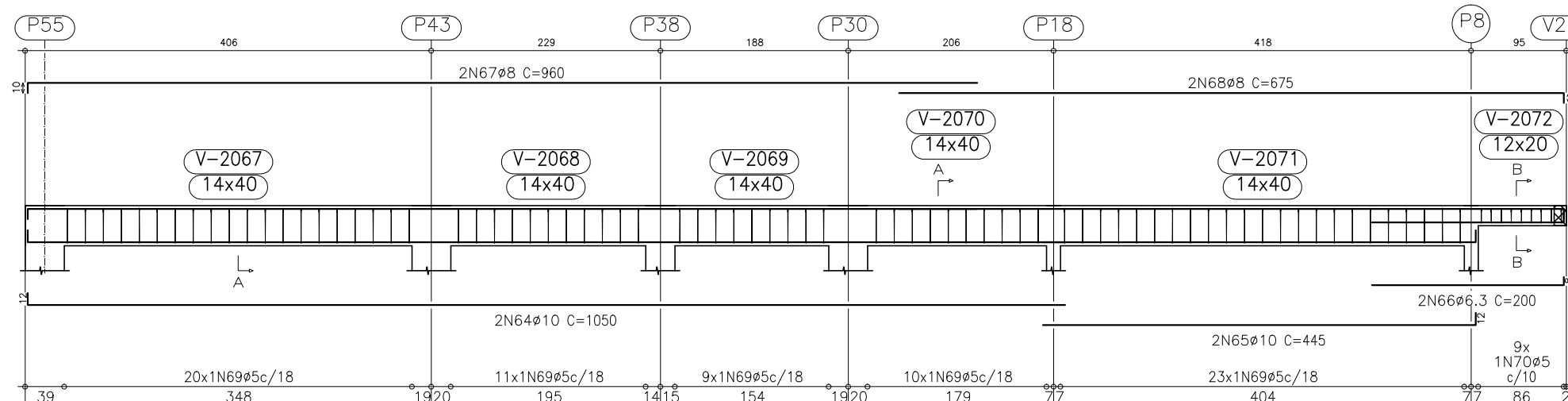
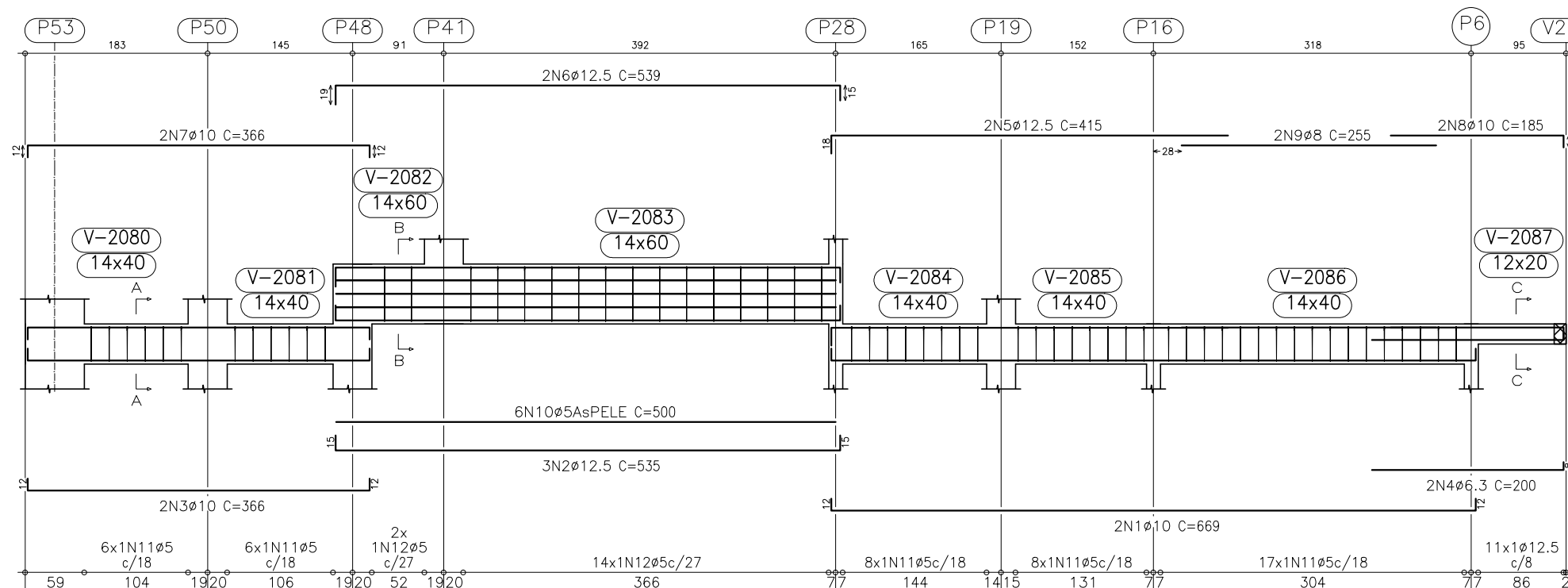


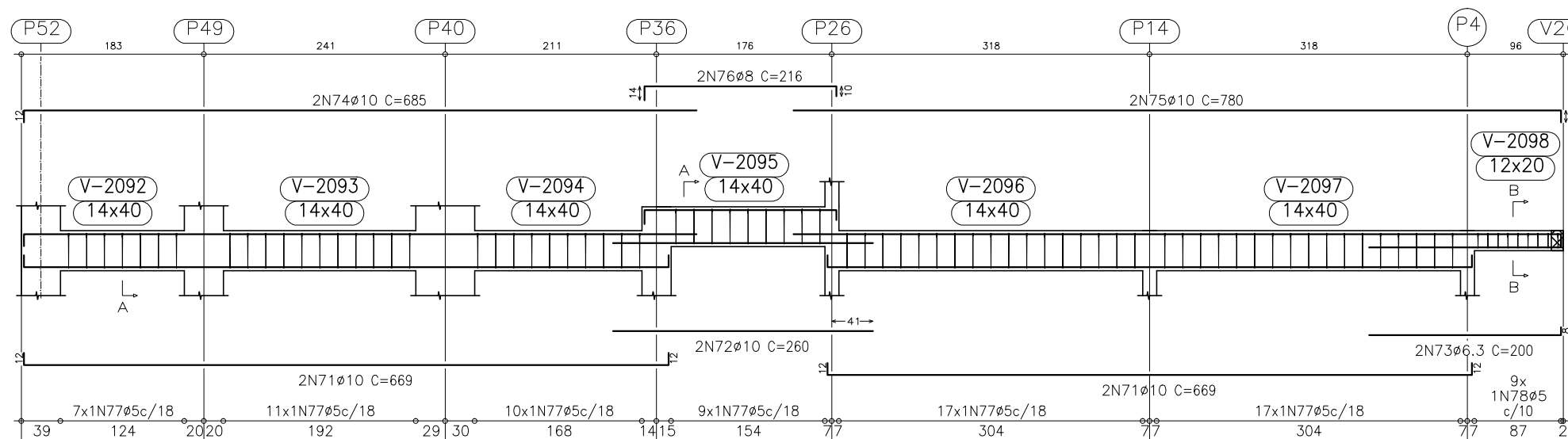
V225
Escala 1:60



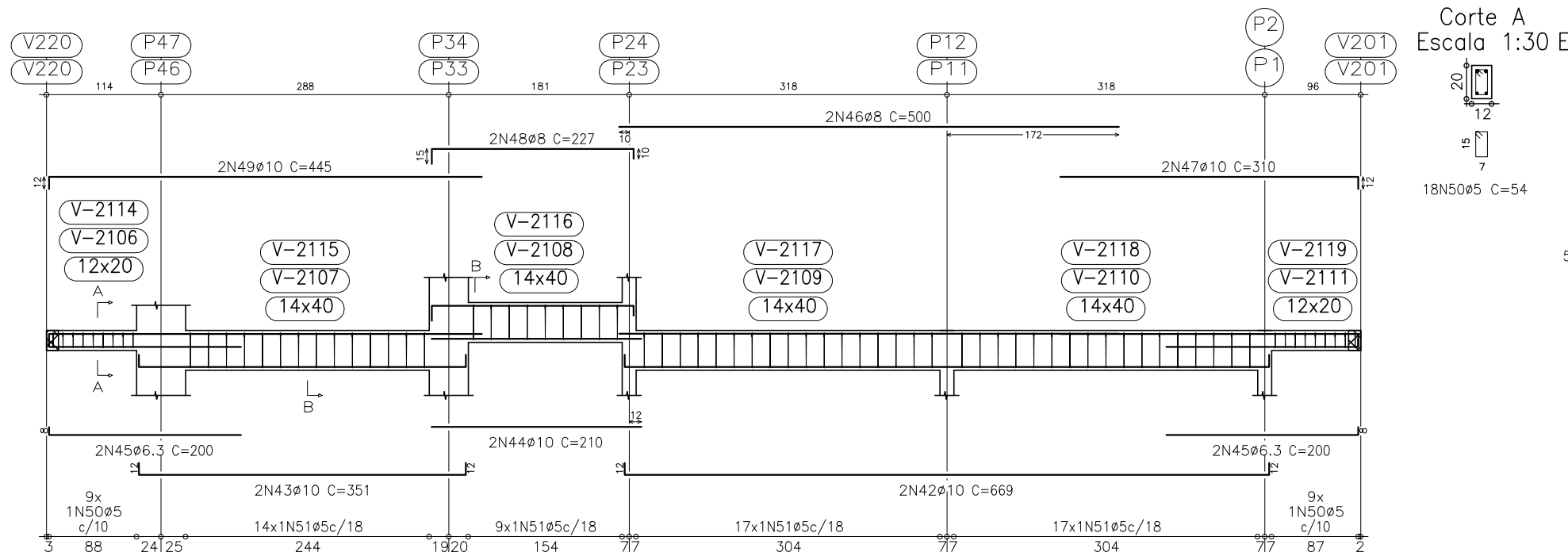
V228
Escala 1:60



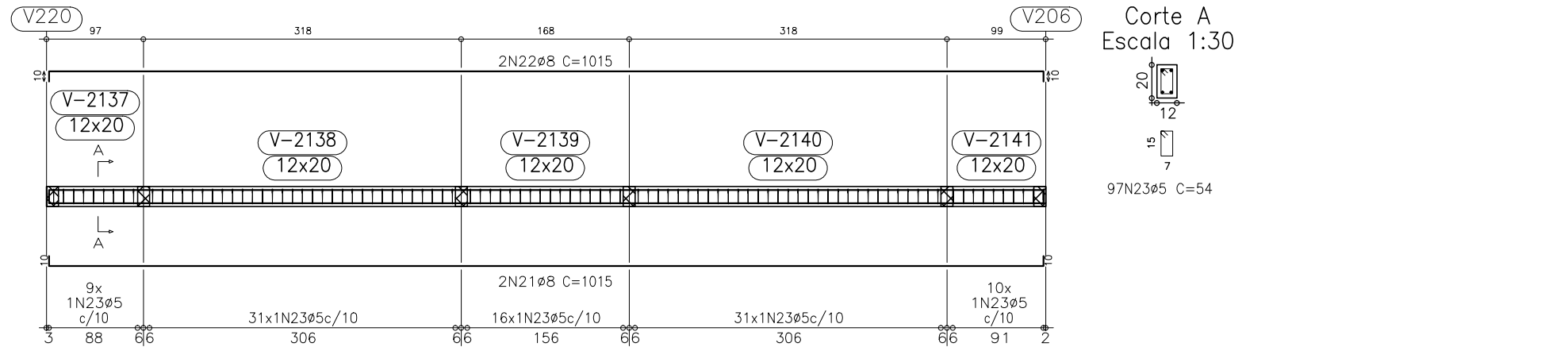
V231
Escala 1:60



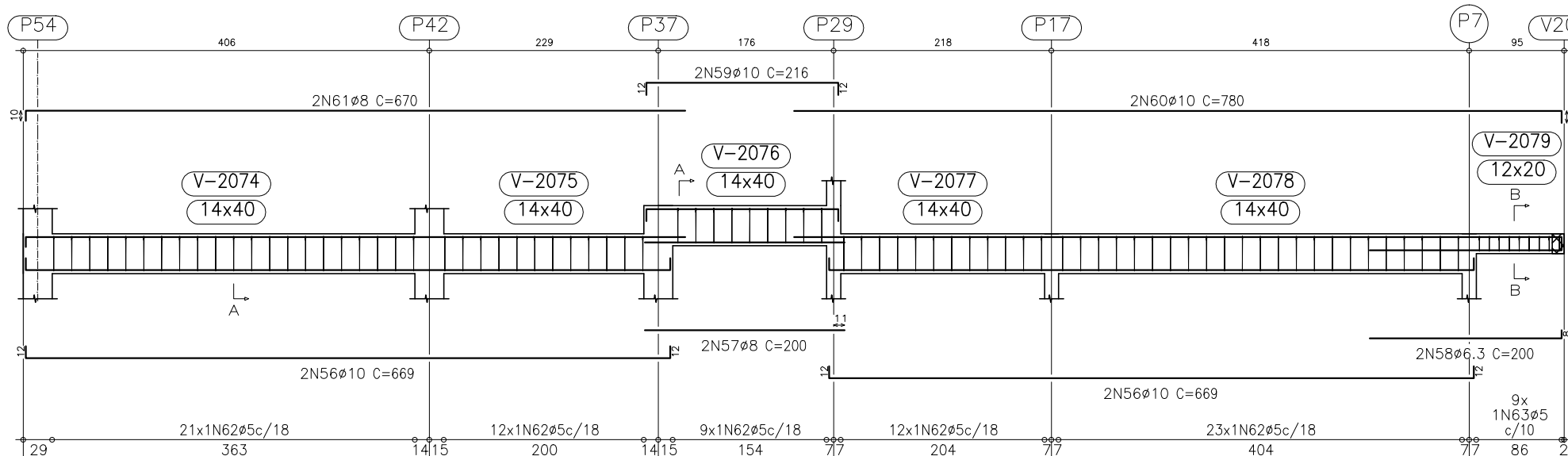
V234
V237
Escala 1:60



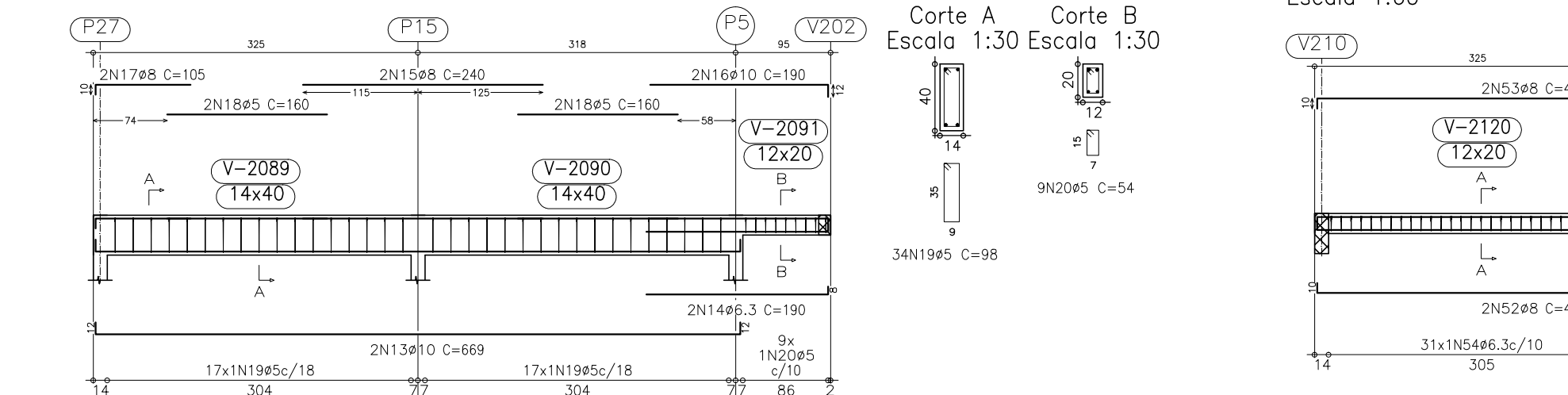
V246
Escala 1:60



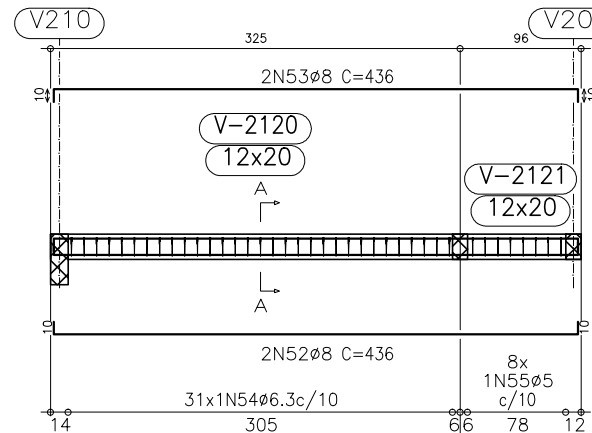
V227
Escala 1:60



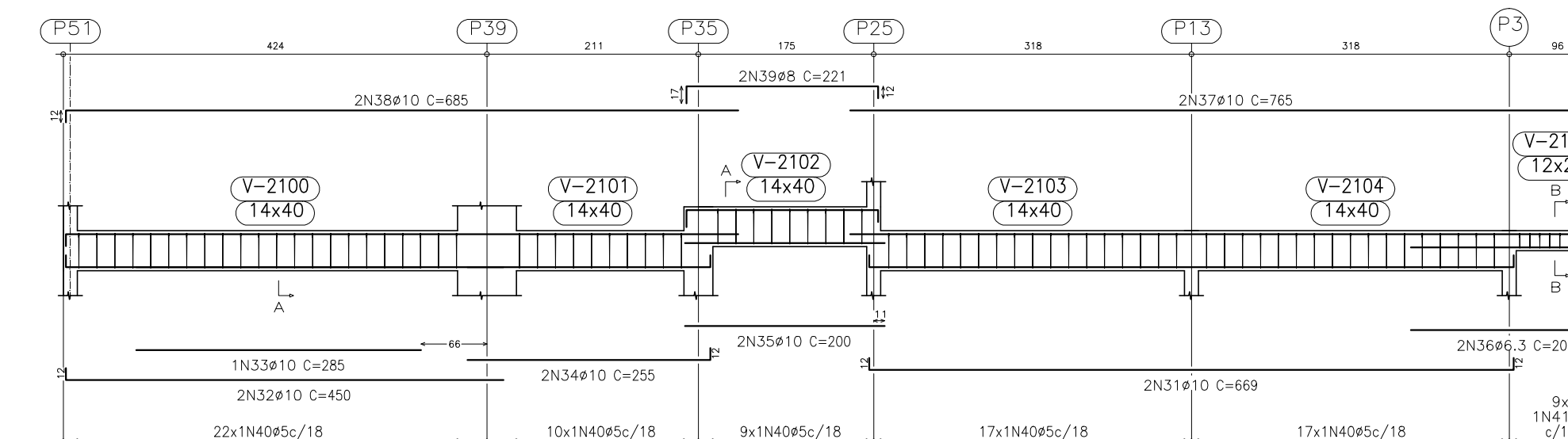
V230
Escala 1:60



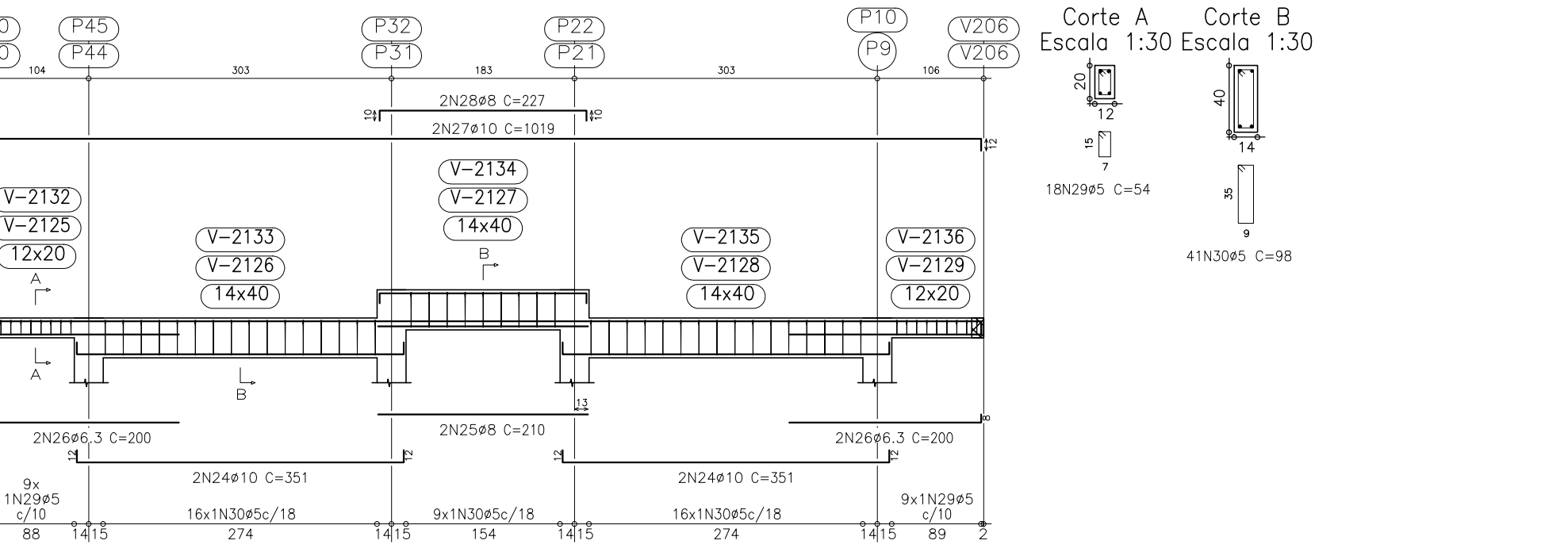
V238
Escala 1:60



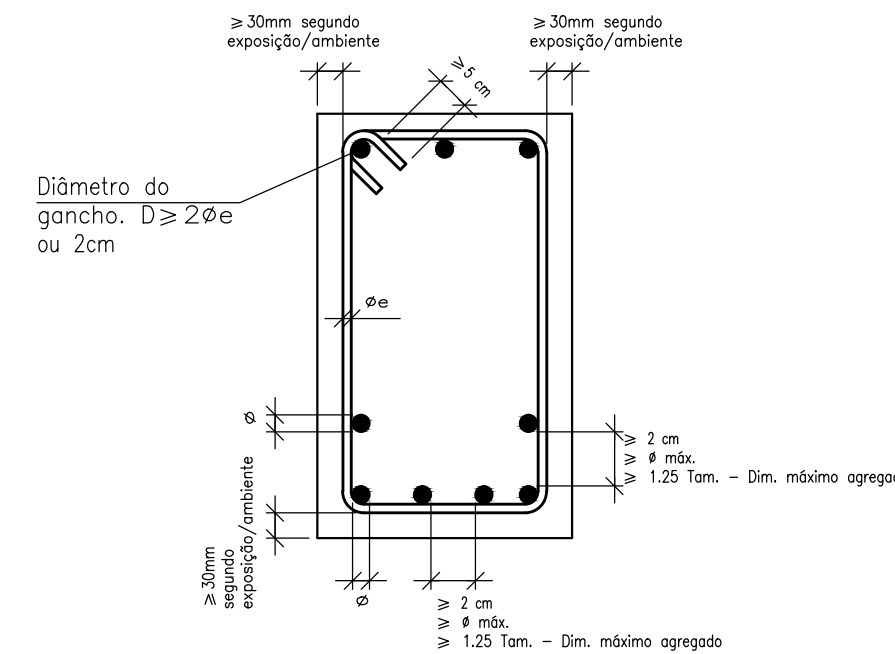
V233
Escala 1:60



V242
V245
Escala 1:60



Cobrimentos e espaçamentos entre barras em vigas.



Elemento	Pos.	Diam.	Q.	DoB (cm)	Refo (cm)	DoB (cm)	Comp. (cm)	Total (cm)	CA-50-A (kg)	CA-60-B (kg)
V228	1	ø10	2	12	1345	12	669	1338	8.4	
	2	ø12.5	3	15	505	15	535	1605	15.7	
	3	ø10	2	12	342	12	366	732	4.6	
	4	ø6.3	2	12	192	8	200	400	1.0	
	5	ø12.5	2	18	397	18	415	830	8.1	
	6	ø12.5	2	19	505	15	539	1078	10.6	
	7	ø10	2	12	342	12	366	732	4.6	
	8	ø10	2	12	173	12	185	370	2.3	
	9	ø8	2	12	255	12	265	510	2.0	
	10	ø5	6				500	3000		4.7
	11	ø5	40				98	4410		6.9
	12	ø5	16				138	2208		3.5
Total+10%									63.0	16.6
V230	13	ø10	2	12	645	12	669	1338	8.4	
	14	ø6.3	2	12	192	8	200	380	0.9	
	15	ø8	2	12	240	12	240	480	1.9	
	16	ø10	2	178	12	190	380	760	2.4	
	17	ø8	2	10	95		105	210		
	18	ø5	4		160		160	640		1.0
	19	ø5	34				98	3332		5.2
	20	ø5	9				54	486		0.8
Total+10%									15.8	7.7
V246	21	ø8	2	10	995	10	1015	2030		
	22	ø8	2	10	995	10	1015	2030		
	23	ø5	97				54	5238		8.2
Total+10%									17.6	9.0
V242=V245	24	ø10	4	12	327	12	351	1404	8.8	
	25	ø8	2	12	210	12	210	420	1.6	
	26	ø6.3	4		192	8	200	800	2.0	
	27	ø10	2	12	995	12	1019	2038	12.8	
	28	ø8	2	10	207	10	227	454	1.8	
	29	ø5	18				54	972		1.5
	30	ø5	4				98	4018		6.3
Total+10%									29.7	8.6
V233	31	ø10	2	12	645	12	669	1338	8.4	
	32	ø10	2	12	327	12	351	702	4.4	
	33	ø10	1				285	285		
	34	ø10	2	12	243	12	255	510	3.2	
	35	ø10	2		200		200	400	2.5	
	36	ø6.3	2		192	8	200	400	1.0	
	37	ø10	2		753	12	765	1530	9.6	
	38	ø10	2	12	673	12	685	1370	8.6	
	39	ø8	2	17	192	12	221	442	1.7	
	40	ø5	75				98	7350		11.5
	41	ø5	9				54	486		0.8
Total+10%									46.8	13.5
V234=V237	42	ø10	2	12	645	12	669	1338	8.4	
	43	ø10	2	12	327	12	351	702	4.4	
	44	ø10	2	12	210	12	210	420	2.6	
	45	ø6.3	4		192	8	200	800	2.0	
	46	ø8	2		500		500	1000		3.9
	47	ø10	2		298	12	310	620	3.9	
	48	ø8	2	15	302	10	322	454	1.8	
	49	ø10	2	12	433		445	890	5.6	
	50	ø5	18				54	972		1.5
	51	ø5	57				98	4596		8.8
Total+10%									35.9	11.3
V238	52	ø8	2	10	416	10	436	872	3.4	
	53	ø8	2	10	416	10	436	872	3.4	
	54	ø6.3	3				57	1767		4.4
	55	ø5	6				54	432		0.7
Total+10%									12.3	0.8
V227	56	ø10	4	12	645	12	669	2676	16.8	
	57	ø8	2		200		200	400	1.6	
	58	ø6.3	3		192	8	200	400	1.0	
	59	ø10	2	12	192	12	216	432	2.7	
	60	ø10	2		768	12	780	1560	9.8	
	61	ø8	2	10	660		670	1340	5.3	
	62	ø5	77				98	7544		11.8
	63	ø5	9				54	486		0.8
Total+10%									40.9	13.9
V225	64	ø10	2	12	1038		1050	2100	13.2	
	65	ø10	2		445		445	890	5.6	
	66	ø6.3	3		192	8	200	400	1.0	
	67	ø8	2	10	650		660	1320	7.5	
	68	ø8	2		675		675	1350	5.3	
	69	ø5	73				98	7154		11.2
	70	ø5	9				54	486		0.8
Total+10%									35.9	13.2
V231	71	ø10	2	12	645	12	669	2676	16.8	
	72	ø10	2		200		200	400	1.6	
	73	ø6.3	3		192	8	200	400	1.0	
	74	ø10	2	12	673		685	1370	8.6	
	75	ø10	2		768	12	780	1560	9.8	
	76	ø8	2	14	192	10	216	432	1.7	
	77	ø5	7				98	6988		10.9
	78	ø5	9				54	486		0.8
Total+10%									45.3	12.9
e5:									0.0	127.4
e6.3:									20.1	0.0
e8:									75.6	0.0
e10:									275.3	0.0
e12.5:									37.8	0.0
Total:									408.8	127.4

ESPECIFICAÇÕES

- 1 - CONCRETO ESTRUTURAL fck >= 25 MPa E >= 25000 MPa
- 2 - AÇO CA-50A e CA-60B
- 3 - COBRIMENTO DAS ARMADURA e=3,0cm
- 4 - UTILIZAR ESPAÇADORES EM TODAS AS PEÇAS DE CONCRETO ARMADO
- 5 - CONFERIR TODAS AS MEDIDAS EM OBRA
- 6 - ESTA OBRA DEVERÁ SER EXECUTADA COM CONTROLE RIGOROSO, CONFORME NBR 6118-2003

04			
03			
02			
01			
REV.	MODIFICAÇÃO	RESP.	DATA
ENGENHEIRO RESPONSÁVEL		WILSON JORGE MARQUES - CREA nº 360279423	
GRACO PROJETOS, EMPREENDIMENTOS E CONSTRUÇÃO S/C LTDA. RUA PADRE TEIXEIRA, 4531 - CENTRO - SÃO CARLOS - SP FONE / FAX: (16) 3372-2188 / 3307-7643 - projetos@gracoarq.com.br - www.gracoarq.com.br			
PREFEITURA MUNICIPAL DE SÃO CARLOS SECRETARIA MUNICIPAL DE OBRAS PÚBLICAS			
Área Técnica	ESTRUTURA	DES. Nº	
OBRA:	UNIDADE DE SAÚDE FAMILIAR - USF - CDHU	EST-08	
LOCAL:	CONJUNTO HABITACIONAL SÃO CARLOS CDHU H. AVENIDA I, SÃO CARLOS, S.P.	Folha nº	08/14
ASSUNTO:	ARMACOMAÇÃO DAS VIGAS DA COBERTURA - COTA EL=+3,12m	Data:	REV/2012
AUTOR DO PROJETO:	Eng. Wilson	RESPONSÁVEL:	Eng. Wilson
DESENHO:	Helton Calado	ESCALAS:	Indicadas
PROCESSO Nº		ETAPA:	EXECUTIVO