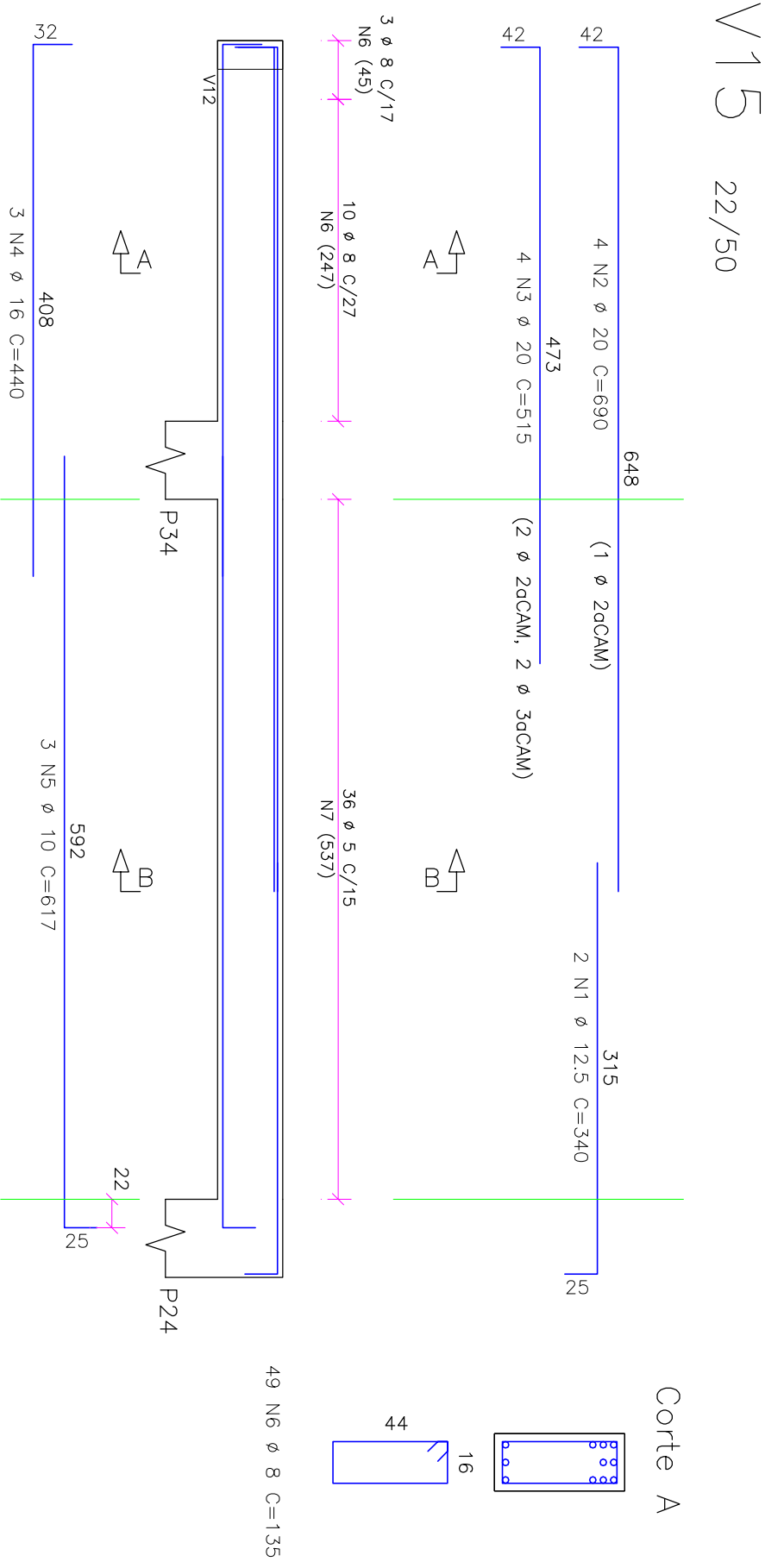
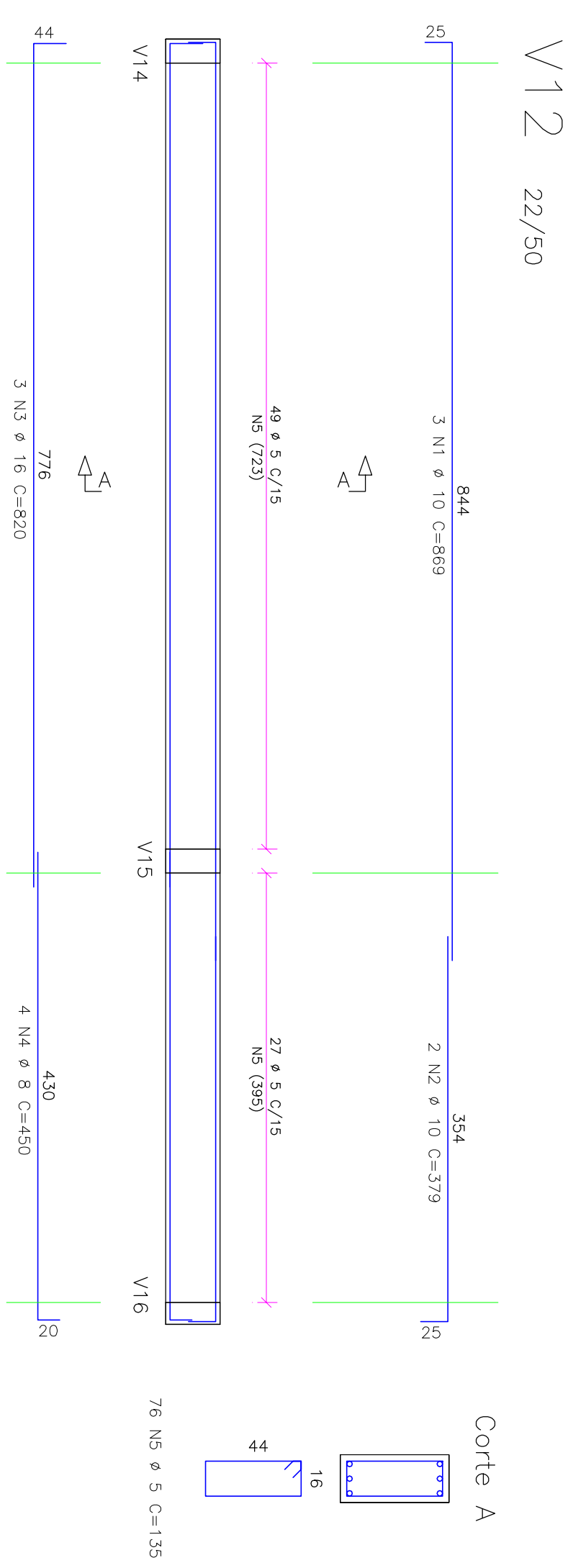
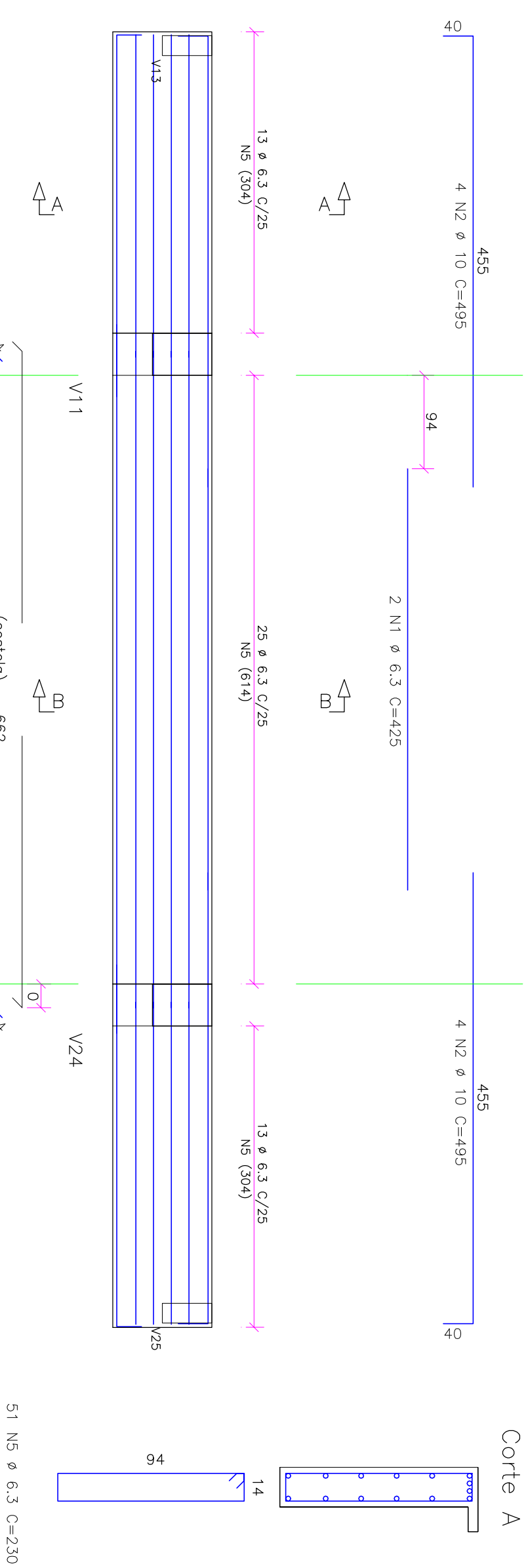
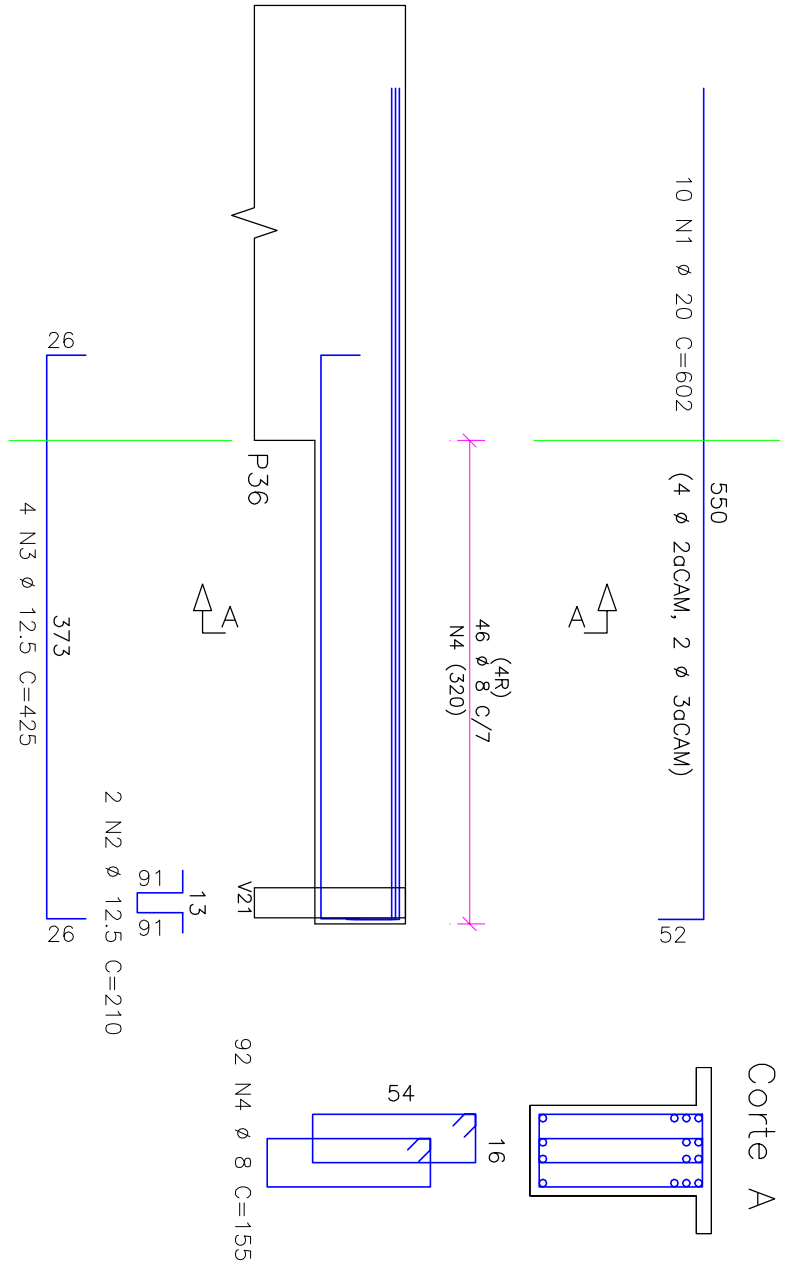




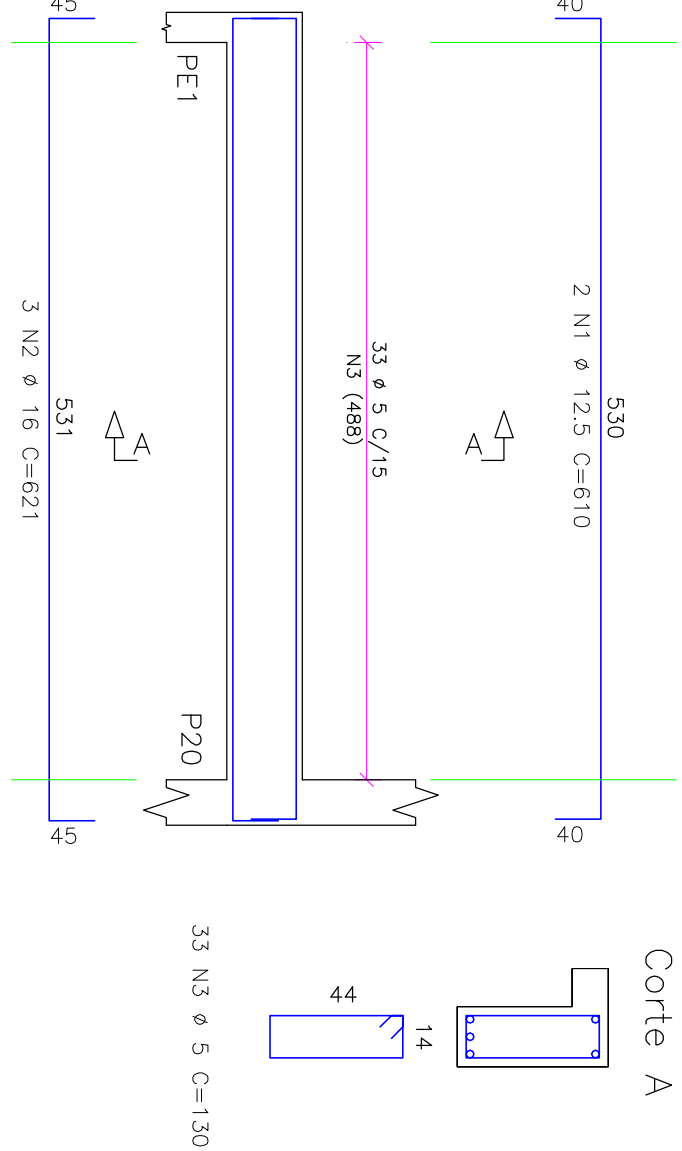
V21 20/100



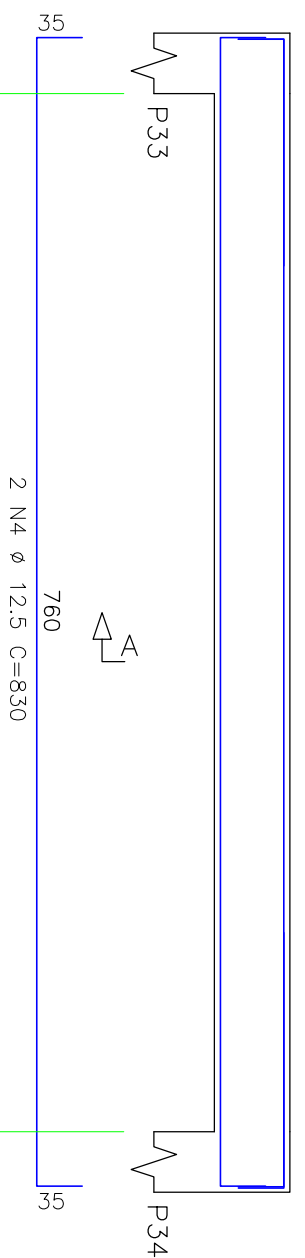
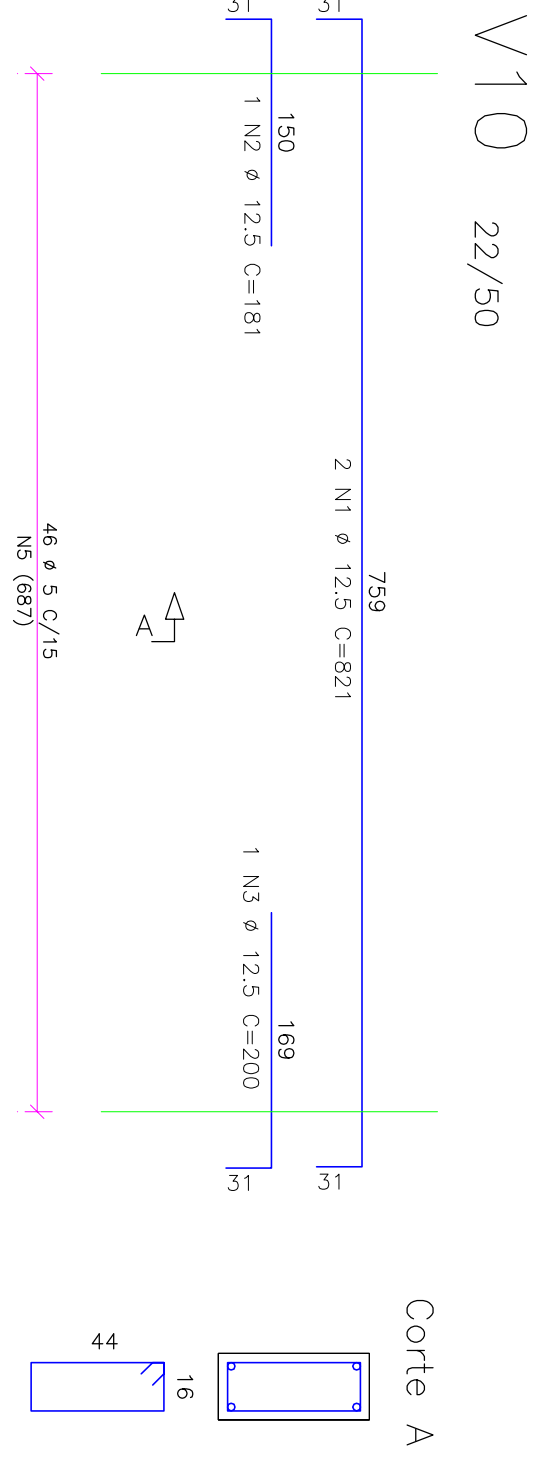
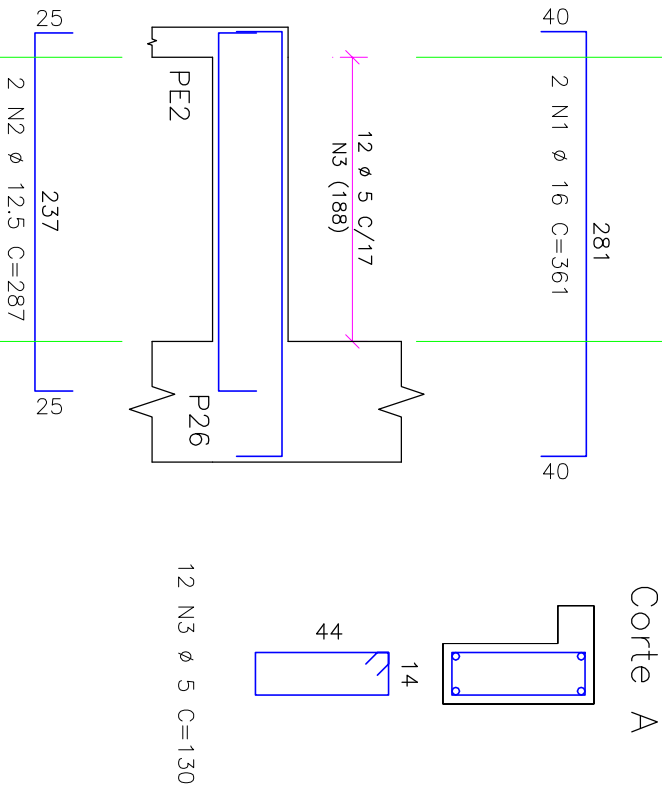
V11/V24 30/60



V1/V2/V4/V5 20/50



V3/V6 20/50



AÇO	POS	BIT	QUANT	COMPLEMENTO	
		(mm)		UNIT	TOTAL
V1/V14 (X2)					
50	1	16	4	1039	4116
50	2	16	6	510	3060
50	3	12.5	6	990	5940
60	4	5	112	135	15120
V2/V16 (X2)					
50	1	16	4	1030	4120
50	2	16	6	445	1780
50	3	12.5	6	1013	6078
60	4	5	100	130	13000
V3/V17 (X2)					
50	1	16	4	1030	4120
50	2	16	4	445	1780
50	3	12.5	4	1015	4060
60	4	5	120	130	15600
V4/V18 (X2)					
50	1	12.5	6	593	3558
50	2	12.5	6	600	3600
60	3	5	66	130	8580
V5					
50	1	12.5	2	584	1168
50	2	12.5	2	200	400
50	3	12.5	2	674	1348
50	4	12.5	3	205	605
50	5	10	3	265	795
50	6	8	3	430	1290
60	7	5	63	130	8190
V6/V19 (X2)					
50	1	10	4	237	948
50	2	10	4	144	576
60	3	5	14	130	1820
V7					
50	1	10	2	413	826
50	2	10	2	112	224
60	3	5	16	130	2080
V8/V22 (X2)					
50	1	12.5	4	343	1372
50	2	10	24	287	1148
60	3	5	24	130	3120
V9/V23 (X2)					
50	1	6.3	4	313	1252
60	2	8	4	320	1280
50	3	5	34	75	2550
V10					
50	1	12.5	2	831	1642
50	2	12.5	1	181	362
50	3	12.5	1	200	400
50	4	12.5	2	535	1070
60	5	5	46	135	6210
V11/V24 (X2)					
50	1	20	20	602	12040
50	2	12.5	4	210	840
50	3	12.5	4	340	1360
50	4	8	184	155	28520
V12					
50	1	10	3	869	2607
50	2	10	3	379	758
50	3	8	4	450	1800
60	5	5	76	135	10260
V13/V25 (X2)					
50	1	10	4	481	1924
50	2	10	4	480	1920
60	3	5	42	130	5460
V15					
50	1	12.5	2	340	680
50	2	20	4	690	2760
50	3	16	4	440	1760
50	4	16	3	617	1851
50	5	10	49	135	6615
V20/V26 (X2)					
50	1	10	4	498	1992
50	2	10	4	475	1900
60	3	5	44	130	5720
V21					
50	1	6.3	2	425	850
50	2	12.5	4	390	1560
50	3	12.5	4	715	2860
50	4	12.5	5	230	920
50	5	6.3	8	690	2760
50	7	8	8	690	5520
V1/V2/V4/V5 (X4)					
50	1	12.5	8	610	4880
50	2	12.5	8	540	4320
60	3	5	132	150	17160
V3/V6 (X2)					
50	1	16	4	361	1444
50	2	12.5	4	287	1148
60	3	5	24	130	3120

RESUMO AÇO CA. 50-60				
AÇO	BIT (mm)	COMPR (m)	PESO (kg)	
50	6.3	1189	189	
50	8	35	138	
50	8	507	203	
50	10	237	149	
50	12.5	327	523	
50	16	16	422	
50	20	169		
Peso Total			189 kg	
50 =			1797 kg	

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PROJETO EXECUTIVO

PROJETO DE ESTRUTURA DE CONCRETO ARMADO

Proprietário: UNIRIO - UNIVERSIDADE FEDERAL DO ESTADO DO RIO DE JANEIRO

Local: AV. PAULSTER, 458, URCA, RIO DE JANEIRO/RJ

Co-ordenador do Projeto:

Autor do Projeto:

LUCIO ROBERTO DE ALMEIDA

Engenheiro Civil, CREA 297076 MT

MÁRIO ANDRÉ DE AMORIM PALMA

Engenheiro Civil, CREA 13885777

Responsável

Assunto: ARMAÇÃO DAS VIGAS/ETIQUASE DA CASA DE MÁQUINAS

V1, V2, V3, V4, V5, V6, V10, V11, V12, V15, V21, V24