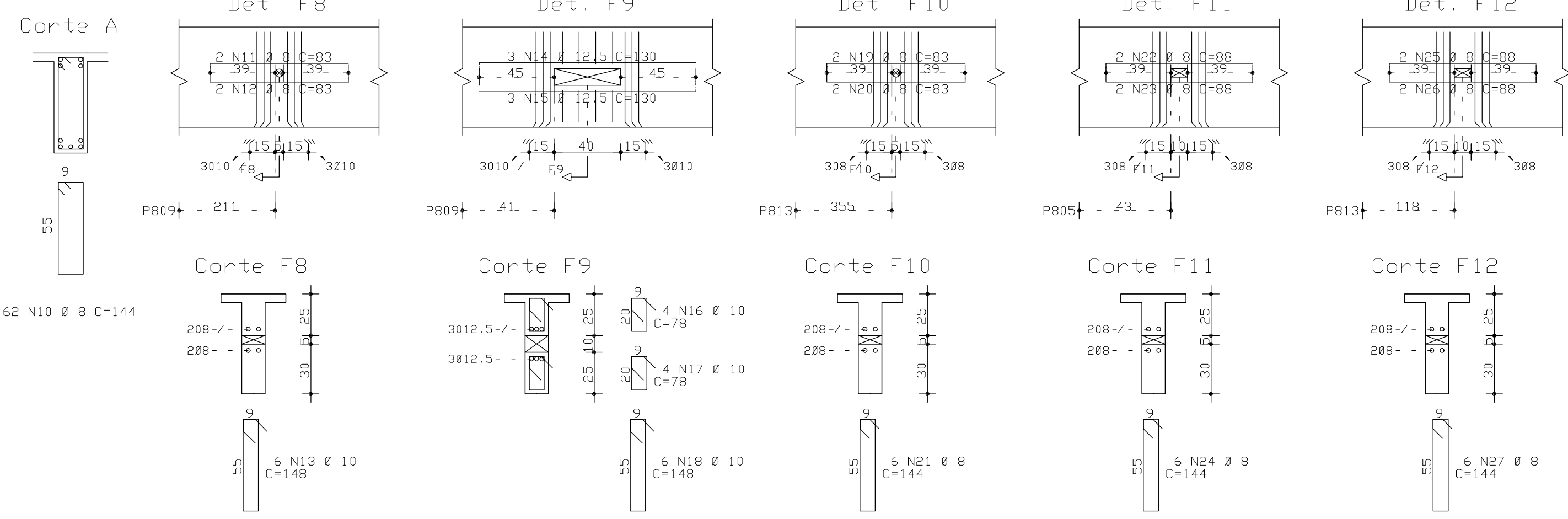


Technical drawing of a bridge deck cross-section showing reinforcement details. The drawing includes a top view of the deck with reinforcement bars (N1, N2, N3, N4, N5, N6, N7, N8, N9) and stirrups (C303, C346, C363, C347, C250, C200, C254). It also shows vertical dimensions (181, 120, 113, 387) and horizontal dimensions (84, 84, 109, 84). The drawing is labeled with '277 (2 Ø 20CAM)', '1180', '2 N3 Ø 20 C=1200', '2 N5 Ø 16/C=363 (2 Ø 20CAM)', '2 N6 Ø 20 C=347', '2 N1 Ø 8 C=287', '2 N4 Ø 20 C=346 (2 Ø 20CAM)', '2 N7 Ø 12.5 C=756', '5 N8 Ø 12.5 C=409', and '2 N9 Ø 16 C=504'. The drawing is signed 'P' and 'S'.



	ACC	PDS	BIT (quant)	COMP (unit)	UNIT TOTAL	TOTAL (cost)	
M018	X86	5	2	10	297	603	
		5	2	10	297	966	
		5	4	10	1527	1023	
		5	4	10	346	5326	
		5	4	10	368	5688	
		5	6	10	247	5202	
		5	6	10	247	5202	
		5	6	10	247	5202	
		5	9	16	504	8664	
		5	9	16	504	8664	
		5	11	8	166	833	
		5	11	8	166	833	
		5	12	10	408	148	7154
		5	12	10	408	148	7154
		5	15	10	24	130	310
		5	16	10	16	112	216
		5	17	10	32	78	2496
		5	18	10	16	112	216
		5	19	8	166	833	1039
		M019	X86	5	2	10	297
5	2			10	297	966	
5	4			16	16	418	1488
5	4			16	16	418	1488
5	6			10	16	296	947
5	6			10	16	296	947
5	8			8	208	80	3852
5	8			8	208	80	3852
5	10			8	208	80	3852
5	10			8	208	80	3852
M020	X86	5	2	10	297	603	
		5	2	10	297	966	
		5	4	10	16	206	486
		5	4	10	16	206	486
		5	4	10	16	206	486
		5	6	16	16	491	7852
		5	6	16	16	491	7852
		5	8	8	24	153	3876
		5	8	8	24	153	3876
		5	10	8	48	95	4560
M021	X86	5	2	10	297	603	
		5	2	10	297	966	
		5	4	16	16	278	4448
		5	4	16	32	494	1480
		5	6	3	176	125	4372
		5	6	3	176	125	4372
		5	8	8	24	153	3876
		5	8	8	24	153	3876
		5	10	8	48	95	4560
		5	10	8	48	95	4560
M022	X86	5	2	10	297	603	
		5	2	10	297	966	
		5	4	16	16	278	4448
		5	4	16	32	494	1480
		5	6	3	176	125	4372
		5	6	3	176	125	4372
		5	8	8	24	153	3876
		5	8	8	24	153	3876
		5	10	8	48	95	4560
		5	10	8	48	95	4560
M023	X86	5	2	10	297	603	
		5	2	10	297	966	
		5	4	16	16	2	
M024	X86	5	2	10	297	603	
		5	2	10	297	966	
		5	4	16	16	2	
M025	X86	5	2	10	297	603	
		5	2	10	297	966	
		5	4	16	16	2	
M026	X86	5	2	10	297	603	
		5	2	10	297	966	
		5	4	16	16	2	
M027	X86	5	2	10	297	603	
		5	2	10	297	966	
		5	4	16	16	2	
M028	X86	5	2	10	297	603	
		5	2	10	297	966	
		5	4	16	16	2	
M029	X86	5	2	10	297	603	
		5	2	10	297	966	
		5	4	16	16	2	
M030	X86	5	2	10	297	603	
		5	2	10	297	966	
		5	4	16	16	2	
M031	X86	5	2	10	297	603	
		5	2	10	297	966	
		5	4	16	16	2	

RESUMU ACQ GA 50-60			
ACQ	BIT (m)	CMR (m)	PESO (kg)
60B	5	877	140
50A	6.3	1641	410
50A	8	3056	1223
50A	18	905	70
50A	12.5	760	760
50A	16	416	666
50A	23	1568	3912
Peso Total	60B =		140 kg
Peso Total	50A =		7549 kg

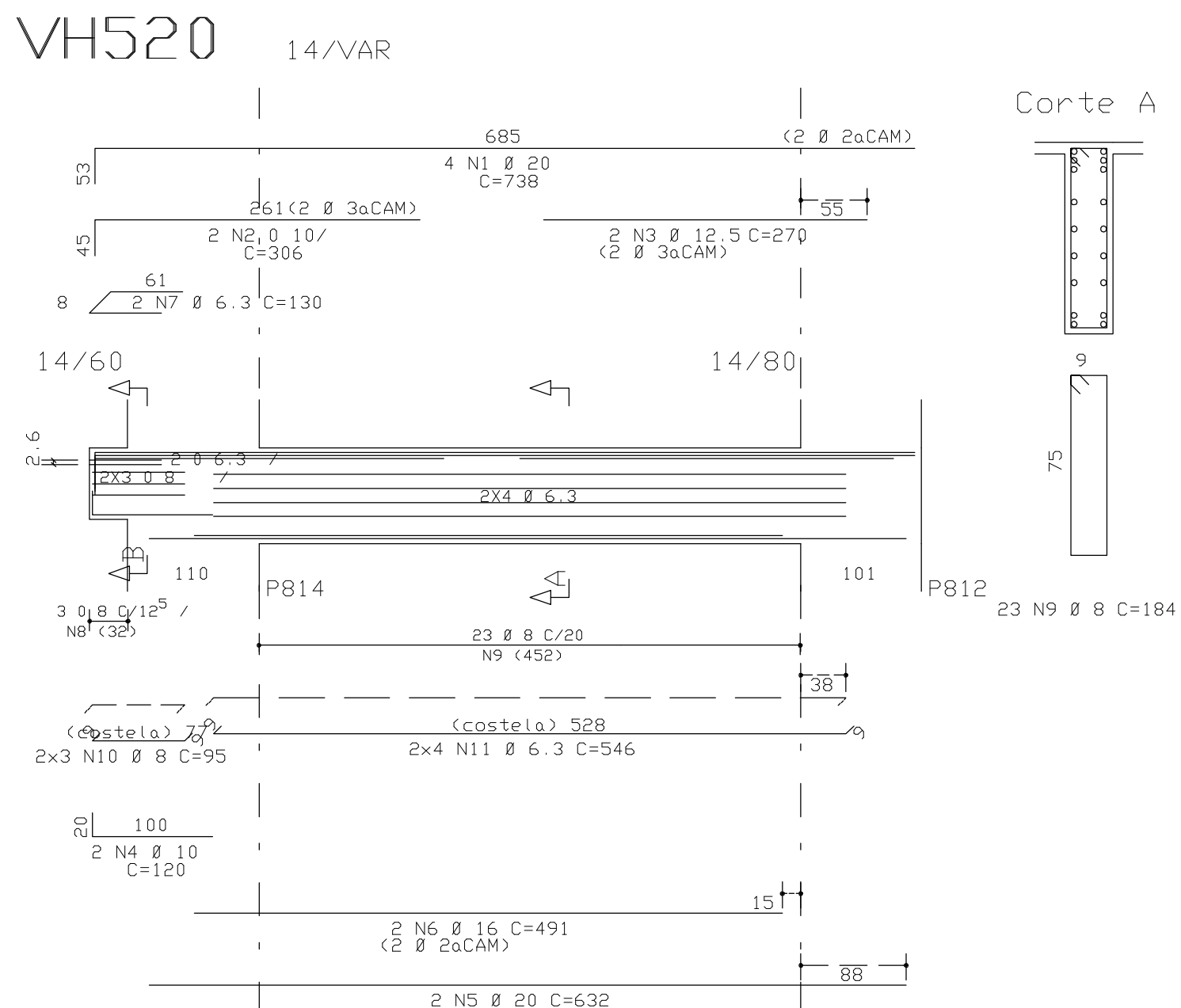
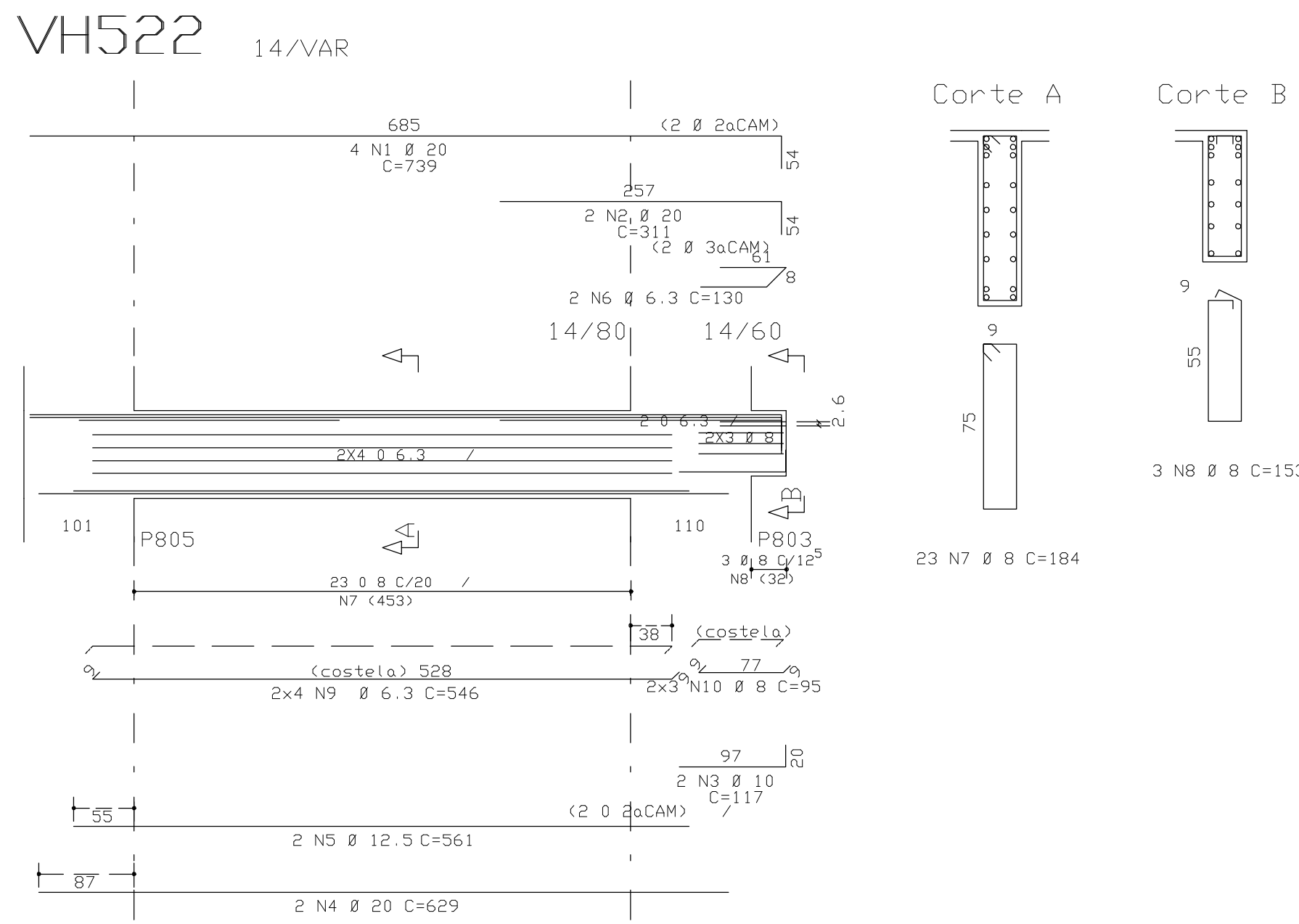
Technical drawing of a staircase section, showing a side view and a detail of the 'Corte A' section.

Side View Details:

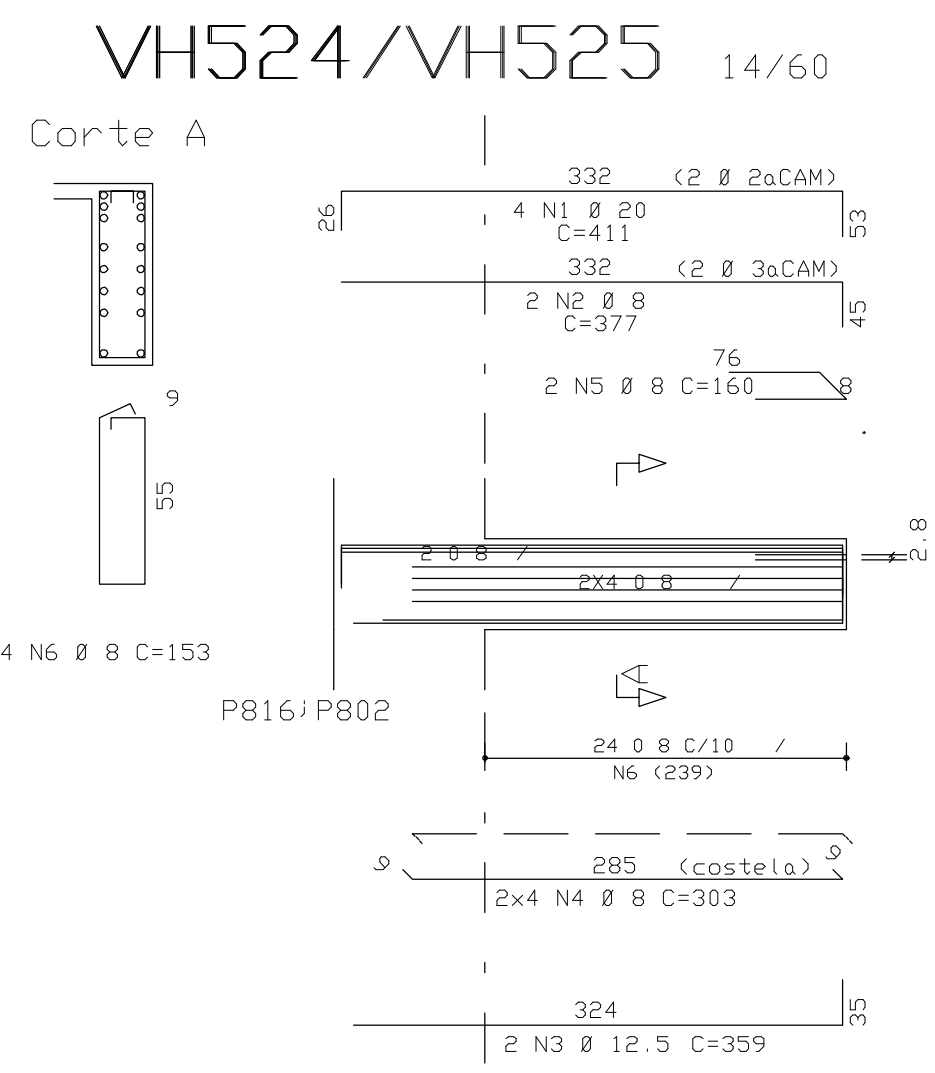
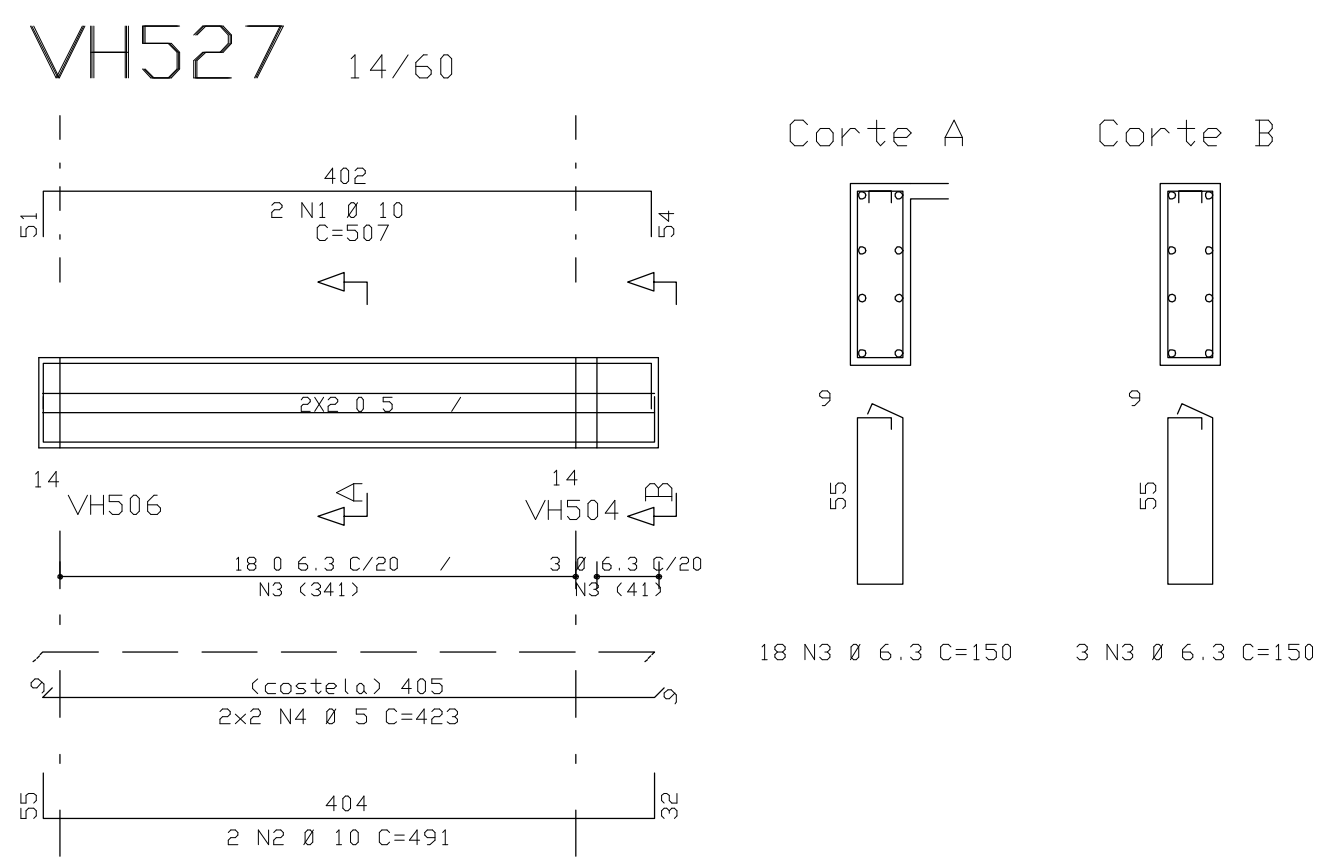
- Top landing: 2 NØ 8 Ø 12.5, C=248
- Flight 1: 161, 2 N1 Ø 5, C=159
- Flight 2: 2 N3 Ø 12.5, C=183 (2 Ø 20CAM)
- Flight 3: 2 N4 Ø 16, C=257
- Flight 4: 2 N5 Ø 10, C=230 (2 Ø 20CAM)
- Bottom landing: 2 N6 Ø 10, C=592
- Dimensions: 173, 225, 209, 40, 34, 577
- Labels: P812, P805

Corte A Detail:

- Section: 10, 105
- Dimensions: 26 N8 Ø 5 C=10

[illegible]

Technical drawing of a rectangular frame. The main view shows a rectangle with dimensions 407 (width) and 28 (height). The top edge is labeled 2 N1 8 10 C=475. The bottom edge is labeled 2 N2 8 10 C=46B. The left and right edges are labeled 14 V#510. A small square symbol is located at the bottom center. A cross-section view labeled 'Corte A' shows a U-shaped profile with a width of 9 and a height of 55. The cross-section is labeled 20 N3 8 5 C=138.

[illegible][illegible]

LAJAS = 2,0 cm
- VIGAS E PILARES = 2,5 cm
- BLOCOS, BALDRAMES E CONTÊDORES (FACE EM CONTATO COM A TERRA) = 3,0 cm

1. ESSES COBRIMENTOS DEVERÃO SER GARANTIDOS COM O USO DE ESPACADORES DO TIPO PASTILHAS.

COBRIMENTOS ESPECÍFICOS EM CONTRÁRIO AOS VALORES INDICADOS ACIMA, ESTÃO INDICADOS NOS DESENHOS DE DETALHES DOS PAVIMENTOS.

NORMAS UTILIZADAS:

NBR-6118/2003 - PROJETO E EXECUCAO DE OBRAS DE CONCRETO ARMADO

NBR-6120/1980 - CARGAS PARA O CALCULO DE ESTRUTURAS DE EDIFICACOES

INDICE:
VH518 a VH527 / VSEH501.

$$f_{ck} = 35 \text{ MPa}$$

$E_C = 28 \text{ GPa}$ (MODULO DE ELASTICIDADE SECANTE
AOS 28 DIAS).

$$A/C = 0,65 \quad (\text{FATOR AGUA CIMENTO})$$

0	03/08/2010	EMISSAO INICIAL	
REV.	DATA	DESCRICAO	
 SIA GUARA - CC NO 01 SALAS 201 e 209 BRASILIA-DF CEP: 71200-040 FONE: (061) 3106-9632 E-MAIL: sda@simetria-eng.br			
PROJETO ESTRUTURAL			
CLIENTE:	DISC INCORPORADORA E IMOBILIARIA LTDA		
OBRA:	EDIFICIO RESIDENCIAL OLYMPIQUE	NO OBRA:	001
ENFEREDO OBRA: SRIA AREA ESPECIAL 04 LOTES G e H - GUARA/DF			
ARMACAO DAS VIGAS DO 7o ao 14o PAVIMENTOS		DESENHO NO:	
TORRE D - JUNTA H <02/02>		324-XXX	
DESENHISTA:	DATA:	ESCALA:	UNIDADE
TOS/DEINA	03/08/2010	1:50	cm
ARQUIVO PLT:		NO PROJETO: SIMETRIA	
421-EST-324-XXX-R00_PLT		461	
PROPRIETARIO:		RESPONSAVEL TECNICO	
_____		_____	
RESPONSAVEL TECNICO PELO PROJETO ESTRUTURAL			
SIMETRIA ENGENHARIA E PROJETOS S/C LTDA CREA: 0725/MF			