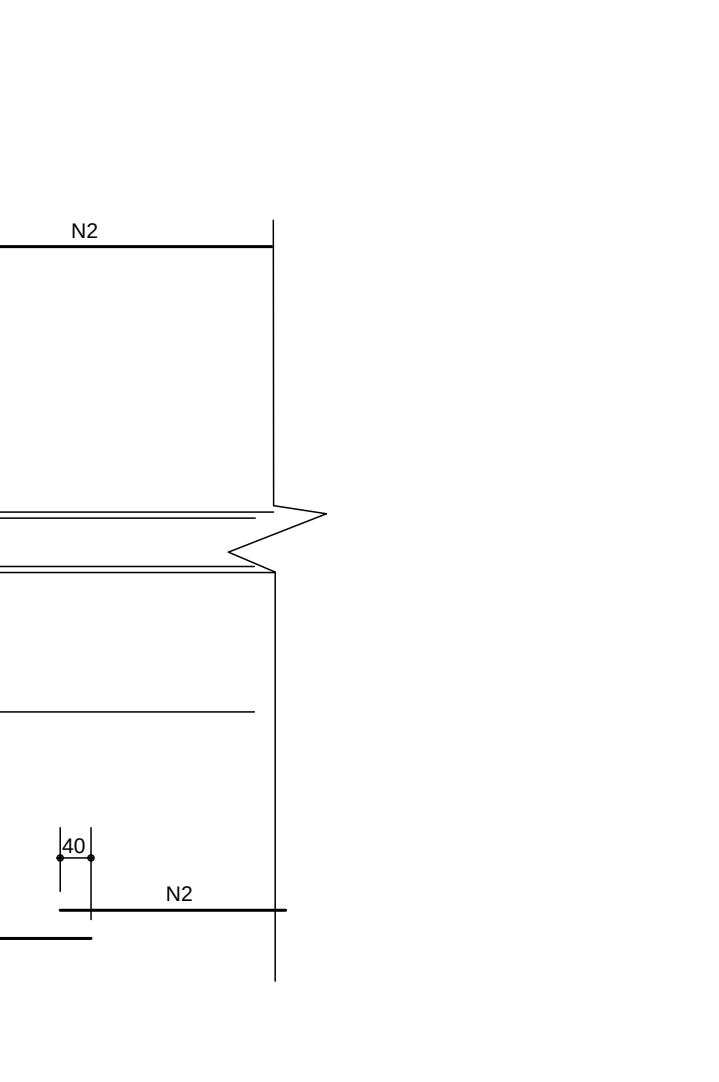
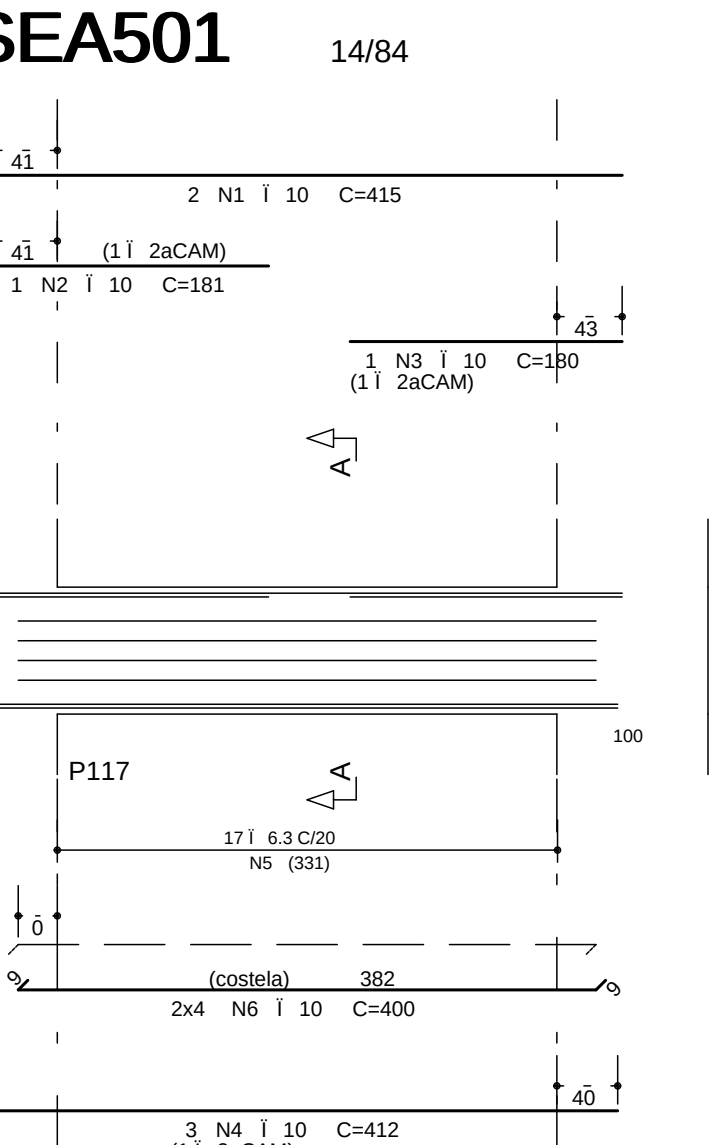
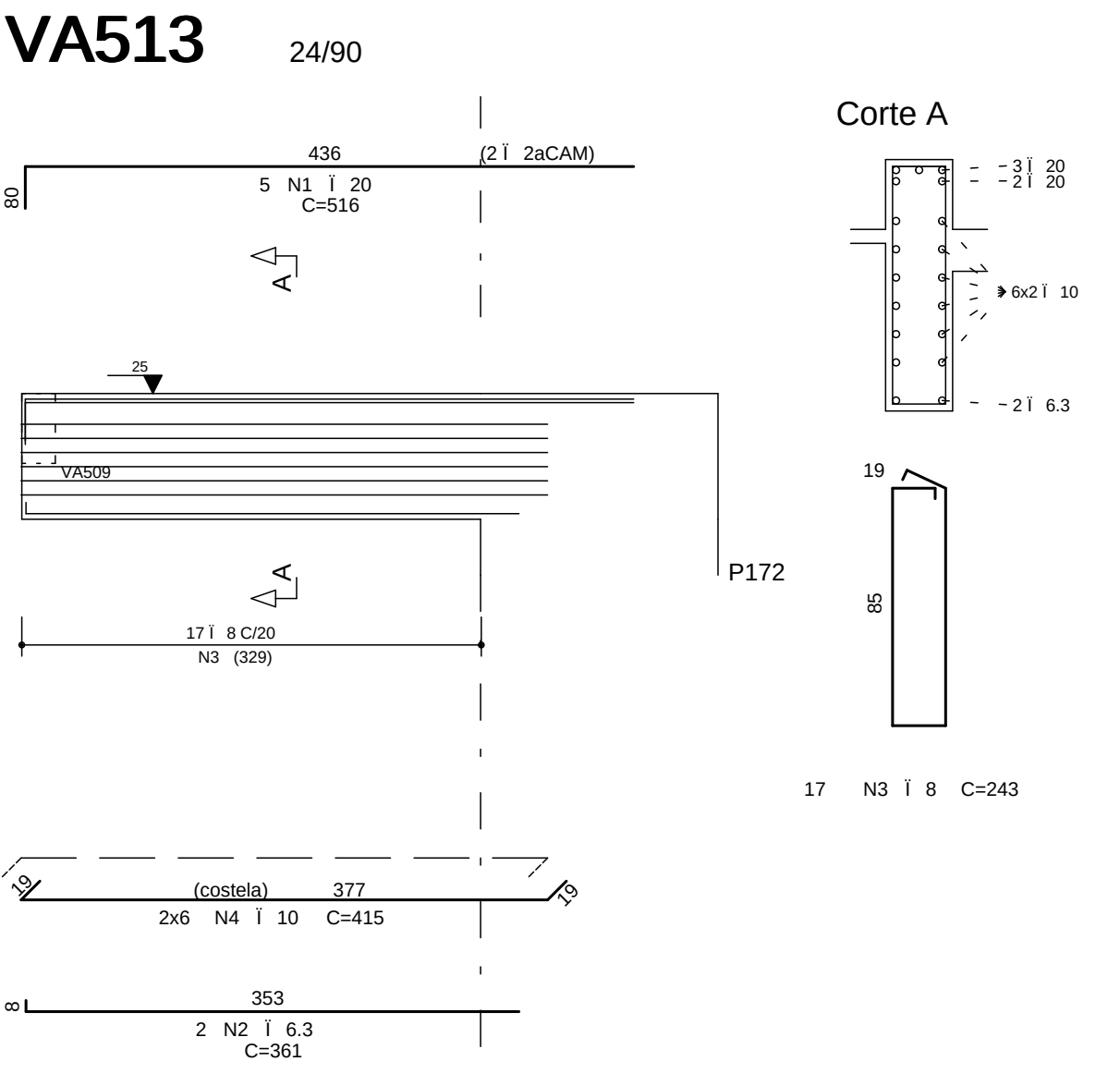
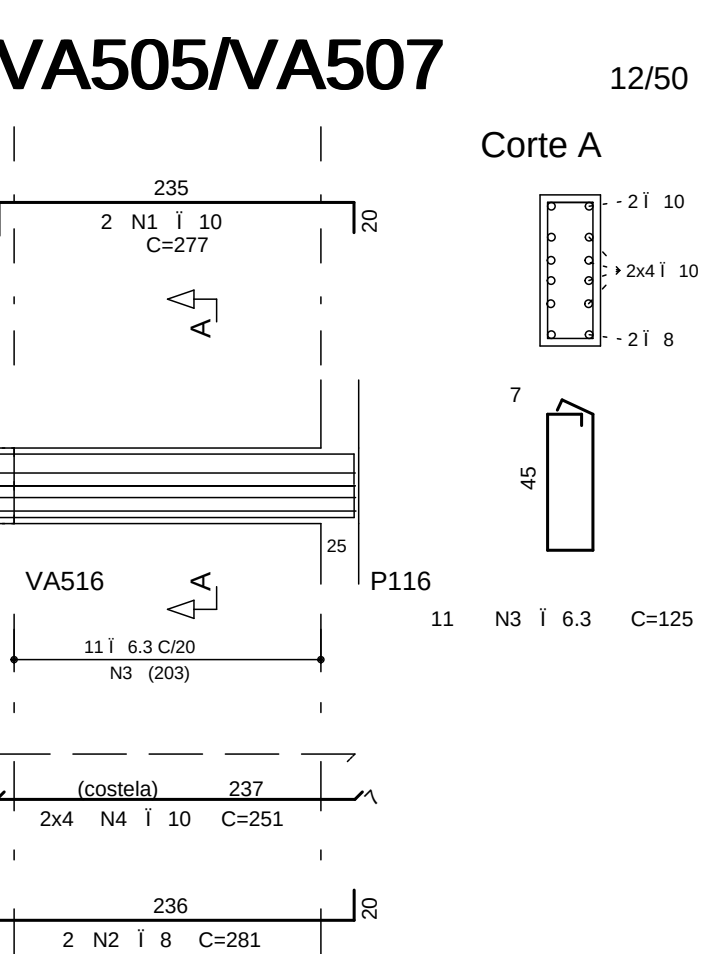
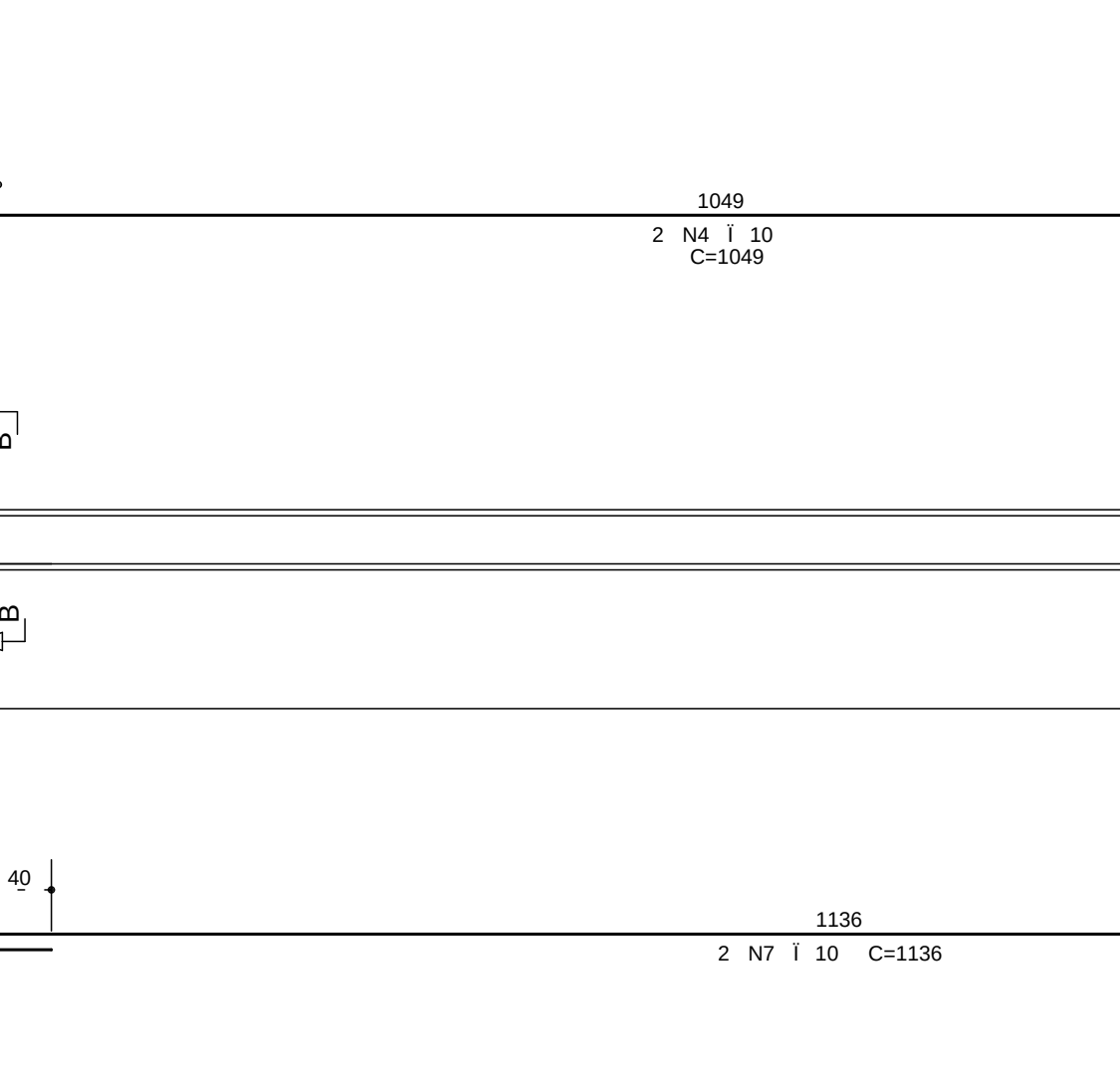
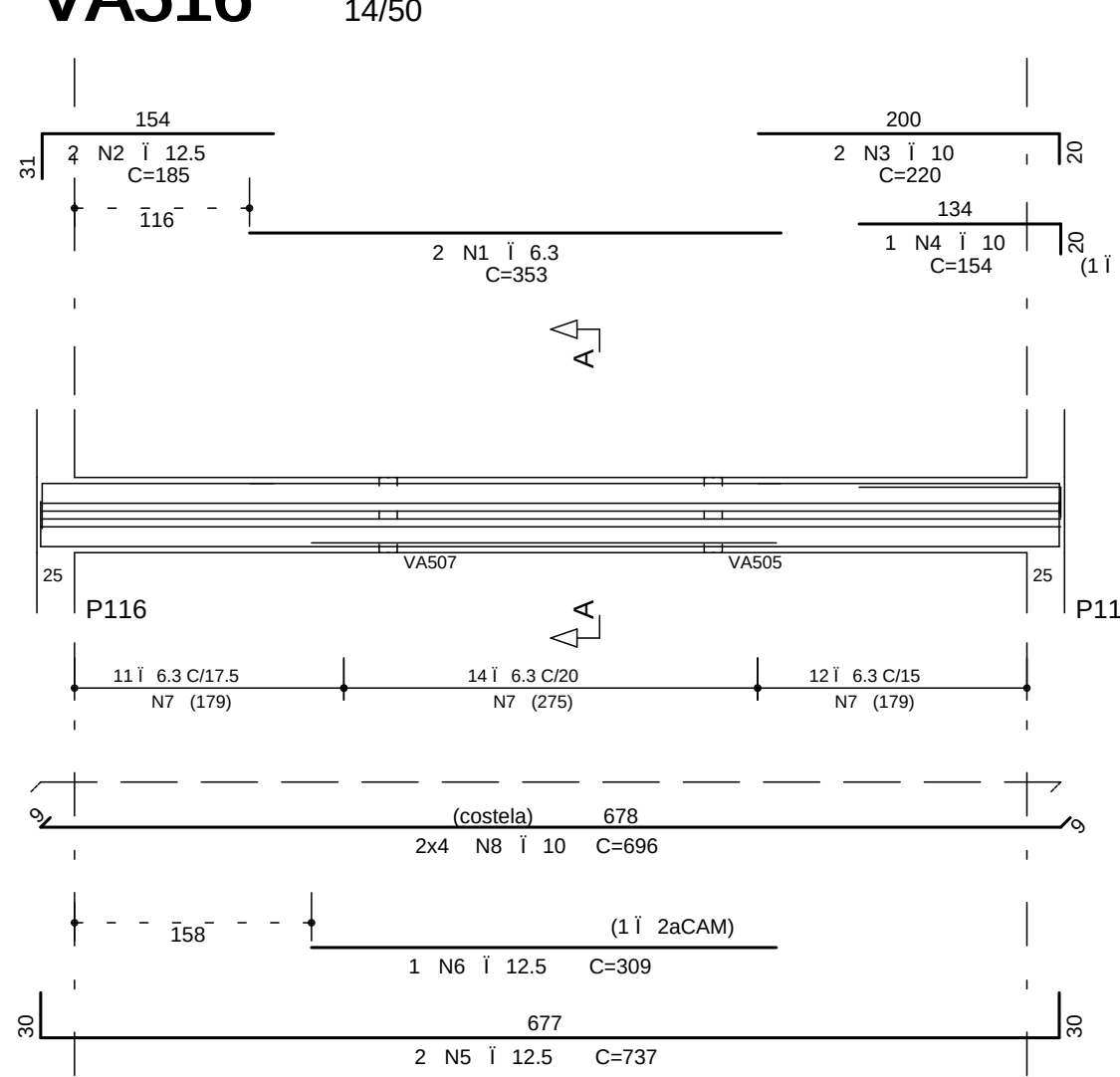
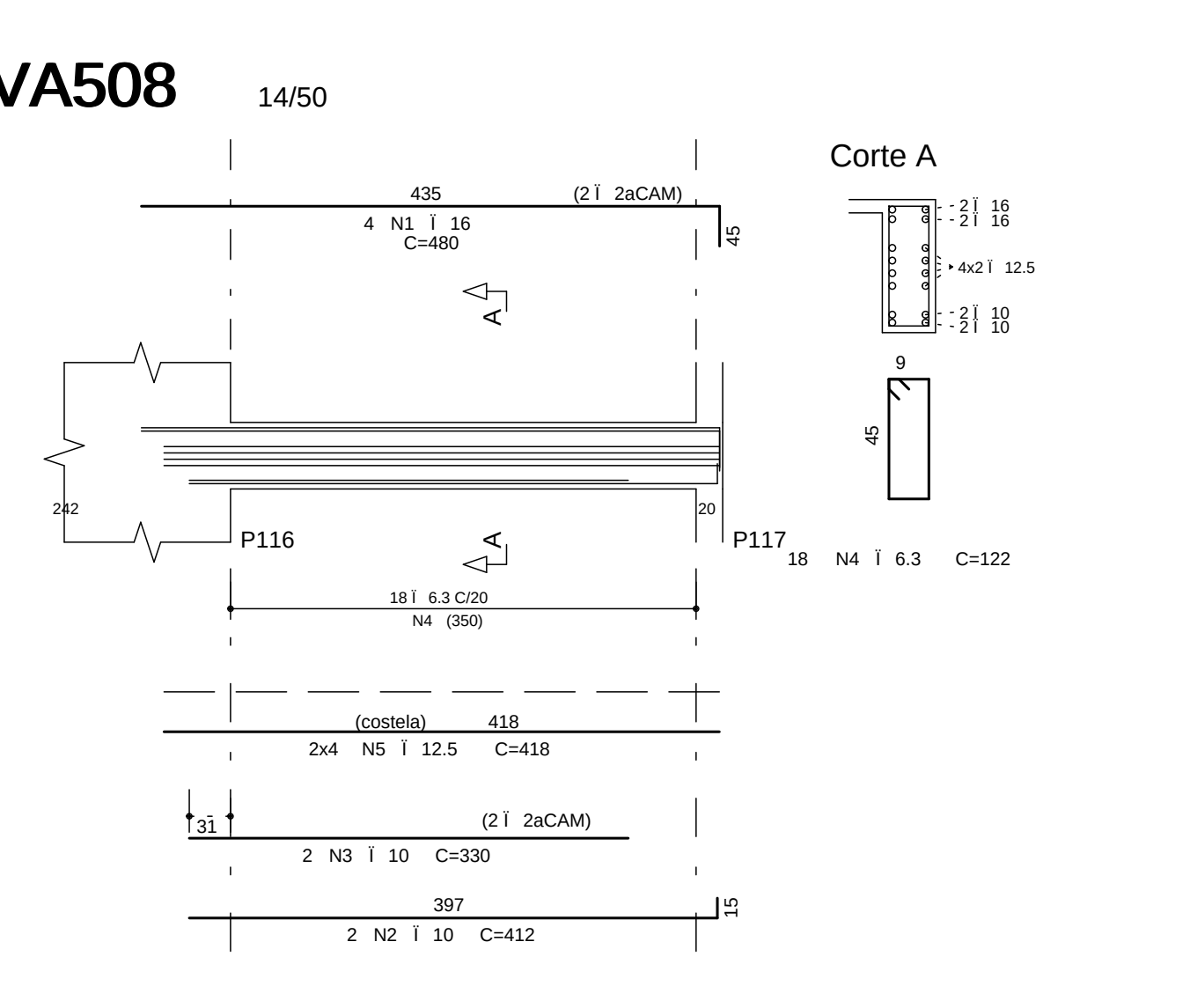
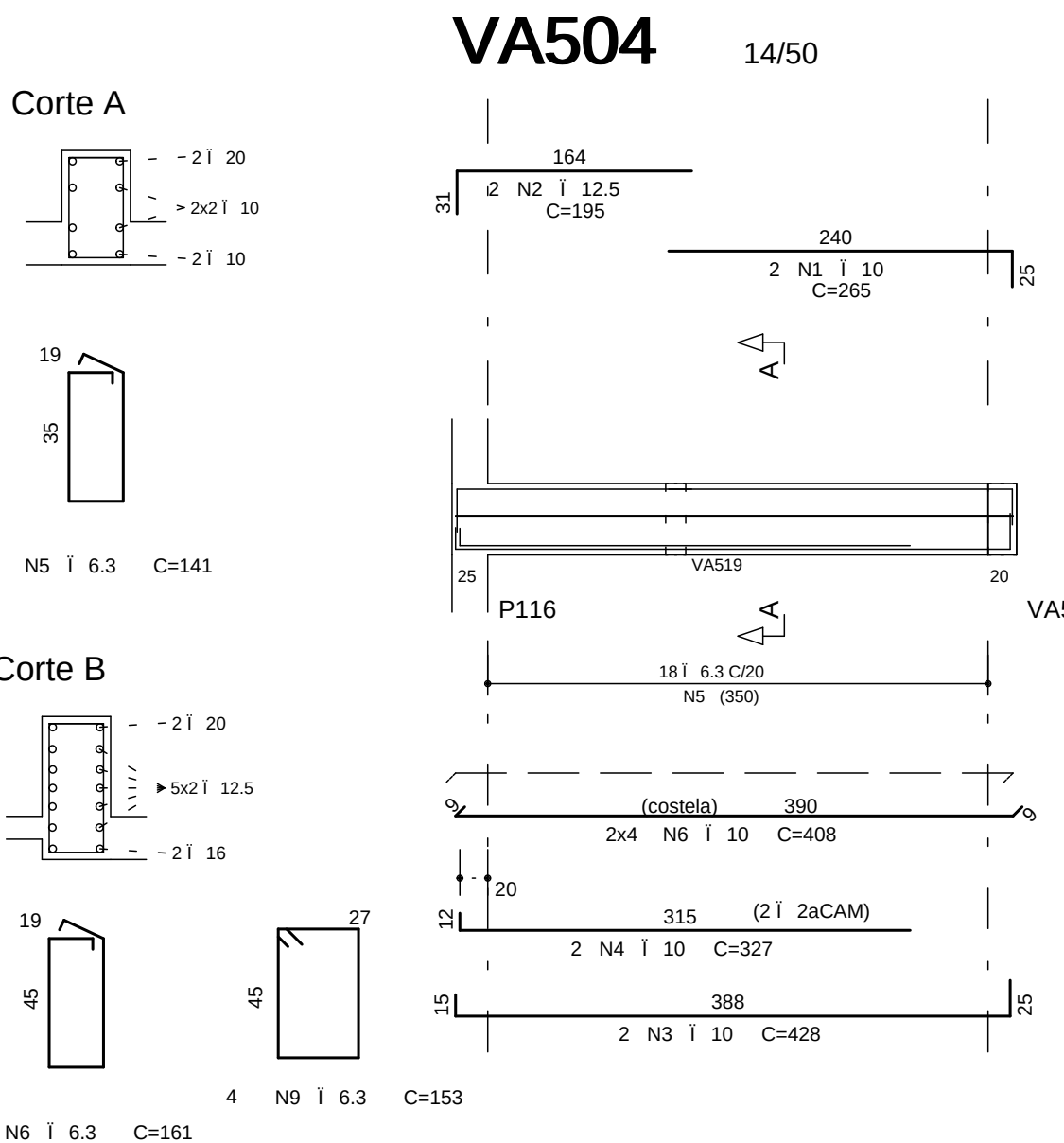
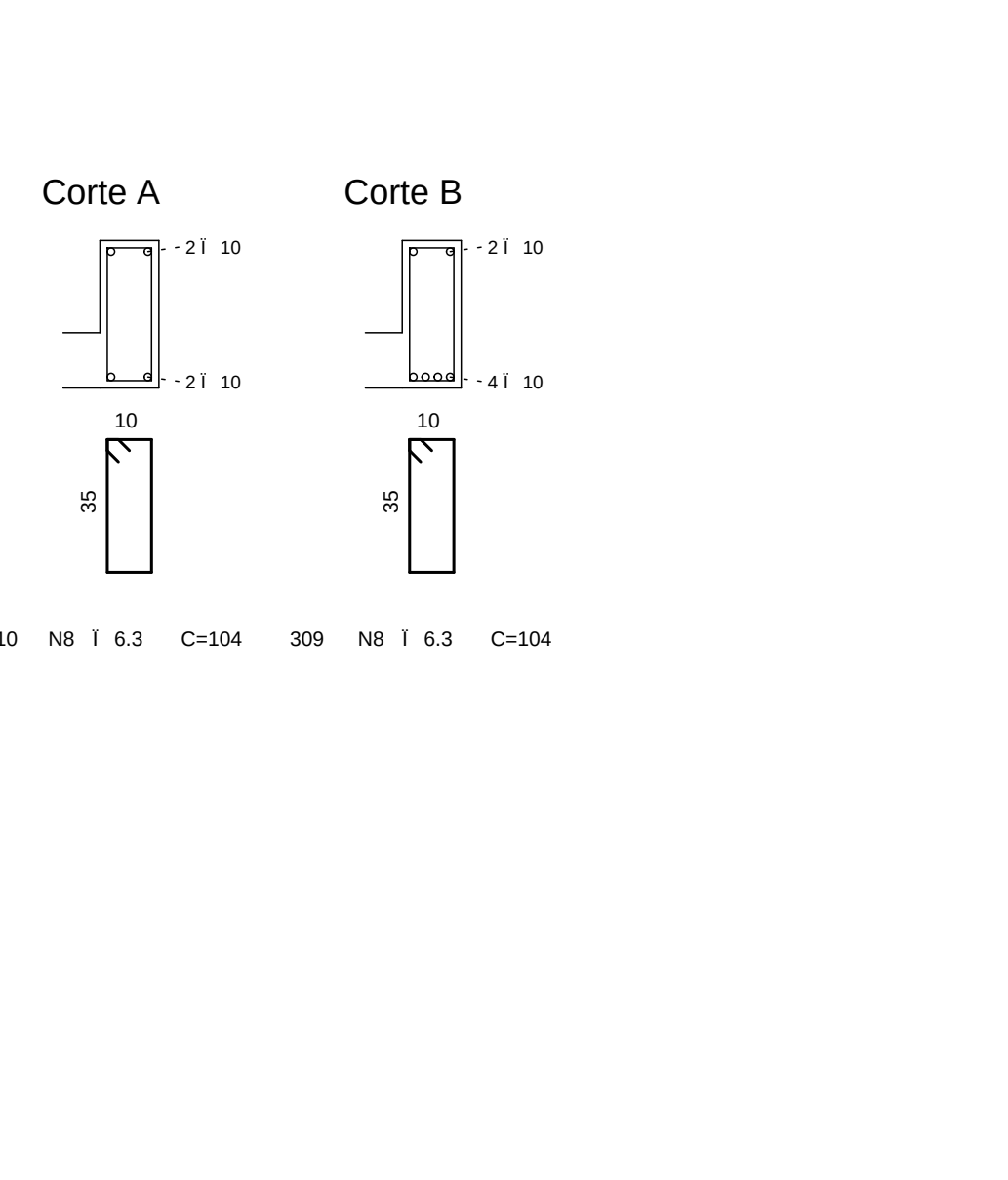
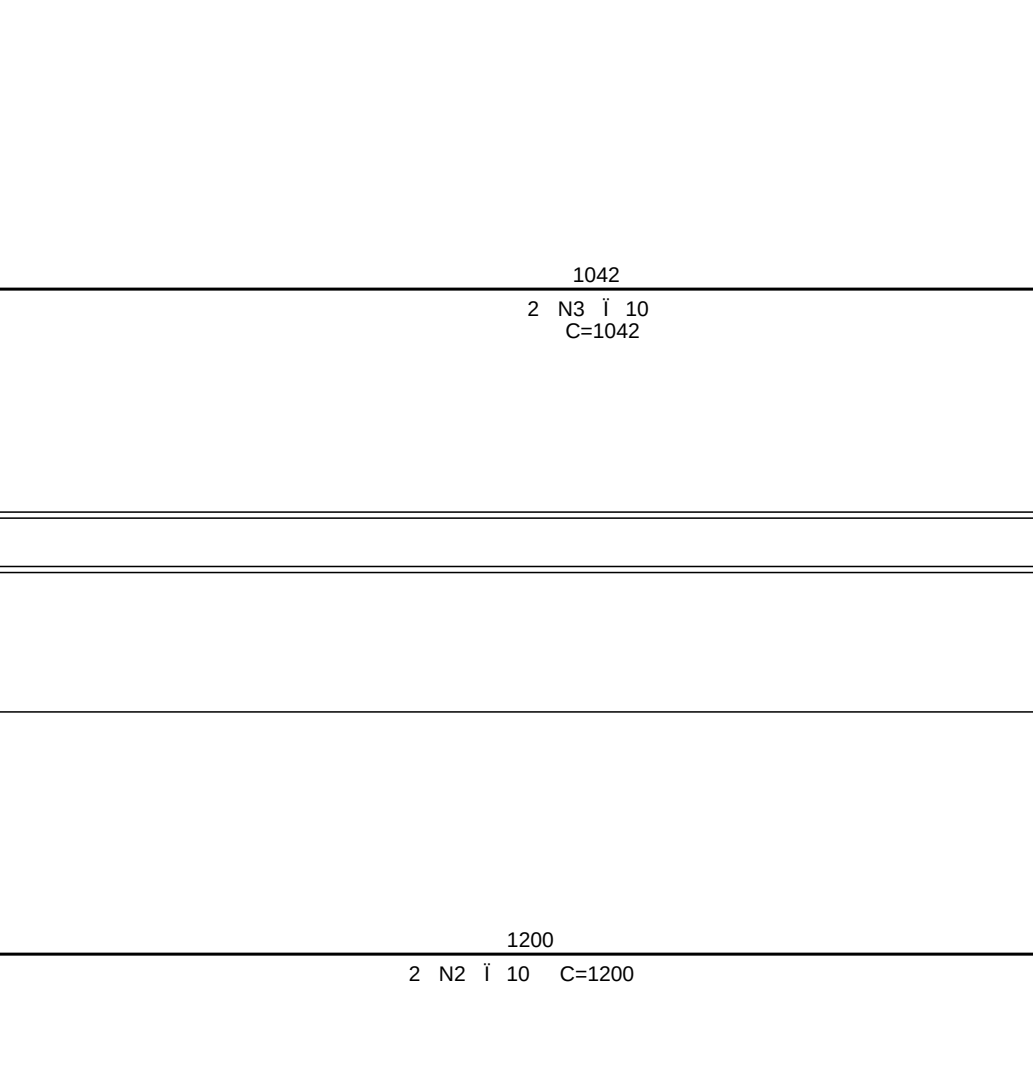
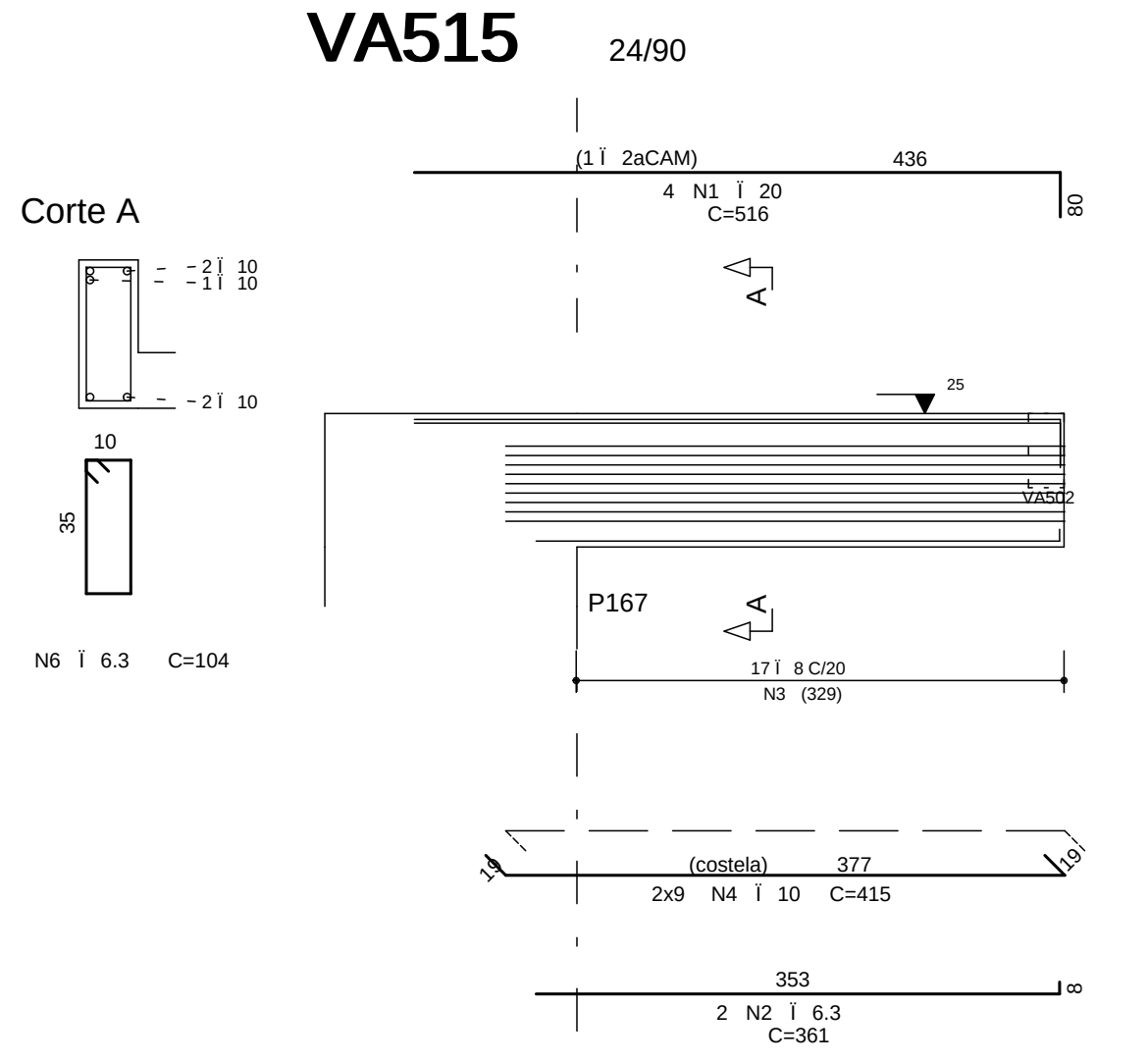
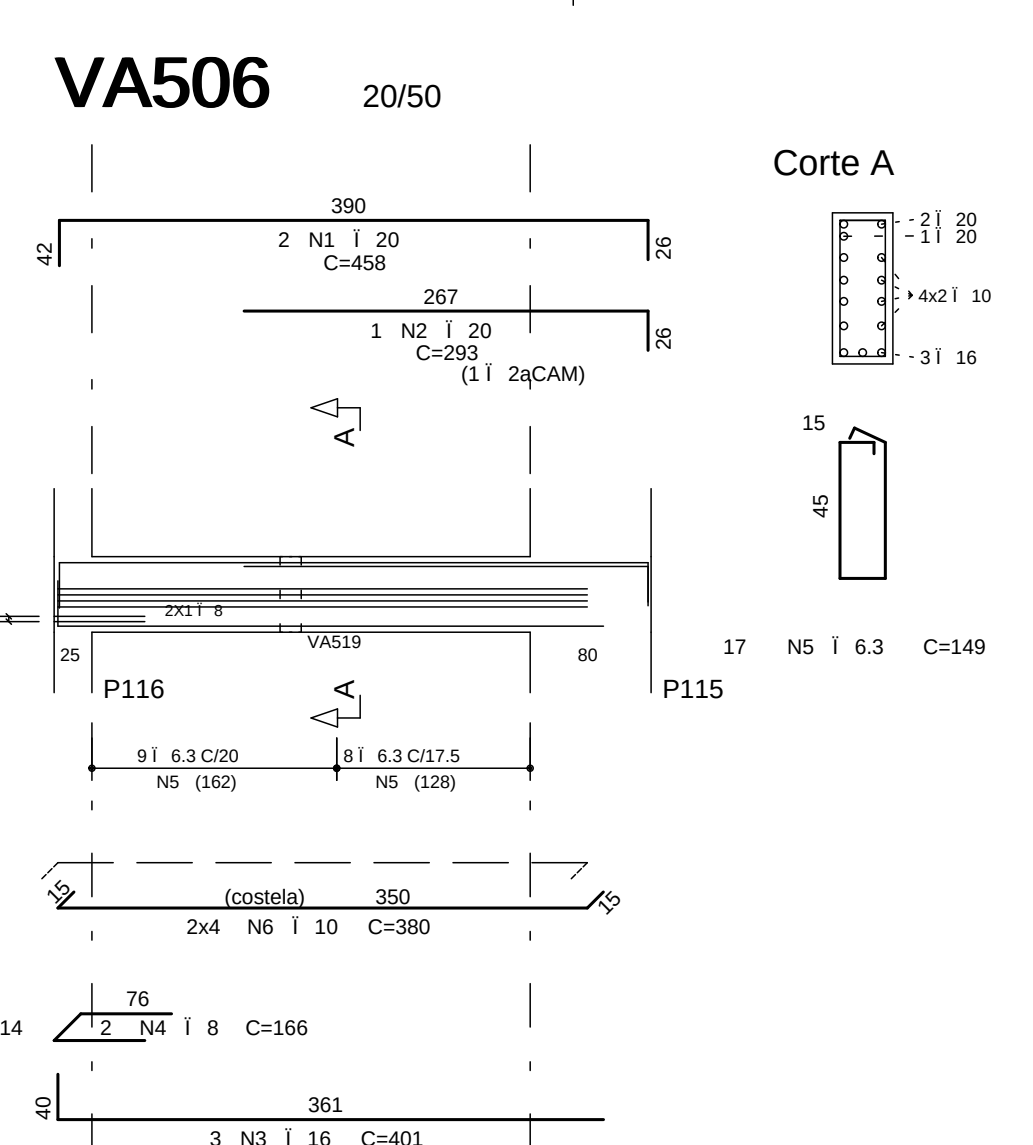
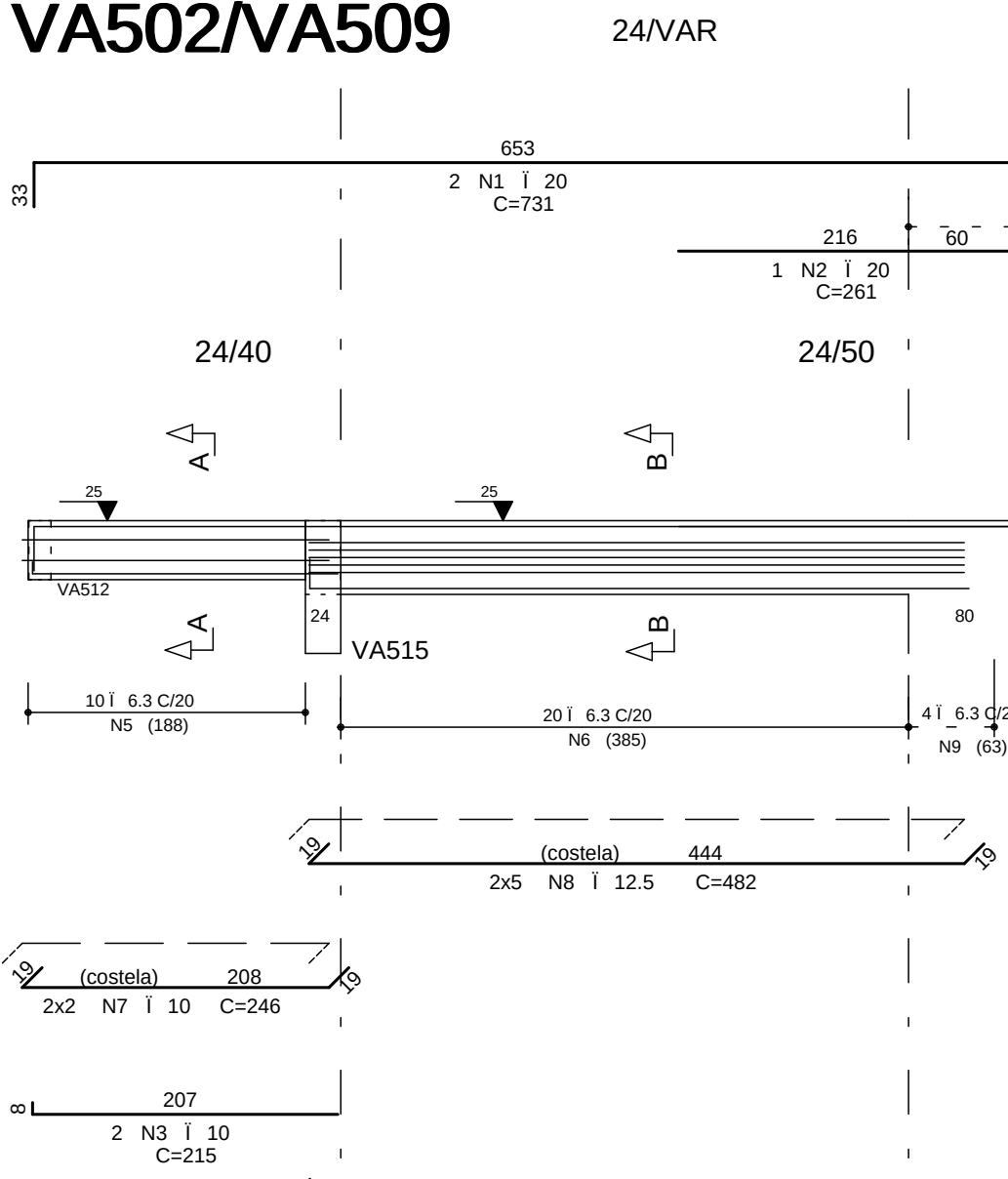
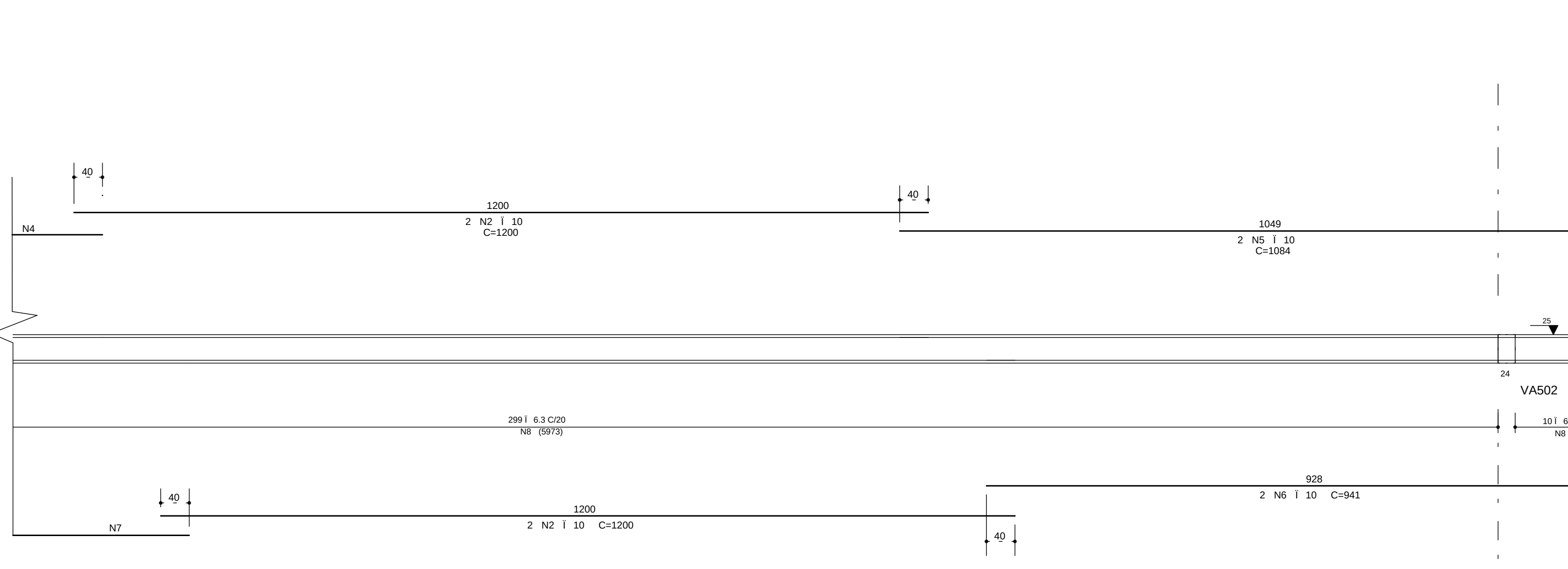
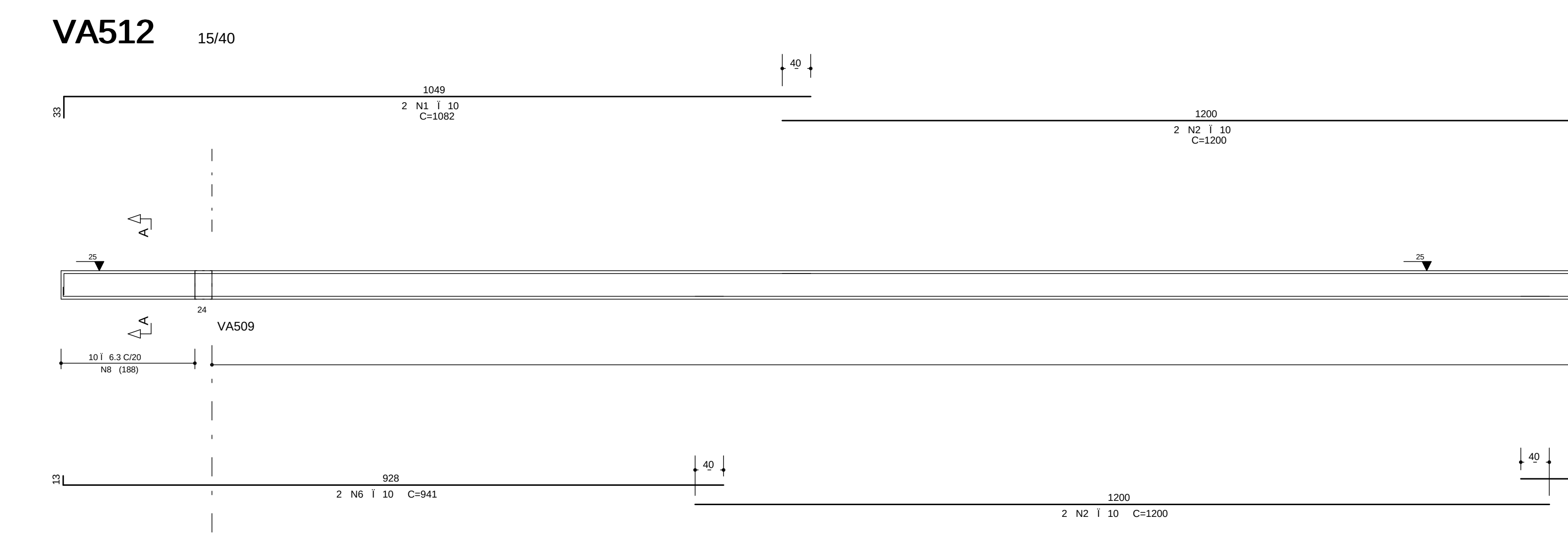
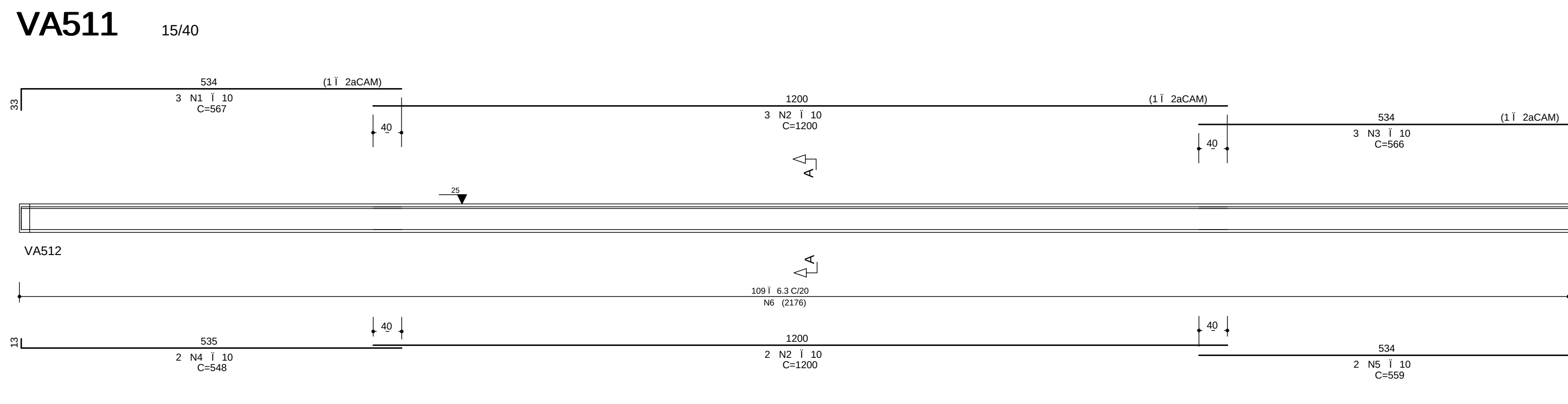
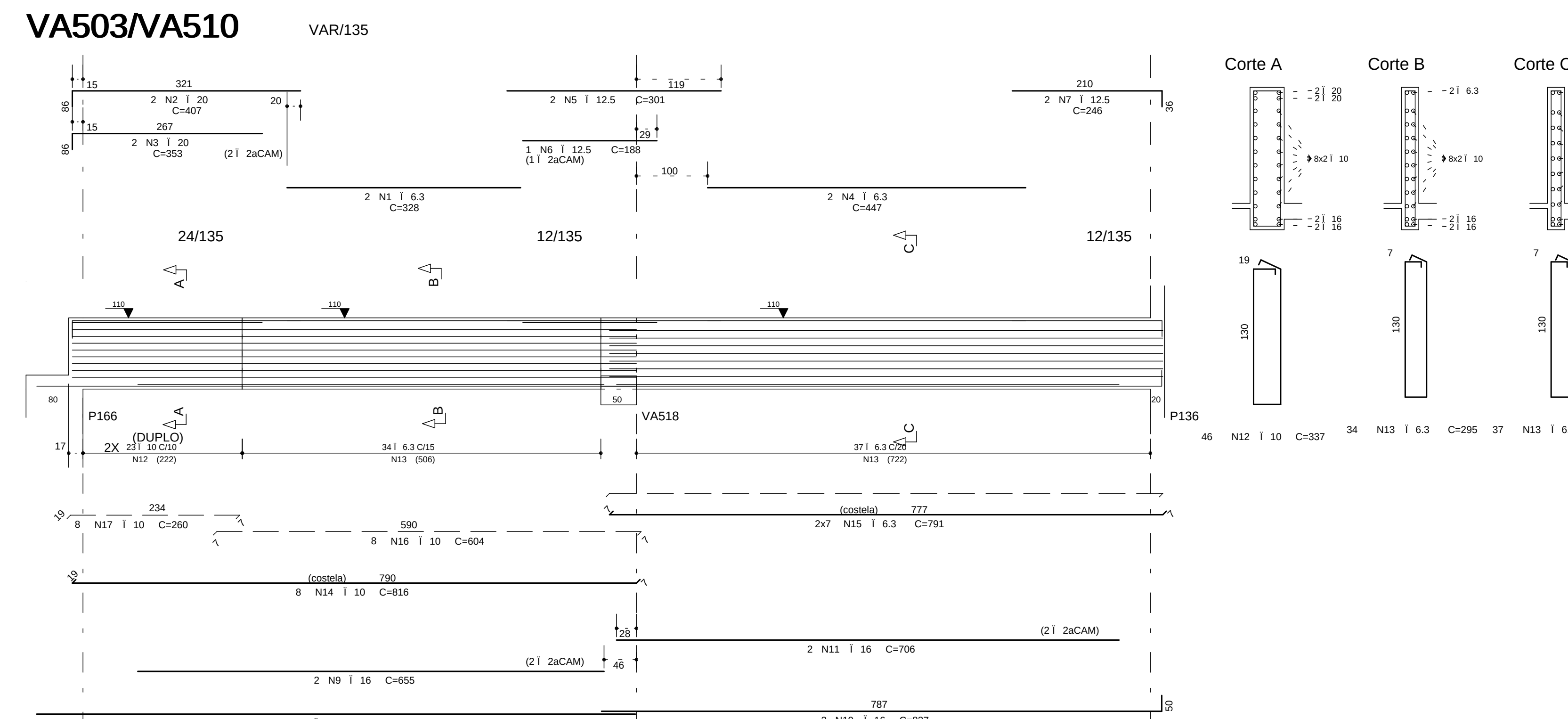
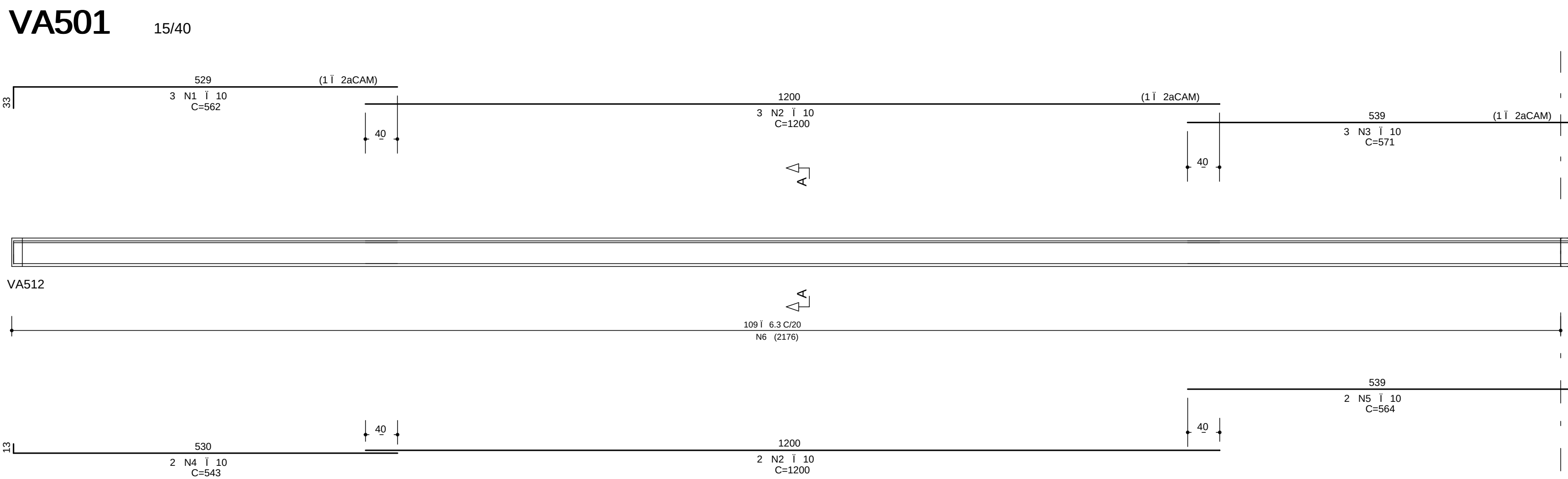




Ae O	POS	BIT	QUANT	COMPRIMENTO	UNIT	TOTAL
(cm)		(mm)		(cm)	(cm)	
VA501						
50A	1	10	3	562	166	
50A	2	10	3	1200	600	
50A	3	10	3	571	173	
50A	4	10	3	543	166	
50A	5	10	2	564	138	
50A	6	10	2	564	138	
VA502/VA509 (X2)						
50A	1	20	4	731	294	
50A	2	20	2	251	92	
50A	3	20	4	215	80	
50A	4	16	4	467	188	
50A	5	6.3	20	141	282	
50A	6	6.3	40	161	646	
50A	7	10	8	246	156	
50A	8	12.5	20	482	940	
50A	9	6.3	140	290	1136	
VA503/VA510 (X2)						
50A	1	6.3	4	338	133	
50A	2	20	4	407	163	
50A	3	20	2	293	117	
50A	4	6.3	4	447	178	
50A	5	6.3	4	301	120	
50A	6	12.5	2	189	37	
50A	7	12.5	4	246	94	
50A	8	16	4	841	334	
50A	9	16	4	655	262	
50A	10	16	4	837	334	
50A	11	6.3	140	290	1136	
50A	12	10	92	337	1304	
50A	13	6.3	28	791	316	
50A	14	10	16	634	1395	
50A	15	6.3	28	791	316	
50A	16	10	16	604	1364	
50A	17	10	16	604	1364	
VA504						
50A	1	10	2	255	53	
50A	2	12.5	2	195	99	
50A	3	6.3	2	428	85	
50A	4	10	2	327	64	
50A	5	6.3	16	131	258	
50A	6	10	8	408	164	
VA505/VA507 (X2)						
50A	1	10	4	277	110	
50A	2	10	4	281	112	
50A	3	6.3	22	125	270	
50A	4	10	16	251	616	
VA506						
50A	1	20	2	458	181	
50A	2	20	2	293	117	
50A	3	10	2	195	99	
50A	4	10	2	195	99	
50A	5	10	17	149	293	
50A	6	10	8	389	156	
VA508						
50A	1	16	4	480	192	
50A	2	10	2	412	84	
50A	3	10	2	330	66	
50A	4	6.3	18	122	216	
50A	5	10	8	418	164	
VA511						
50A	1	10	3	567	170	
50A	2	10	5	1200	600	
50A	3	10	3	566	168	
50A	4	10	2	548	106	
50A	5	10	2	509	118	
50A	6	6.3	100	104	1130	
VA512						
50A	1	10	2	1062	214	
50A	2	10	2	1042	204	
50A	3	10	2	1049	206	
50A	4	10	2	1049	206	
50A	5	10	2	1049	206	
50A	6	10	2	1049	206	
50A	7	10	2	1049	206	
50A	8	6.3	319	104	1130	
VA513						
50A	1	20	5	538	269	
50A	2	6.3	2	361	72	
50A	3	10	17	243	418	
50A	4	10	12	415	890	
VA515						
50A	1	20	4	538	264	
50A	2	10	17	243	418	
50A	3	10	17	243	418	
50A	4	10	16	415	740	
VA516						
50A	1	20	2	351	70	
50A	2	12.5	2	185	37	
50A	3	10	1	154	34	
50A	4	10	2	220	44	
50A	5	10	1	154	34	
50A	6	12.5	2	737	147	
50A	7	6.3	27	131	267	
50A	8	10	8	696	279	
VSEA501						
50A	1	10	2	415	83	
50A	2	10	1	181	36	
50A	3	10	1	180	36	
50A	4	10	3	412	128	
50A	5	6.3	17	190	320	
50A	6	10	8	400	160	

RESUMO Ae O CA 50-60			
Ae O	BIT	COMPR	PESO
	(mm)	(m)	(kg)
50A	6.3	1535	384
50A	8	97	39
50A	10	1497	943
50A	12.5	181	181
50A	16	171	274
50A	20	123	308
Peso Total 50A =		2129 kg	

COBRIMENTO DA ARMADURA:

- LAJES = 2.0 cm
- VIGAS E PILARES = 2.5 cm
- BLOCOS BALDRAMES E CONTENEDORES (FACE EM CONTATO COM A TERRA) = 3.0 cm

NORMAS UTILIZADAS:

NBR-6118/2003 - PROJETO E EXECUCAO DE OBRAS DE CONCRETO ARMADO

NBR-6120/1980 - CARGAS PARA O CALCULO DE ESTRUTURAS DE EDIFICACOES

INDICE:

VA501 a VA513,VA515,VA516 e VSEA501.

FCK= 35 MPa

EC = 28 GPa

A/C = 0.65

(MODULO DE ELASTICIDADE SECANTE AOS 28 DIAS.)

(FATOR AGUA CIMENTO)

1	2008/2014	NUMERACAO FINAL	
0	2007/2012	EMISSAO INICIAL	
REV	DATA	DESCRICAO	
 Sinetra Engenharia PROJETO E EXECUÇÃO DE OBRAS NO QUADRO: 42-161-101-011-010 PROJETO: 42-170-010-011 PROJETO: 02/03-020-010-011 PROJETO: 02/03-020-010-011			
PROJETO ESTRUTURAL			
CLIENTE: GENT INCORPORADORA LTDA.			
OBRA: ED.RESIDENCIAL/COMERCIAL COSMOPOLITAN			NO OBRA:
ENDERECO OBRA: RUA 30 NORTE LOTE 03-RUA DAS PANEIRAS - AGUAS CLARAS DF			
DESCRICAO: ARMAS E 0 VIGAS TORRE 1 JUNTA A-10 PAV (01/02)			DESENHO Nº: 050-090
DESENHISTA: TOSY DENI	DATA: 30/07/2012	ESCALA:	UNIDADE: CM
ARQUIVO PLT: 478_EST-BL1-090-090-R01-VIG-PLT			NO PROJETO: 478
PROPRIETARIO:		RESPONSAVEL TECNICO:	
RESPONSAVEL TECNICO PELO PROJETO ESTRUTURAL:			
SINETRA ENGENHARIA E PROJETOS SOC LTDA			
CNPJ: 07.000.000/0001-01			