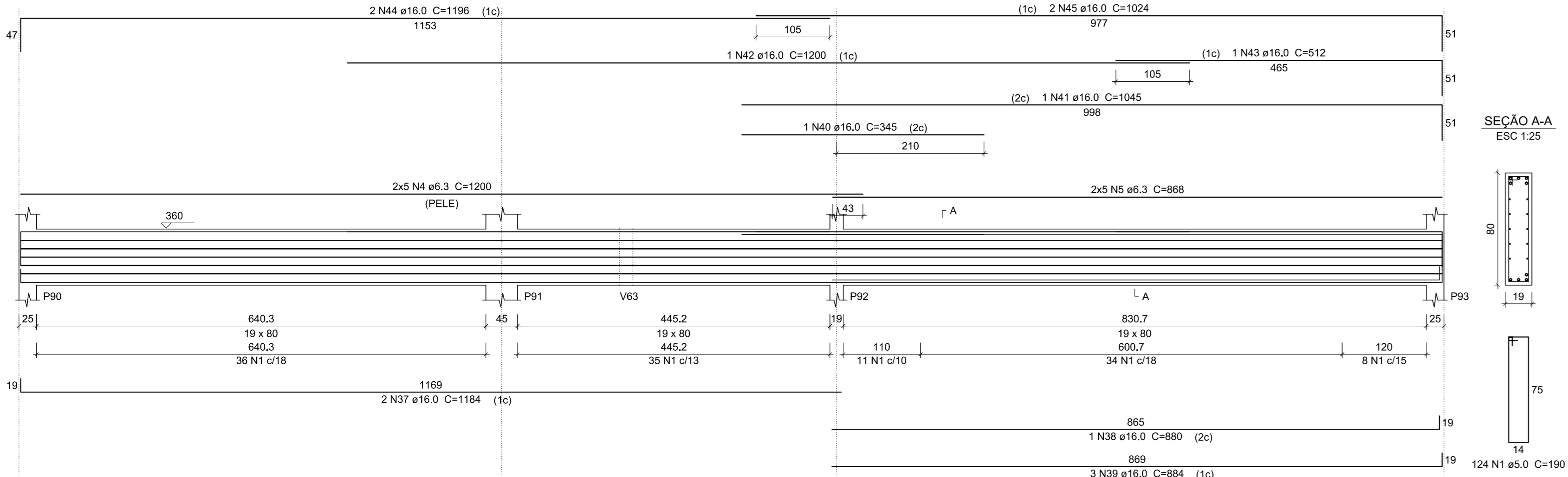


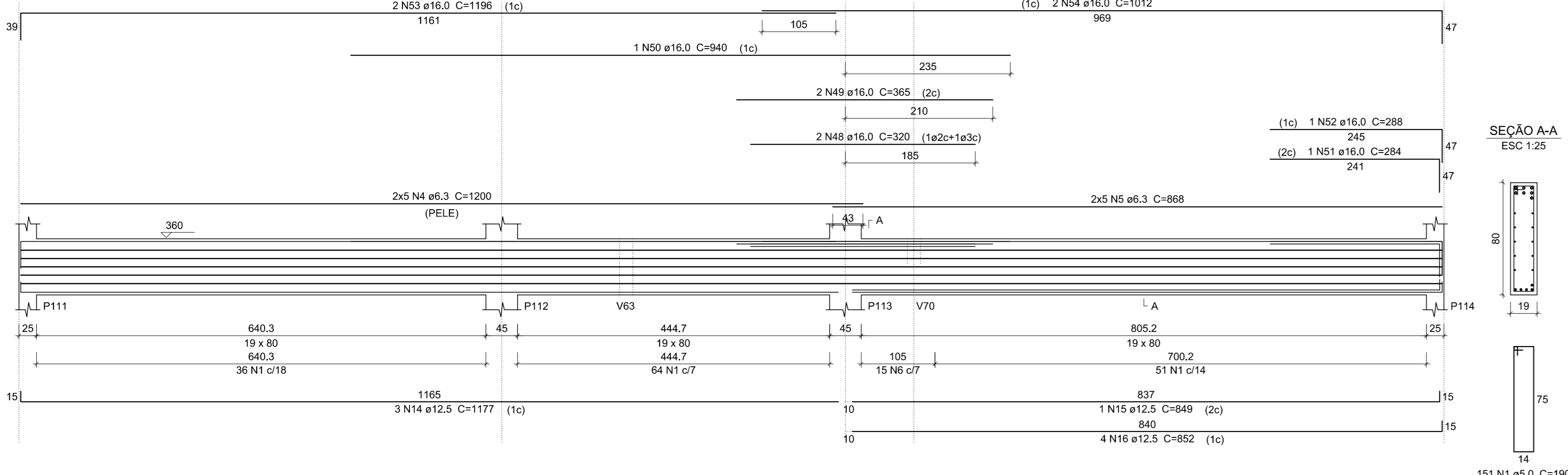
V29

ESC 1:50



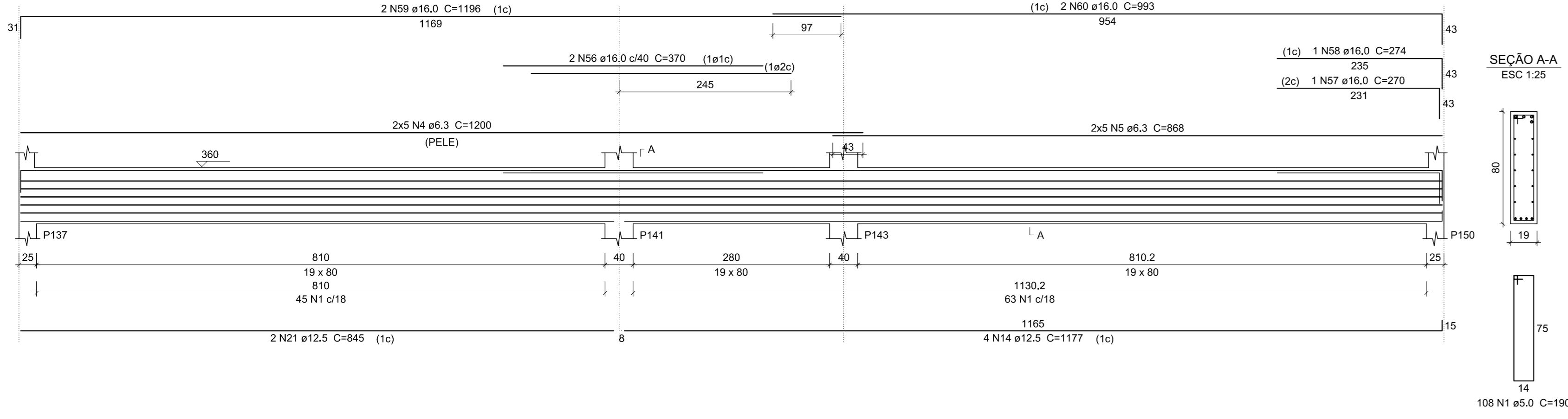
V34

ESC 1:50



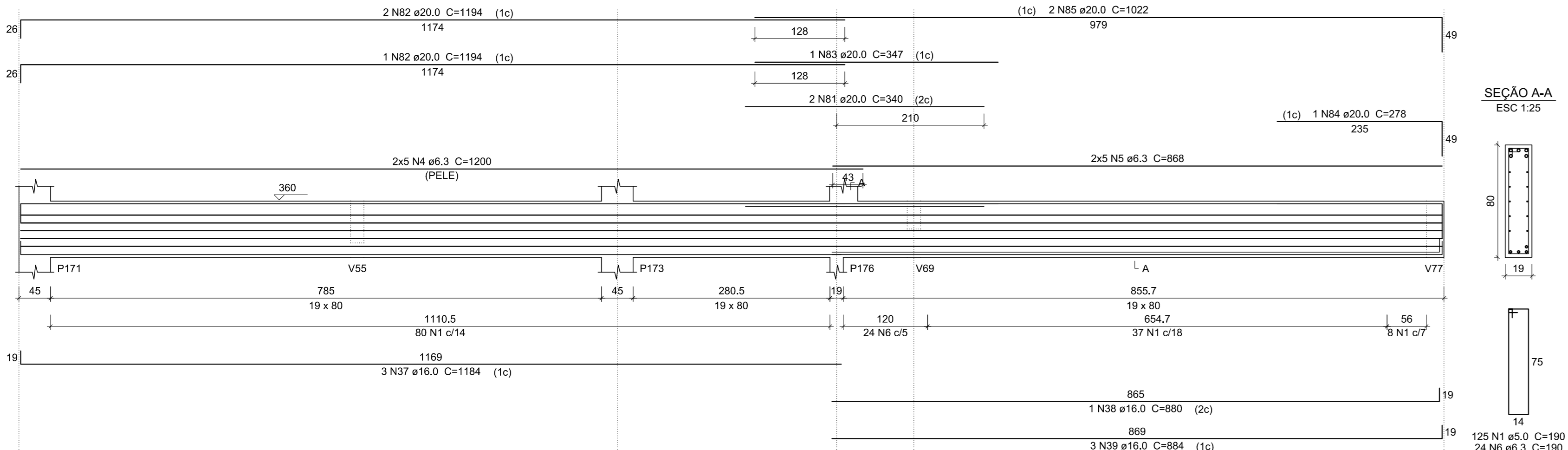
V40

ESC 1:50



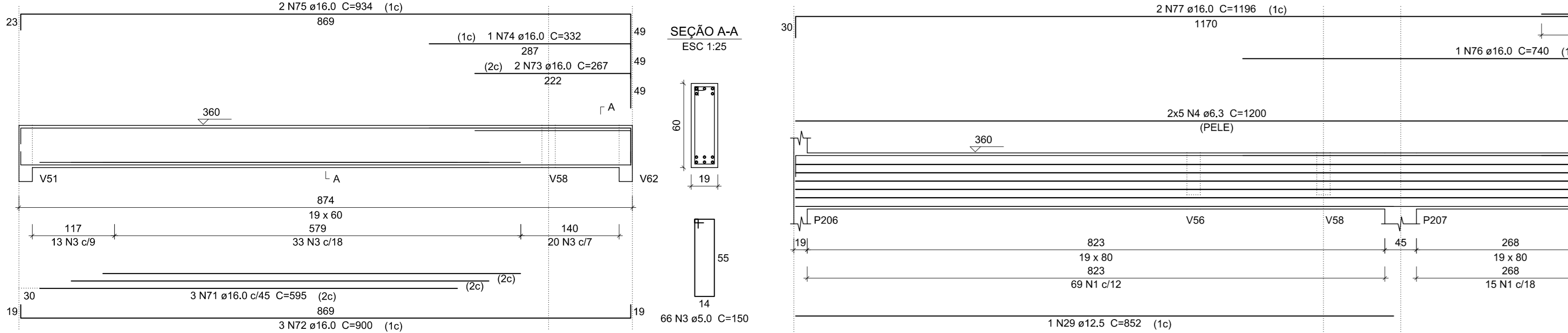
V44

ESC 1:50



V46

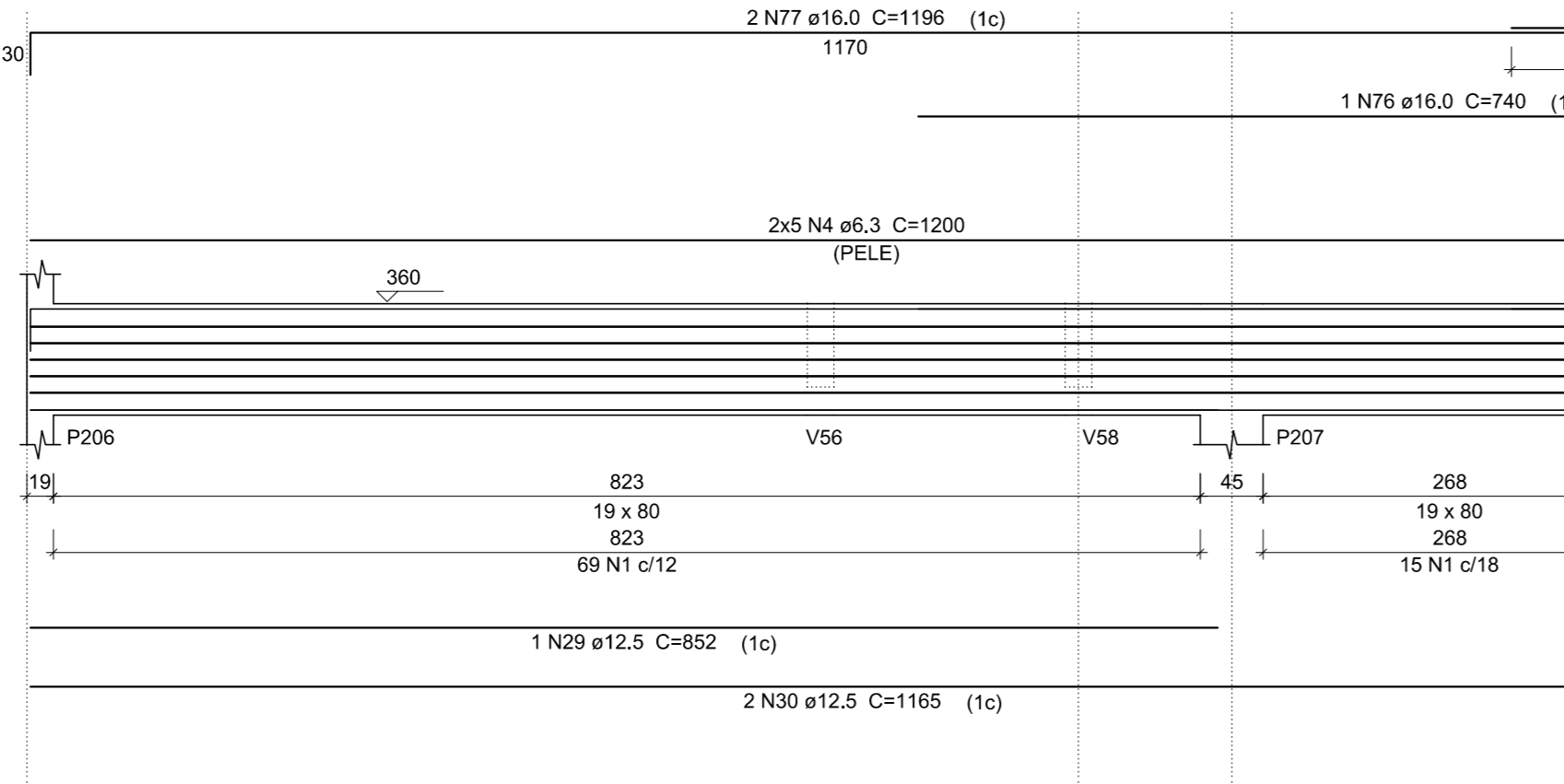
ESC 1:50



Vigas do 1º PTV
escala 1:50

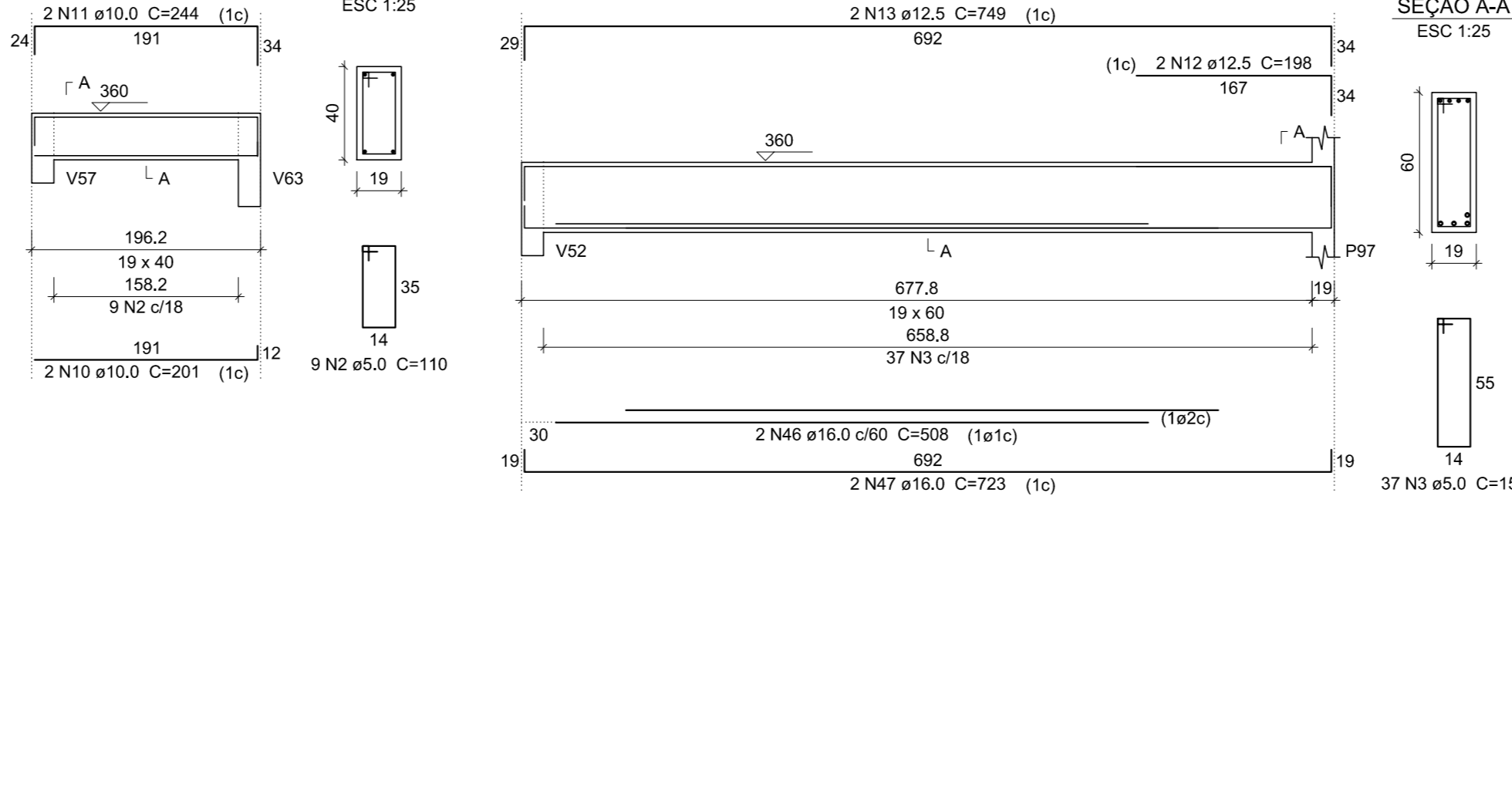
V47

ESC 1:50



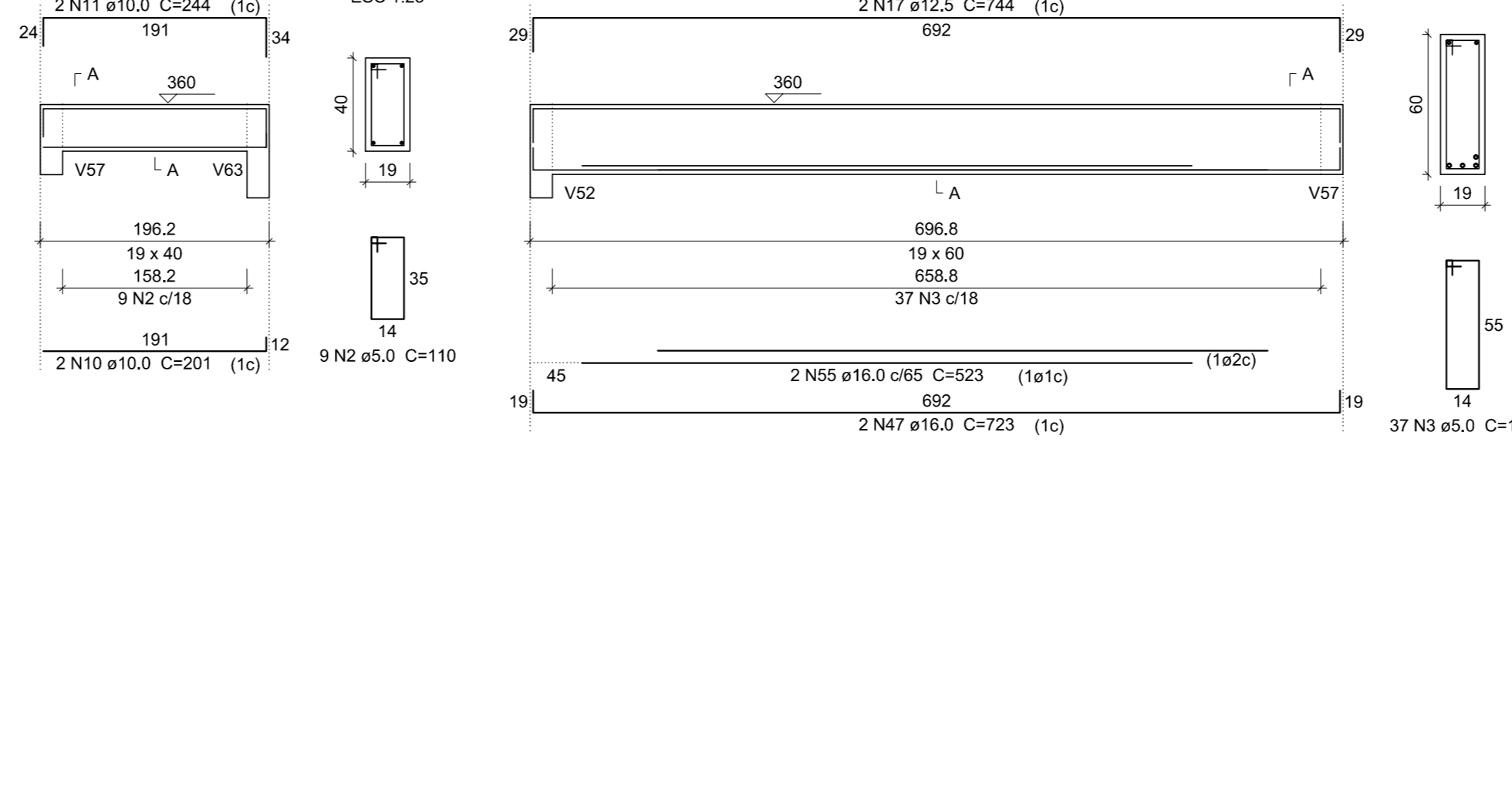
V30

ESC 1:50



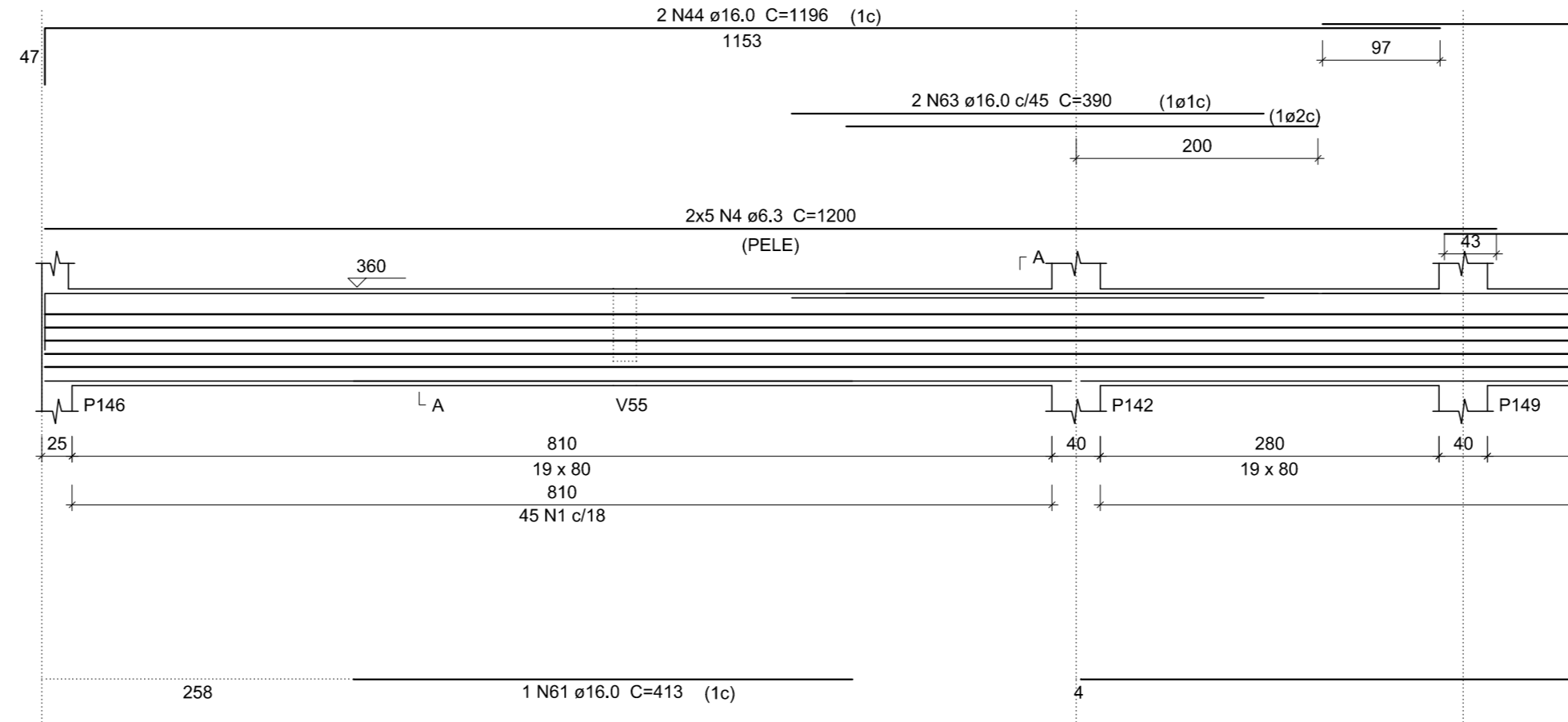
V35

ESC 1:50



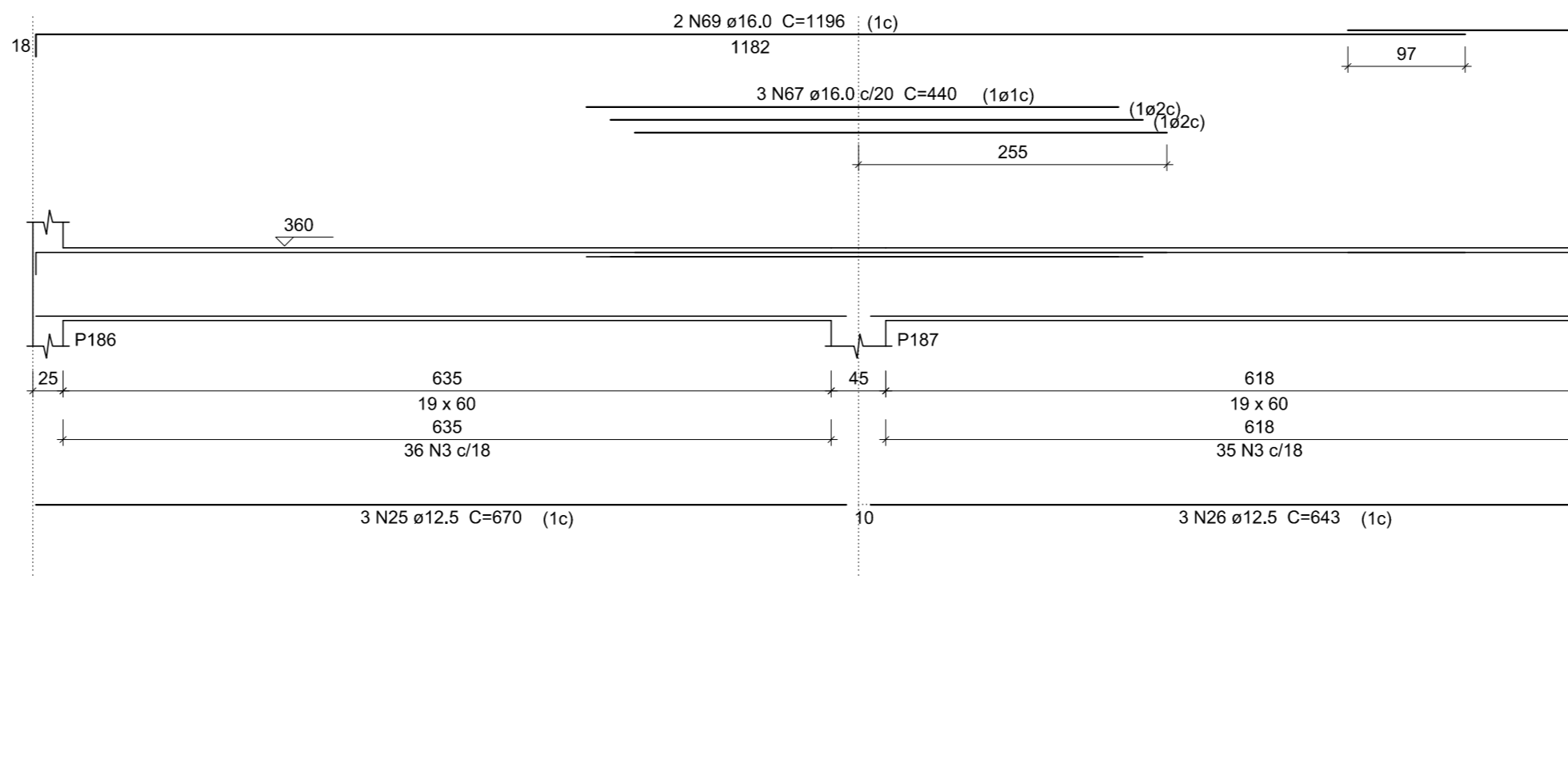
V41

ESC 1:50



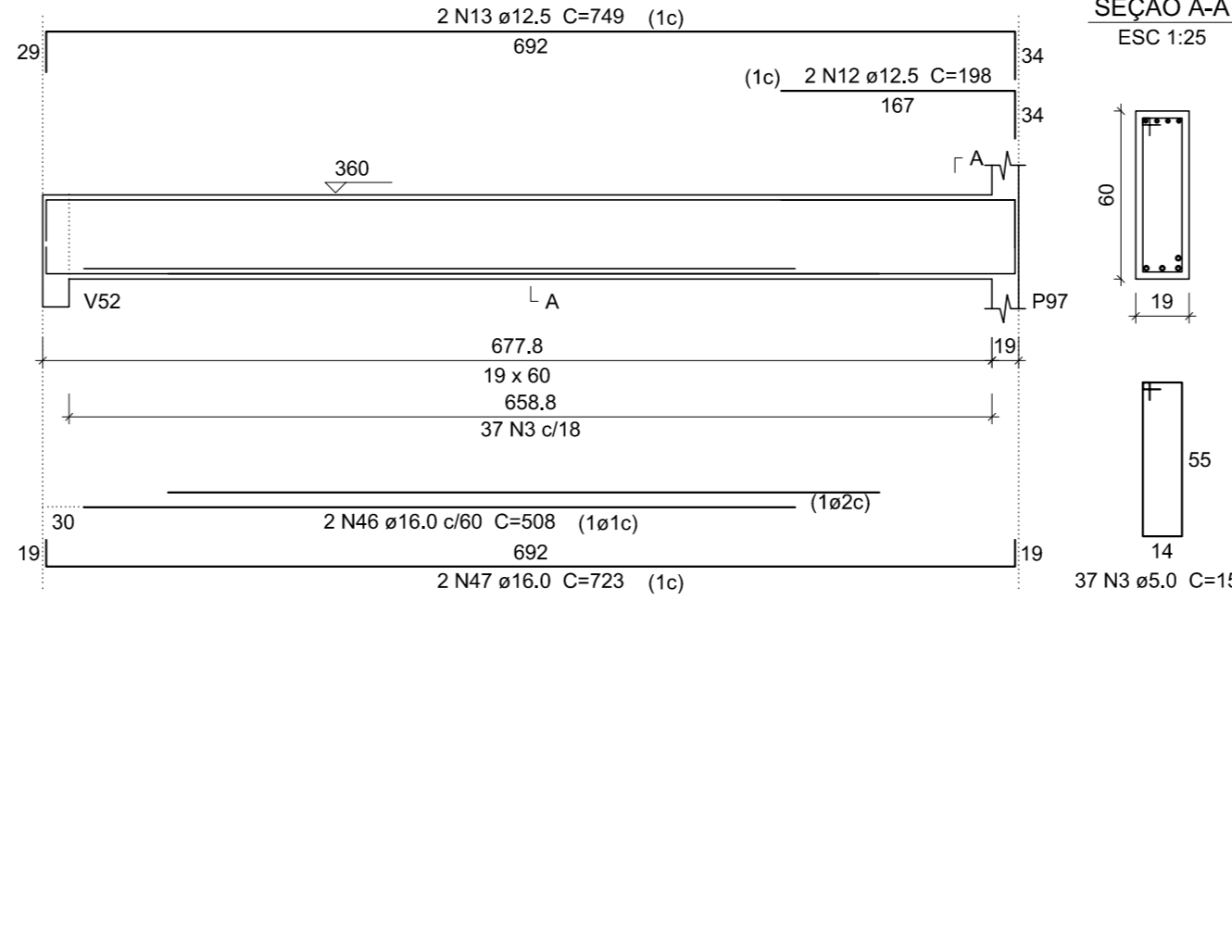
V45

ESC 1:50



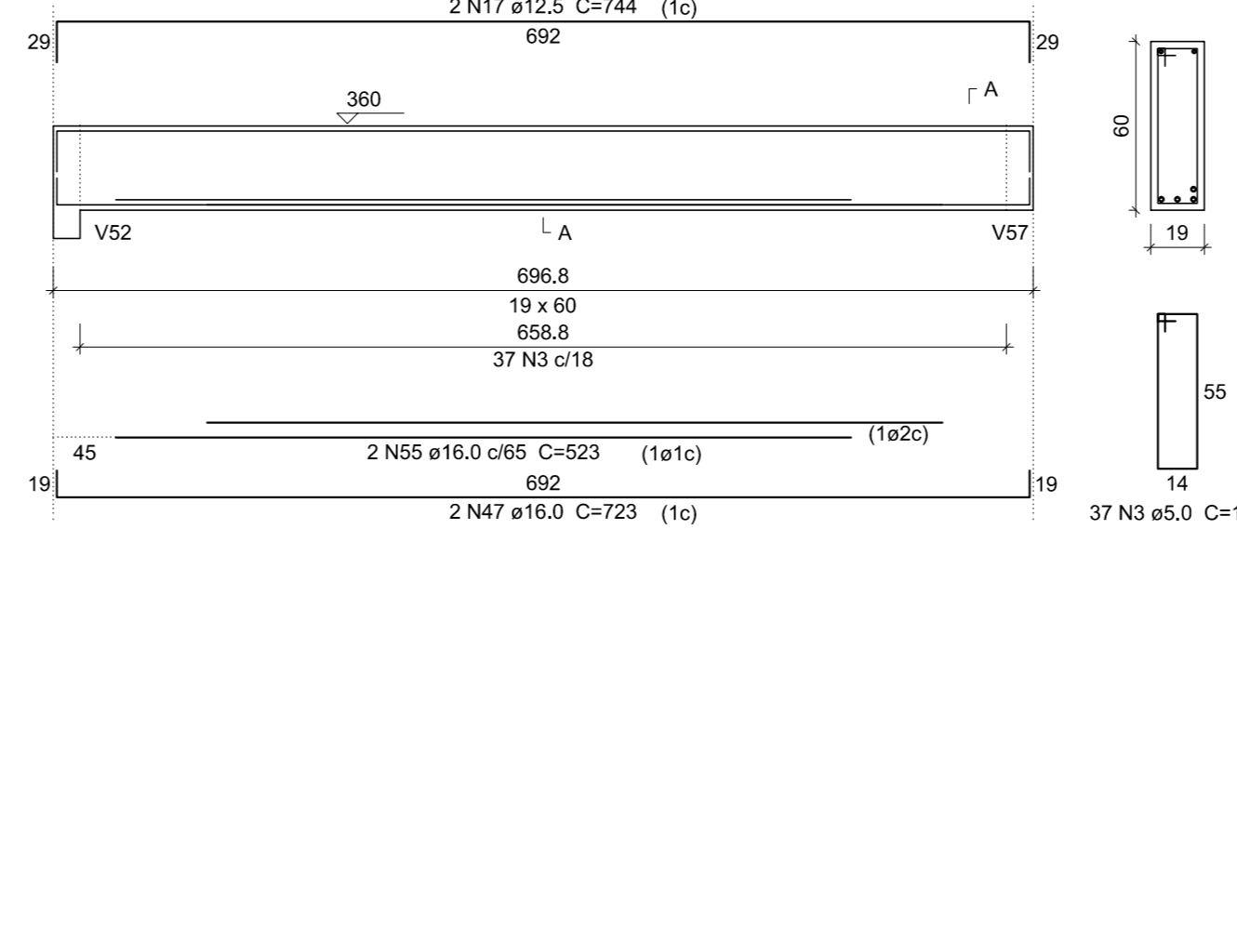
V31

ESC 1:50



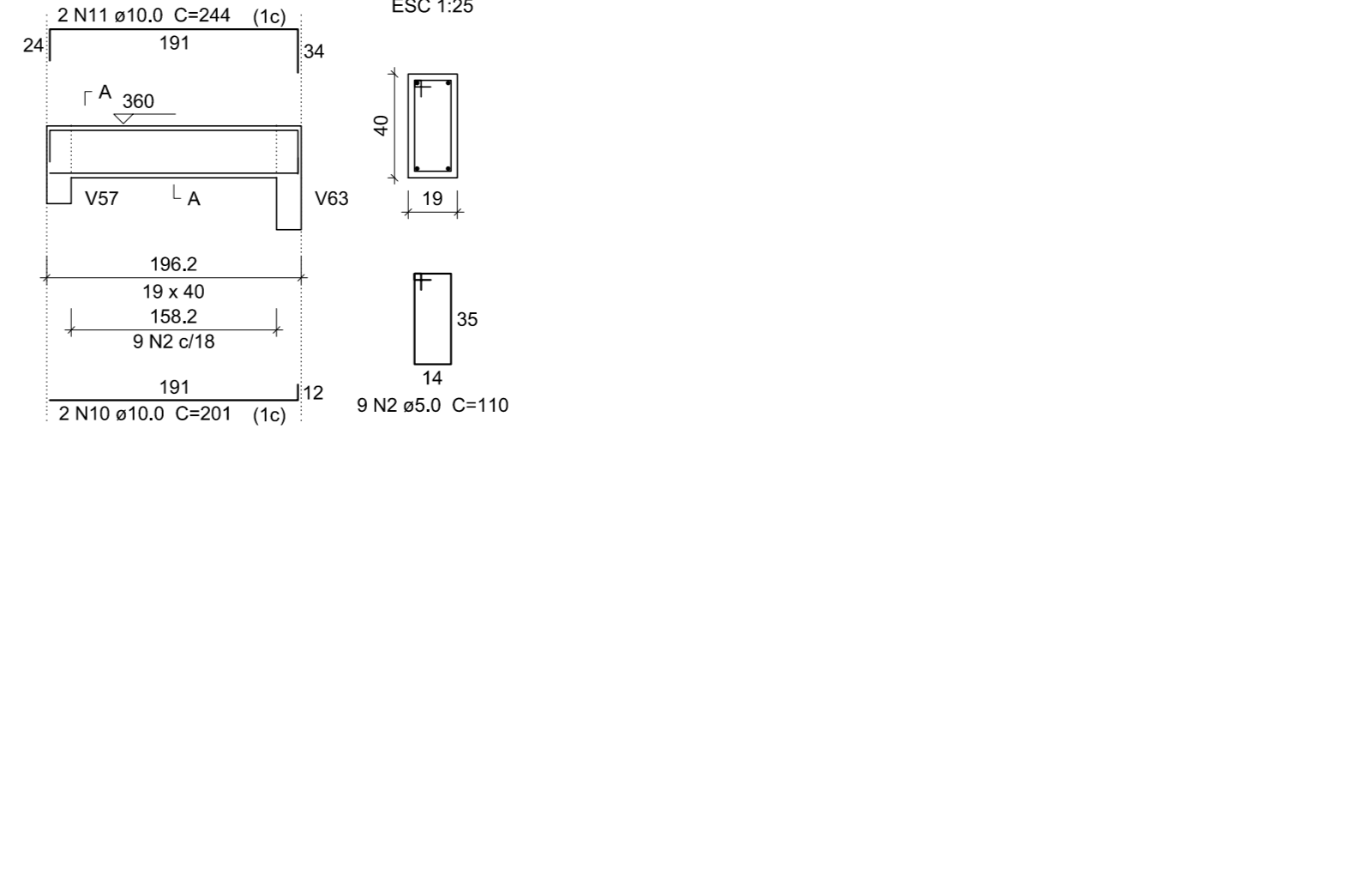
V38

ESC 1:50



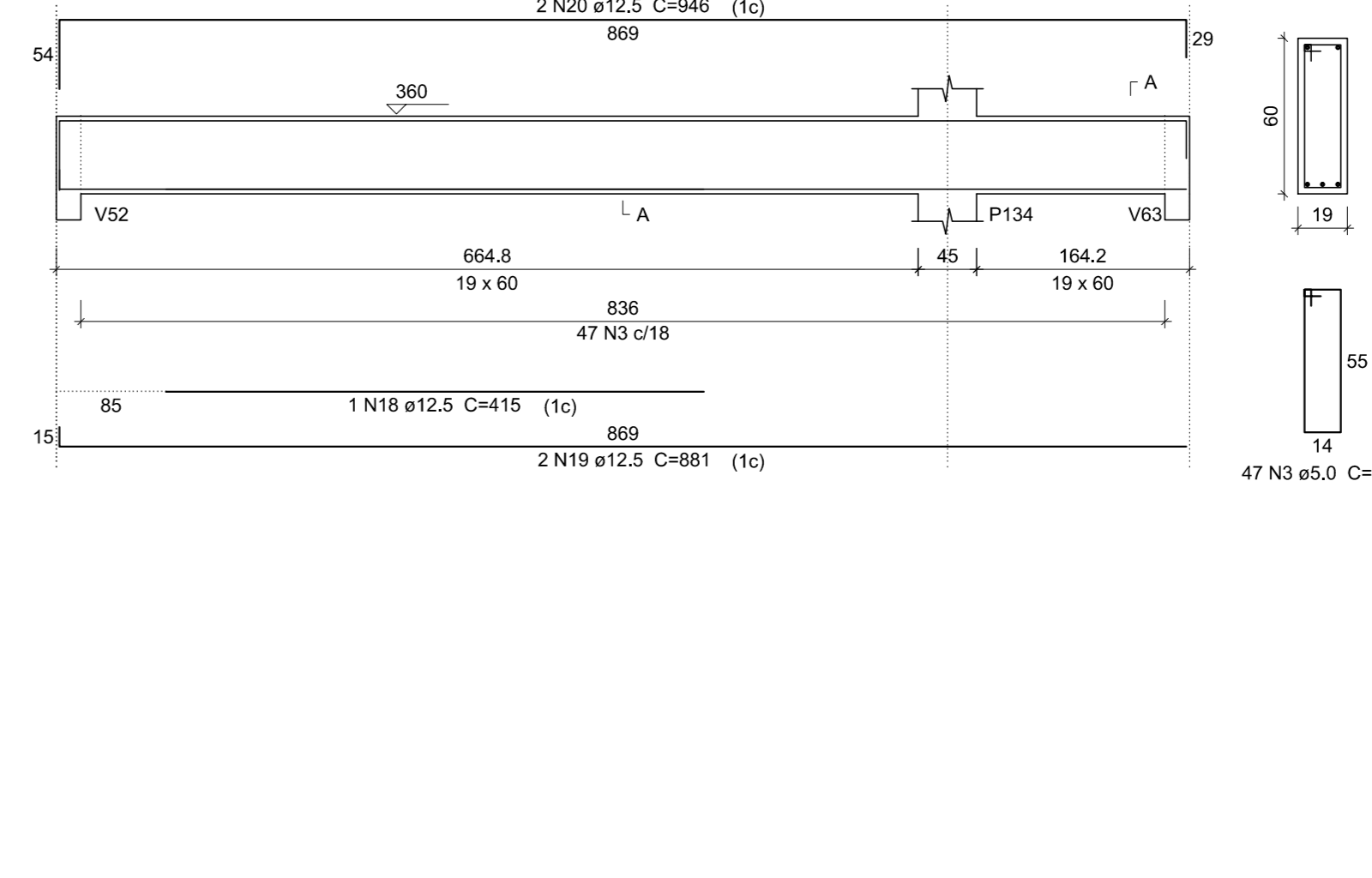
V33

ESC 1:50



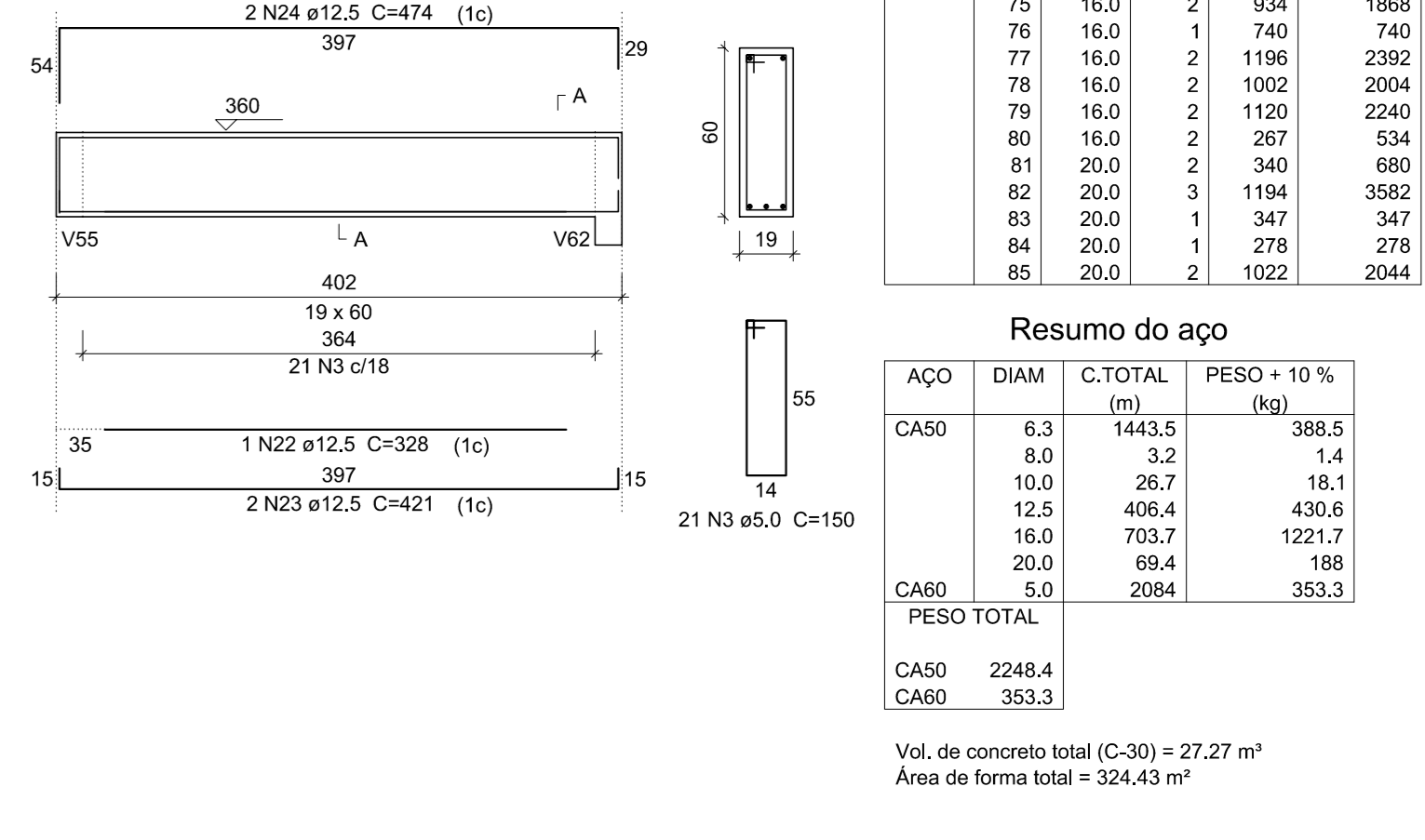
V39

ESC 1:50



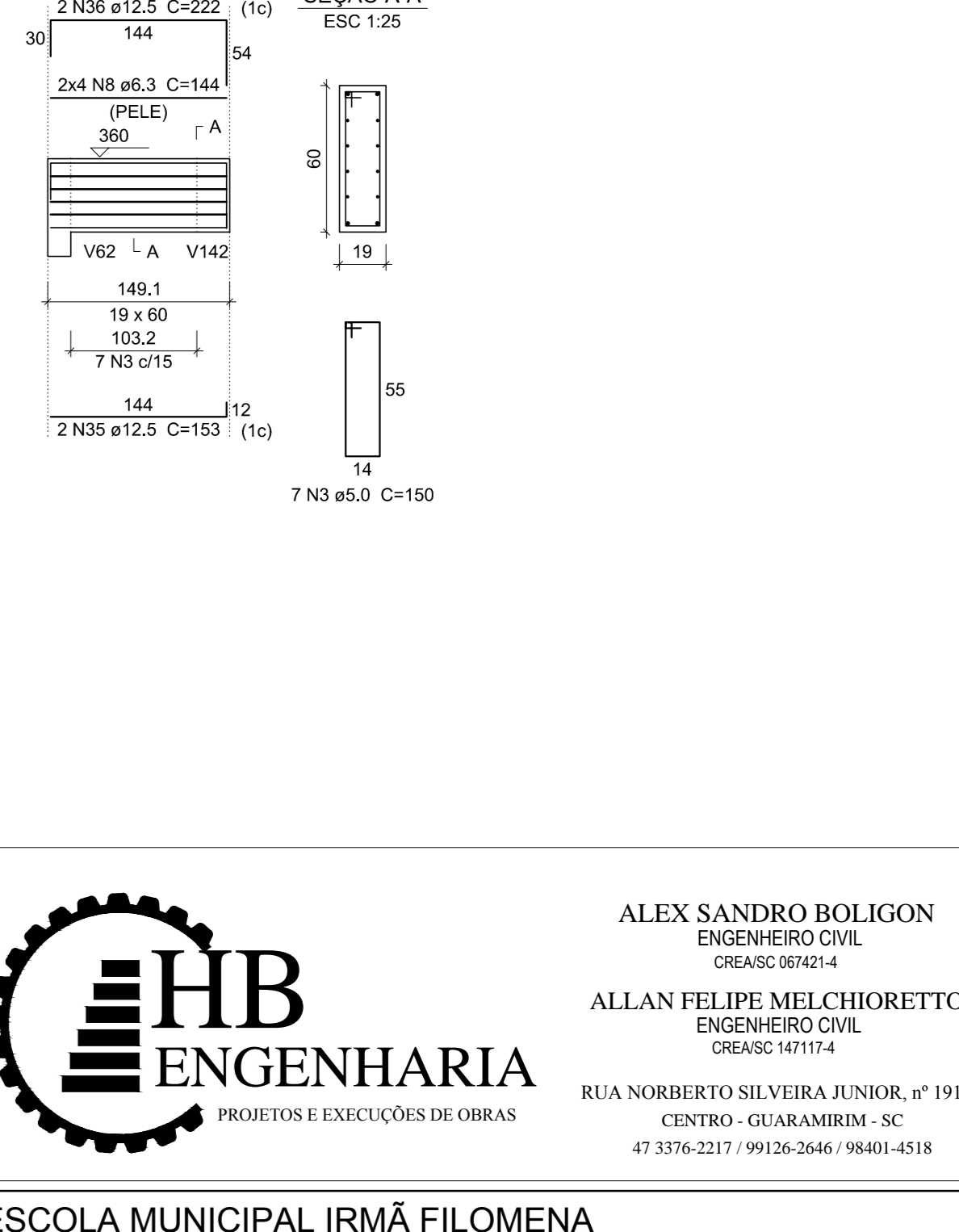
V42

ESC 1:50



V49

ESC 1:50



Relação do aço

CAISO	N	DIAM	Q	UNIT	C.TOTAL	C.TOTAL
		(mm)	(m)	(cm)	(cm)	(cm)
CA60	1	5.0	827	190	157130	
V30	2	5.0	27	110	2910	
V31	3	5.0	322	150	48300	
V33	4	6.3	60	1200	72000	
V34	5	6.3	60	688	50080	
V35	6	6.3	39	190	7410	
V38	7	6.3	10	1170	11700	
V39	8	6.3	8	144	1152	
V40	9	8.0	3	106	318	
V41	10	10.0	6	201	1206	
V42	11	10.0	6	244	1464	
V43	12	12.5	2	186	396	
V44	13	12.5	2	749	1498	
V45	14	12.5	7	1177	8239	
V46	15	12.5	1	849	849	
V47	16	12.5	4	852	3408	
V48	17	12.5	2	744	1488	
V49	18	12.5	1	415	415	
V50	19	12.5	2	581	1162	
V51	20	12.5	2	946	1892	
V52	21	12.5	2	845	1690	
V53	22	12.5	1	336	336	
V54	23	12.5	2	421	842	
V55	24	12.5	2	474	948	
V56	25	12.5	3	670	2010	
V57	26	12.5	3	643	1929	
V58	27	12.5	1	467	467	
V59	28	12.5	2	684	1368	
V60	29	12.5	1	852	852	
V61	30	12.5	2	1165	2330	
V62	31	12.5	1	473	473	
V63	32	12.5	3	878	2634	
V64	33	12.5	2	875	1750	
V65	34	12.5	2	1189	2378	
V66	35	12.5	2	153	306	
V67	36	12.5	2	222	444	
V68	37	16.0	7	1184	8288	
V69	38	16.0	2	880	1760	
V70	39	16.0	6	884	5304	
V71	40	16.0	1	345	345	
V72	41	16.0	1	1045	1045	
V73	42	16.0	1	1200	1200	
V74	43	16.0	1	512	512	
V75	44	16.0	4	1196	4784	
V76	45	16.0	2	1024	2048	
V77	46	16.0	2	508	1016	
V78	47	16.0	4	723	2892	
V79	48	16.0	2	320	640	
V80	49	16.0	4	345	1380	
V81	50	16.0	1	940	940	
V82	51	16.0	1	284	284	
V83	52	16.0	2	288	576	
V84	53	16.0	2	1196	2392	
V85	54	16.0	2	1012	2024	
V86	55	16.0	2	523	1046	
V87	56	16.0	2	370	740	
V88	57	16.0	1	270	270	
V89	58	16.0	1	274	274	
V90	59	16.0	2	1196	2392	
V91	60	16.0	2	993	1986	
V92	61	16.0	1	413	413	
V93	62	16.0	2	849	1698	
V94	63	16.0	2	390	780	
V95	64	16.0	1	244	244	
V96	65	16.0	1	289	289	
V97	66	16.0	2	1013	2026	
V98	67	16.0	3	440	1320	
V99	68	16.0	1	196	196	
V100	69	16.0	2	1196	2392	
V101	70	16.0	2	976	1952	
V102	71	16.0	3	595	1785	
V103	72	16.0	3	890	2670	
V104	73	16.0	2	267	534	
V105	74	16.0	1	332	332	
V106	75	16.0	2	934	1868	
V107	76	16.0	1	740	740	
V108	77	16.0	1	1196	1196	
V109	78	16.0	2	1002	2004	
V110	79	16.0	2	1130	2260	
V111	80	16.0	2	267	534	
V112	81	20.0	2	340	680	
V113	82	20.0	3	1194	3582	
V114	83	20.0	1	347	347	
V115	84	20.0	1	278	278	
V116	85	20.0	2	1022	2044	

Resumo do aço

CAISO	DIAM	C.TOTAL	PESO + 10%
	(mm)	(kg)	(kg)
CA60	6.3	1445.5	388.5
CA60	8.0	3.2	1.4
CA60	10.0	26.7	18.1
CA60	12.5	466.4	431.6
CA60	16.0	703.7	1221.7
CA60	20.0	89.4	168
CA60	5.0	2084	353.3

Vol. de concreto total (C-30) = 27.27 m³
Área de forma total = 324.43 m²



ALEX SANDRO BOLIGON
ENGENHEIRO CIVIL
CREASC 067421-4
ALLAN FELIPE MEIHIORETTO
ENGENHEIRO CIVIL
CREASC 141719-4
RUA NORBERTO SILVEIRA JUNIOR, Nº 191, SL. 05
CENTRO - GUARABIRIM - SC
47 3376-2217 / 99125-2640 / 98401-4518

ESCOLA MUNICIPAL IRMÃ FILOMENA

PROJETO ESTRUTURAL

DESENHADOR: VIGAS DO 1º PTV
PROPRIETÁRIO: MUNICÍPIO DE TREZE TILIAS
LOCAL: RUA DR. W D'AGUIAR Nº 220, BAIRRO CENTRO, TREZE TILIAS/SC
RESP. TÉCNICO: ALEX SANDRO BOLIGON
CONTRATANTE: MUNICÍPIO DE TREZE TILIAS
CNPJ: 82.771.000/01-11
CARGO: PREFEITO

09

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