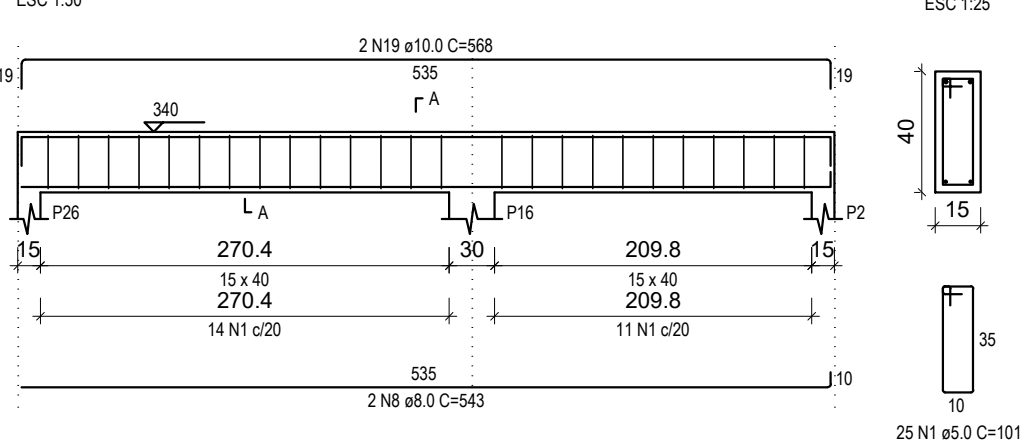
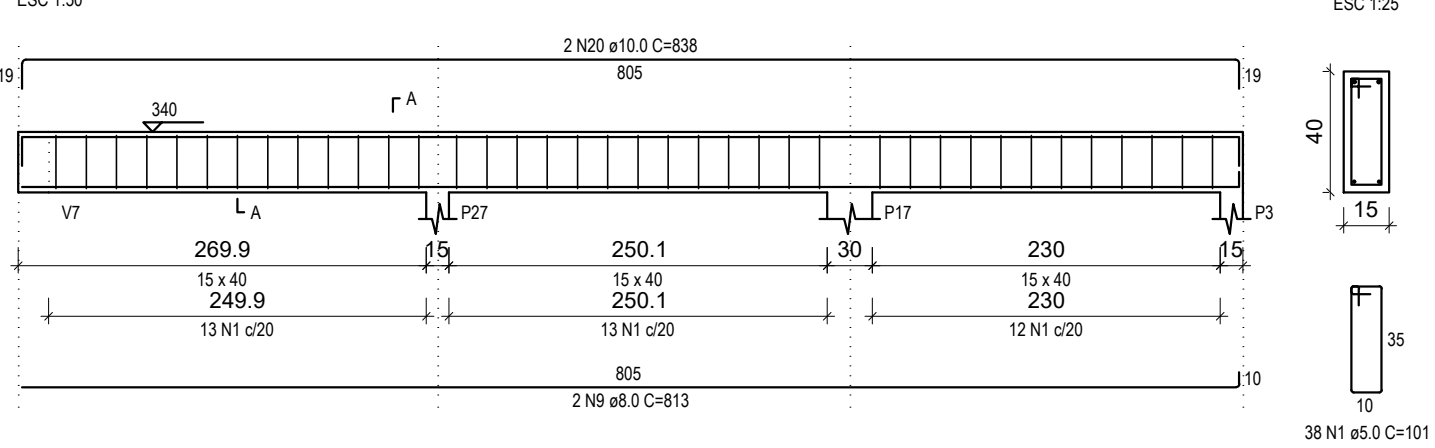


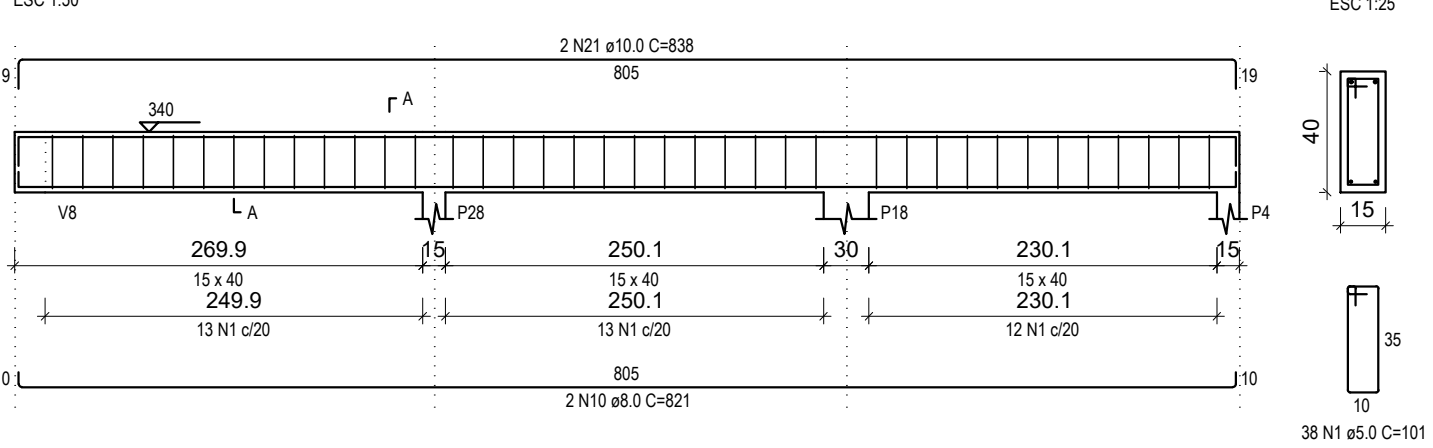
## V18 (15 x 40)



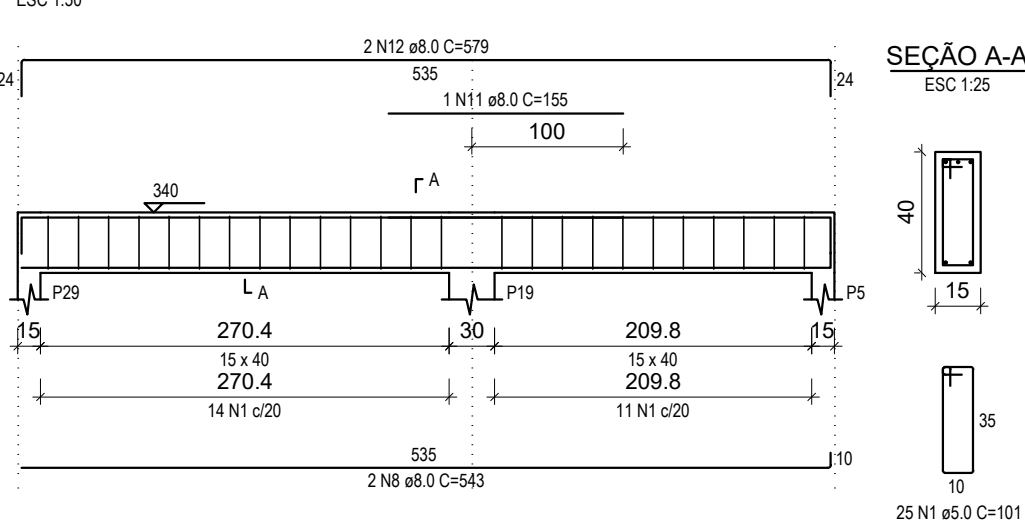
## V19 (15 x 40)



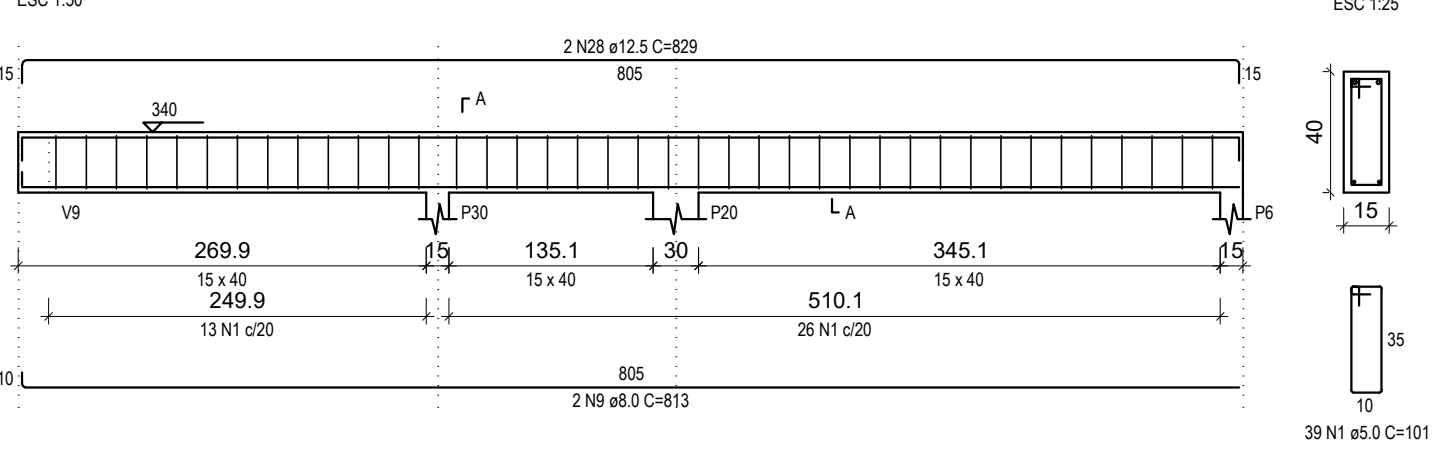
## V20 (15 x 40)



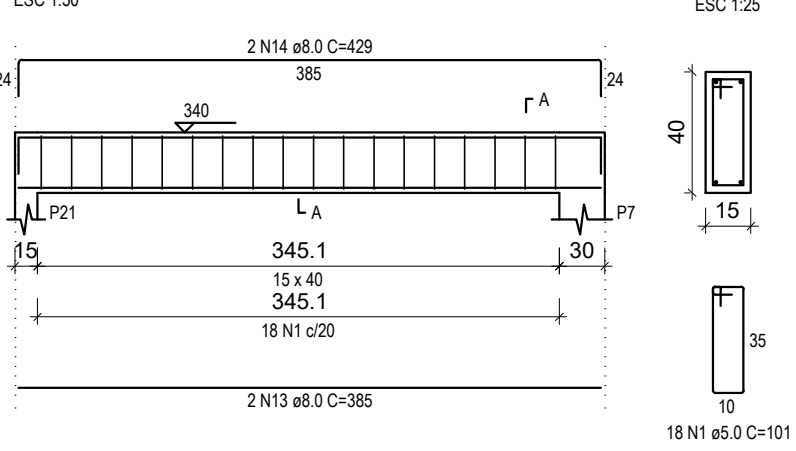
## V21 (15 x 40)



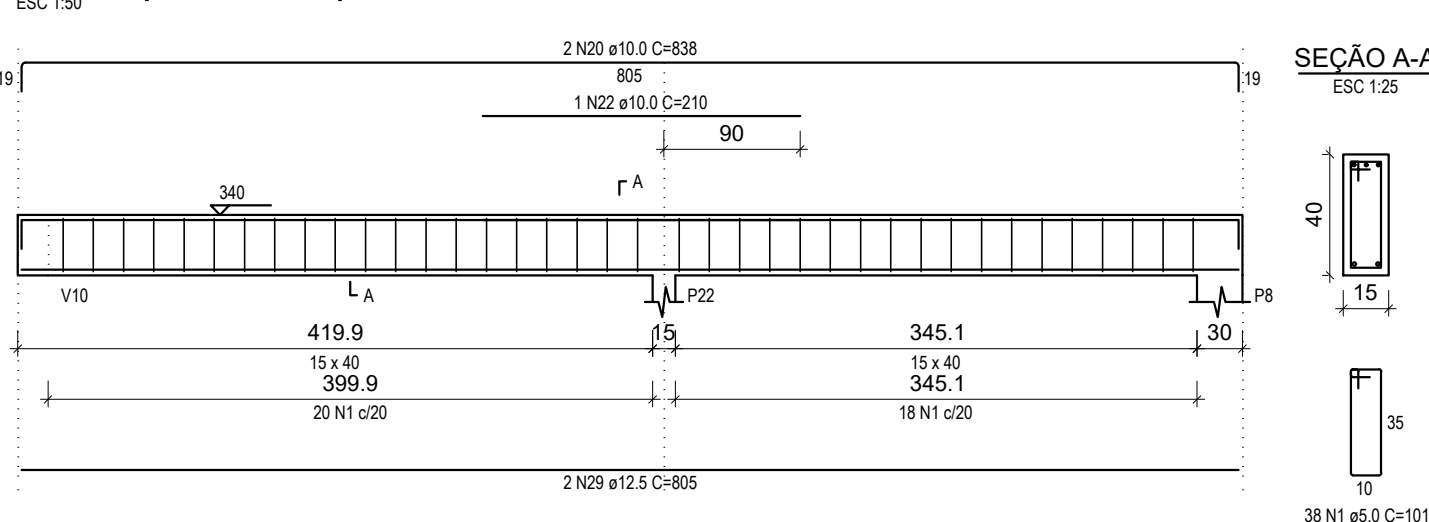
## V22 (15 x 40)



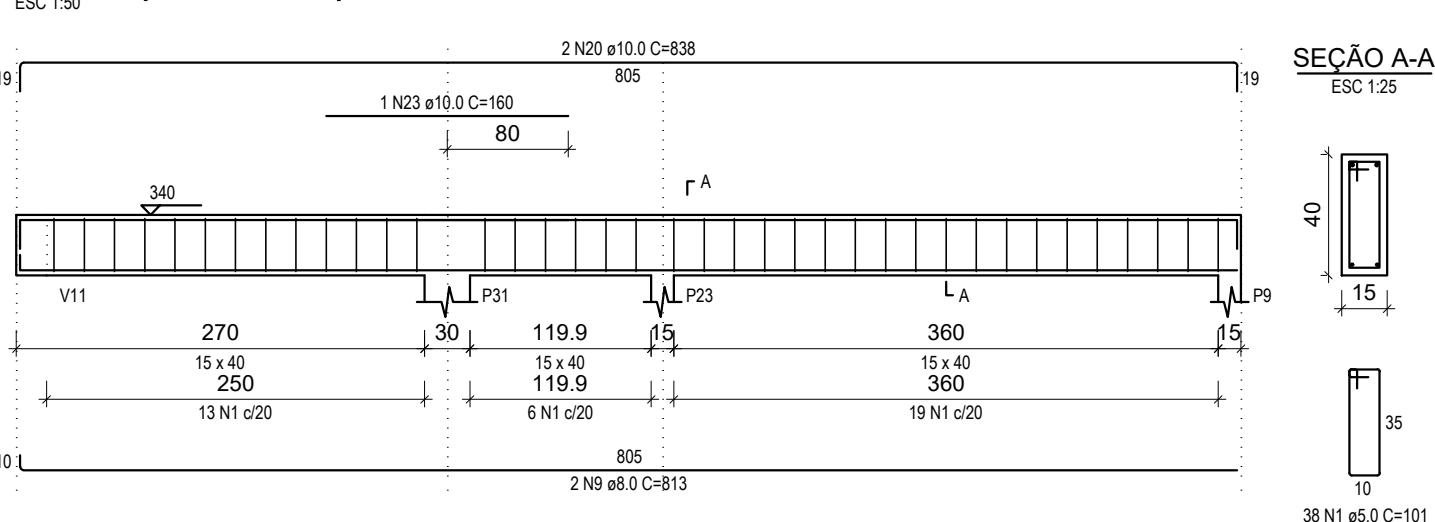
## V23 (15 x 40)



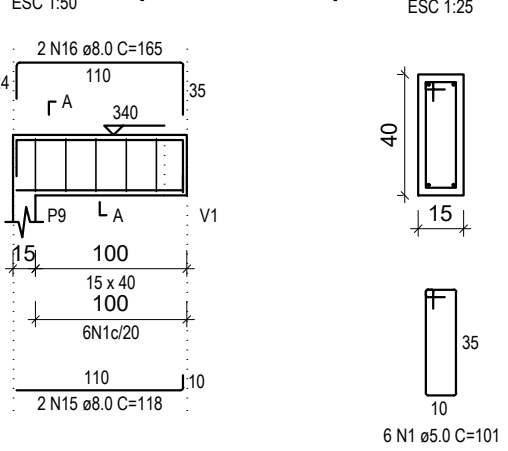
## V24 (15 x 40)



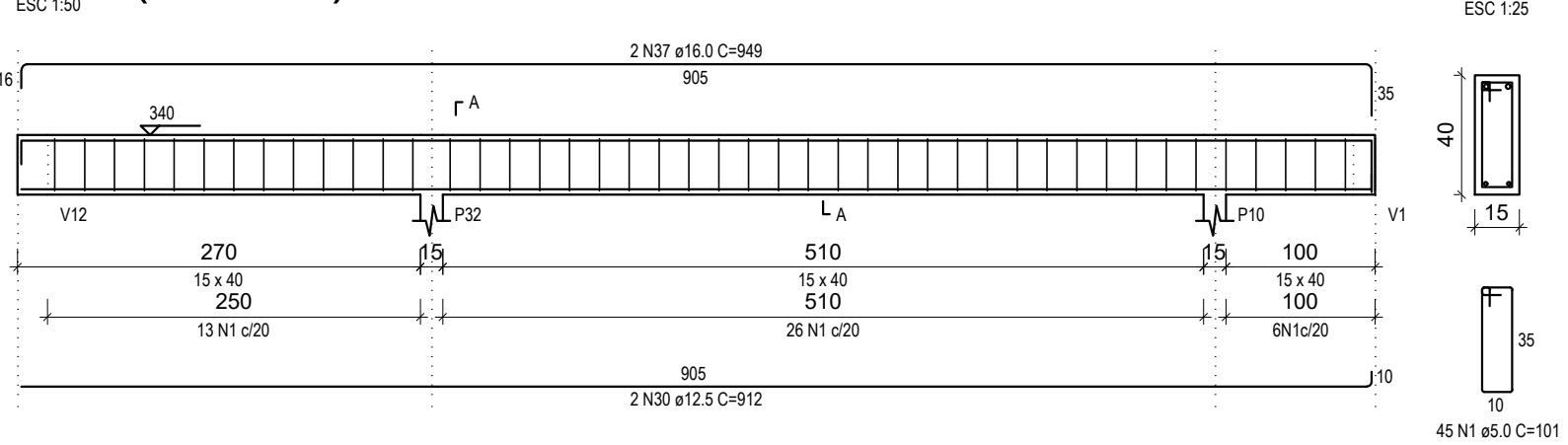
## V25 (15 x 40)



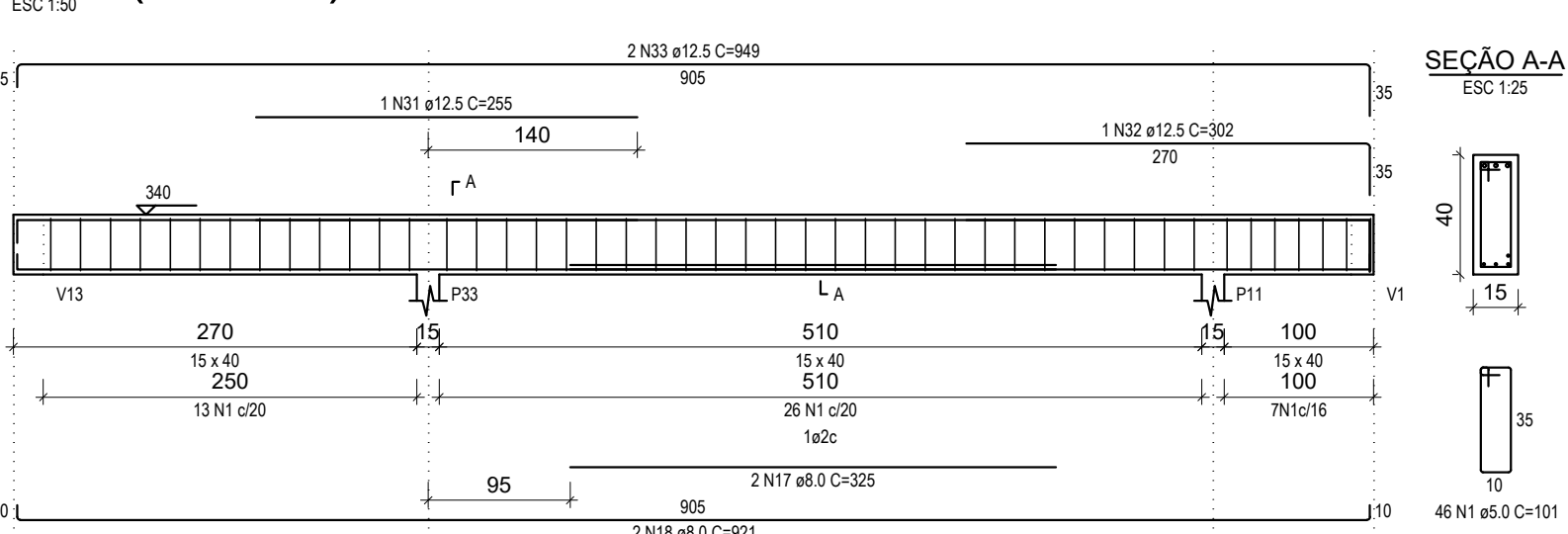
## V26 (15 x 40)



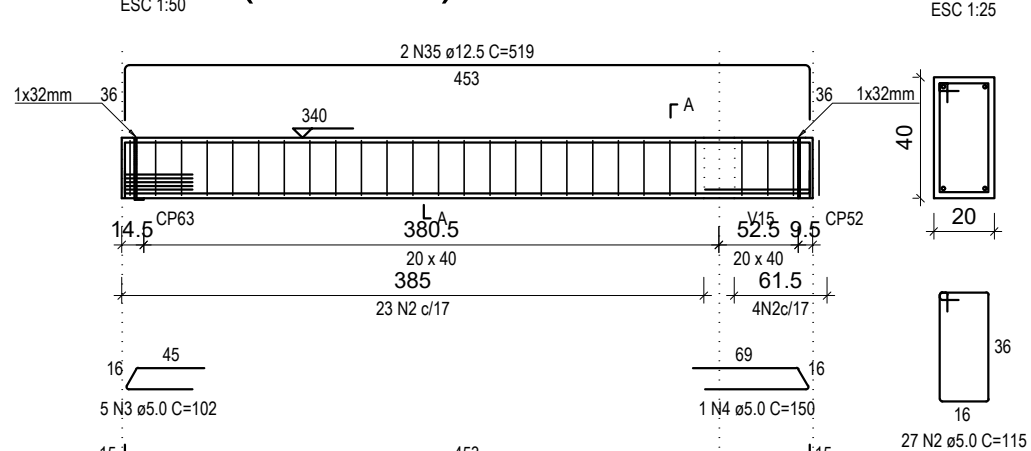
## V27 (15 x 40)



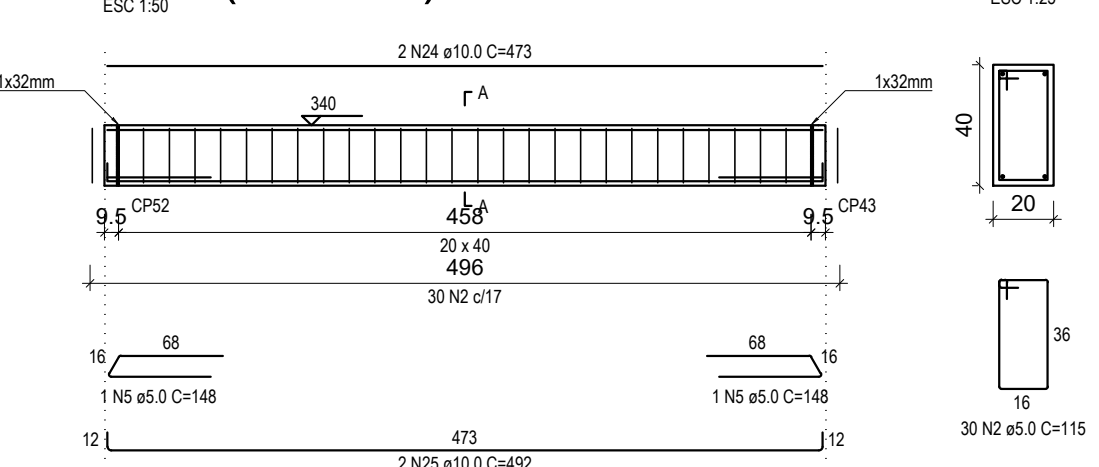
## V28 (15 x 40)



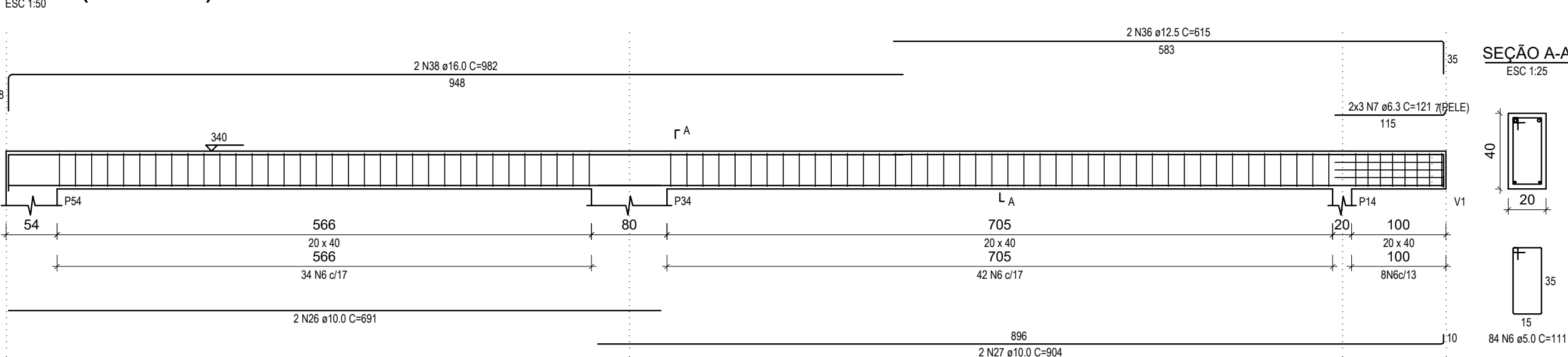
## V29 (20 x 40)



## V30 (20 x 40)



## V31 (20 x 40)



## RELAÇÃO DO AÇO

AÇO	N	DIAM (mm)	QUANT	C.UNIT (cm)	C.TOTAL (cm)
CA60	1	5.0	356	101	35956
	2	5.0	57	115	6555
	3	5.0	5	102	510
	4	5.0	1	150	150
	5	5.0	2	148	296
	6	5.0	84	111	9324
	7	6.3	6	121	726
	8	8.0	4	543	2172
	9	8.0	6	813	4878
	10	8.0	2	821	1642
CA50	11	8.0	1	155	155
	12	8.0	2	579	1158
	13	8.0	2	385	770
	14	8.0	2	429	858
	15	8.0	2	118	236
	16	8.0	2	165	330
	17	8.0	2	325	650
	18	8.0	2	921	1842
	19	10.0	2	568	1136
	20	10.0	6	838	5028
	21	10.0	2	838	1676
	22	10.0	1	210	210
	23	10.0	1	160	160
	24	10.0	2	473	946
	25	10.0	2	492	984
	26	10.0	2	691	1382
	27	10.0	2	904	1808
	28	12.5	2	829	1658
	29	12.5	2	805	1610
	30	12.5	2	912	1824
	31	12.5	1	255	255
	32	12.5	1	302	302
	33	12.5	2	949	1898
	34	12.5	2	477	954
	35	12.5	2	519	1038
	36	12.5	2	615	1230
	37	16.0	2	949	1898
	38	16.0	2	982	1964

## RESUMO DO AÇO

AÇO	DIAM (mm)	C.TOTAL (m)	PESO + 10% (kg)
CA50	6.3	7.3	2
	8.0	146.9	63.8
	10.0	133.3	90.4
	12.5	107.7	114.1
	16.0	38.6	67.1
CA60	5.0	527.9	89.5
PESO TOTAL (kg)			
CA50	337.3		
CA60	89.5		

Volume de concreto (C-30) = 6.44 m³

Área de forma = 95.42 m²

## PROJETO ESTRUTURAL

Halla | arquitetura

Avenida Sete de Setembro, 50, Comercial C. Berri  
Sala 09 | Centro | Timbó | Santa Catarina47 3333 1815 - 47 99214 4008  
studiohalla3d@gmail.com  
www.hallarq.comCONSTRUÇÃO INSTITUCIONAL EM ALVENARIA - GINÁSIO ESCOLAR  
Rodovia Estadual - SC, 416 - São Roque  
Timbó - SCAutor do Projeto:  
Anderson Halla  
Arquiteto e Urbanista - CAU nº 176063-7

Assinatura:

Proprietário:  
Fundo Municipal de Educação - FMDE de Timbó  
CNPJ: 32.257.384/0001-19

Assinatura:

Escala:  
IndicadaRevisão:  
00Data:  
Maio 2020

Prancha:

VIGAS IN LOCO TÉRREO V18-V31

E 50