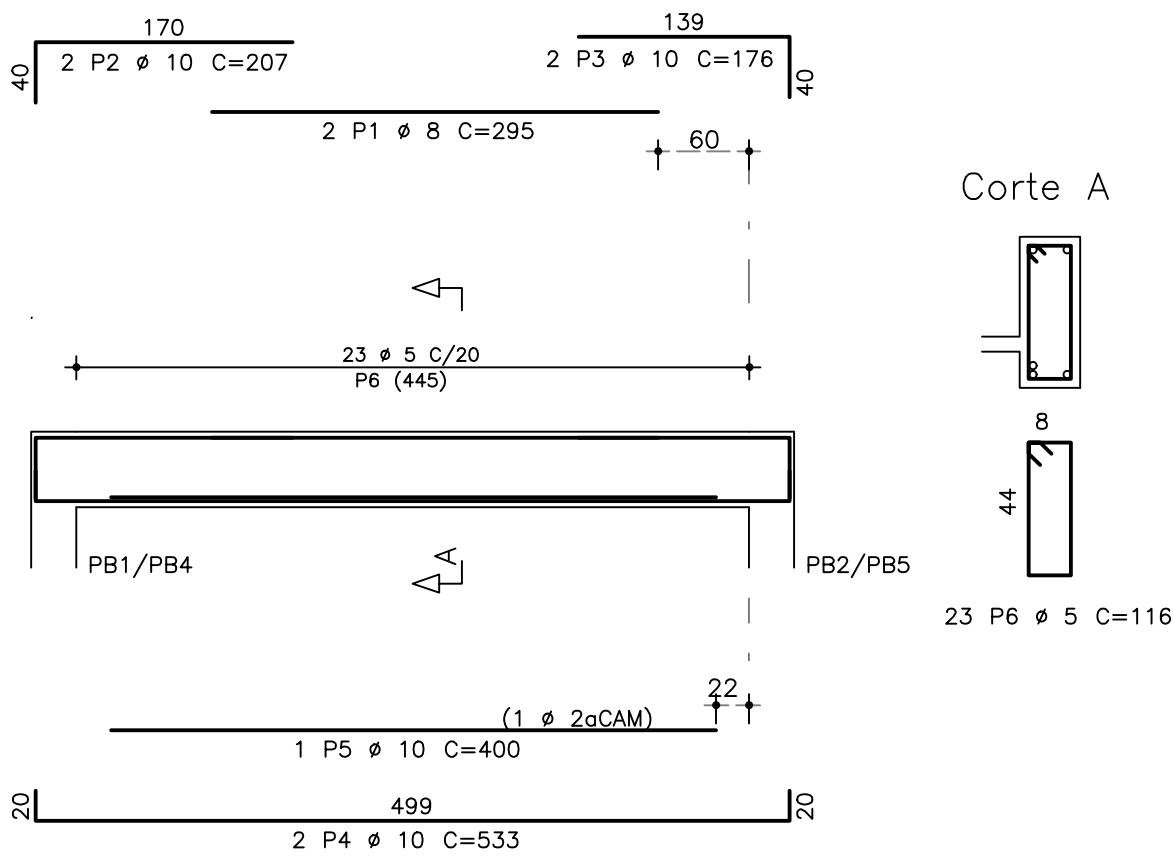
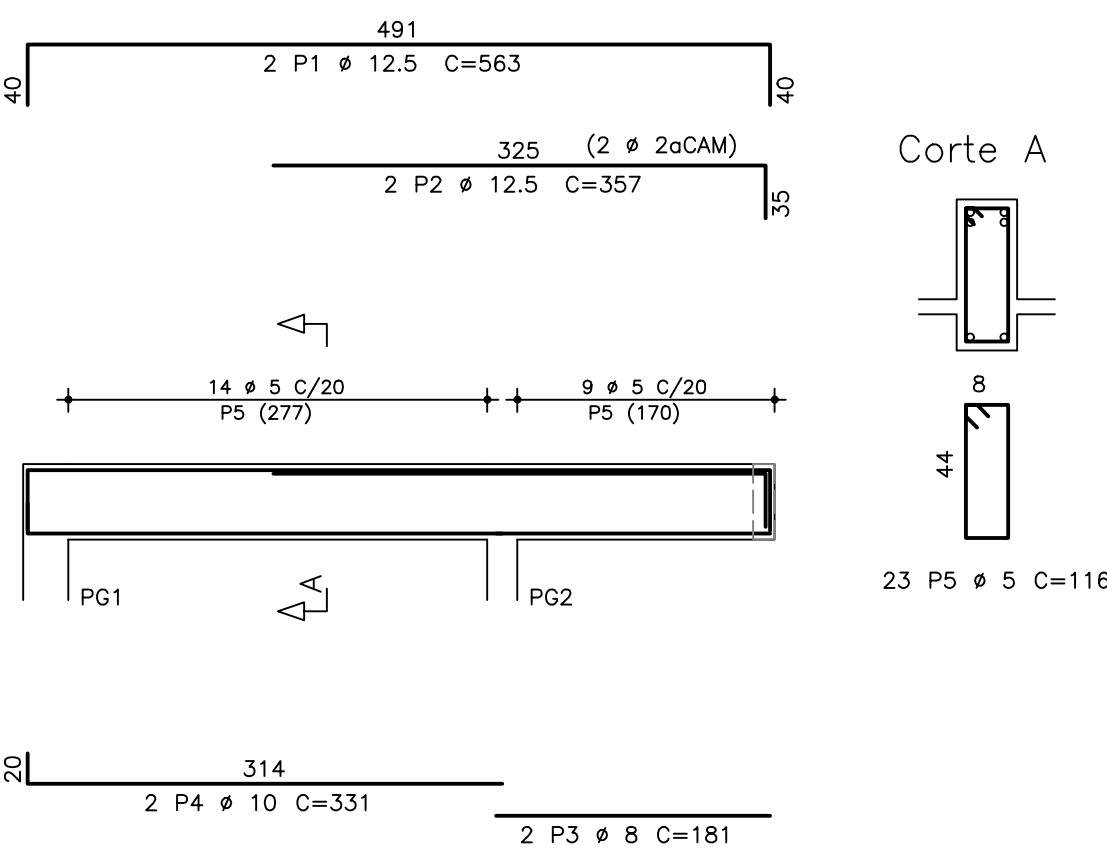


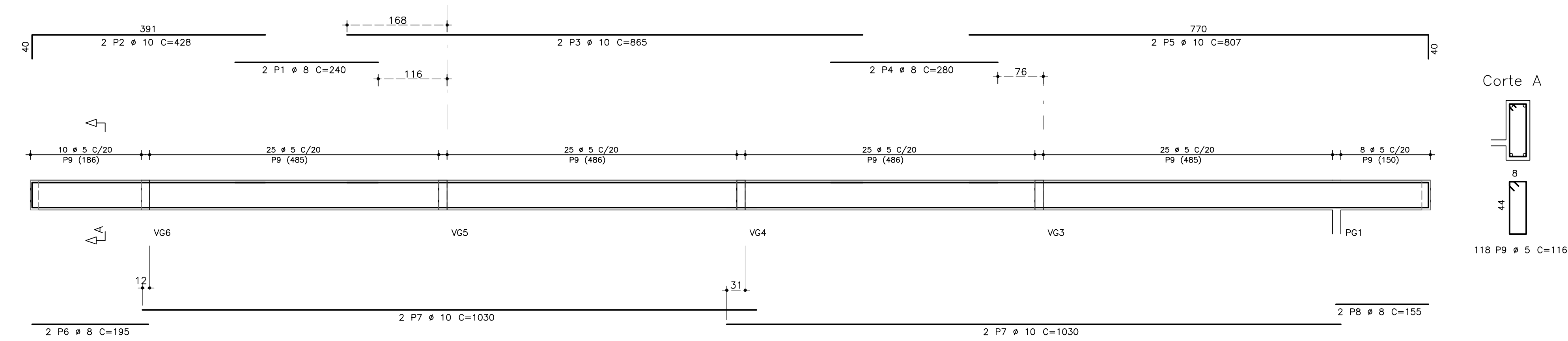
VB1=VB3 14/50



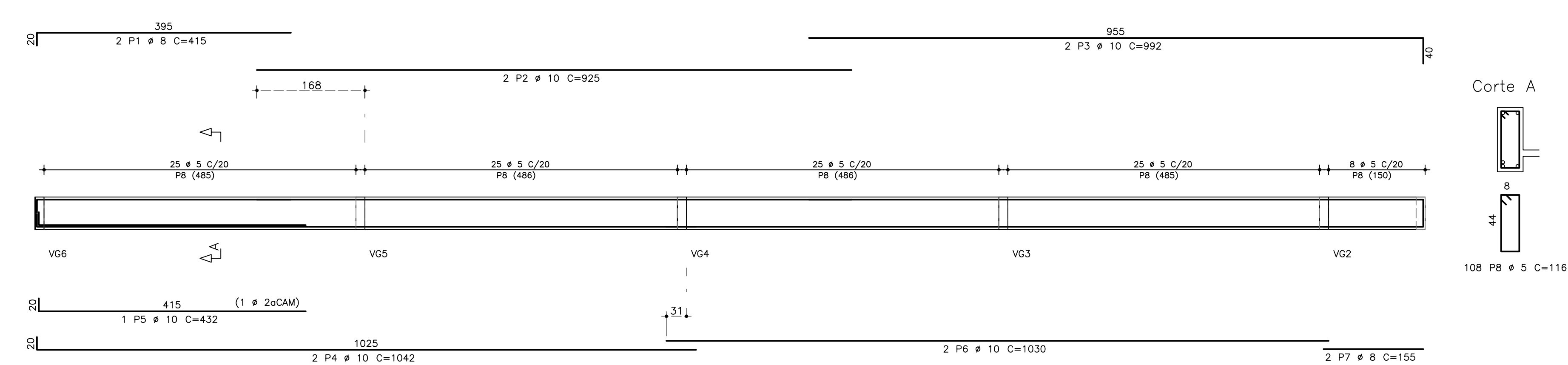
VG2 14/50



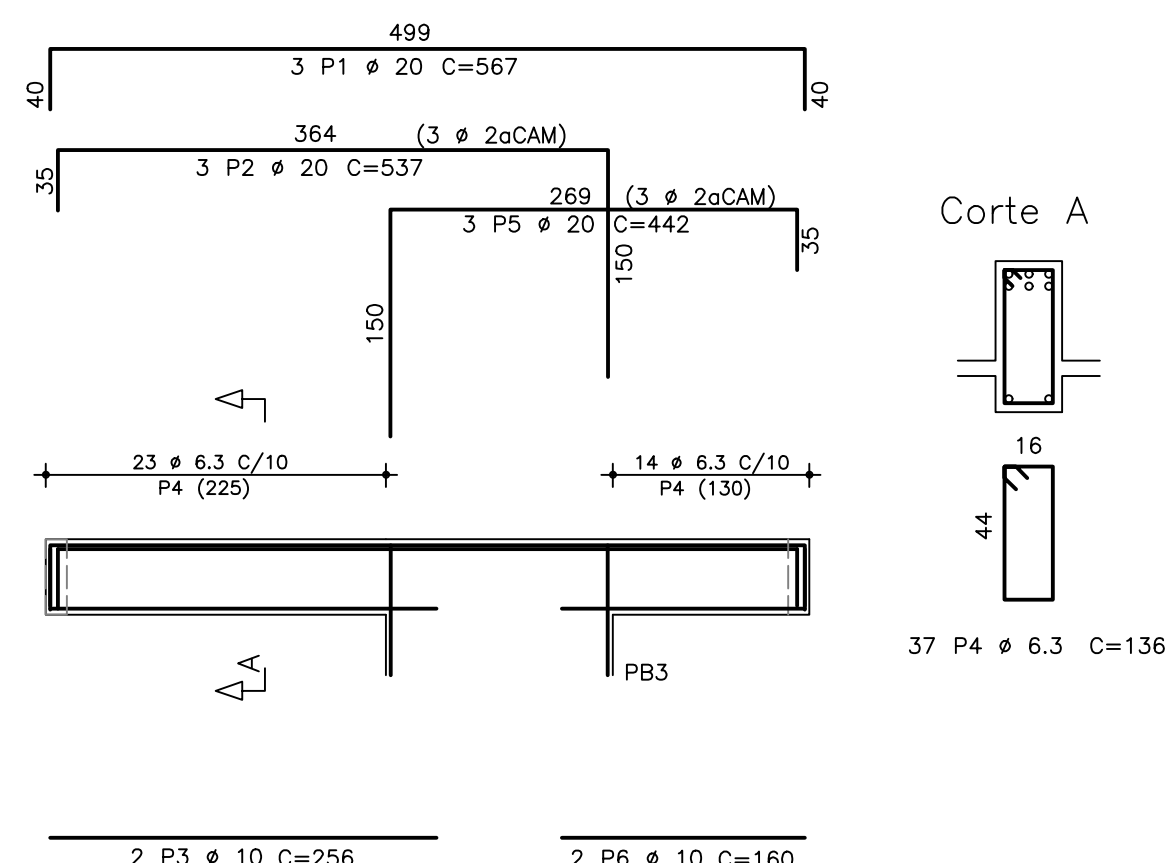
VG8 14/50



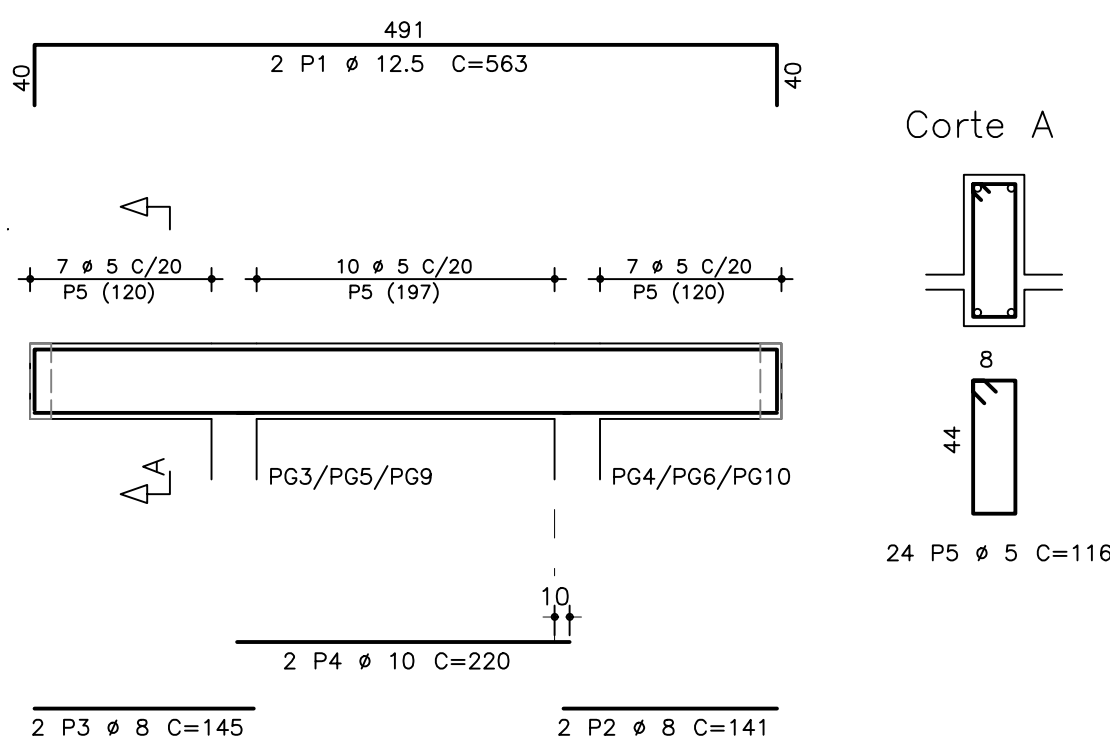
VG10 14/50



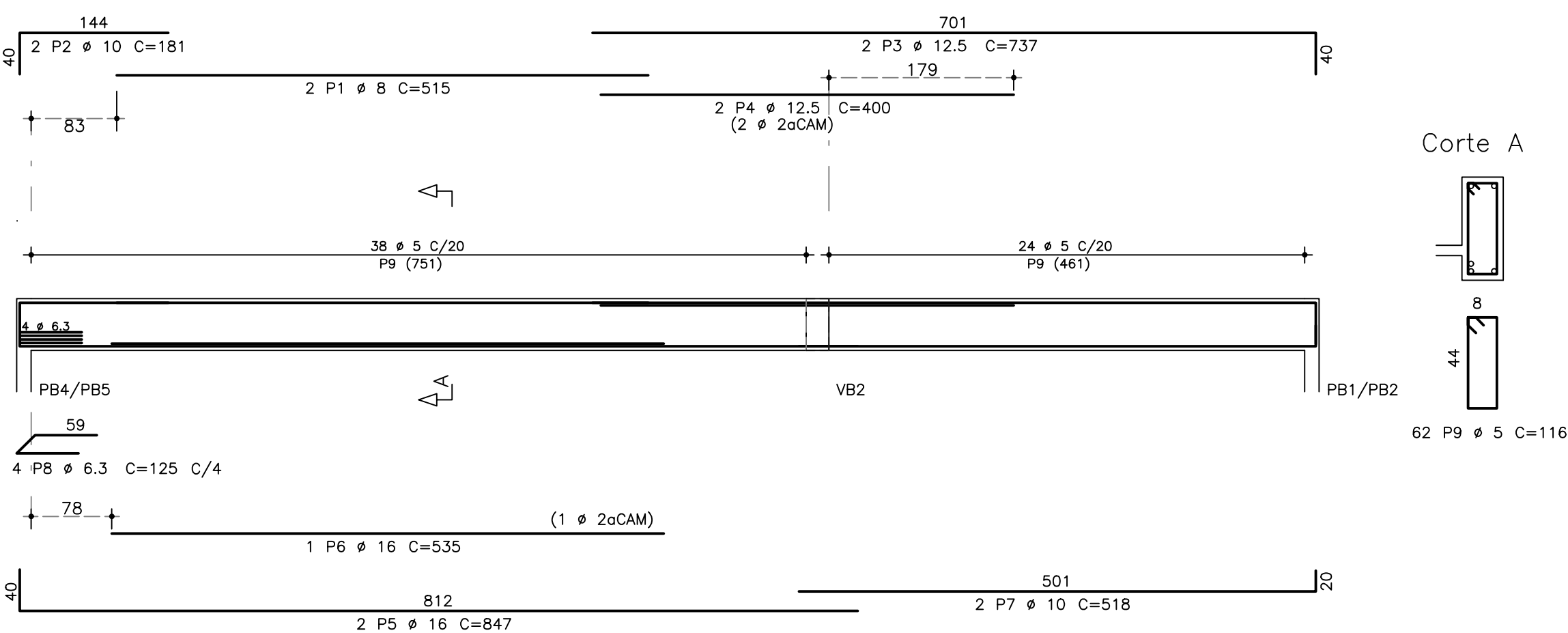
VB2 22/50



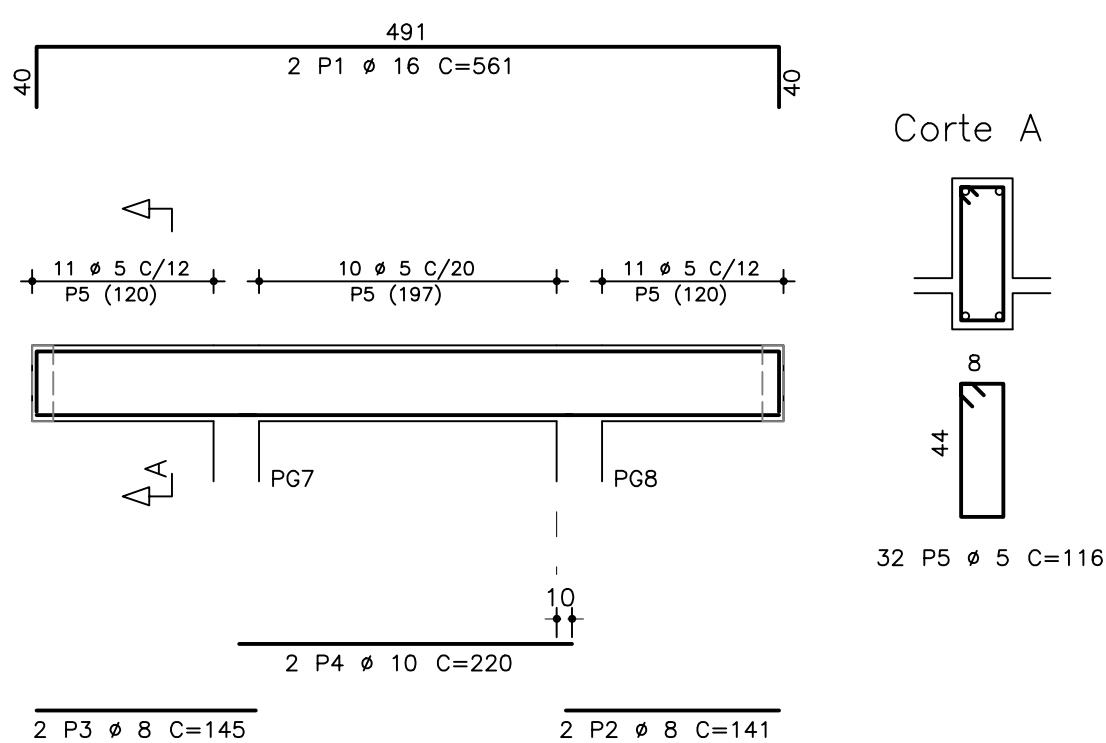
VG3=VG4=VG6 14/50



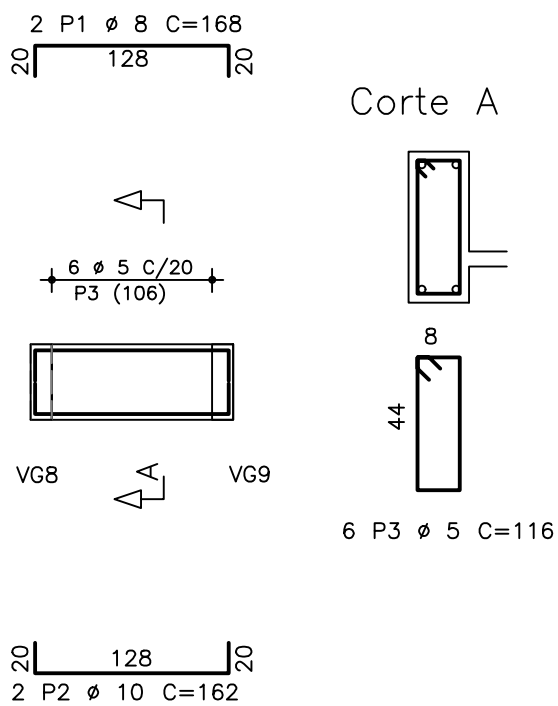
VB4=VB5 14/50



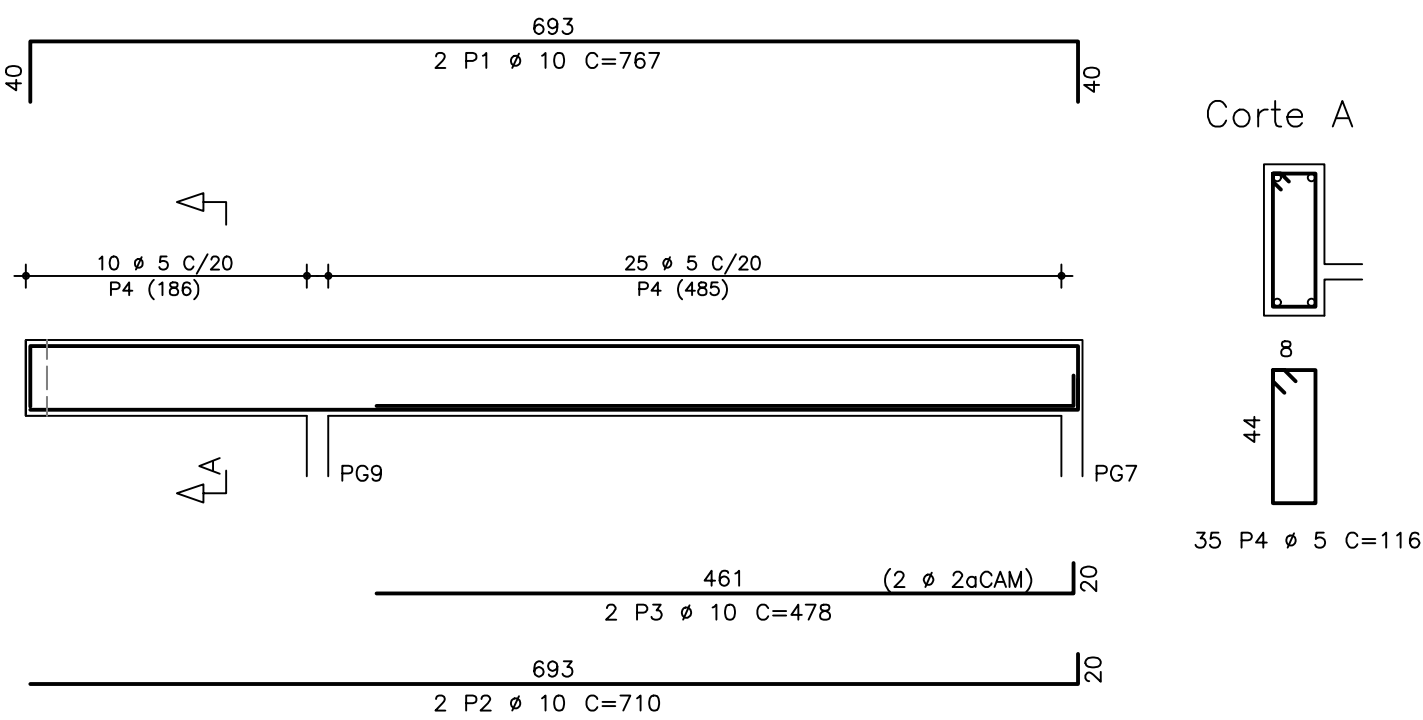
VG5 14/50



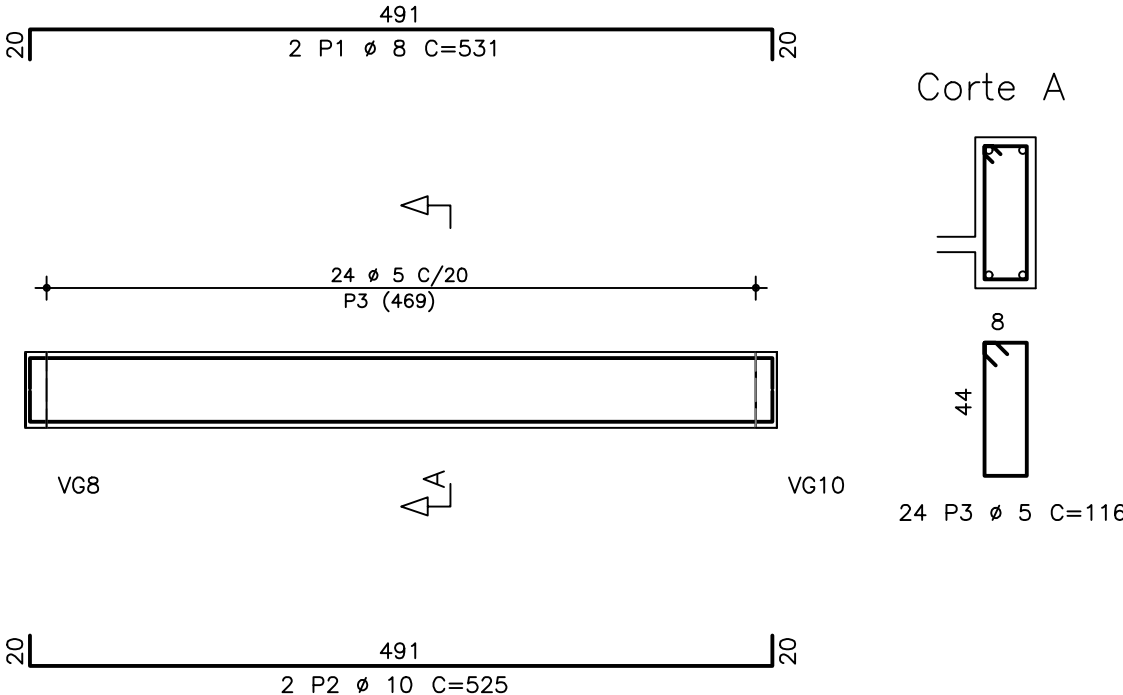
VG7 14/50



VG9 14/50



VG1 14/50



AÇO	POS	BIT (mm)	QUANT	COMPRIMENTO	
				UNIT (cm)	TOTAL (cm)
VB1=VB3 (X2)					
50	1	8	4	295	1180
50	2	10	4	207	828
50	3	10	4	176	704
50	4	10	4	533	2132
50	5	10	2	400	800
60	6	5	46	116	5336
VB2					
50	1	20	3	567	1701
50	2	20	3	537	1611
50	3	10	2	256	512
50	4	6,3	37	136	5032
50	5	20	3	442	1326
50	6	10	2	160	320
VB4=VB5 (X2)					
50	1	8	4	515	2060
50	2	10	4	181	724
50	3	12,5	4	737	2948
50	4	12,5	4	400	1600
50	5	16	4	847	3388
50	6	16	2	535	1070
50	7	10	4	518	2072
50	8	6,3	8	125	1000
60	9	5	124	116	14384
VG1					
50	1	8	2	531	1062
50	2	10	2	525	1050
60	3	5	24	116	2784
VG2					
50	1	12,5	2	563	1126
50	2	12,5	2	357	714
50	3	8	2	181	362
50	4	10	2	331	662
60	5	5	23	116	2668
VG3=VG4=VG6 (X3)					
50	1	12,5	6	563	3378
50	2	8	6	141	846
50	3	8	6	145	870
50	4	10	6	220	1320
60	5	5	72	116	8352
VG5					
50	1	16	2	561	1122
50	2	8	2	141	282
50	3	8	2	145	290
50	4	10	2	220	440
60	5	5	32	116	3712
VG7					
50	1	8	2	168	336
50	2	10	2	162	324
60	3	5	6	116	696
VG8					
50	1	8	2	240	480
50	2	10	2	428	856
50	3	10	2	865	1730
50	4	8	2	280	560
50	5	10	2	807	1614
50	6	8	2	195	390
50	7	10	4	1030	4120
50	8	8	2	155	310
60	9	5	118	116	13688
VG9					
50	1	10	2	767	1534
50	2	10	2	710	1420
50	3	10	2	478	956
60	4	5	35	116	4060
VG10					
50	1	8	2	415	830
50	2	10	2	925	1850
50	3	10	2	992	1984
50	4	10	2	1042	2084
50	5	10	1	432	432
50	6	10	2	1030	2060
50	7	8	2	155	310
60	8	5	108	116	12528

RESUMO AÇO CA 50-60			
AÇO	BIT (mm)	COMPR (m)	PESO (kg)
60	5	682	109
50	6.3	60	15
50	8	102	41
50	10	325	205
50	12.5	98	98
50	16	56	89
50	20	46	116
Peso Total		60	= 109 kg
Peso Total		50	= 564 kg

DETALHE DE DOBRAMENTO DOS FERROS	ϕ	RAIO (cm)	DESCONTO(cm)
	10.0	7.5	3.0
	12.5	9.3	4.0
	16.0	12.0	5.0
	20.0	15.0	6.0
	25.0	18.5	8.0

REVISÃO	DESCRIÇÃO	SOLICITADO POR	DATA	RESPONSÁVEL	

TAUFIG ASFURA
CREA 1086 - PE/PA

GAMAL ASFURA
CREA 16973 - PE/PA

ITALO B. SCHMITZ
CREA PE045.442


engenharia estrutural ltd.

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OBRA	GINÁSIO DE ESPORTES	(PREFEITURA DE LIMOEIRO)
01/2017	RESP. TÉCNICO GAMAL ASFURA	AÇO CA- 50 e 60
	PROJETO ESTRUTURAL	ESCALA 1:50
	DESENHO AMARO CORTEZ	DATA ABRIL/2017
		REVISÃO 0

P
09/01

COBERTA DA BILHETERIA E GERÊNCIA - ARMAÇÃO DAS VIGAS