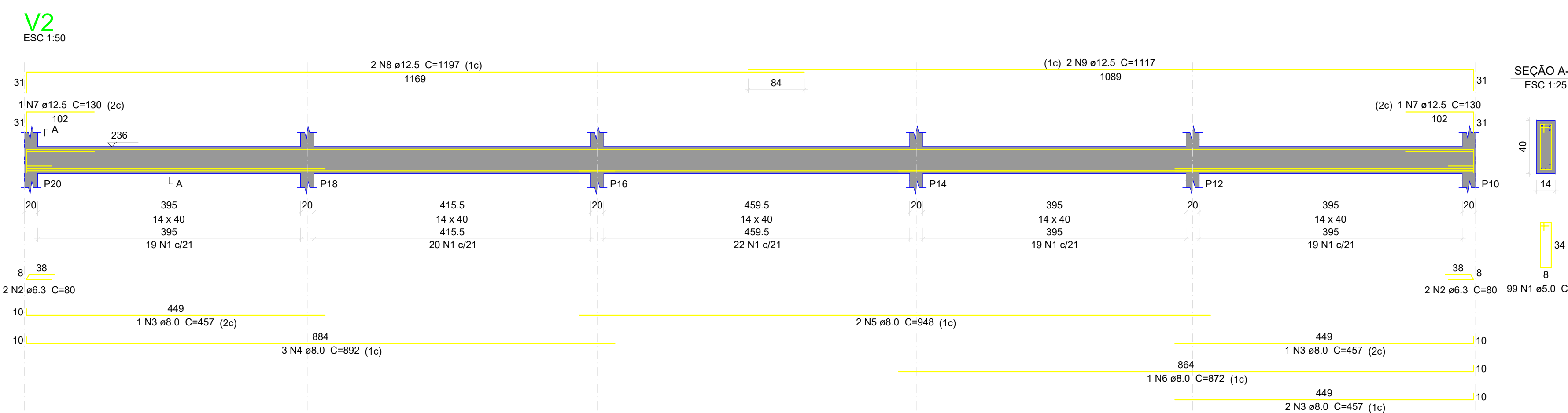
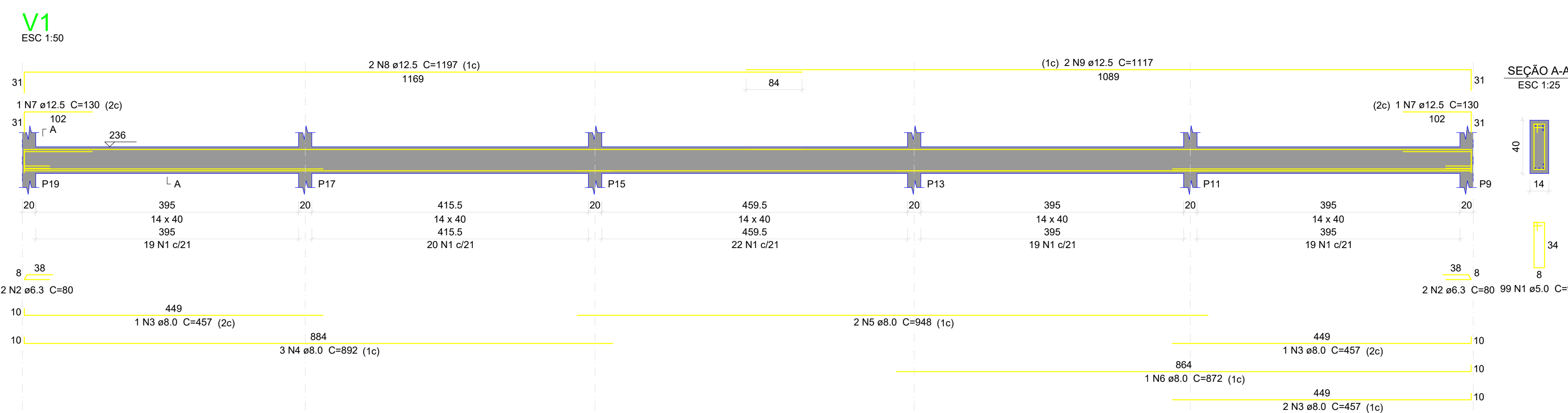


## 1º VIGAMENTO



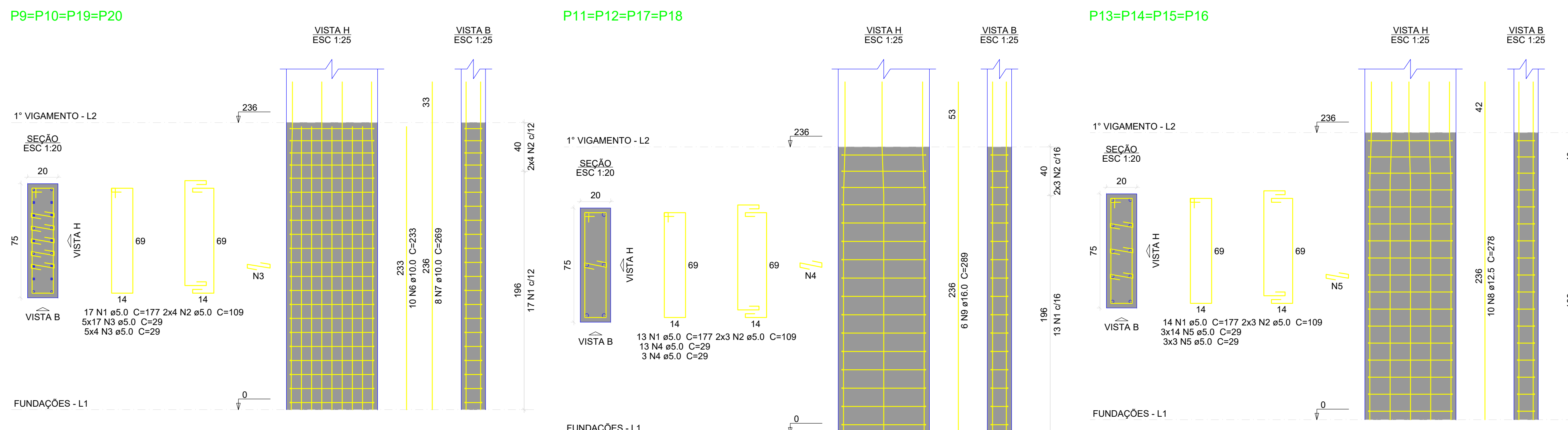
### Relação do aço

V1		V2			
AÇO	N	DIAM (mm)	QUANT	C.UNIT (cm)	C.TOTAL (cm)
CA50	1	5.0	198	95	18810
	2	6.3	8	80	640
	3	8.0	8	457	3656
	4	8.0	6	892	5352
	5	8.0	4	948	3792
	6	8.0	2	872	1744
	7	12.5	4	130	520
	8	12.5	4	1197	4788
	9	12.5	4	1117	4468

AÇO	DIAM (mm)	C.TOTAL (m)	PESO + 10 % (kg)
CA50	6.3	6.4	1.7
	8.0	145.5	83.1
	12.5	97.8	103.6
CA60	5.0	188.1	31.9
PESO TOTAL (kg)			
CA50	168.4		
CA60	31.9		

Volume de concreto (C-30) = 2,31 m<sup>3</sup>  
Área de forma = 38,73 m<sup>2</sup>

## 1º VIGAMENTO

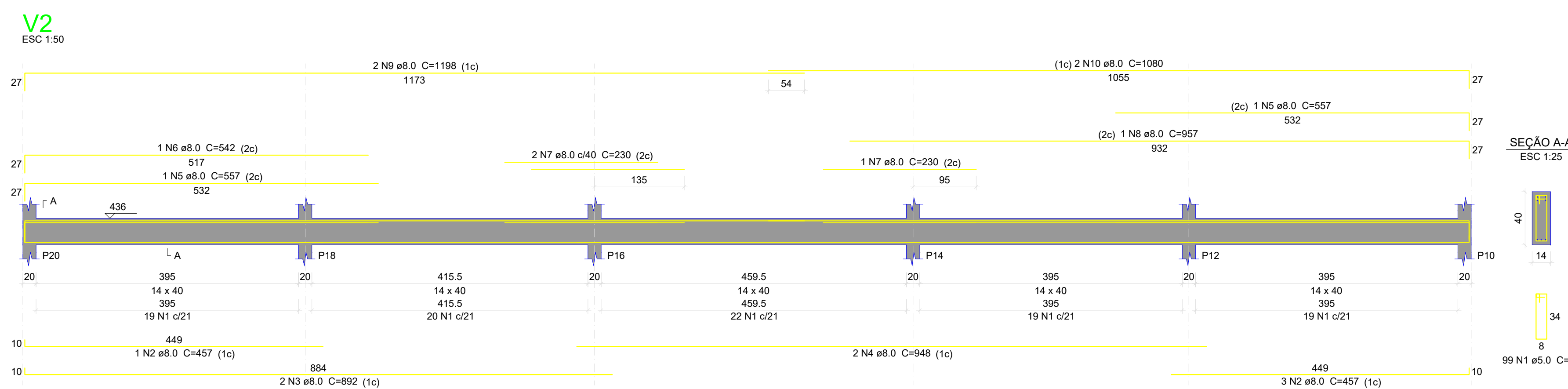
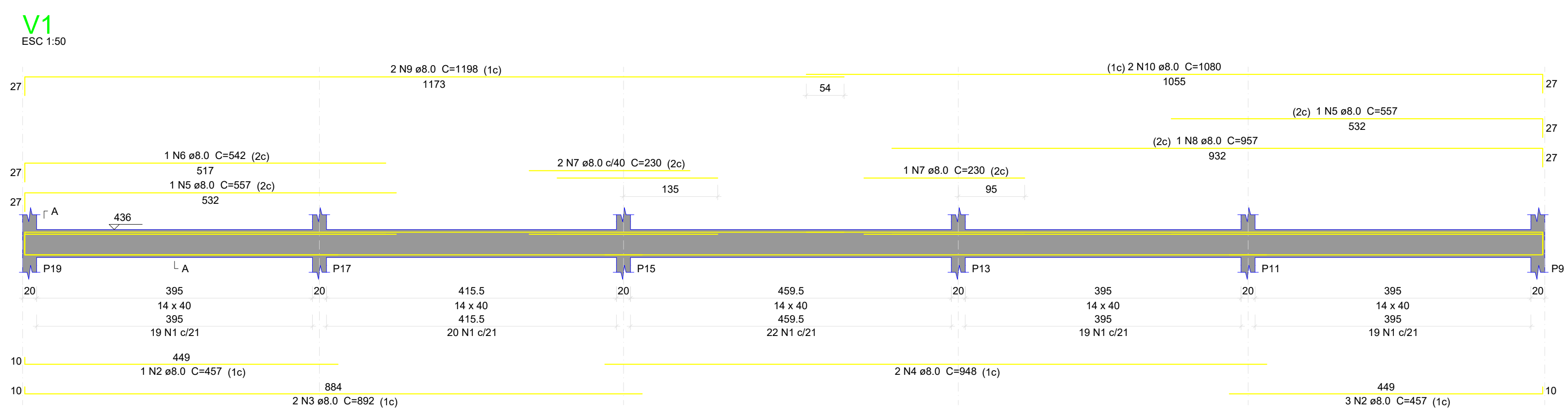


Relação do aço					
4xP9		4xP11		4xP13	
AÇO	N	DIAM (mm)	QUANT	C.UNIT (cm)	C.TOTAL (cm)
CA60	1	5.0	178	177	31505
	2	5.0	80	109	8720
	3	5.0	420	29	12180
	4	5.0	64	29	1856
CA50	5	5.0	204	29	5916
	6	10.0	40	233	9320
	7	10.0	32	269	8608
	8	12.5	40	278	11120
	9	16.0	24	289	6936

AÇO	DIAM (mm)	C.TOTAL (m)	PESO + 10 % (kg)
CA50	10.0	179.3	121.6
	12.5	111.2	117.8
	16.0	69.4	120.4
CA60	5.0	598.3	101.4
PESO TOTAL (kg)			
CA50	359.8		
CA60	101.4		

Volume de concreto (C-30) = 4.25 m<sup>3</sup>  
Área de forma = 53.81 m<sup>2</sup>

## 2º VIGAMENTO

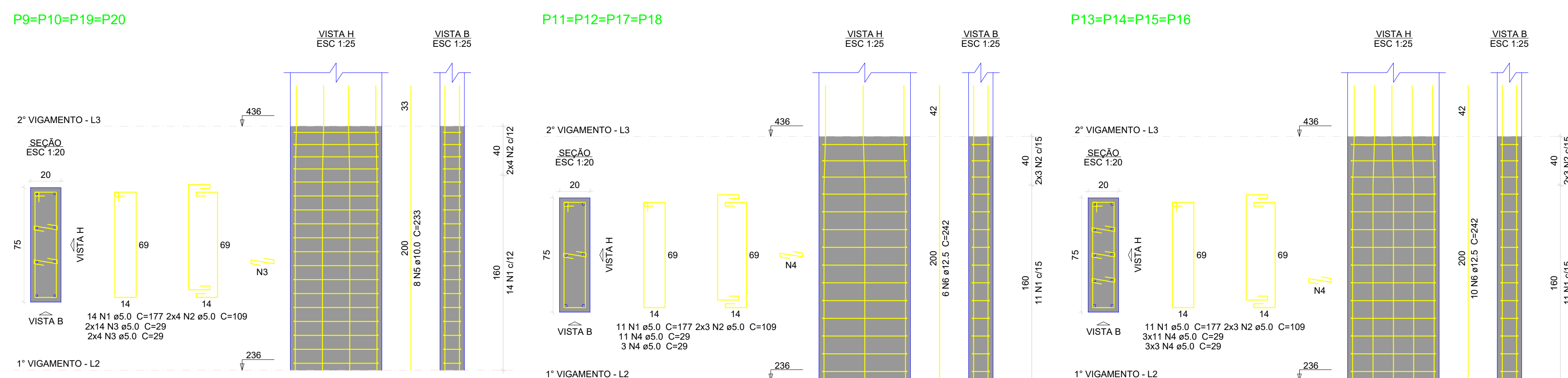


V1	V2				
AÇO	N	DIAM (mm)	QUANT	C.UNIT (cm)	C.TOTAL (cm)
CABO	1	5.0	198	95	18810
CABO	2	8.0	8	457	3656
	3	8.0	4	892	3568
	4	8.0	4	948	3792
	5	8.0	4	557	2228
	6	8.0	2	542	1084
	7	8.0	6	230	1380
	8	8.0	2	957	1914
	9	8.0	4	1198	4792

Resumo do aço			
AÇO	DIAM (mm)	C.TOTAL (m)	PESO + 10 % (kg)
CA50	8.0	267.4	116
CAB0	5.0	188.1	31.9
PESO TOTAL (kg)			
CA50	116		
CAB0	31.9		

Volume de concreto (C-30) = 2.31 m<sup>3</sup>  
Área de forma = 38.73 m<sup>2</sup>

## 2º VIGAMENTO



### Relação do aço

4xP9		4xP11		4xP13	
AÇO	N	DIAM (mm)	QUANT	C.UNIT (cm)	C.TOTAL (cm)
CA60	1	5,0	144	177	25488
	2	5,0	80	109	8720
	3	5,0	144	29	4176
	4	5,0	224	29	6496
CA50	5	10,0	32	233	7456
	6	12,5	64	242	15488

AÇO	DIAM (mm)	C.TOTAL (m)	PESO + 10 % (kg)
CA50	10.0	74.6	50.6
	12.5	154.9	164.4
CA60	5.0	448.8	76.1
PESO TOTAL (kg)			
CA50	214.7		
CA60	76.1		

Volume de concreto (C-30) = 3.6 m<sup>3</sup>  
Área de forma = 45.6 m<sup>2</sup>