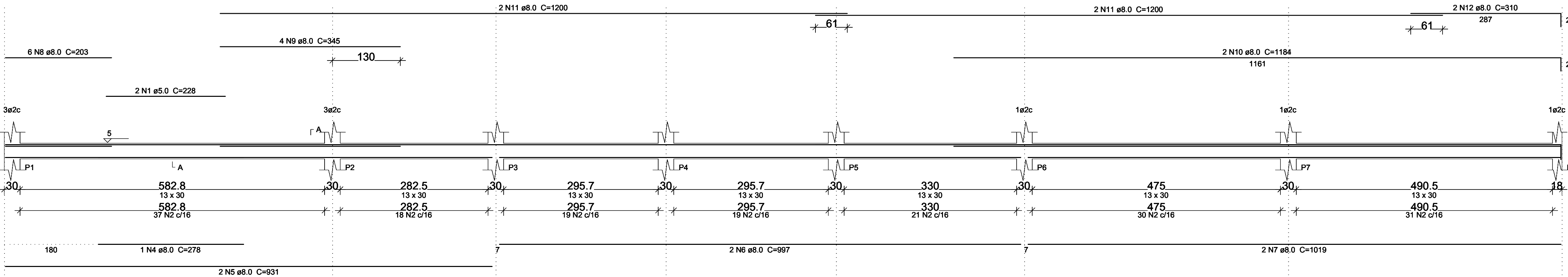
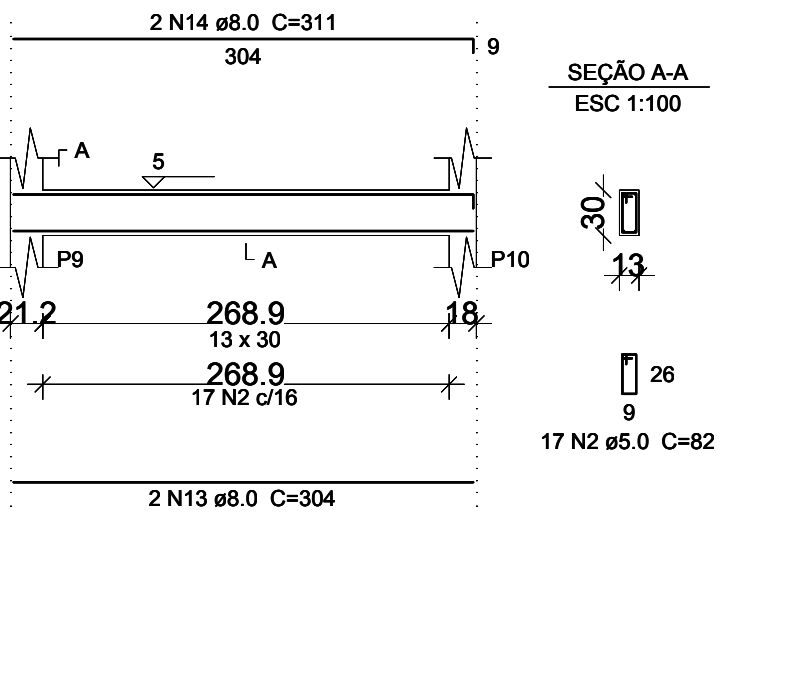


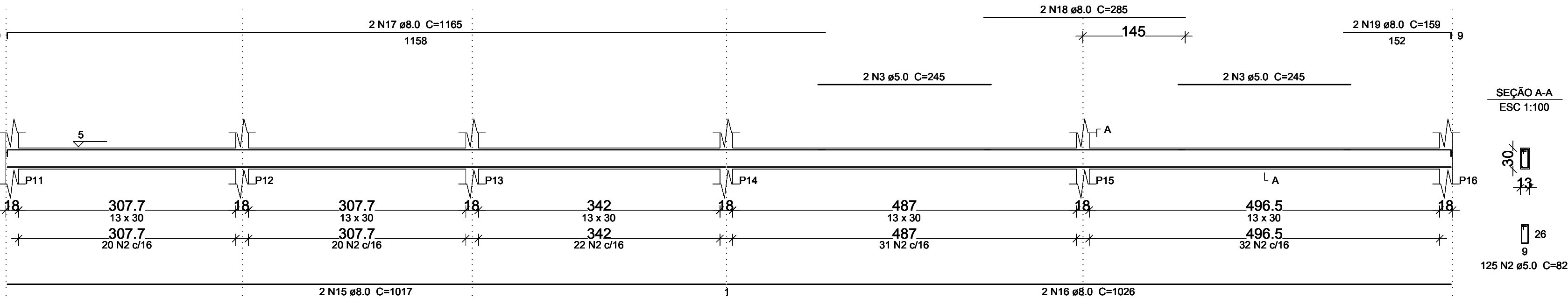
V1
ESC 1:100



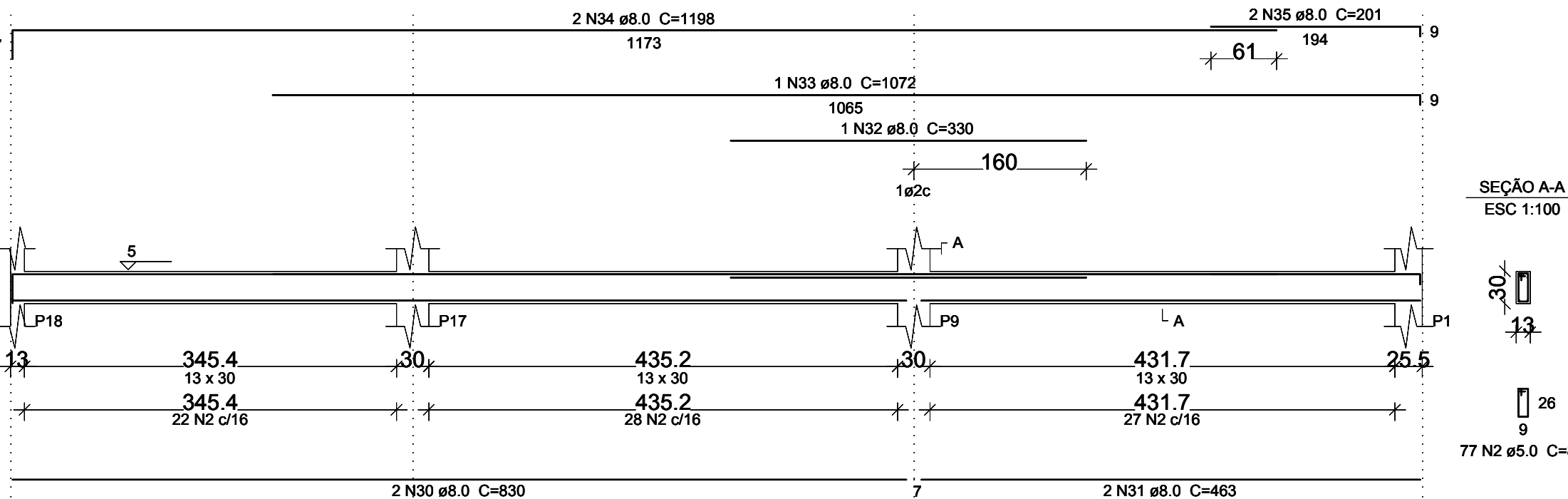
V2
ESC 1:100



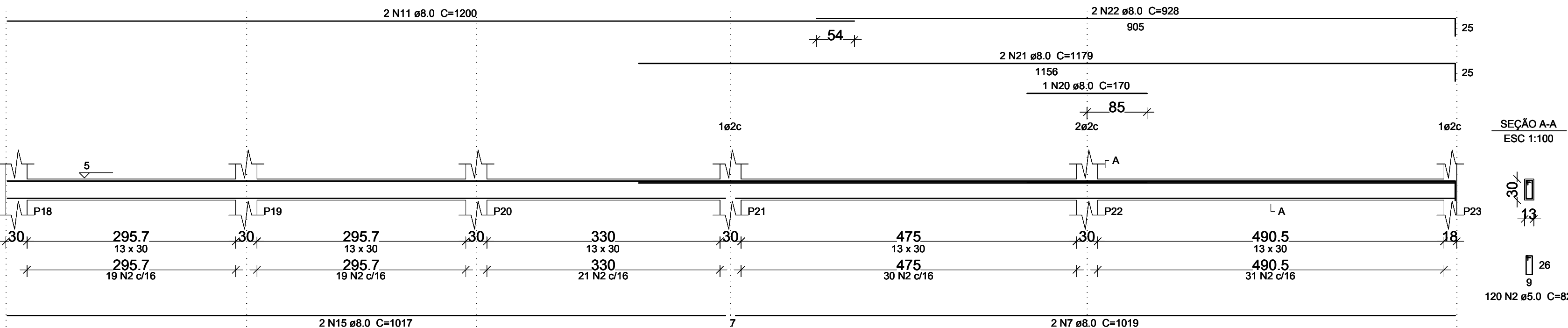
V3
ESC 1:100



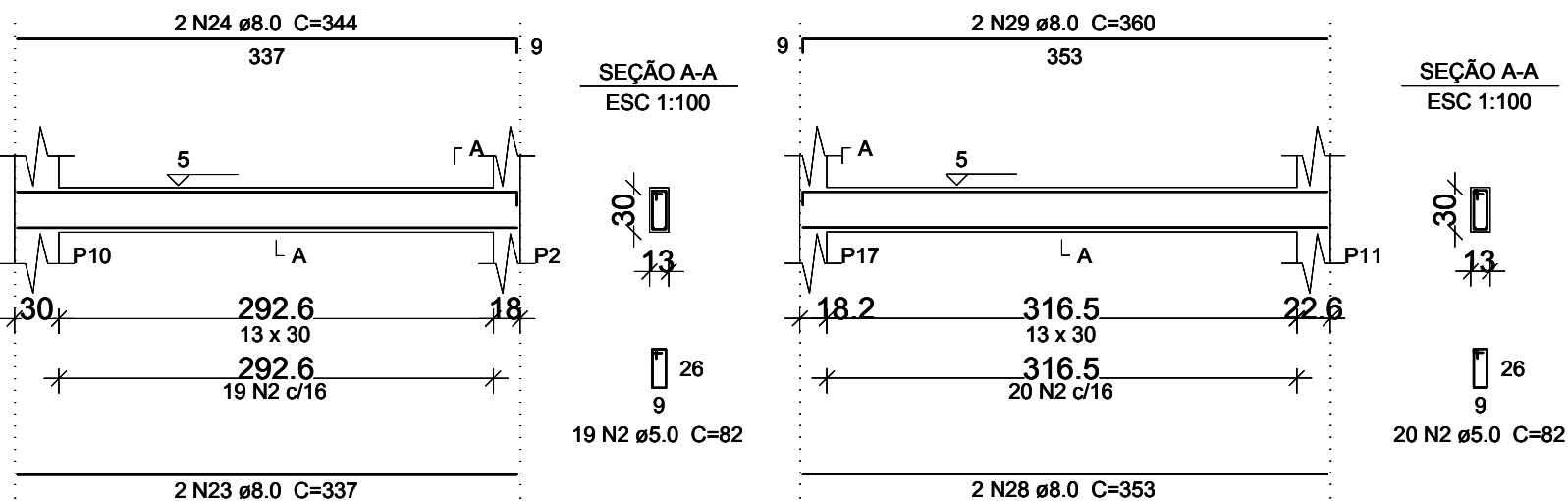
V13
ESC 1:100



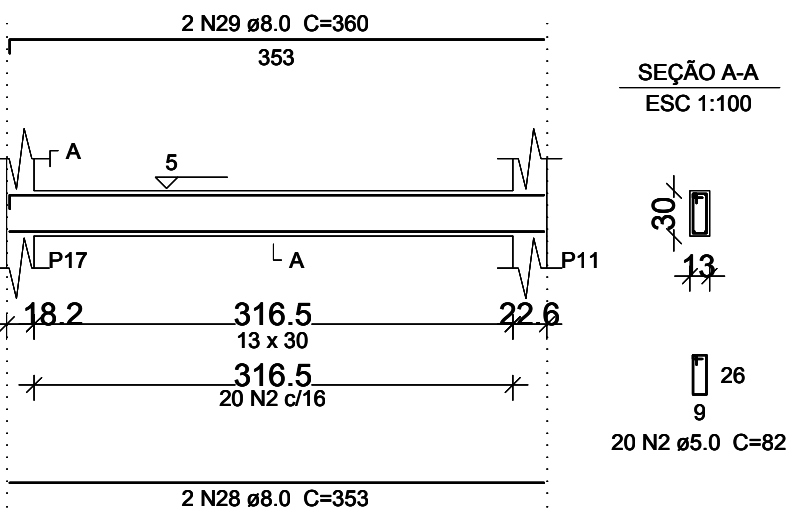
V4
ESC 1:100



V5
ESC 1:100



V12
ESC 1:100



Relação do aço

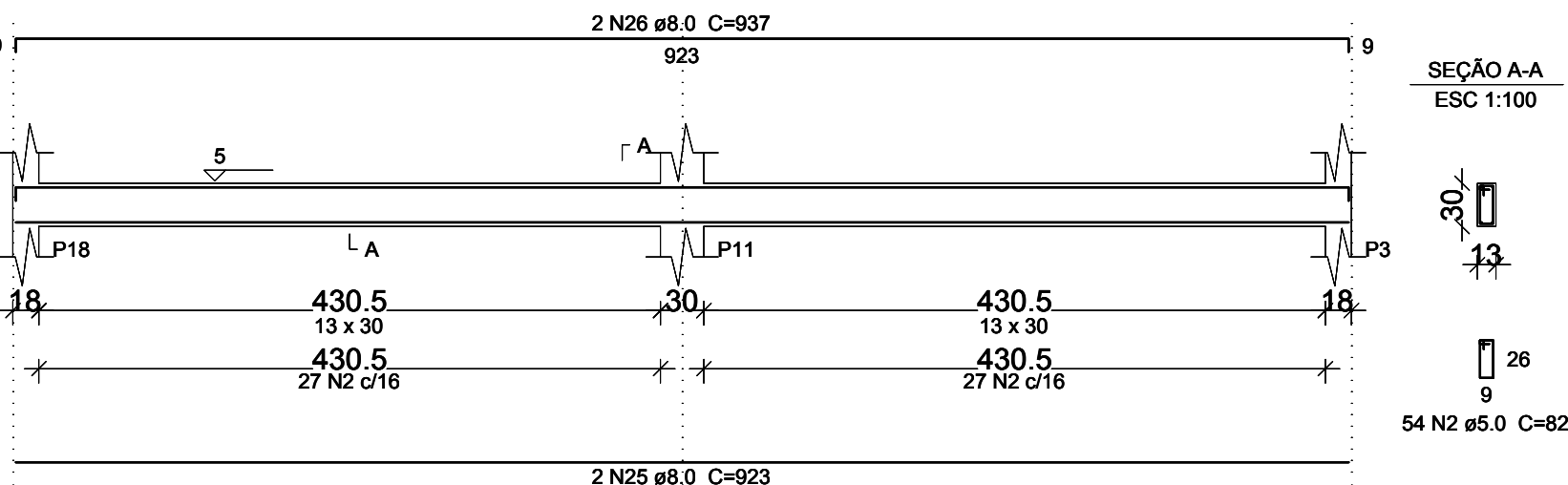
ACO	N	DIAM	Q	UNIT (cm)	C.TOTAL (cm)
CA60	1	5.0	2	228	456
	2	5.0	877	82	71914
	3	5.0	4	245	980
CA50	4	8.0	1	278	278
	5	8.0	2	931	1862
	6	8.0	2	997	1994
	7	8.0	4	1019	4076
	8	8.0	6	203	1218
	9	8.0	4	345	1380
	10	8.0	2	1184	2368
	11	8.0	6	1200	7200
	12	8.0	2	310	620
	13	8.0	2	304	608
	14	8.0	2	311	622
	15	8.0	4	1017	4068
	16	8.0	2	1026	2052
	17	8.0	2	1165	2330
	18	8.0	2	285	570
	19	8.0	2	159	318
	20	8.0	1	170	170
	21	8.0	2	1179	2358
	22	8.0	2	928	1856
	23	8.0	2	337	674
	24	8.0	2	344	688
	25	8.0	12	923	11076
	26	8.0	10	937	9370
	27	8.0	3	930	2790
	28	8.0	2	353	706
	29	8.0	2	360	720
	30	8.0	2	830	1660
	31	8.0	2	463	926
	32	8.0	1	330	330
	33	8.0	1	1072	1072
	34	8.0	2	1198	2396
	35	8.0	2	201	402

Resumo do aço

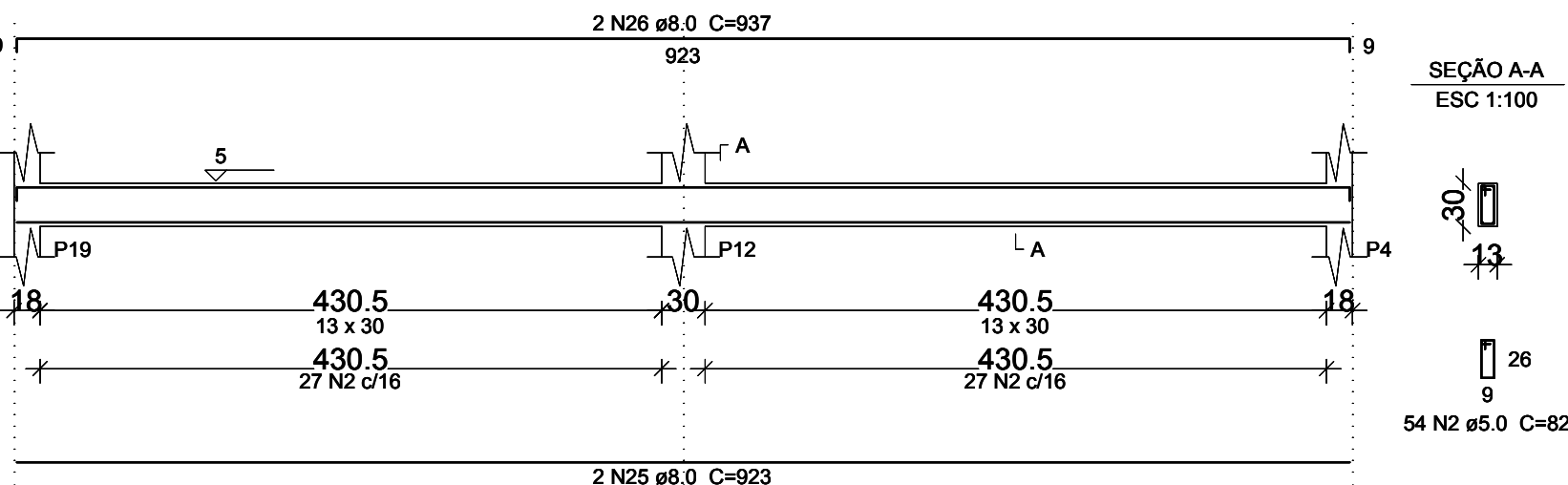
ACO	DIAM	C.TOTAL (m)	PESO + 10 % (kg)
CA50	8.0	687.6	298.4
CA60	5.0	733.5	124.4
PESO TOTAL			
CA50		298.4	
CA60		124.4	

Vol. de concreto total (C=25) = 5.84 m³
Área de forma total = 109.23 m²

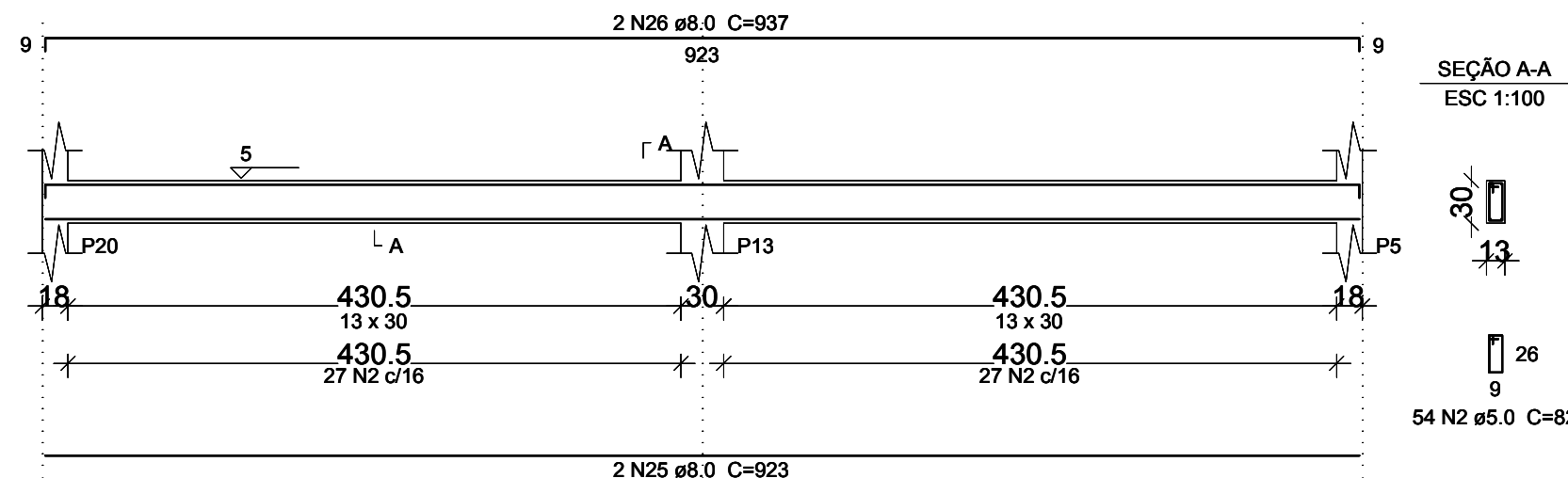
V6
ESC 1:100



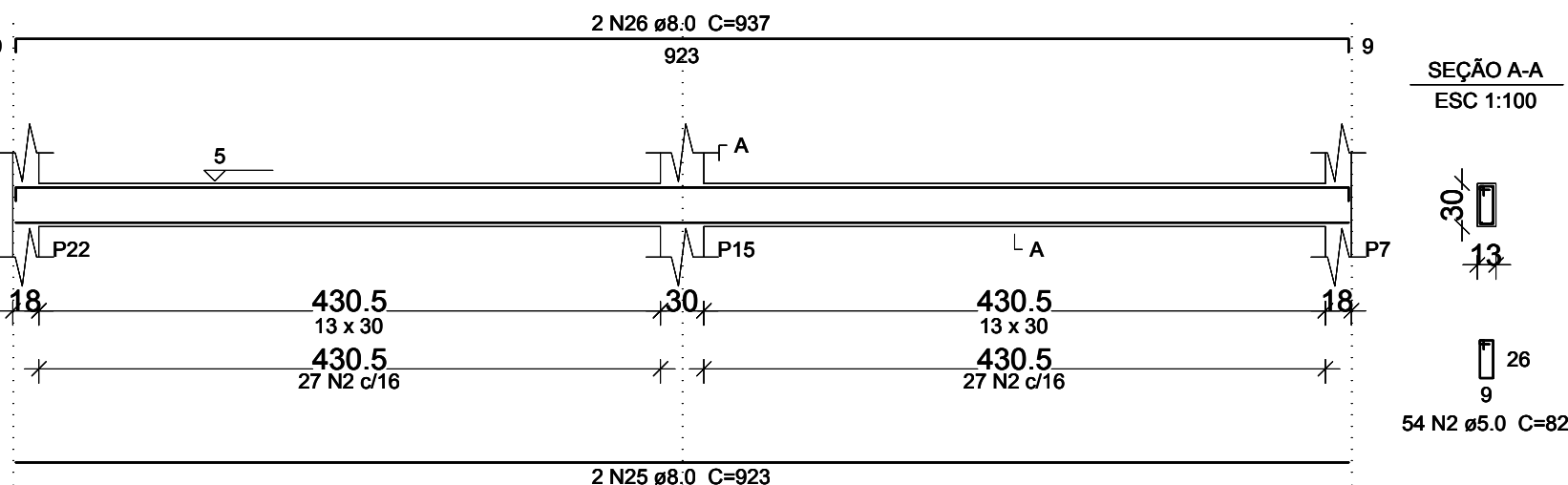
V7
ESC 1:100



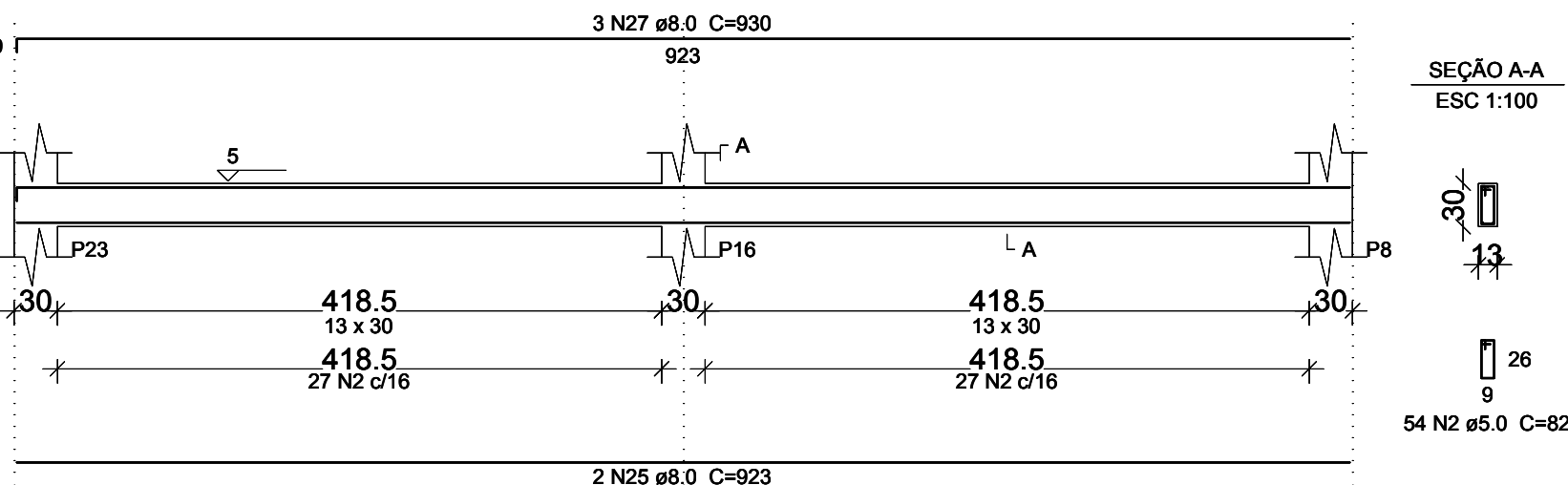
V8
ESC 1:100



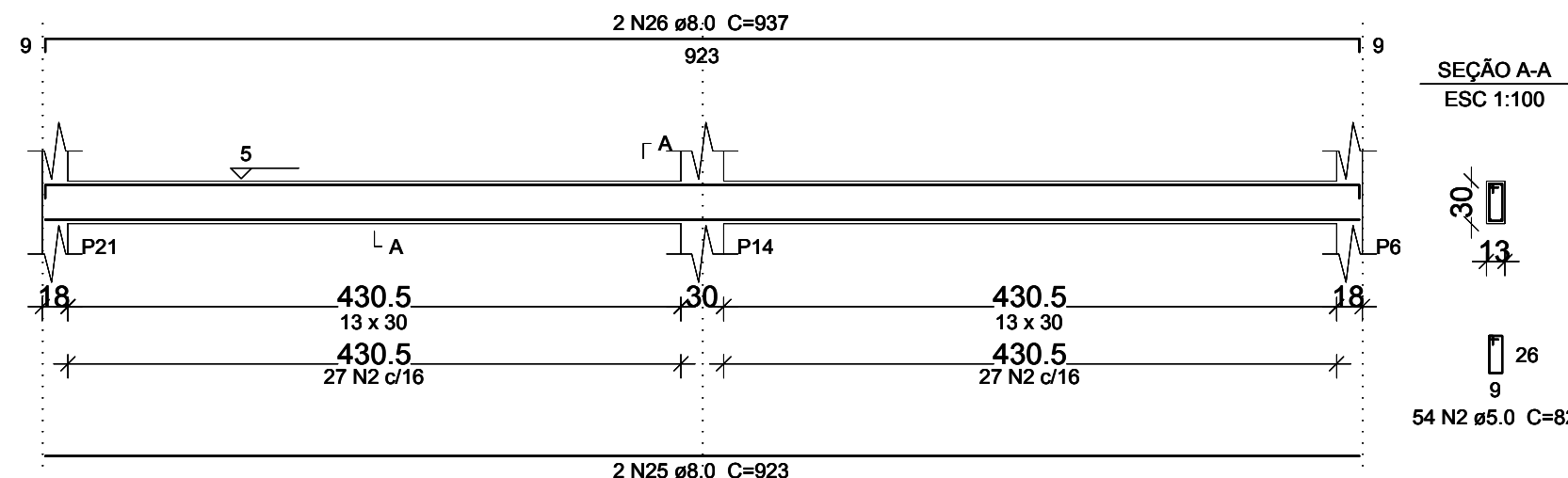
V10
ESC 1:100



V11
ESC 1:100



V9
ESC 1:100



OBRA: CONSTRUÇÃO DO REFEITÓRIO DO IFPA	PROPRIETÁRIO: IFPA-CÂMPUS ABAETETUBA	TIPO DE PROJETO: ESTRUTURAL	ÁREA CONST. 234,49 m²
DATA: 2019	RESP. TÉCNICO PRINCIPAL MILLENO RAMOS DE SOUZA CREA-PA 1514093596	LOCAL: BAIRRO FRANCLÂNDIA, AV. RIO DE JANEIRO, Nº 3322 ABAETETUBA/PA	ESCALA: INDICADA
DESENHISTA: MILLENO	FORMATO: A1 841x524 MM	ASSUNTO: ARMAÇÃO DAS VIGAS BALDRAMES	FRANCHA: 4/5