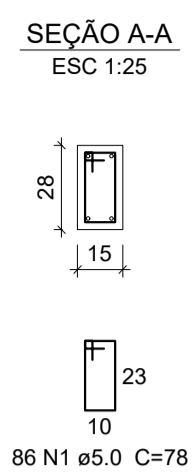
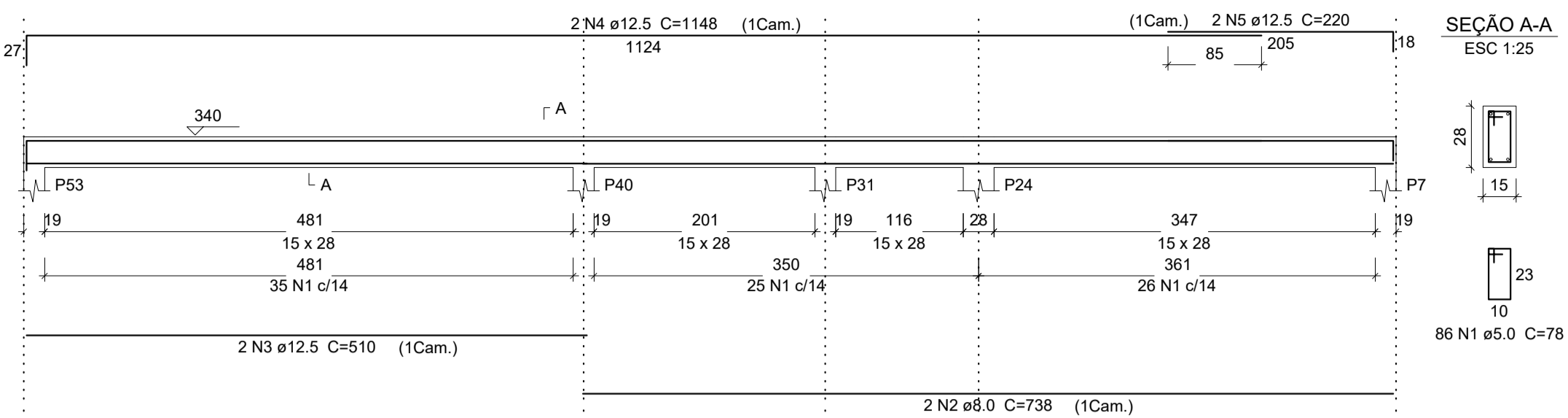


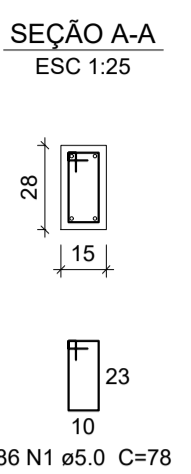
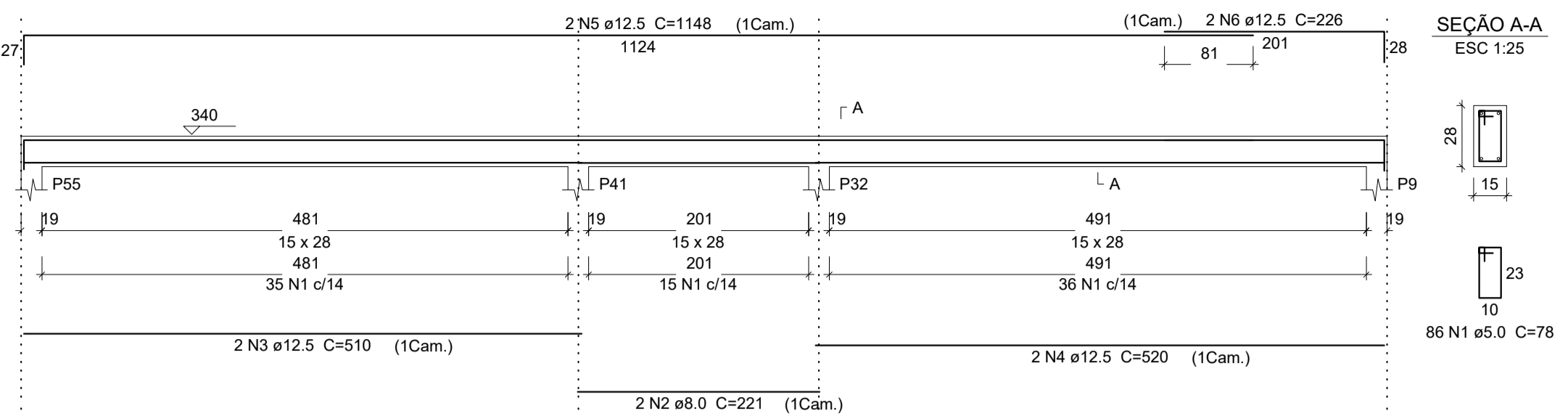
**V219**

ESC 1:50



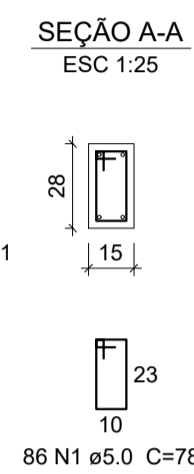
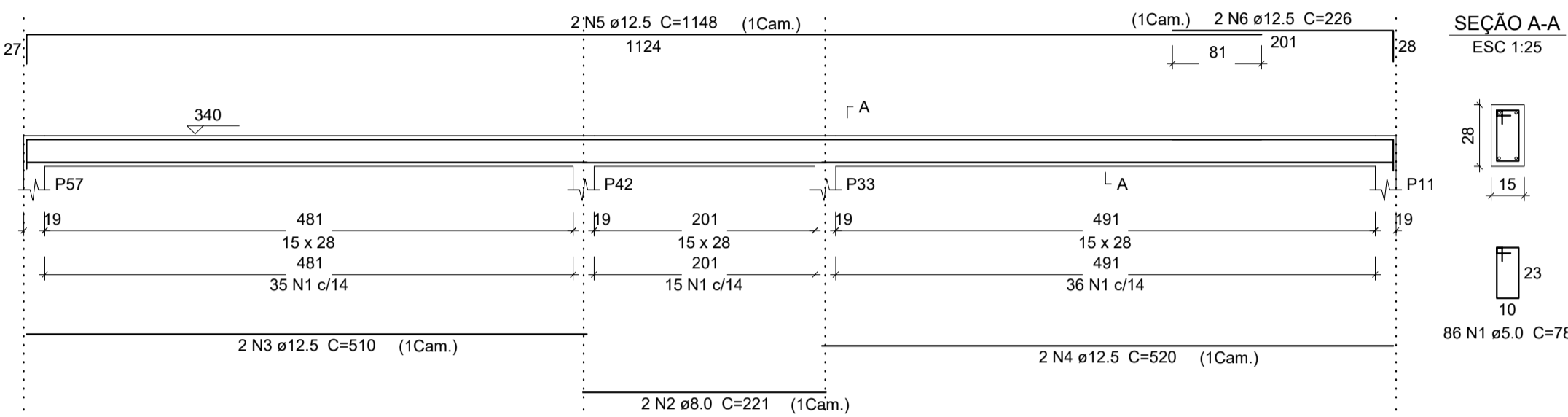
**V220**

ESC 1:50



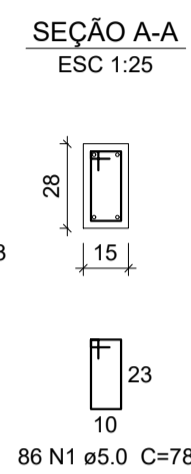
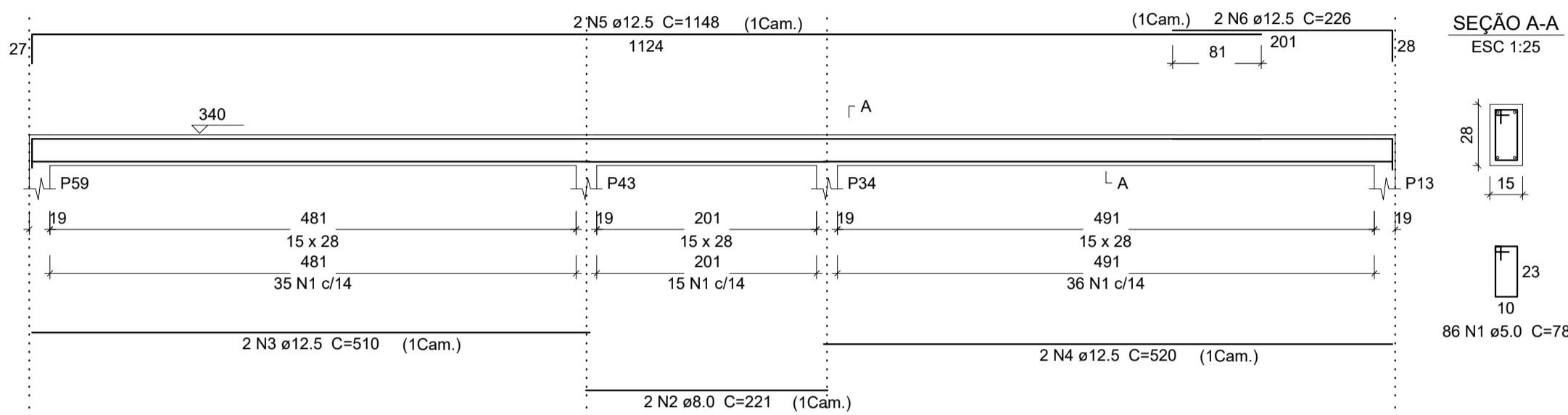
**V221**

ESC 1:50



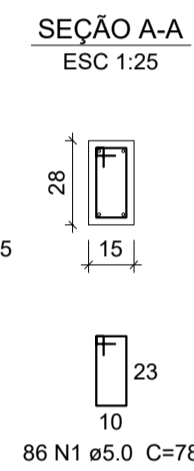
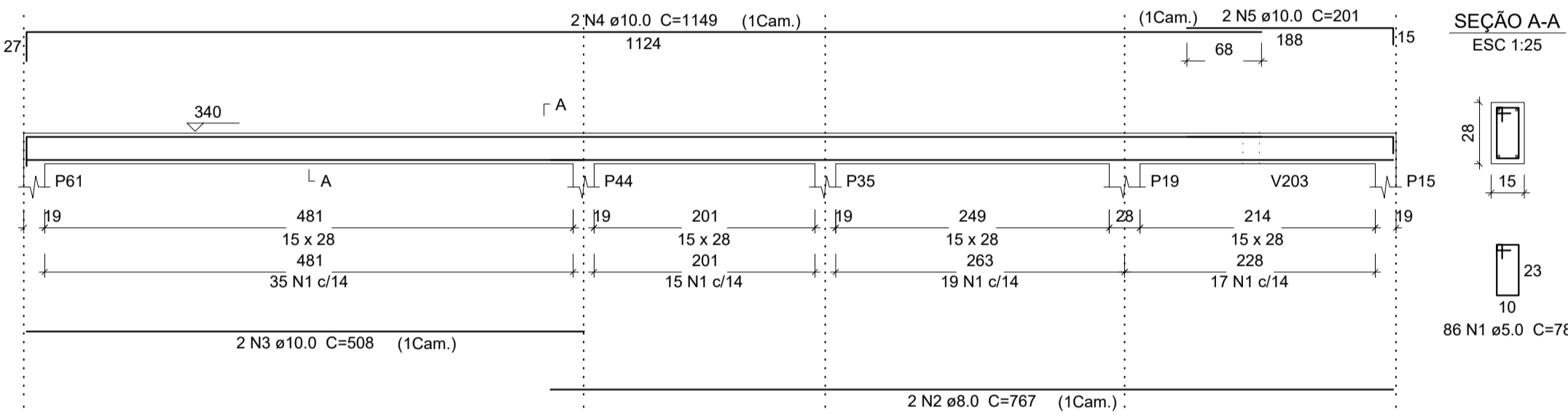
**V222**

ESC 1:50



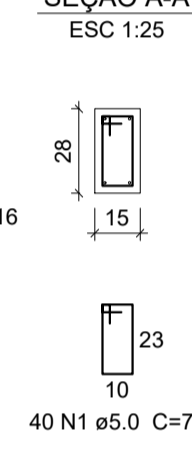
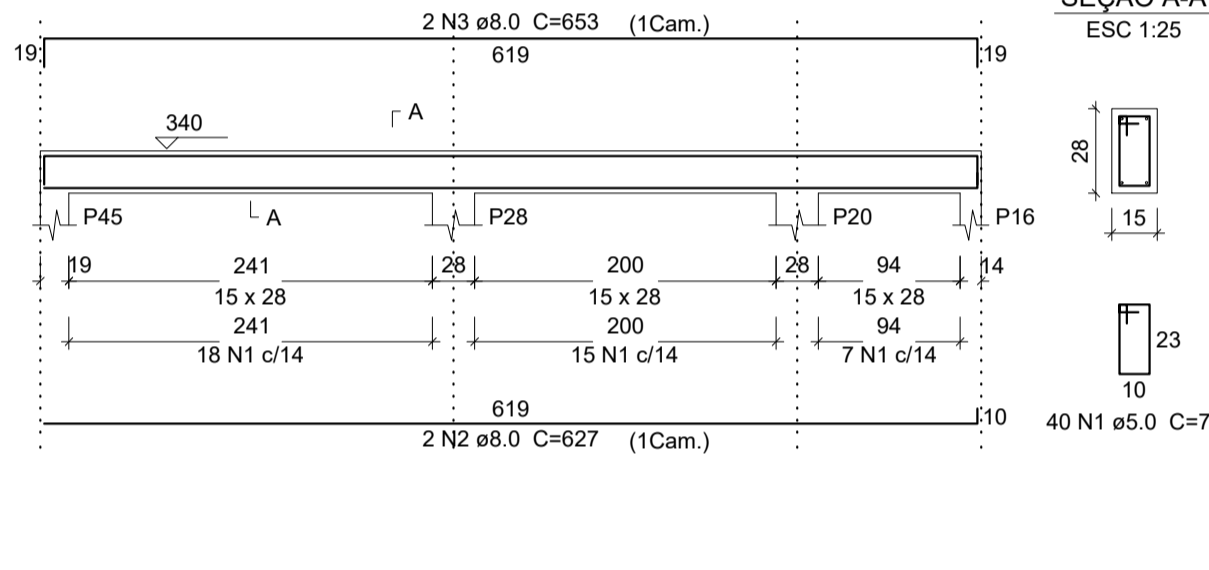
**V223**

ESC 1:50



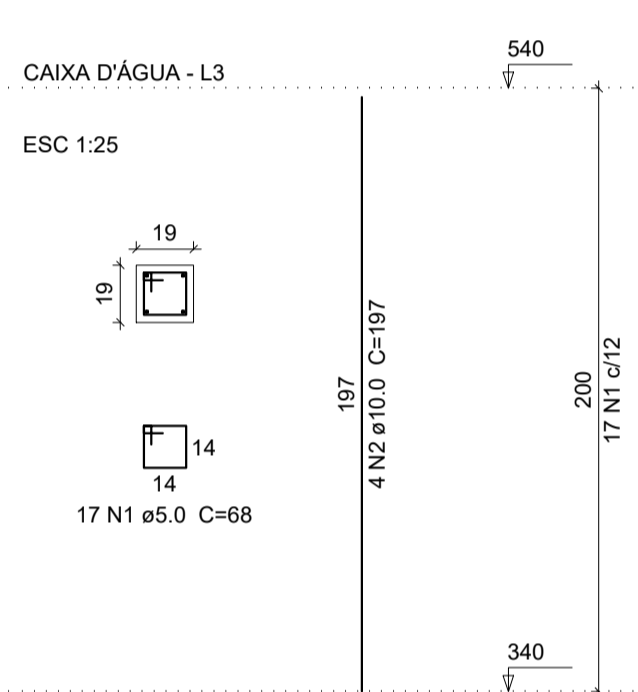
**V224**

ESC 1:50



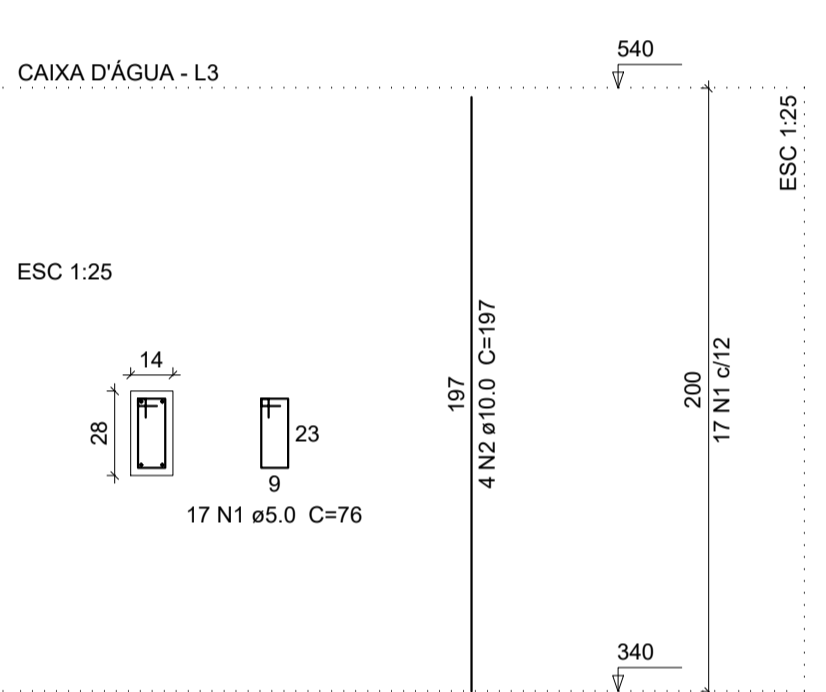
**P4=P5**

ESC 1:25



**P21**

ESC 1:25



**Relação do aço**

ELEMENTO	AÇO	N	DIAM (mm)	QUANT (Barras)	UNIT (cm)	C.TOTAL (cm)
Caixa d'água	2xP4	CA60	1	5.0	34	68
		CA50	2	10.0	8	197
P21		CA60	1	5.0	17	76
		CA50	2	10.0	4	197
P22		CA60	1	5.0	17	76
		CA50	2	5.0	17	24
		CA60	3	10.0	6	197
V301		CA60	1	5.0	16	76
		CA50	2	8.0	2	498
		CA50	3	8.0	2	281
V302		CA60	1	5.0	16	76
		CA50	2	8.0	2	514
		CA50	3	8.0	2	281
V303		CA60	1	5.0	25	76
		CA50	2	8.0	2	389
		CA50	3	8.0	2	434
V304		CA60	1	5.0	26	76
		CA50	2	8.0	2	389
		CA50	3	8.0	2	428
Térreo		CA60	1	5.0	86	78
V219		CA50	2	8.0	2	738
		CA50	3	12.5	2	510
		CA50	4	12.5	2	1148
		CA50	5	12.5	2	220
		CA60	1	5.0	86	78
V220		CA50	2	8.0	2	221
		CA50	3	12.5	2	510
		CA50	4	12.5	2	520
		CA50	5	12.5	2	1148
		CA50	6	12.5	2	226
V221		CA60	1	5.0	86	78
		CA50	2	8.0	2	221
		CA50	3	12.5	2	510
		CA50	4	12.5	2	520
		CA50	5	12.5	2	1148
		CA50	6	12.5	2	226
V222		CA60	1	5.0	86	78
		CA50	2	8.0	2	221
		CA50	3	12.5	2	510
		CA50	4	12.5	2	520
		CA50	5	12.5	2	1148
		CA50	6	12.5	2	226
V223		CA60	1	5.0	86	78
		CA50	2	8.0	2	767
		CA50	3	10.0	2	508
		CA50	4	10.0	2	1149
		CA50	5	10.0	2	201
V224		CA60	1	5.0	40	78
		CA50	2	8.0	2	627
		CA50	3	8.0	2	653

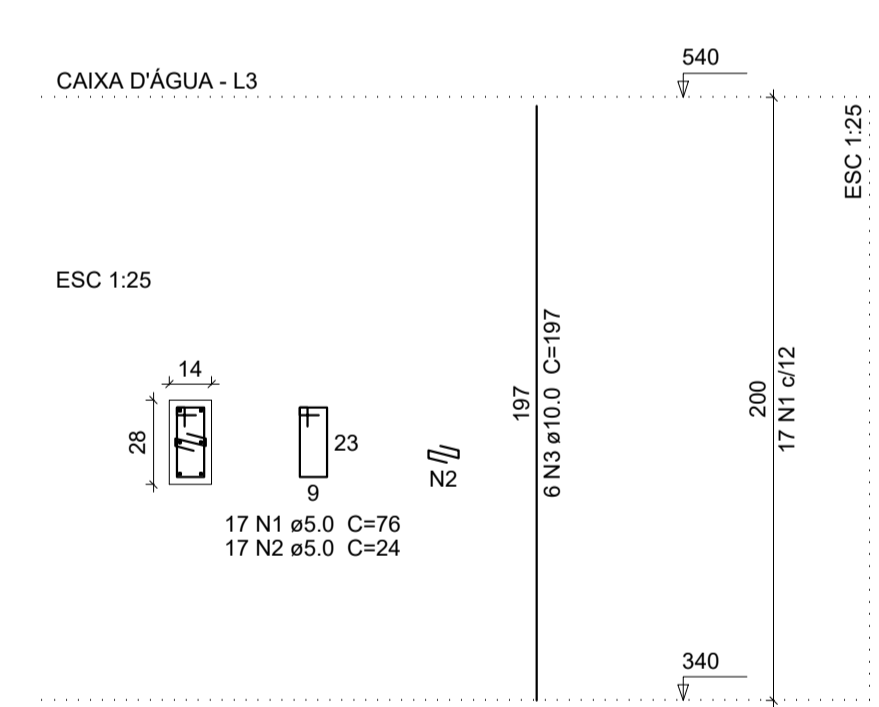
**Resumo do aço**

AÇO	DIAM (mm)	C.TOTAL (m)	PESO (kg)
CA50	8.0	123.2	48.6
	10.0	72.7	44.8
	12.5	181.8	175.1
CA60	5.0	482.8	74.4
<b>PESO TOTAL (kg)</b>			
CA50		268.5	
CA60		74.4	

Volume de concreto (C-25) = 4.08 m³  
Área de forma = 64.24 m²

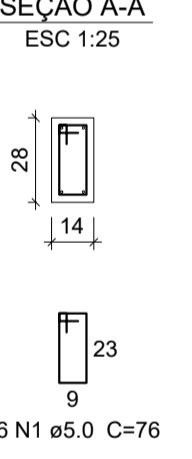
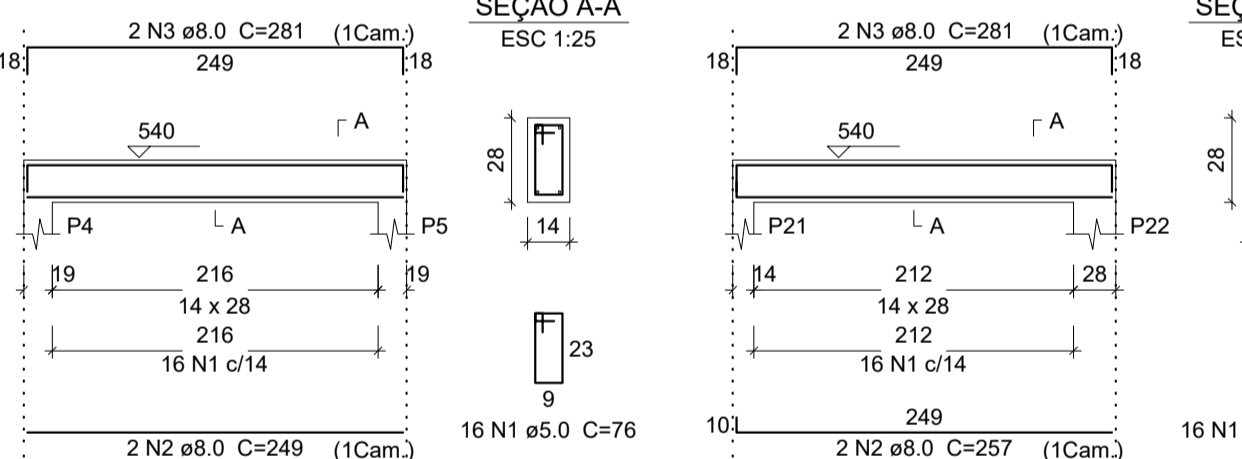
**P22**

ESC 1:25



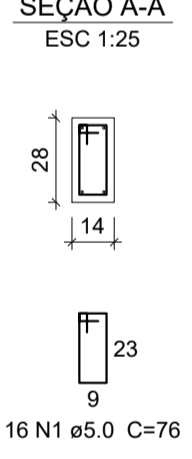
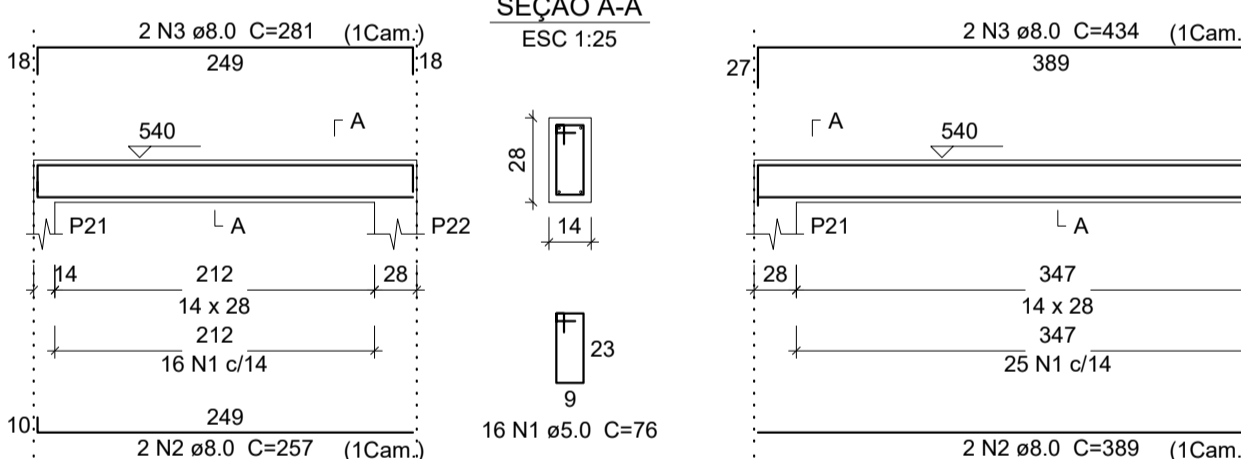
**V301**

ESC 1:50



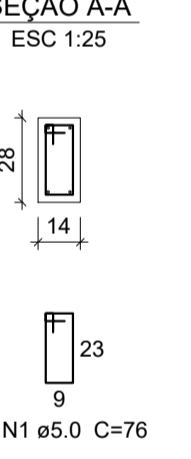
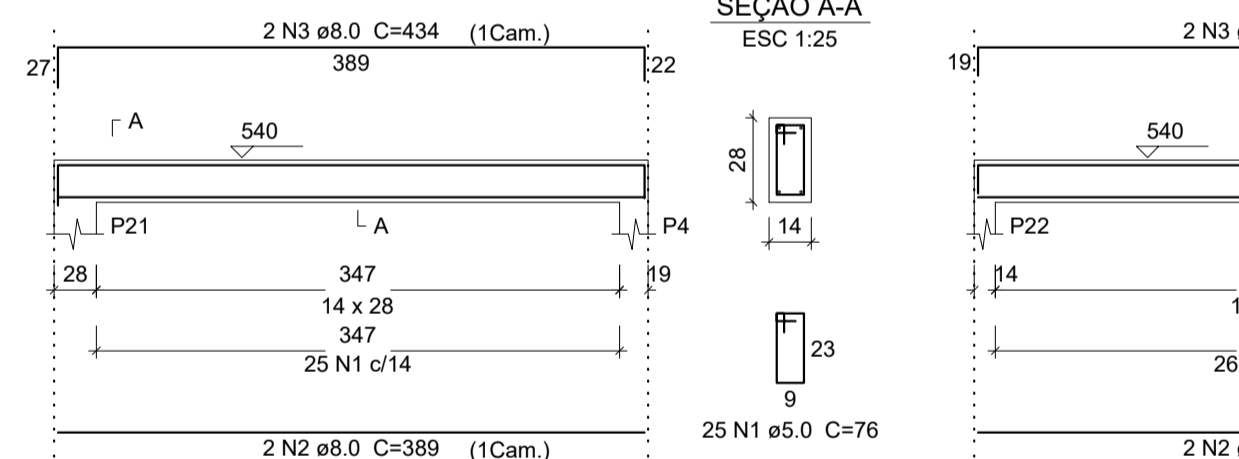
**V302**

ESC 1:50



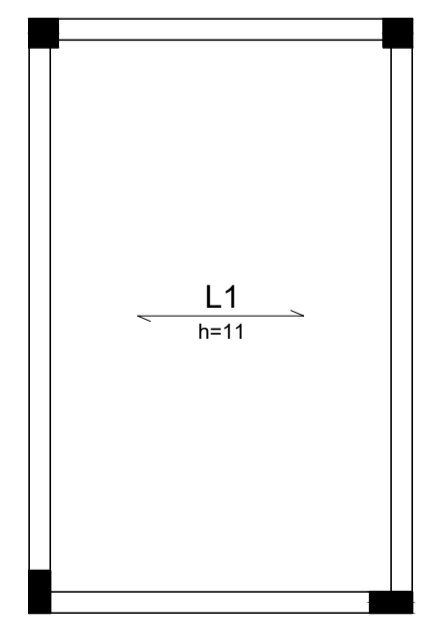
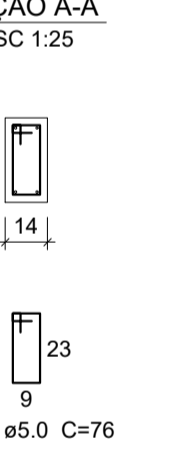
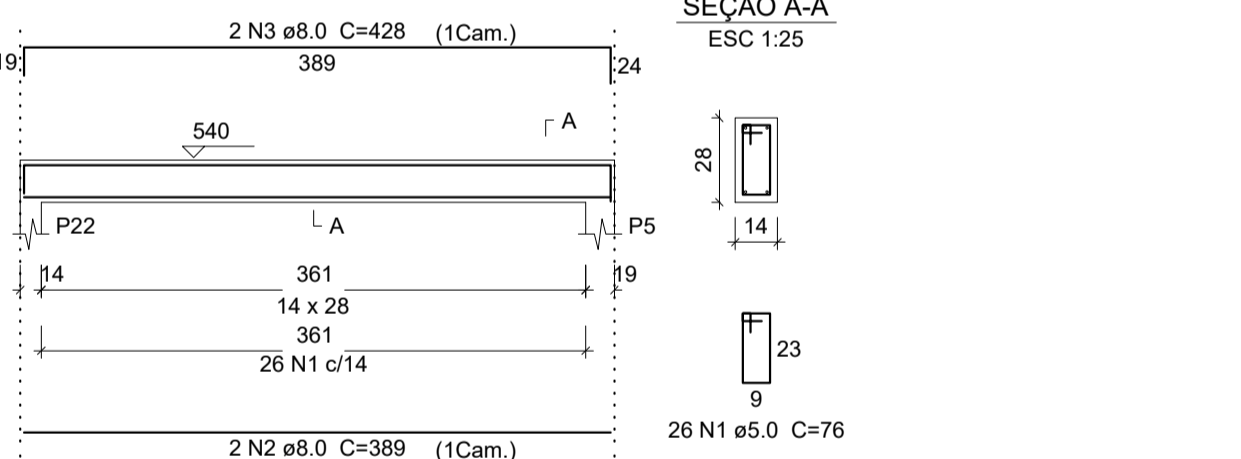
**V303**

ESC 1:50



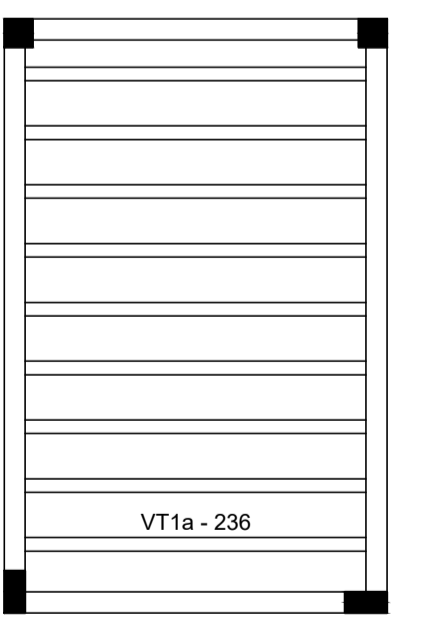
**V304**

ESC 1:50



Armação positiva das lajes do pavimento Caixa d'água

escala 1:50



Planta de vigotas pré-moldadas

escala 1:50

Projeto Estrutural		Título		06/08		Folha	
UNESPAR - Universidades Estadual do Paraná		Proprietário					
Detalhes esquemáticos: Vigas Respaldo		Conteúdo					
Rua Hermínio Millis, S/N		Localização					
Lote 2175	Quadra 01	São Cristóvão	Bairro	União da Vitória - PR	Município	Proprietário	
UNESPAR - Universidades Estadual do Paraná		CNPJ: 05.012.896/0001-42		Responsável técnico			
Engenheiro civil João Artur Casado		CREA-PR 95.017/D					
Casa do projeto							
Indicada	Escala	Novembro/2019	Data	(44) 3423 4727 / 9 9965 5692		casadoprojeto@hotmail.com	