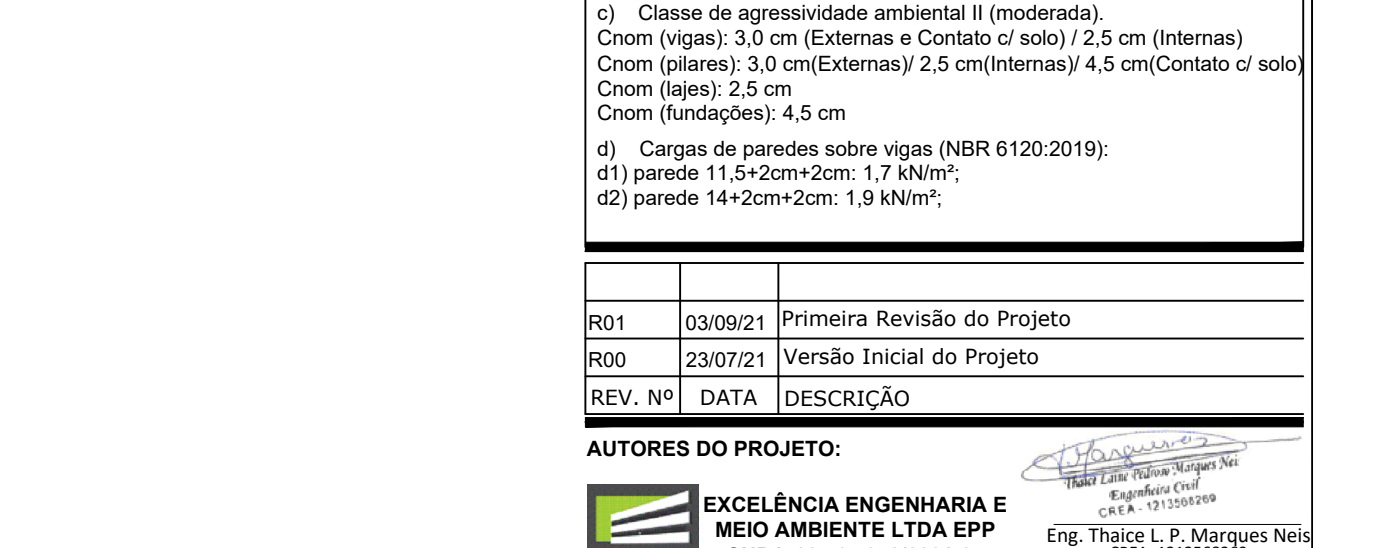
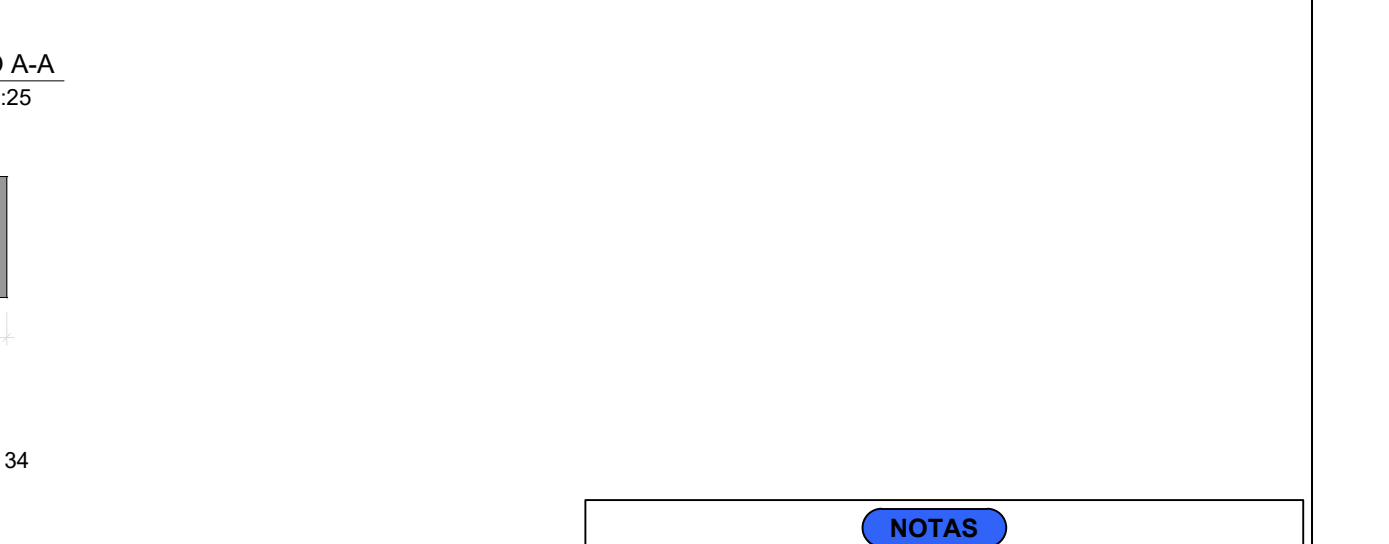
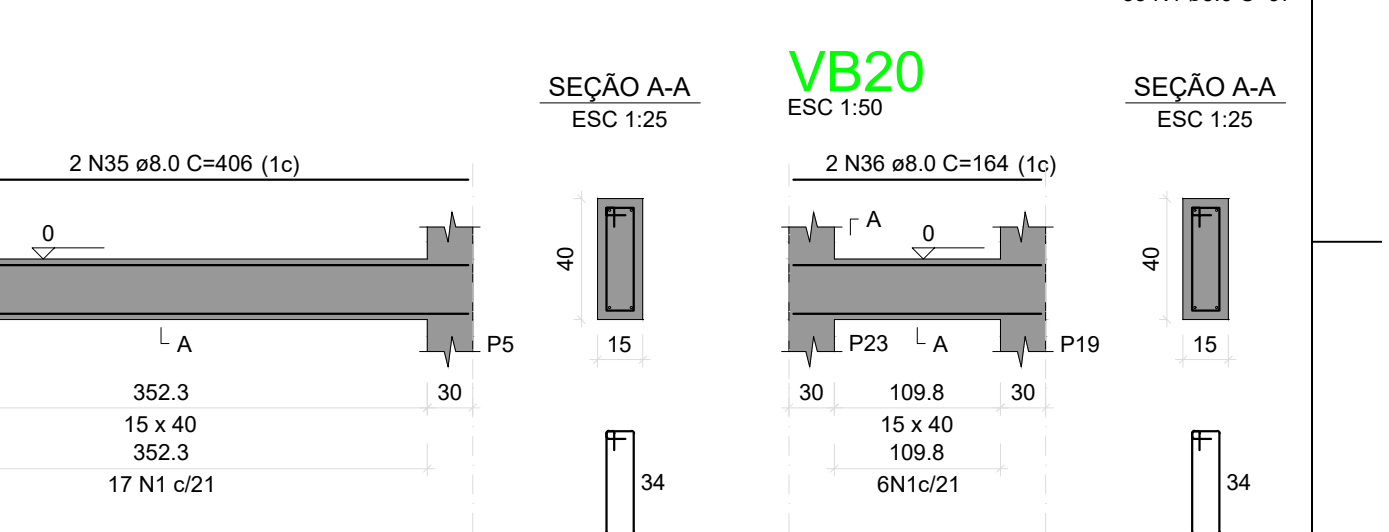
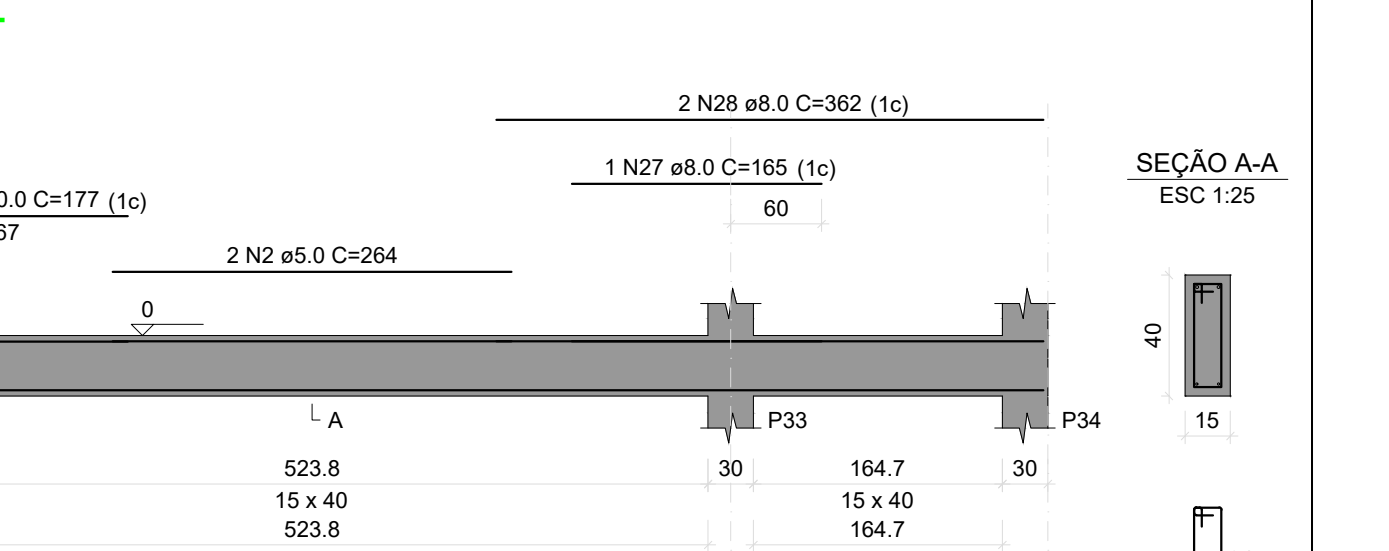
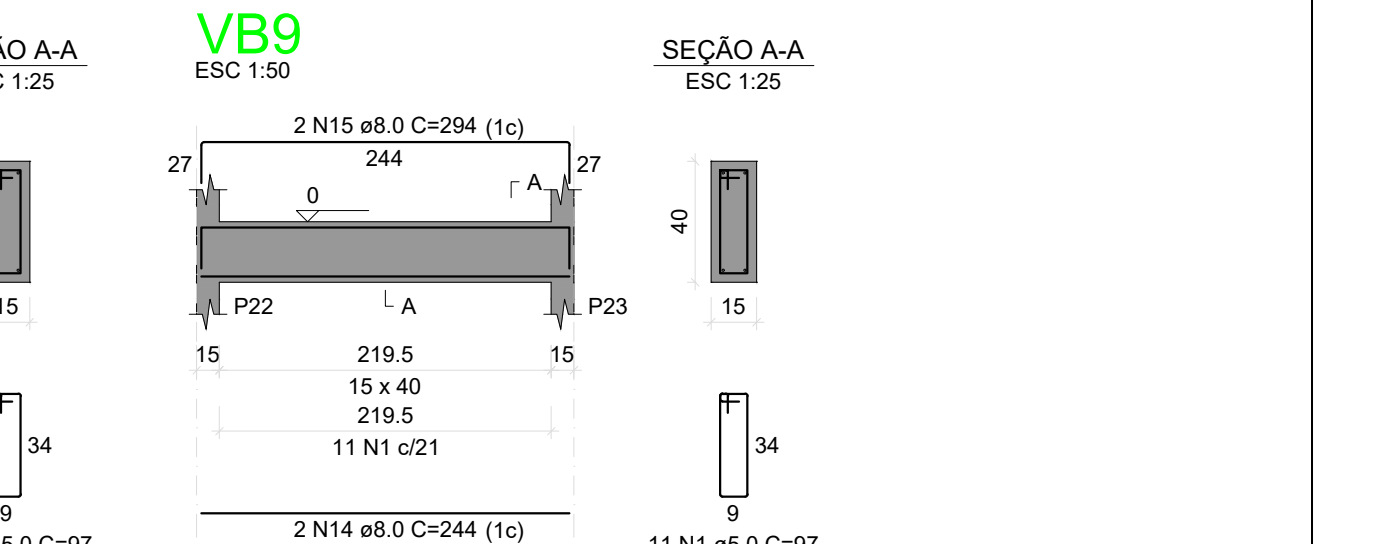
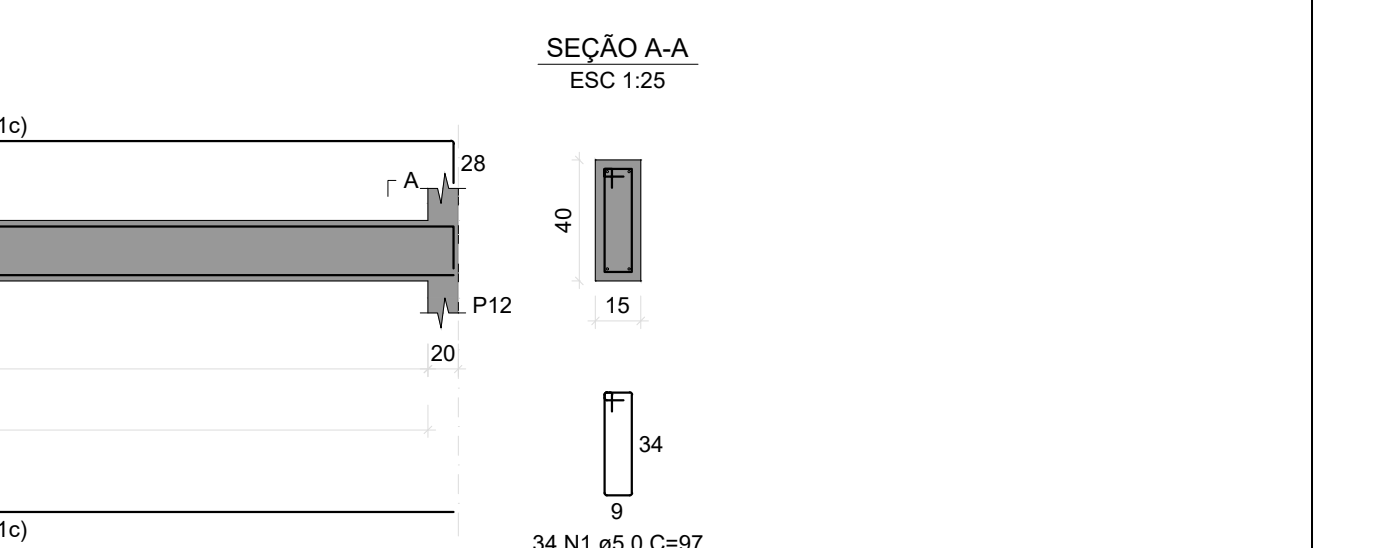
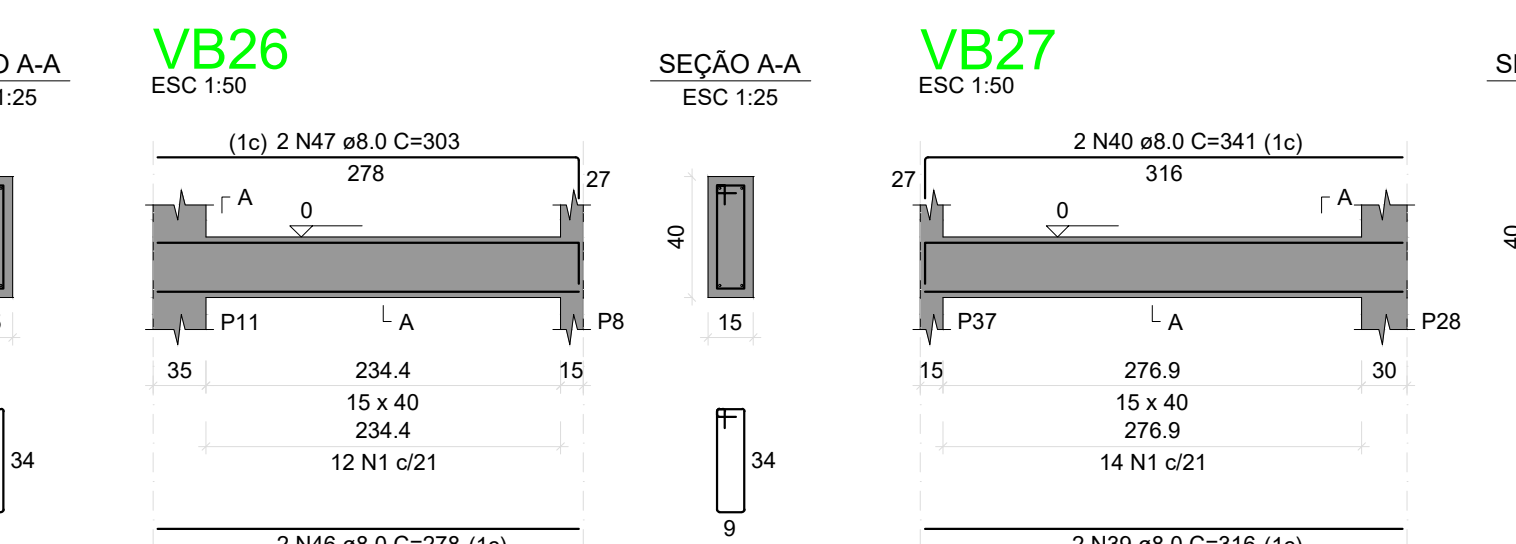
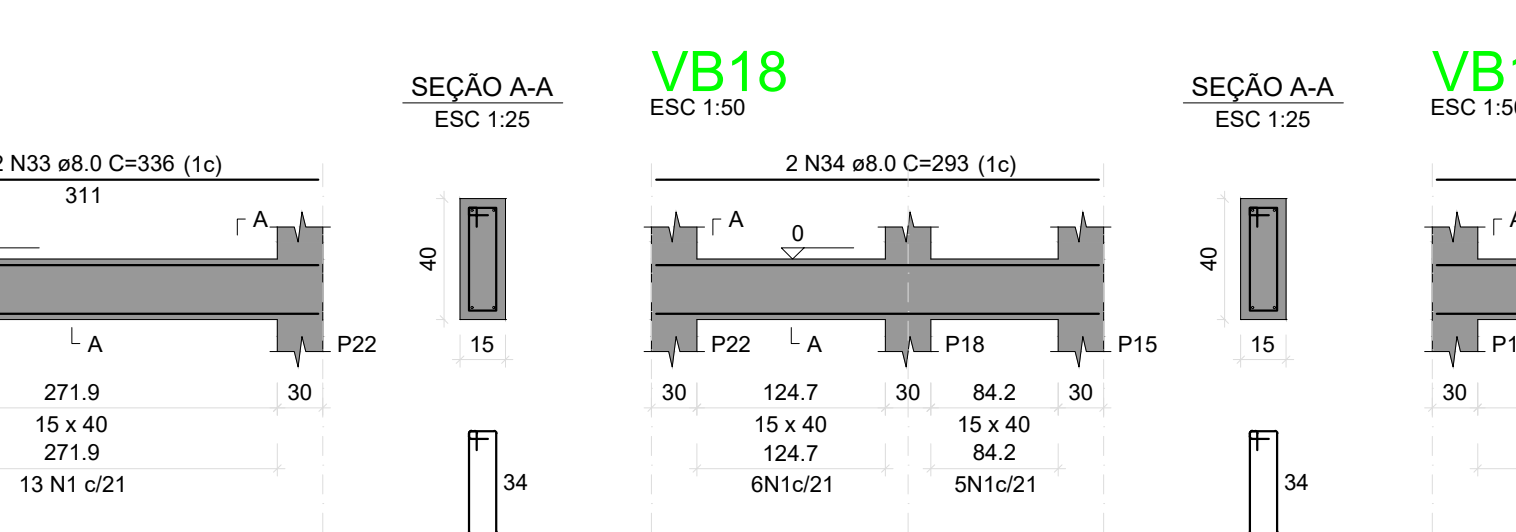
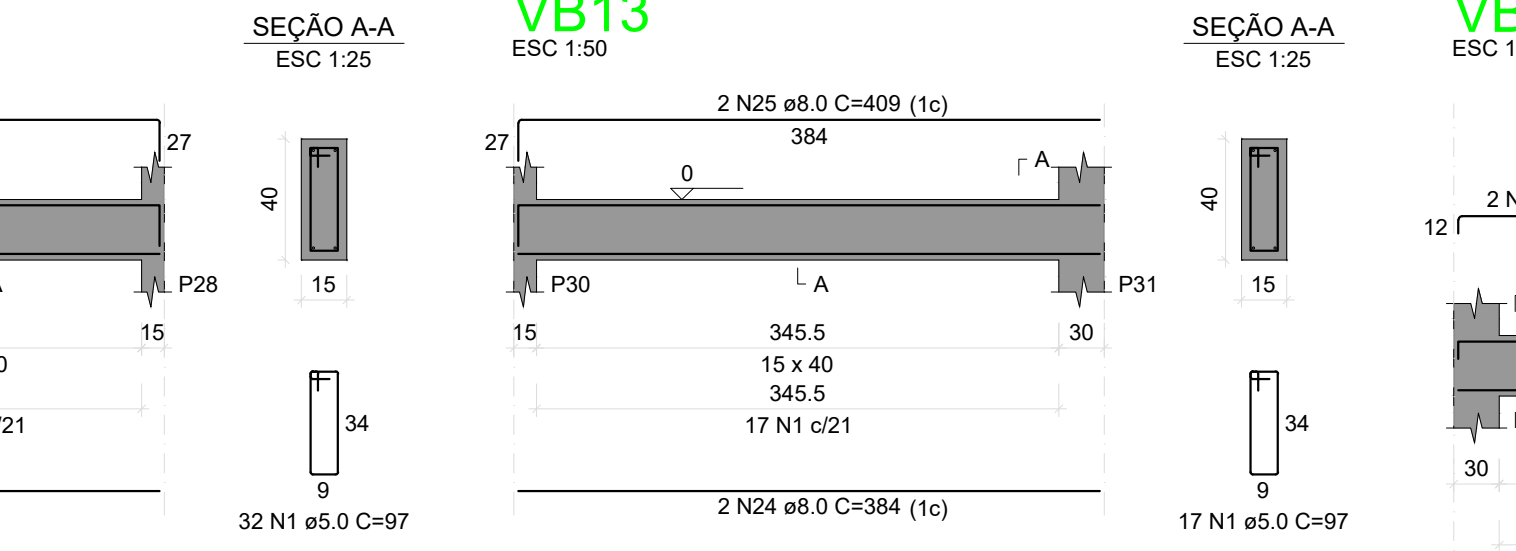
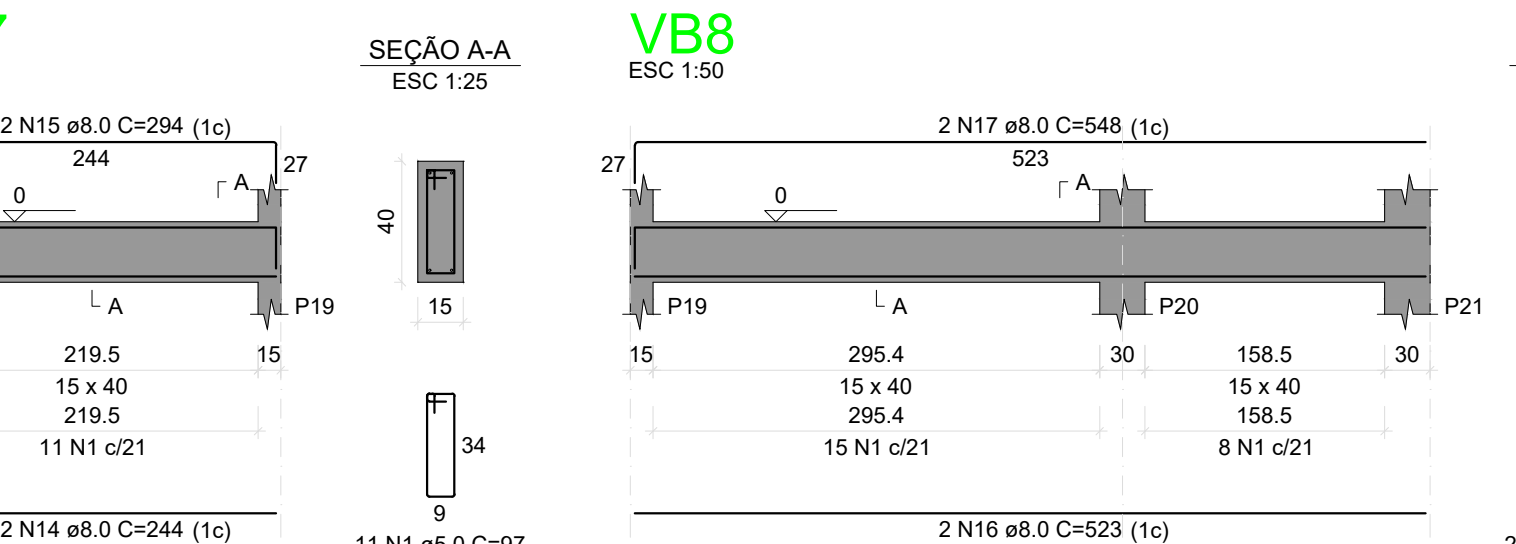
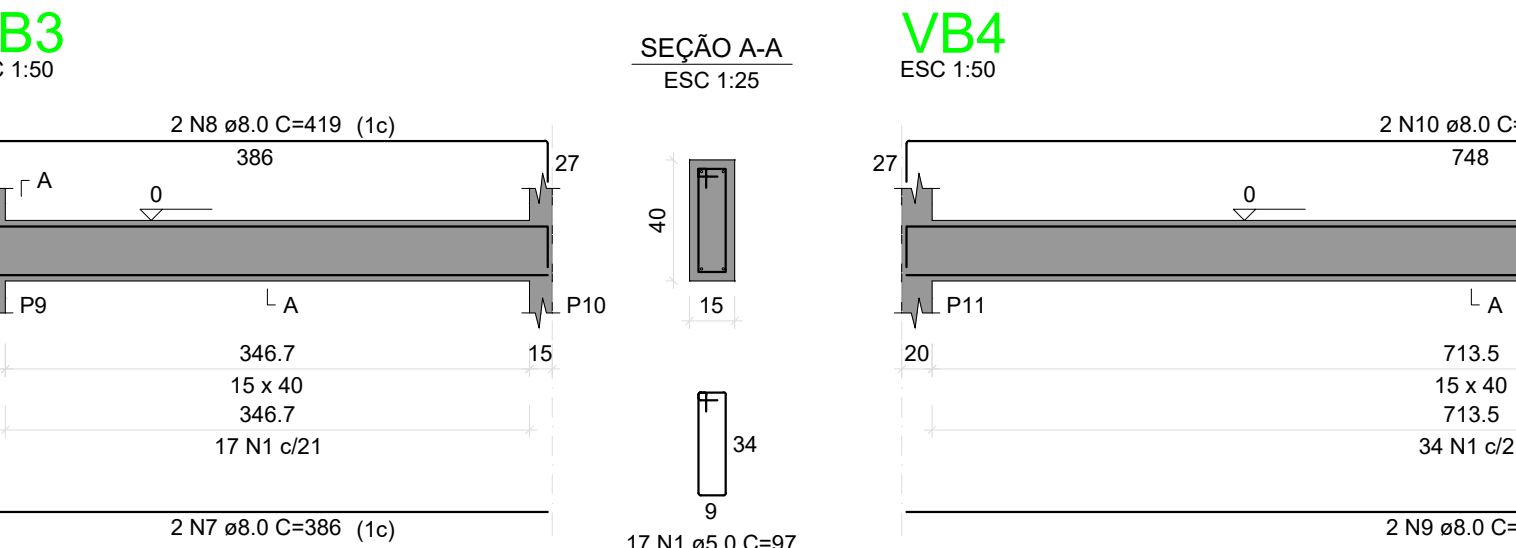
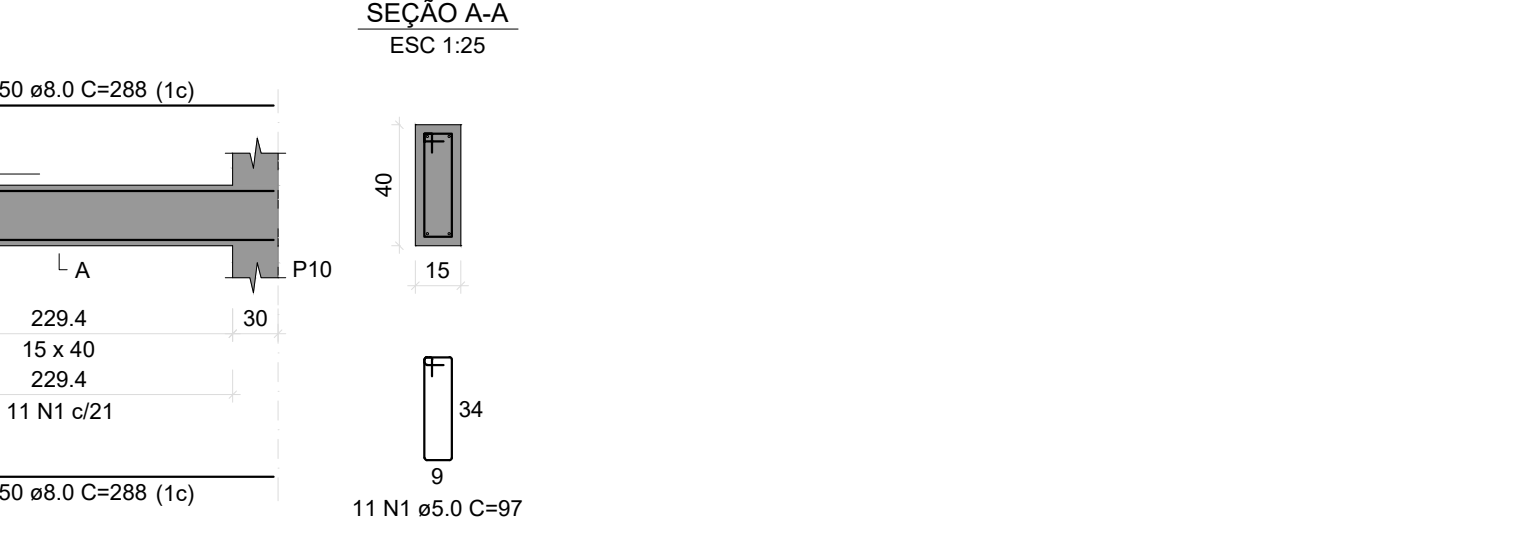
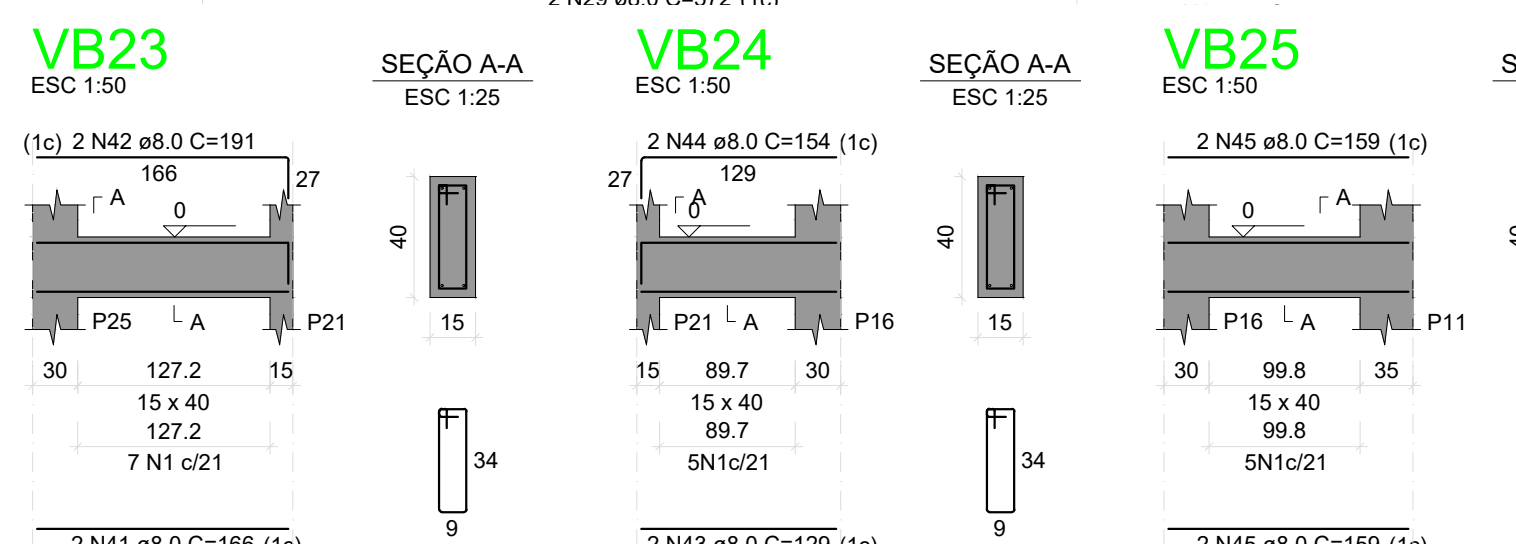
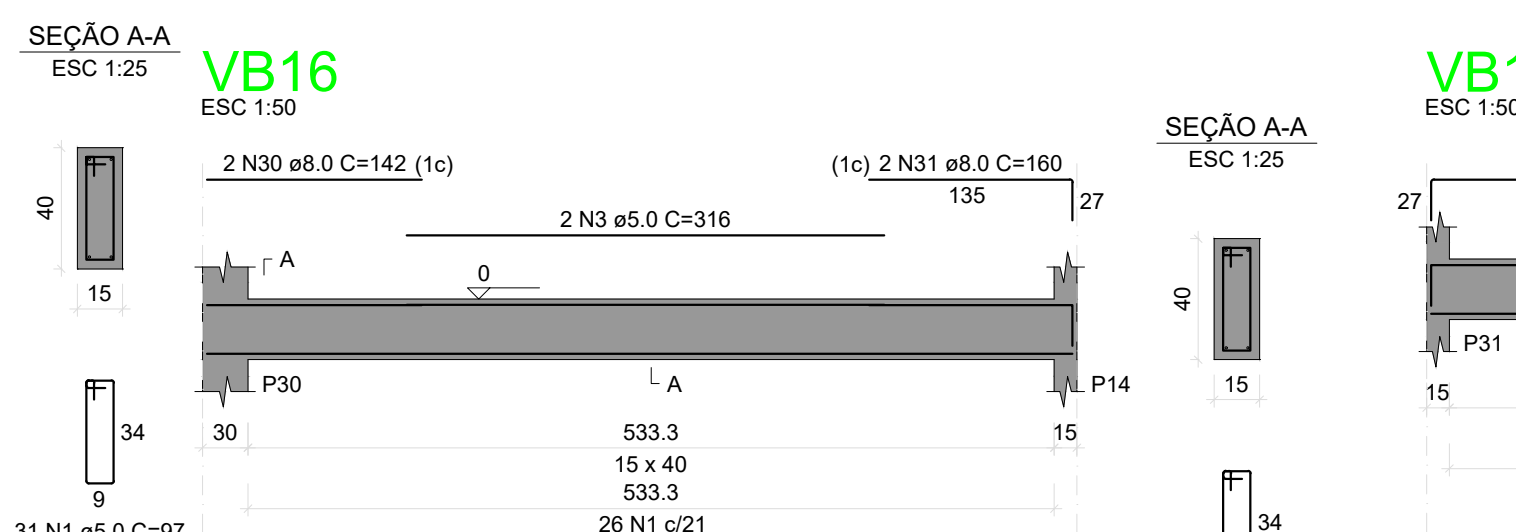
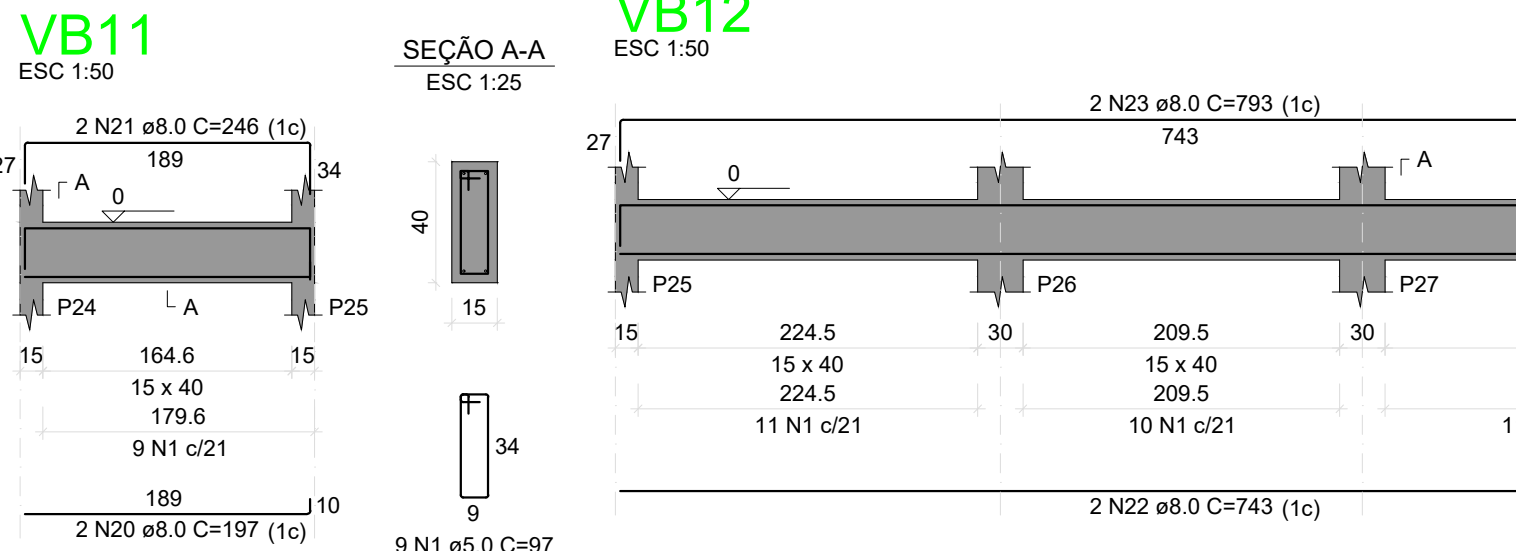
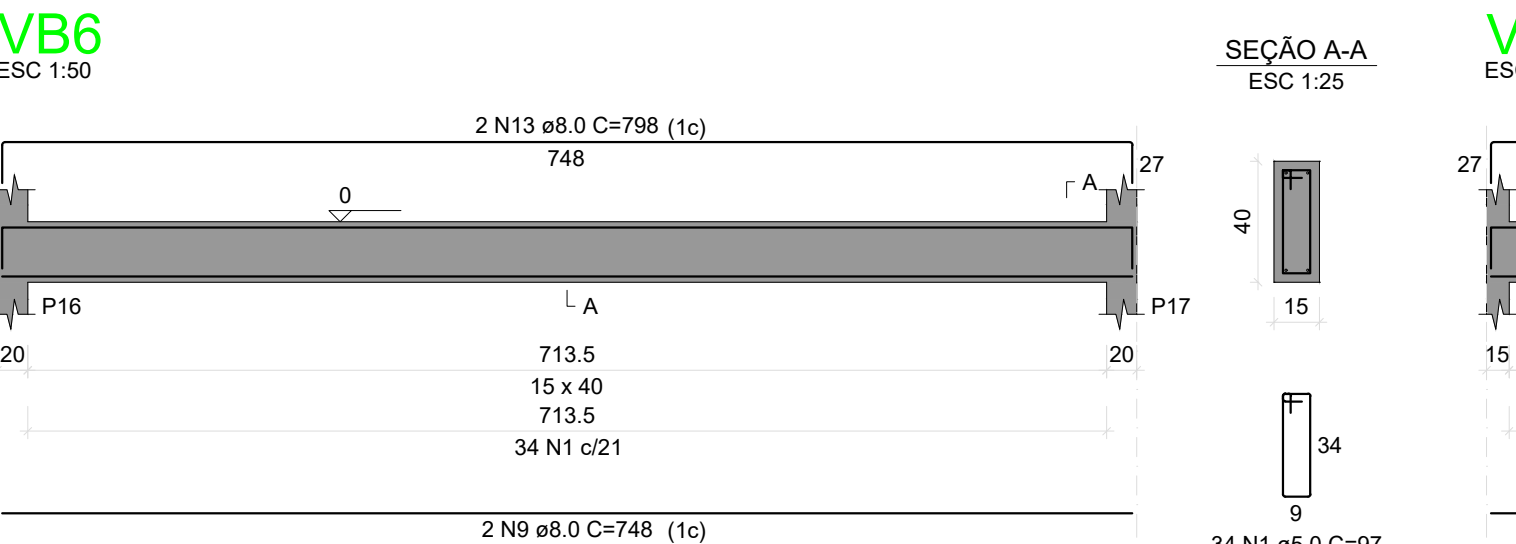
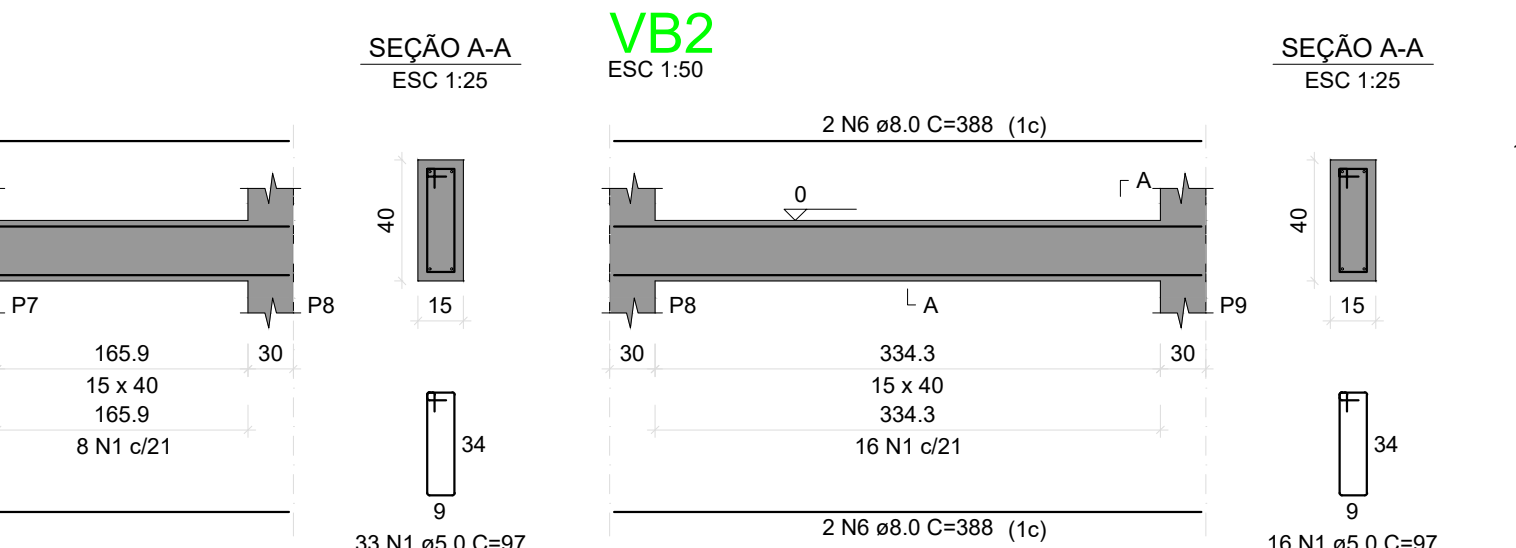
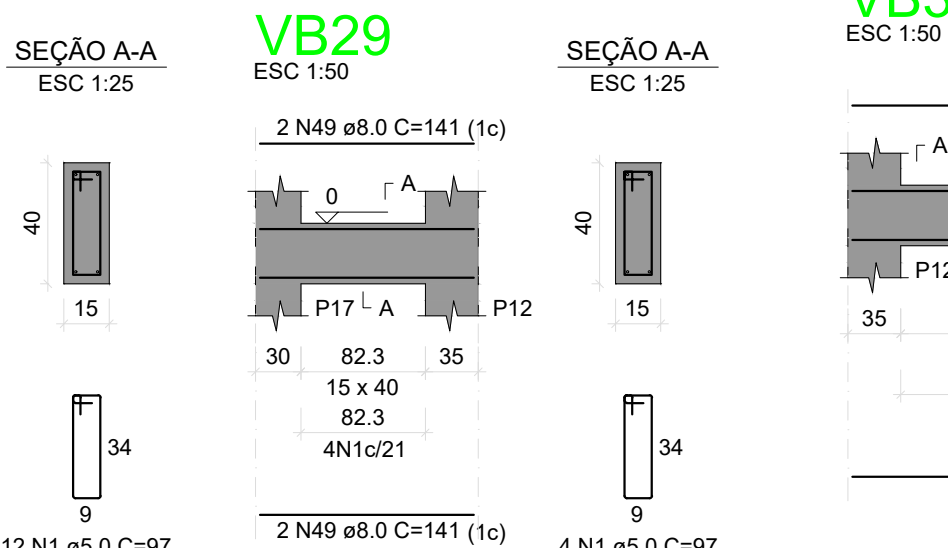
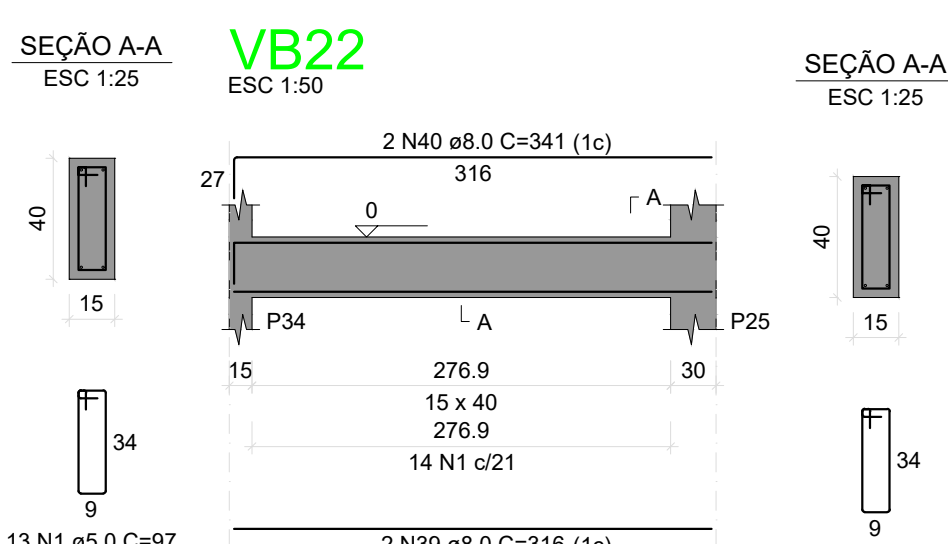
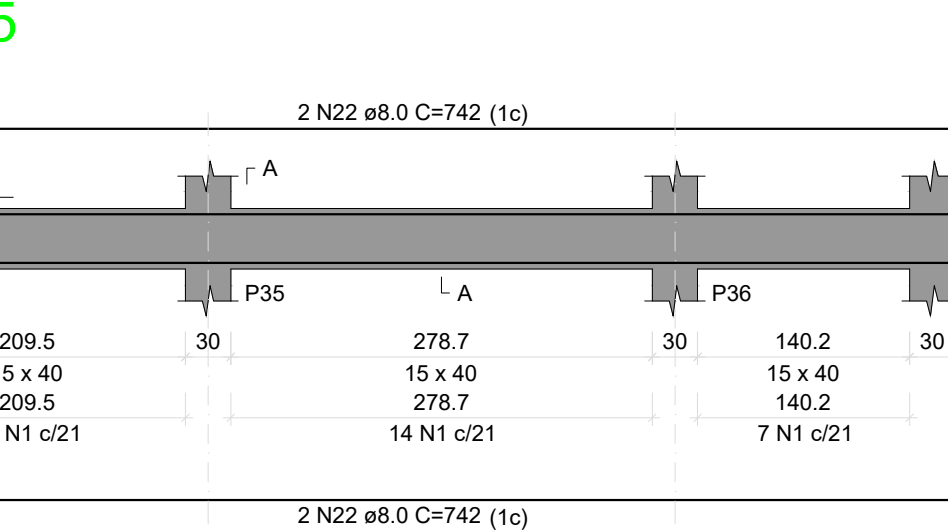
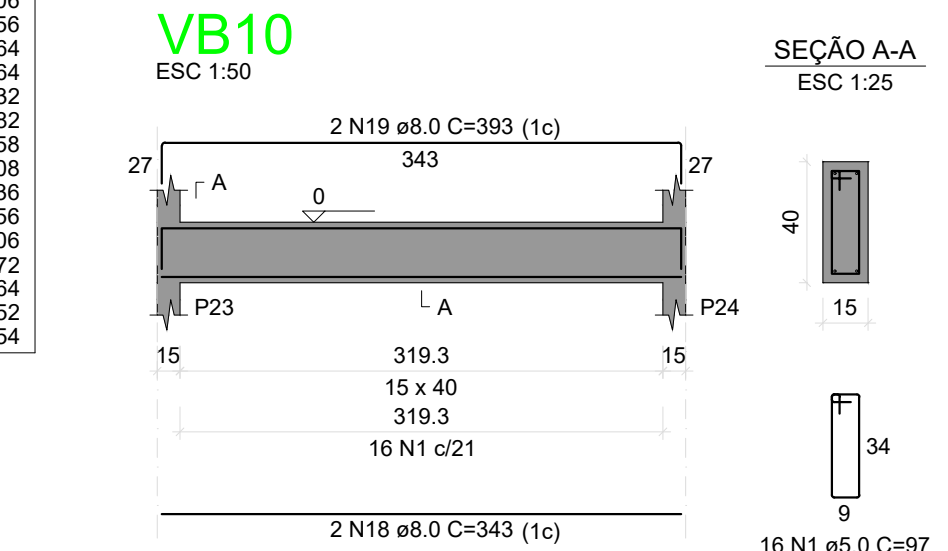
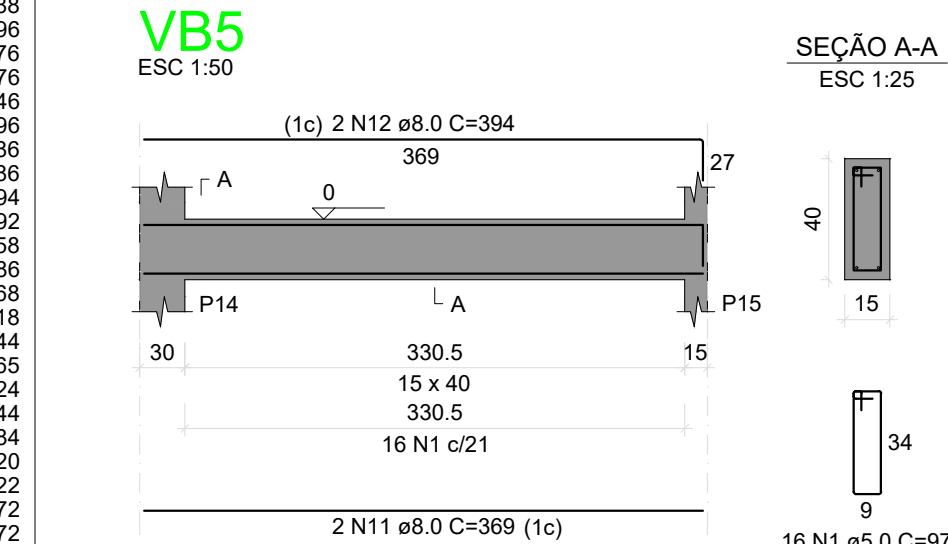
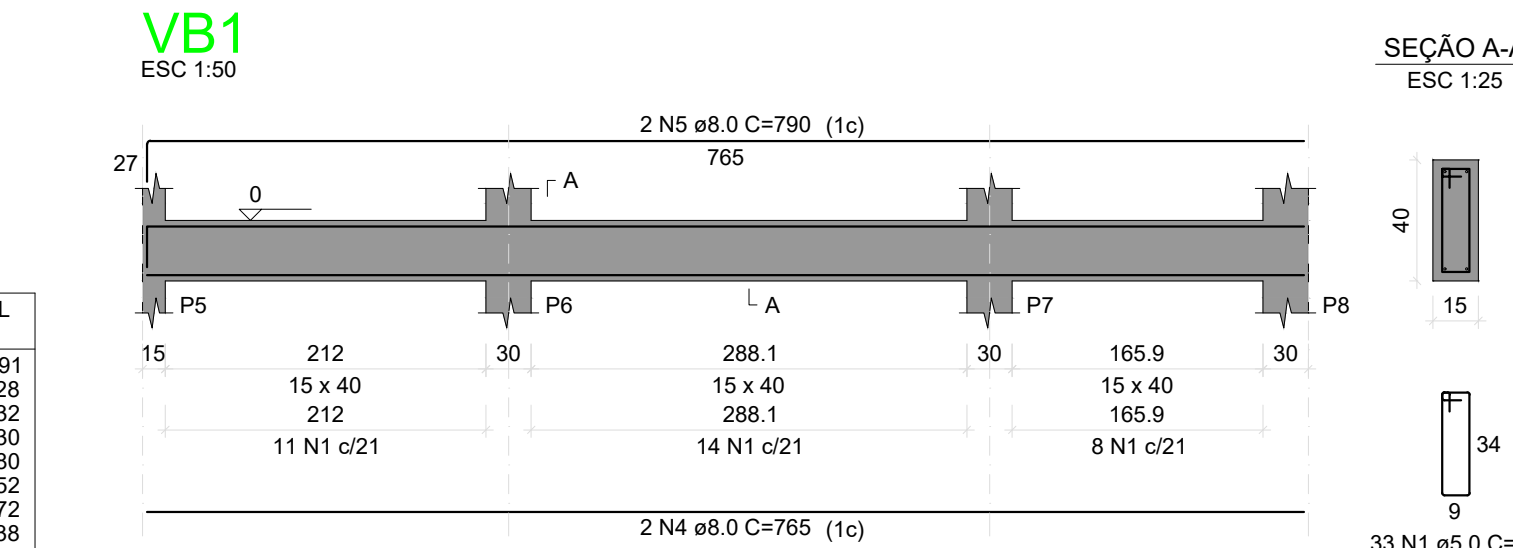
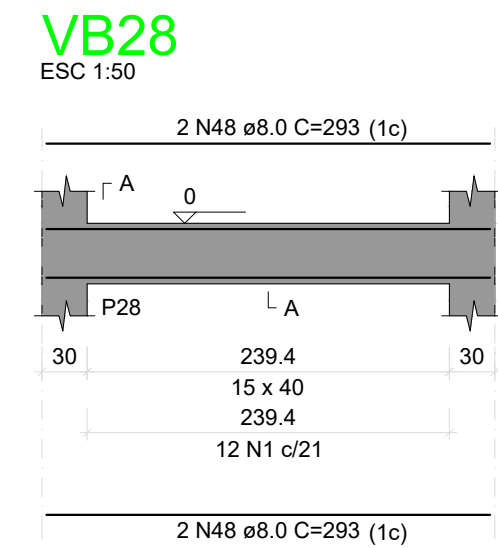
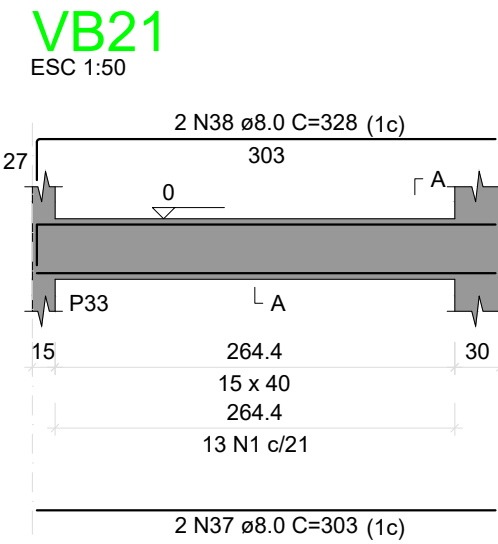
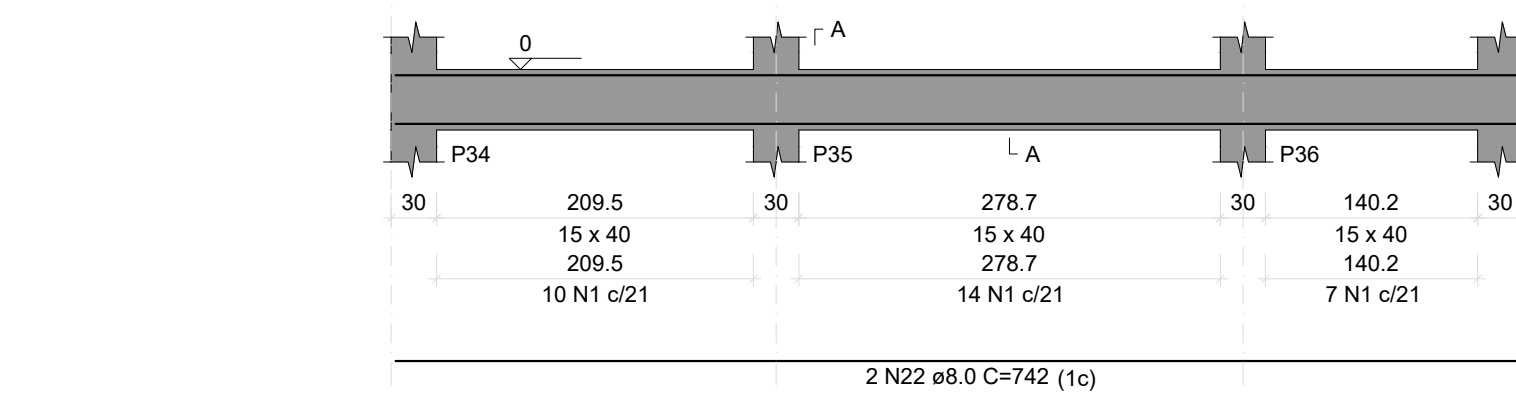


RELAÇÃO DO AÇO				
VB1	VB2	VB3		
VB4	VB6	VB8		
VB7	VB8	VB9		
VB10	VB11	VB12		
VB13	VB14	VB15		
VB16	VB17	VB18		
VB19	VB20	VB21		
VB22	VB23	VB24		
VB25	VB26	VB27		
VB28	VB29	VB30		

AÇO	N	DIAM (mm)	QUANT	C.UNIT (cm)	C.TOTAL (cm)
CA60	1	5.0	503	97	48791
CA50	2	5.0	2	264	528
	3	5.0	2	316	632
	4	8.0	2	765	1530
	5	8.0	2	780	1560
	6	8.0	4	388	1552
	7	8.0	2	386	772
	8	8.0	2	419	838
	9	8.0	4	748	2992
	10	8.0	2	799	1598
	11	8.0	2	369	738
	12	8.0	2	394	788
	13	8.0	2	798	1596
	14	8.0	4	244	976
	15	8.0	2	284	1176
	16	8.0	2	523	1046
	17	8.0	2	548	1096
	18	8.0	2	343	686
	19	8.0	2	393	786
	20	8.0	2	197	394
	21	8.0	2	246	492
	22	8.0	6	743	4458
	23	8.0	2	793	1586
	24	8.0	2	384	768
	25	8.0	2	409	818
	26	8.0	2	772	1544
	27	8.0	1	165	165
	28	8.0	2	362	724
	29	8.0	2	572	1144
	30	8.0	2	142	284
	31	8.0	2	160	320
	32	8.0	2	311	622
	33	8.0	2	336	672
	34	8.0	4	293	1172
	35	8.0	4	406	1624
	36	8.0	4	164	656
	37	8.0	2	303	606
	38	8.0	2	328	656
	39	8.0	4	316	1264
	40	8.0	4	341	1364
	41	8.0	2	166	332
	42	8.0	2	191	382
	43	8.0	2	129	258
	44	8.0	2	154	308
	45	8.0	4	159	636
	46	8.0	2	278	556
	47	8.0	2	303	606
	48	8.0	4	293	1172
	49	8.0	4	141	564
	50	8.0	4	288	1152
	51	10.0	2	177	354

RESUMO DO AÇO			
AÇO	DIAM (mm)	C.TOTAL (m)	PESO + 10% (kg)
CA50	8.0	470.4	204.2
CA60	5.0	498.5	84.7
PESO TOTAL (kg)			
CA50	206.6		
CA60	84.7		
Volume de concreto (C-25) = 7.14 m³			
Área de forma = 113.09 m²			



NOTAS	
a)	Resistência característica do concreto - Fck=25 MPa;
a1)	Relação água/cimento em massa: menor ou igual a 0.60
a2)	Cimento CP II - Z
a3)	Cons. mínimo de cimento (NBR12655:2006): maior ou igual a 280kg/m³
a4)	Módulo de elasticidade secante do concreto: Ecs=24GPa
a5)	Brita calcária - Dmax = 19mm (brita 1)
b)	Ágcs: CA-50 e CA-60.
c)	Classe de agressividade ambiental II (moderada).
Chom (vigas):	3.0 cm (Externas e Contato c/ solo) / 2.5 cm (Internas)
Chom (pilares):	3.0 cm (Externas) / 2.5 cm (Internas) / 4.5 cm (Contato c/ solo)
Chom (lajes):	2.5 cm
Chom (fundações):	4.5 cm
d)	Cargas de paredes sobre vigas (NBR 6120:2019):
d1)	parede 11,5+2cm+2cm: 1.7 kN/m²;
d2)	parede 14+2cm+2cm: 1.9 kN/m²;

R01	03/09/21	Primeira Revisão do Projeto
R00	23/07/21	Versão Inicial do Projeto
REV. Nº	DATA	DESCRIÇÃO

AUTORES DO PROJETO:	
	Eng. Thaice L. P. Marques Neto CREA: 131556/2009

<b>INTERESSADO:</b> DAE - DEPARTAMENTO DE ÁGUA E ESGOTO DE VÁRZEA GRANDE CNPJ: 02.555.079/0001-42	
<b>EMPREENHIMENTO:</b> ETA BOM SUCESSO	
<b>ENDEREÇO:</b> Rod MT 050, Jardim Botânico, Várzea Grande - MT Latitude: 15°42'37.08"S / Longitude: 56° 8'12.10"O	
<b>ASSUNTO:</b> Projeto Estrutural da Casa de Química - ETA Detalhes - Vigas Baldrames e Pilares	

NOMENCLATURA:		FOLHA:
DATA: 03/09/2021	ESCALA: INDICADA	005/009