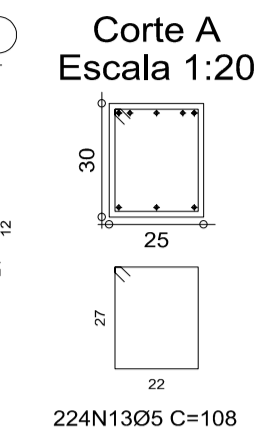
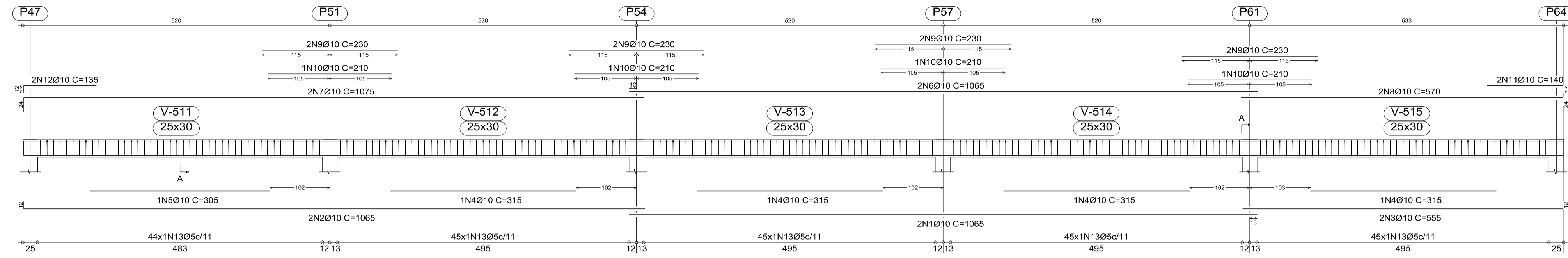
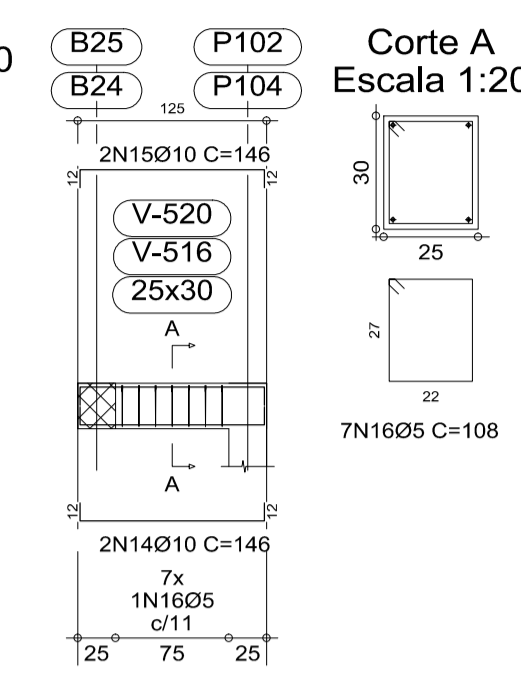


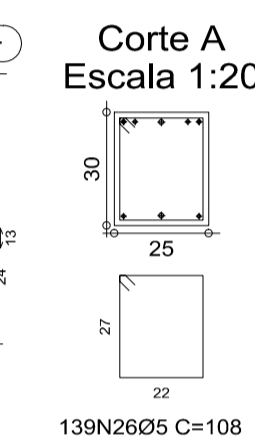
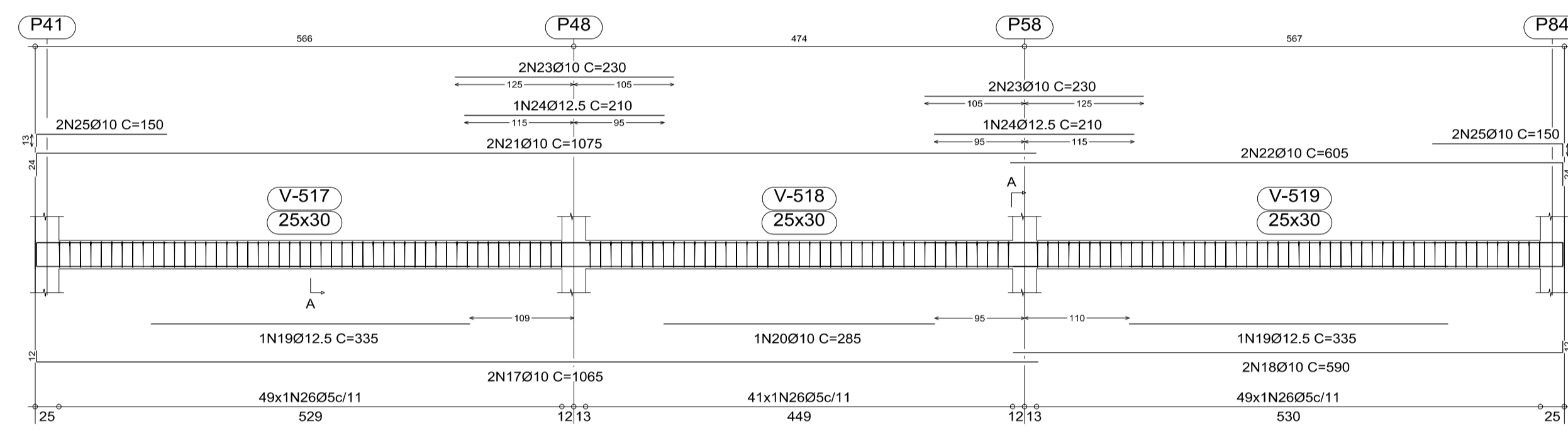
V B504
Escala 1:50



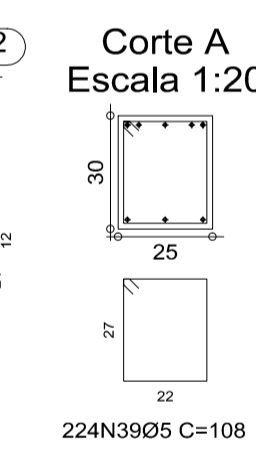
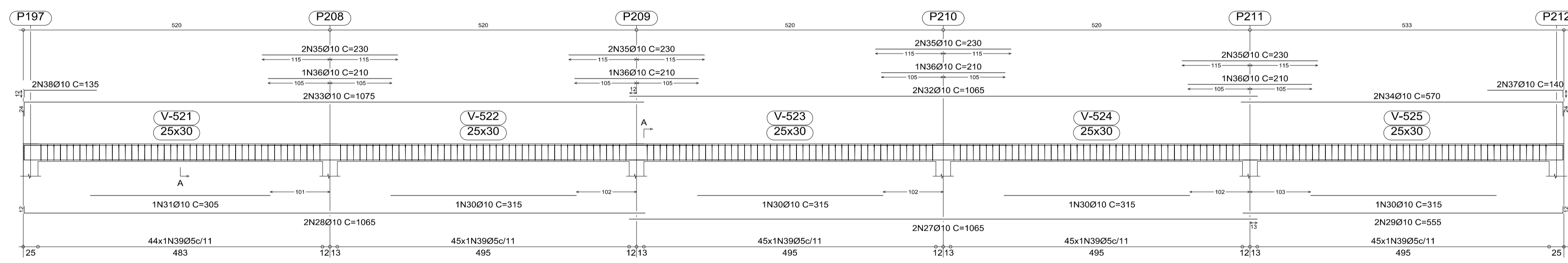
V B505
V B507
Escala 1:50



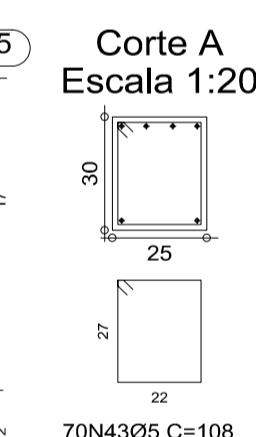
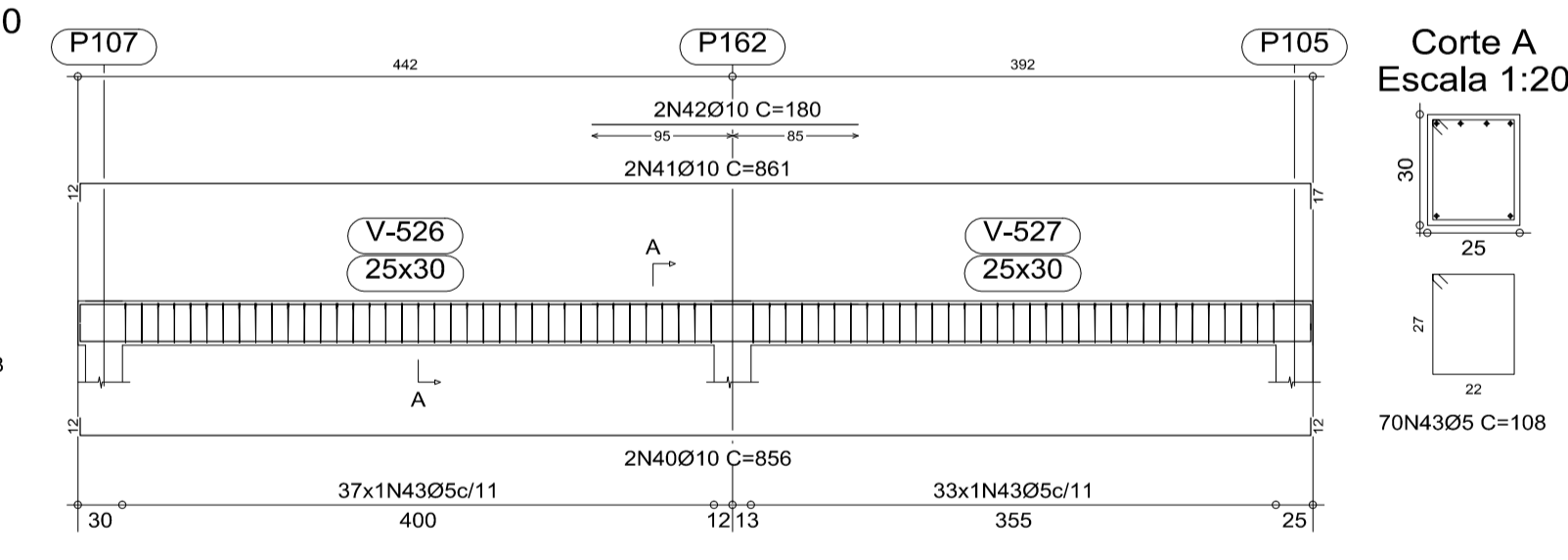
V B506
Escala 1:50



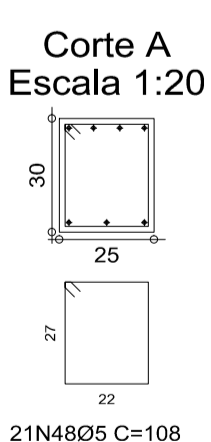
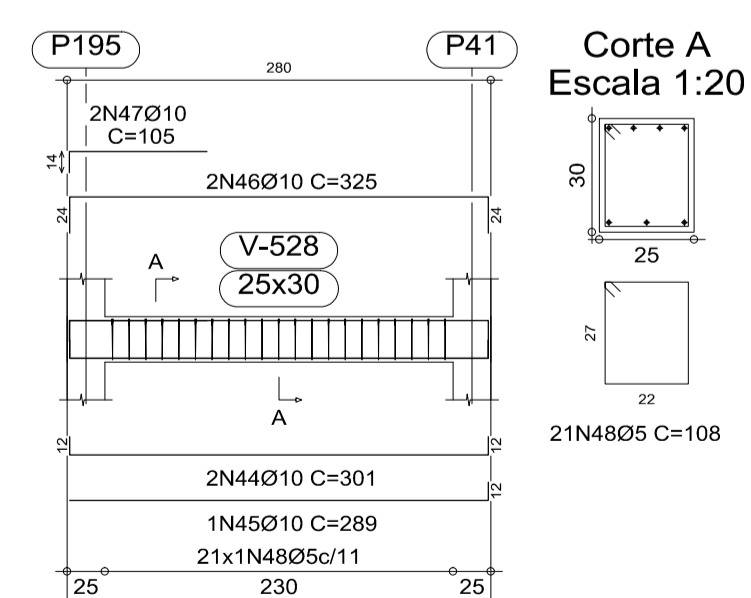
V B508
Escala 1:50



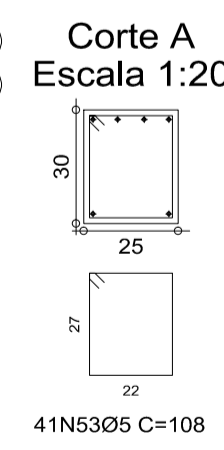
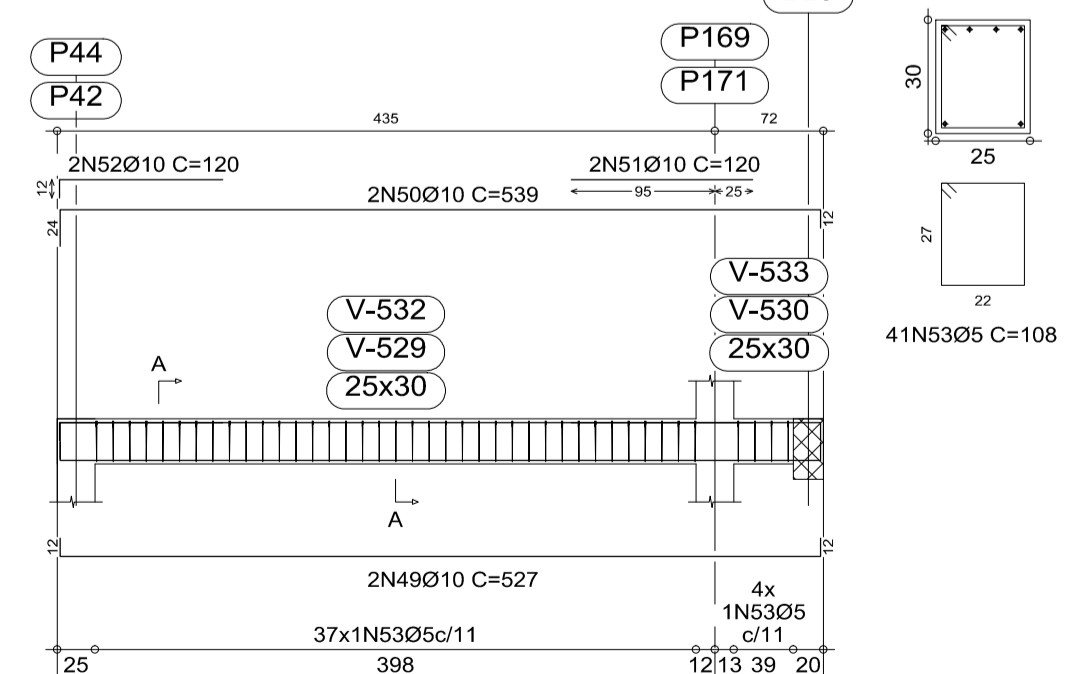
V B509
Escala 1:50



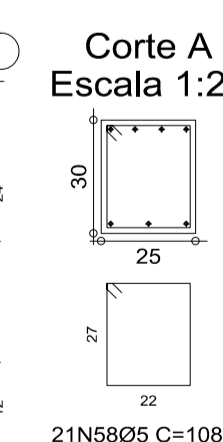
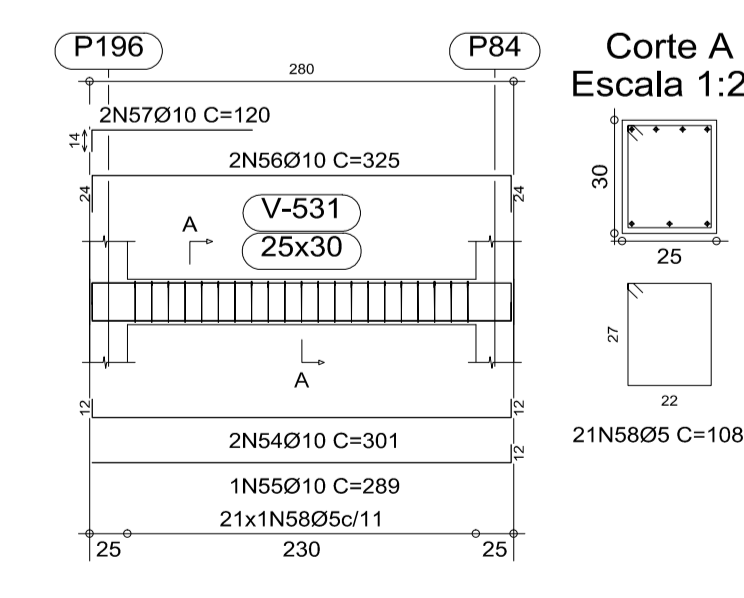
V B510
Escala 1:50



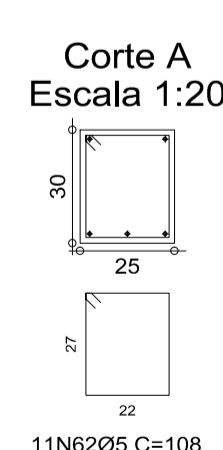
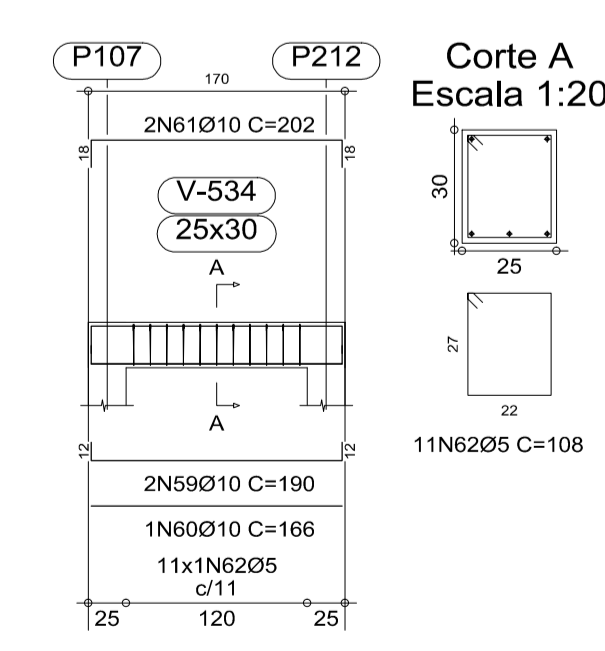
V B511
V B513
Escala 1:50



V B512
Escala 1:50



V B514
Escala 1:50



APOIO DA COBERTURA
Desenho de vigas
Concreto: C20, em geral
Aço: CA-50-A e CA-60-B
Escala vigas: 1:50
Escala seções: 1:20

Elemento	Pos.	Diam.	Q.	Dob. (cm)	Reita (cm)	Dob. (cm)	Comp. (cm)	Total (cm)	CA-50-A (kg)	CA-60-B (kg)	
V B504	1	Ø10	2		1065		1065	2130	13.4		
	2	Ø10	2	12	1053		1065	2130	13.4		
	3	Ø10	2		543	12	555	1110	7.0		
	4	Ø10	4		315		315	1260	7.9		
	5	Ø10	1		305		305	305	1.9		
	6	Ø10	2		1065		1065	2130	13.4		
	7	Ø10	2	24	1051		1075	2150	13.5		
	8	Ø10	2		546	24	570	1140	7.2		
	9	Ø10	8		230		230	1840	11.6		
	10	Ø10	4		210		210	840	5.3		
	11	Ø10	2		123	12	140	280	1.8		
	12	Ø10	2	12	123		135	270	1.7		
		13	Ø5	224			108	24192			38.0
Total+10%:									107.9	41.8	
V B505=V B507	14	Ø10	2	12	122	12	146	292	1.8		
	15	Ø10	2	12	122	12	146	292	1.8		
	16	Ø5	7				108	756			1.2
Total+10%:									4.0	1.3	
									(x2):	8.0	2.6
V B506	17	Ø10	2	12	1053		1065	2130	13.4		
	18	Ø10	2		578	12	590	1180	7.4		
	19	Ø12.5	2		335		335	670	6.6		
	20	Ø10	1		305		305	305	1.8		
	21	Ø10	2	24	1051		1075	2150	13.5		
	22	Ø10	2		581	24	605	1210	7.6		
	23	Ø10	4		230		230	920	5.8		
	24	Ø12.5	2		210		210	420	4.1		
	25	Ø10	4		137	13	150	600	3.8		
	26	Ø5	139				108	15012			23.6
	Total+10%:									70.4	26.0
	V B508	27	Ø10	2		1065		1065	2130	13.4	
		28	Ø10	2	12	1053		1065	2130	13.4	
29		Ø10	2		543	12	555	1110	7.0		
30		Ø10	4		315		315	1260	7.9		
31		Ø10	1		305		305	305	1.9		
32		Ø10	2		1065		1065	2130	13.4		
33		Ø10	2	24	1051		1075	2150	13.5		
34		Ø10	2		546	24	570	1140	7.2		
35		Ø10	8		230		230	1840	11.6		
36		Ø10	4		210		210	840	5.3		
37		Ø10	2		128	12	140	280	1.8		
38		Ø10	2	12	123		135	270	1.7		
39		Ø5	224				108	24192			38.0
Total+10%:									107.9	41.8	
V B509	40	Ø10	2	12	832	12	856	1712	10.8		
	41	Ø10	2	12	832	17	861	1722	10.8		
	42	Ø10	2		180		180	360	2.3		
	43	Ø5	70				108	7560			11.9
Total+10%:									26.3	13.1	
V B510	44	Ø10	2	12	277	12	301	602	3.8		
	45	Ø10	1		277	12	289	289	1.8		
	46	Ø10	2	24	277	24	325	650	4.1		
	47	Ø10	2	14	91		105	210	1.3		
48	Ø5	21				108	2268			3.6	
Total+10%:									12.1	4.0	
V B511=V B513	49	Ø10	2	12	503	12	527	1054	6.6		
	50	Ø10	2	24	503	12	539	1078	6.8		
	51	Ø10	2		120		120	240	1.5		
	52	Ø10	2	12	108		120	240	1.5		
53	Ø5	41				108	4428			7.0	
Total+10%:									18.0	7.7	
									(x2):	36.0	15.4
V B512	54	Ø10	2	12	277	12	301	602	3.8		
	55	Ø10	1		277	12	289	289	1.8		
	56	Ø10	2	24	277	24	325	650	4.1		
	57	Ø10	2	14	106		120	240	1.5		
58	Ø5	21				108	2268			3.6	
Total+10%:									12.3	4.0	
V B514	59	Ø10	2	12	166	12	190	380	2.4		
	60	Ø10	1		166		166	166	1.0		
	61	Ø10	2	18	166	18	202	404	2.5		
	62	Ø5	11				108	1188			1.9
Total+10%:									6.5	2.1	
									(x2):	13.0	4.2
									Ø5:	0.0	150.8
									Ø12.5:	11.8	0.0
									Total:	387.4	150.8

REVISÕES		
NR.	AUTOR	DATA
-	-	-
-	-	-
-	-	-
-	-	-
-	-	-

PARA APROVAÇÃO <input checked="" type="checkbox"/> LIBERADO P/ FABRICAÇÃO	ASS: ENG. REINALDO	DATA: 16/08/2010	ORDEM DE SERVIÇO: 01618
CONNECT DESIGN [®]		TODOS OS DIREITOS RESERVADOS	
Rua João Passos, 1880 - CEP 18602-140 Botucatu - SP		PROIBIDA A REPRODUÇÃO SEM AUTORIZAÇÃO PREVIA	
Fone/Fax + 55 14 3815-1873 / 3813-4563	Eng. REINALDO	Data: 16/08/2010	
connect@connectdesign.com.br	PROJ: CONNECT	Data: 16/08/2010	
www.connectdesign.com.br	Dimensões: CM	Arquivo: STR-01618-048-REV00	
CREA: 1161900			

ASSESSORIA TÉCNICA DE PLANEJAMENTO E ENGENHARIA

HOSPITAL DAS CLÍNICAS

UNESP - Campus de Botucatu - Distrito de Rubião Junior, S/N BOTUCATU, SP - CEP 18.618-000 FONE (014) 3811-6050 - E-MAIL: alpe@fmb.unesp.br

Hospital das Clínicas
Distrito de Rubião Junior, s/n | CEP 18618-070 | Botucatu | São Paulo
Tel. (14) 3811-6215 | 3811-6218 | 3811-6050 | www.hfmb.unesp.br

OBRA: AMPLIAÇÃO DO AMBULATÓRIO MÉDICO DE ESPECIALIDADES

LOCAL: HOSPITAL DAS CLÍNICAS - BOTUCATU

FRANCHA: VIGAS DO APOIO DAS TESOURAS - SETOR B- COTA 104.50

REVISÃO: 00

ESCALAS: 1:50

ESTRUTURAL

FOLHA: 48/56