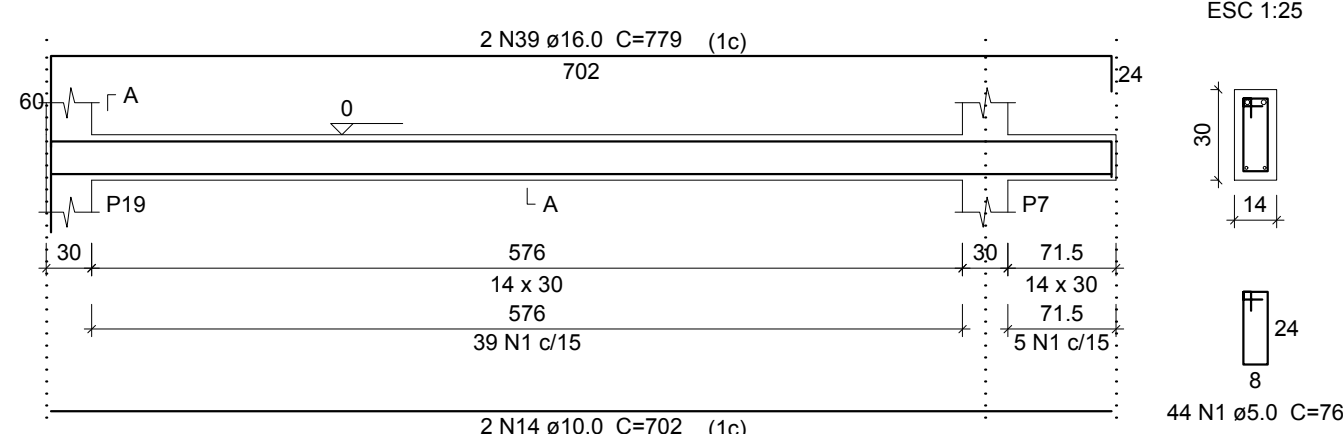
V14
ESC 1:50



V15
ESC 1:50



V16
ESC 1:50

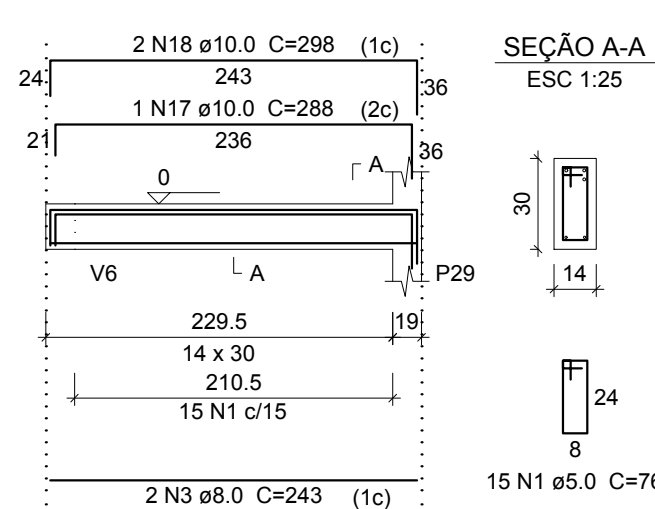


Resumo do aço

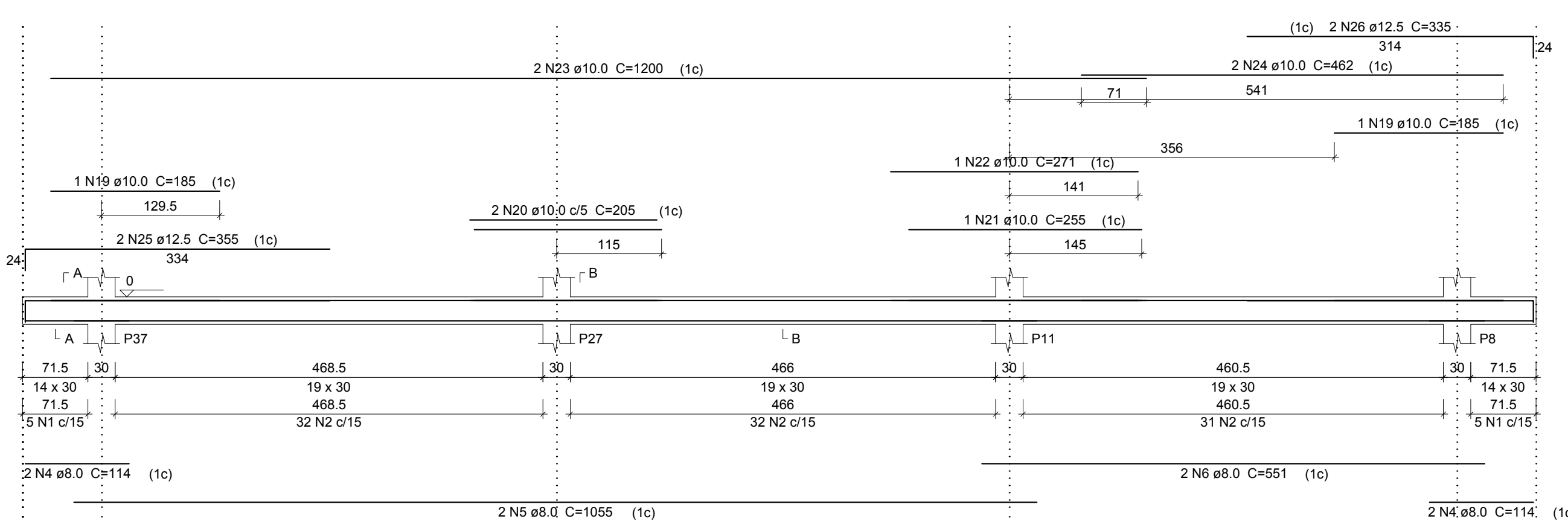
AÇO	DIAM (mm)	C.TOTAL (m)	PESO + 10 % (kg)
CA50	8.0	157.3	68.3
	10.0	210	142.4
	12.5	189.4	200.6
	16.0	84.5	146.6
CA60	5.0	635.1	107.7
PESO TOTAL (kg)			
CA50		557.9	
CA60		107.7	

Volume de concreto (C-25) = 5.73 m³
Área de forma = 97.9 m²

V18
ESC 1:50



V19
ESC 1:50



Relação do aço

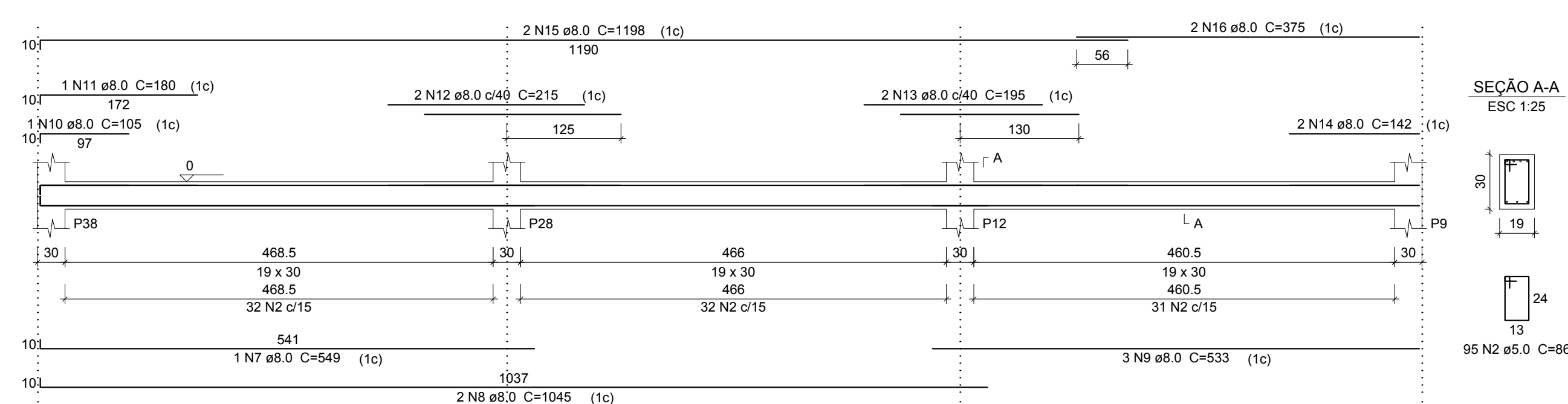
AÇO	N	DIAM (mm)	QUANT	C.UNIT (cm)	C.TOTAL (cm)
CA80	1	5.0	25	76	1900
CA50	2	5.0	190	86	16340
	3	8.0	2	243	486
	4	8.0	4	114	456
	5	8.0	2	1055	2110
	6	8.0	2	551	1102
	7	8.0	1	549	549
	8	8.0	2	1045	2090
	9	8.0	3	533	1599
	10	8.0	1	105	105
	11	8.0	1	160	160
	12	8.0	2	215	430
	13	8.0	2	195	390
	14	8.0	2	142	284
	15	8.0	2	1198	2396
	16	8.0	2	375	750
	17	10.0	1	288	288
	18	10.0	2	298	596
	19	10.0	2	185	370
	20	10.0	2	205	410
	21	10.0	1	255	255
	22	10.0	1	271	271
	23	10.0	2	1200	2400
	24	10.0	2	462	924
	25	12.5	2	355	710
	26	12.5	2	335	670

Resumo do aço

AÇO	DIAM (mm)	C.TOTAL (m)	PESO + 10 % (kg)
CA50	8.0	129.3	56.1
	10.0	55.2	37.4
	12.5	13.8	14.6
CA60	5.0	182.4	30.9
PESO TOTAL (kg)			
CA50		108.1	
CA60		30.9	

Volume de concreto (C-25) = 1.89 m³
Área de forma = 26.82 m²

V20
ESC 1:50



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: (51) 3226-6630

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

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

PROJETO: **ESTRUTURAL SALAS DE AULA**

CONTEÚDO: **VIGAS DE FUNDAÇÃO 02**

PROPRIETÁRIO: **INSTITUTO FEDERAL FARROUPILHA**

RESPONSÁVEL: **ENG. CIVIL CRISTINA SILVA FELTRIN**

ÁREA: **622,40 m²**

ESCALA: **1/50**

DATA: **Março/2017**

DESENHO: **Cristina**

PRANCHA: **DET EST 03/16**