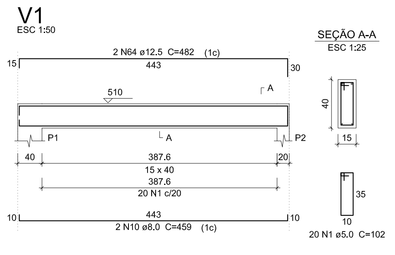
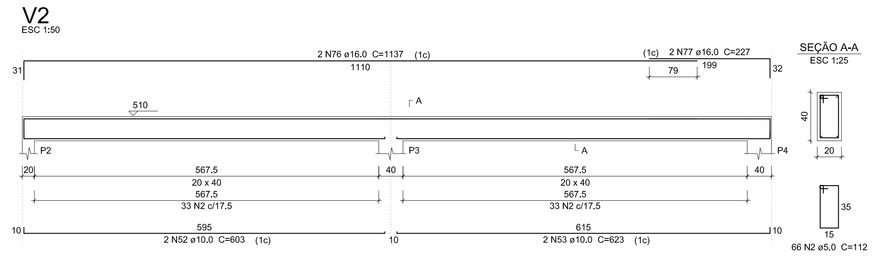
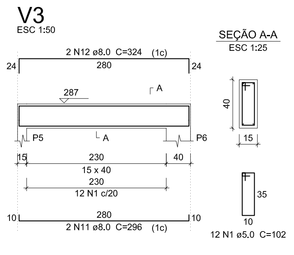
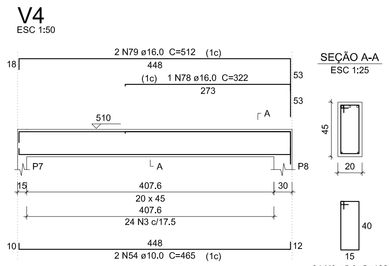
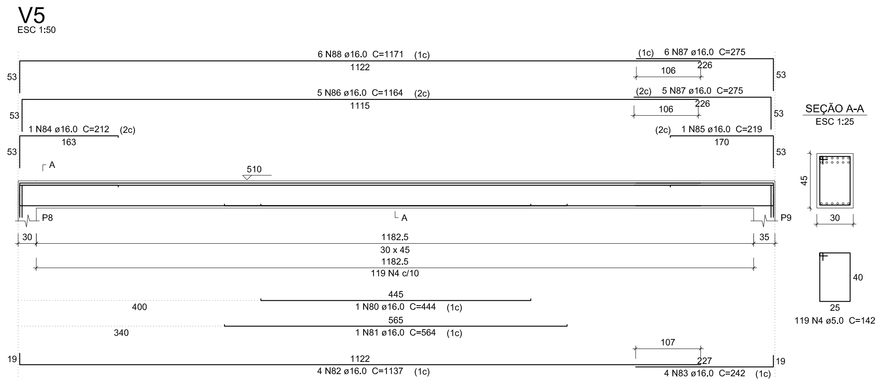
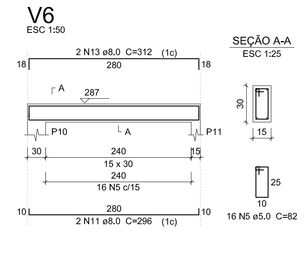


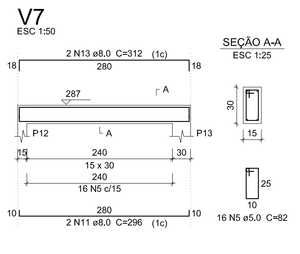


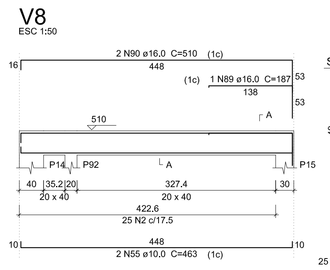


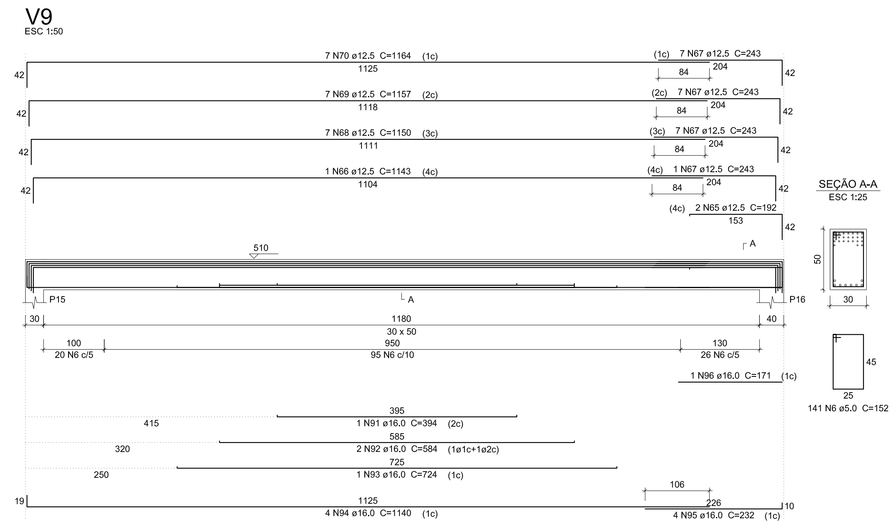


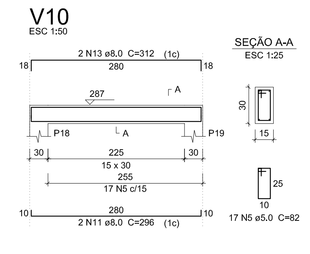


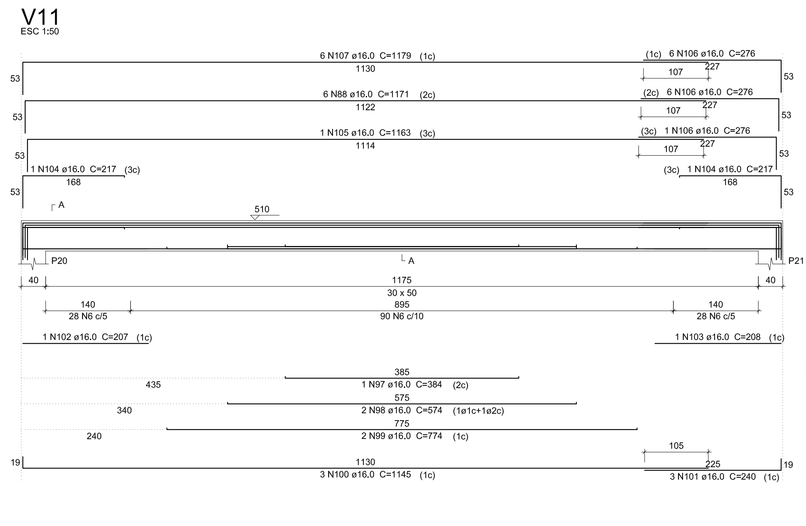


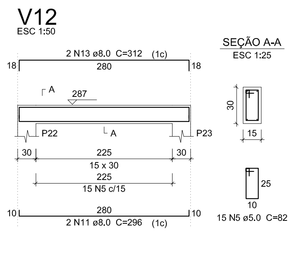












Relação do aço

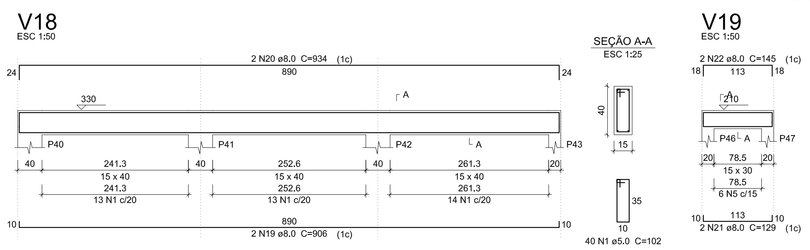
V1	V2	V3
V4	V5	V6
V7	V8	V9
V10	V11	V12
V13	V14	V15
V16	V17	V18
V19	V20	V21
V22	V23	V24
V25	V26	V27
V28	V29	V30
V31	V32	V33
V34	V35	V36
V37	V38	V39
V40		

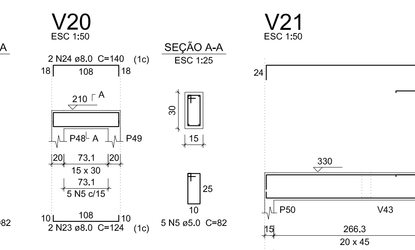
AÇO	N	DIAM	Q	UNIT (cm)	C.TOTAL (cm)
CA60	1	5,0	292	102	29764
	2	5,0	236	112	26656
	3	5,0	77	122	9394
	4	5,0	119	142	16898
	5	5,0	413	82	33866
	6	5,0	1141	82	93562
	7	5,0	7	95	665
	8	5,0	116	122	14152
CA50	9	6,3	6	328	1968
	10	8,0	2	459	918
	11	8,0	16	296	4736
	12	8,0	4	324	1296
	13	8,0	12	242	2904
	14	8,0	7	977	6842
	15	8,0	2	438	876
	16	8,0	1	132	132
	17	8,0	2	1198	2396
	18	8,0	2	276	552
	19	8,0	2	906	1812
	20	8,0	5	934	4670
	21	8,0	2	129	258
	22	8,0	2	129	258
	23	8,0	2	104	208
	24	8,0	2	140	280
	25	8,0	1	145	145
	26	8,0	2	275	550
	27	8,0	1	445	445
	28	8,0	2	326	652
	29	8,0	2	290	580
	30	8,0	4	749	2996
	31	8,0	4	774	3096
	32	8,0	2	312	624
	33	8,0	2	328	656
	34	8,0	2	290	580
	35	8,0	2	318	636
	36	8,0	2	390	780
	37	8,0	2	418	836
	38	8,0	2	500	1000
	39	8,0	2	1038	2076
	40	8,0	2	846	1692
	41	8,0	2	874	1748
	42	8,0	6	255	1530
	43	8,0	6	271	1626
	44	8,0	2	362	724
	45	8,0	2	378	756
	46	8,0	2	356	712
	47	8,0	2	372	744
	48	8,0	2	234	468
	49	8,0	2	717	1434
	50	8,0	4	231	924
	51	8,0	2	254	508
	52	10,0	2	603	1206
	53	10,0	2	623	1246
	54	10,0	2	465	930
	55	10,0	2	503	1006
	56	10,0	2	613	1226
	57	10,0	4	297	1188
	58	10,0	2	442	884
	59	10,0	2	427	854
	60	10,0	2	250	500
	61	10,0	2	1124	2248
	62	10,0	2	1137	2274
	63	10,0	2	469	938
	64	10,0	2	459	918
	65	12,5	2	192	384
	66	12,5	1	1143	1143
	67	12,5	2	2743	5346
	68	12,5	7	1150	8050
	69	12,5	7	1137	8099
	70	12,5	7	1164	8148
	71	12,5	2	1143	2286
	72	12,5	2	1156	2316
	73	12,5	2	454	908
	74	12,5	2	1197	2394
	75	12,5	2	494	988
	76	16,0	2	1137	2274
	77	16,0	2	227	454
	78	16,0	1	322	322
	79	16,0	2	512	1024
	80	16,0	2	444	888
	81	16,0	1	564	564
	82	16,0	4	1137	4548
	83	16,0	4	242	968
	84	16,0	1	212	212
	85	16,0	1	219	219
	86	16,0	5	1164	5820
	87	16,0	10	1171	11710
	88	16,0	10	1177	11770
	89	16,0	1	187	187
	90	16,0	2	510	1020
	91	16,0	1	394	394
	92	16,0	2	584	1168
	93	16,0	1	724	724
	94	16,0	4	1140	4560
	95	16,0	4	232	928
	96	16,0	1	187	187
	97	16,0	1	394	394
	98	16,0	2	574	1148
	99	16,0	2	774	1548
	100	16,0	3	1145	3435
	101	16,0	3	240	720
	102	16,0	1	207	207
	103	16,0	1	208	208
	104	16,0	2	217	434
	105	16,0	1	1163	1163
	106	16,0	13	276	3588
	107	16,0	6	1179	7074
	108	16,0	2	617	1234
	109	16,0	1	781	781
	110	16,0	2	1151	2302
	111	16,0	2	258	516
	112	16,0	2	1096	2192
	113	16,0	2	510	1020

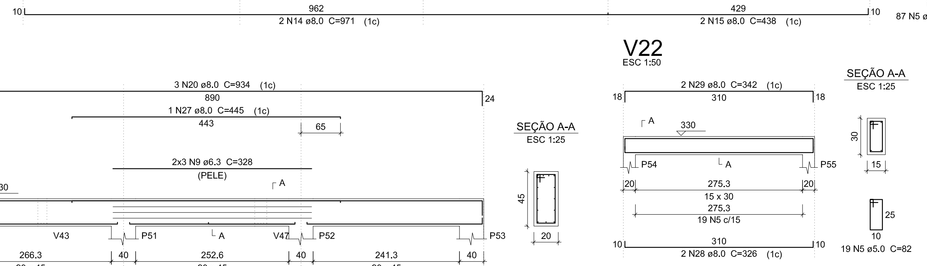
Resumo do aço

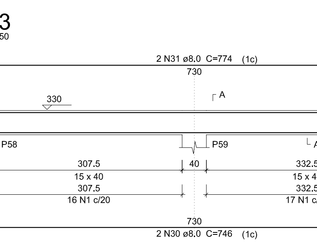
AÇO	DIAM	C.TOTAL (m)	PESO + 10 % (kg)
CA50	6,3	19,7	5,3
	8,0	537,6	233,4
	10,0	143,6	97,4
	12,5	461,3	429,2
	16,0	712,5	1236,9
CA60	5,0	1744,7	265,6
PESO TOTAL			
CA50	1998,2		
CA60	265,6		

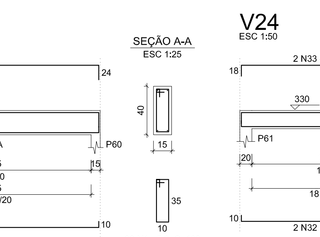
Vol. de concreto total (C-30) = 18,91 m³
Área de forma total = 238,54 m²

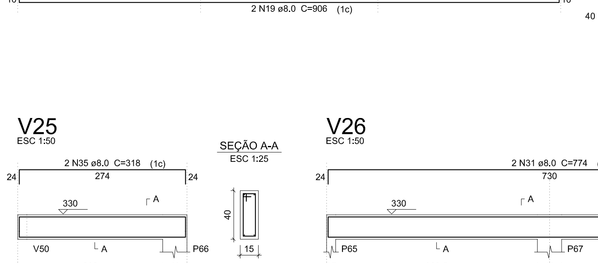


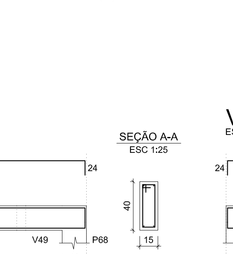


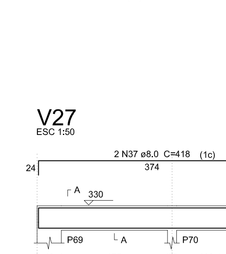


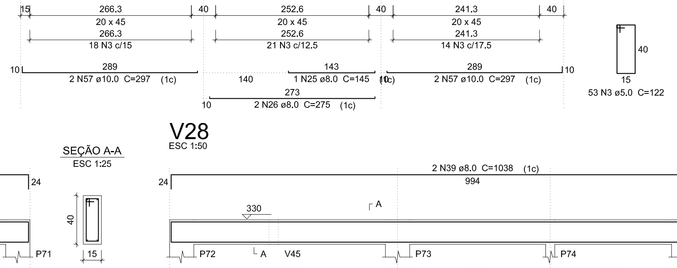


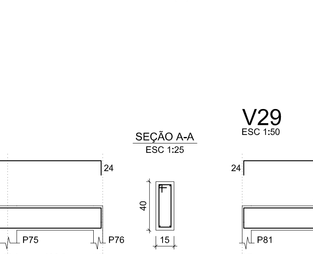


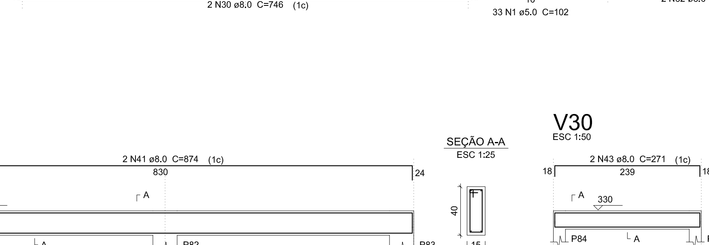


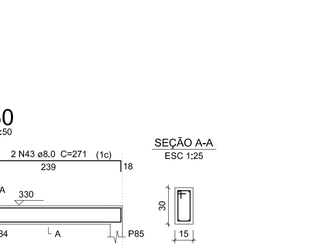


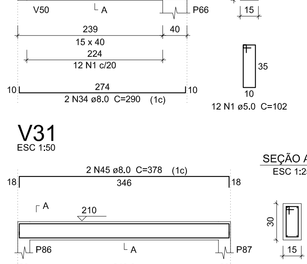


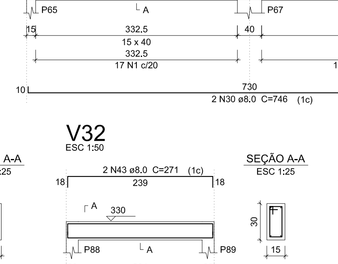


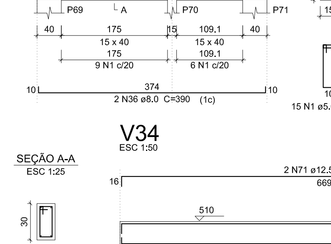


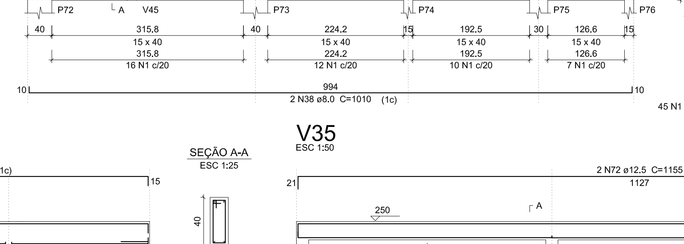


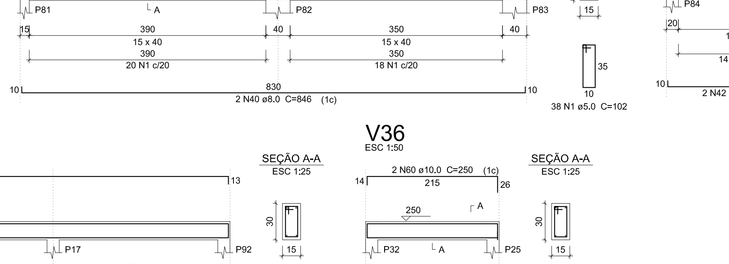


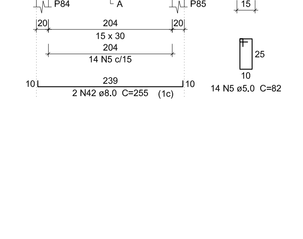


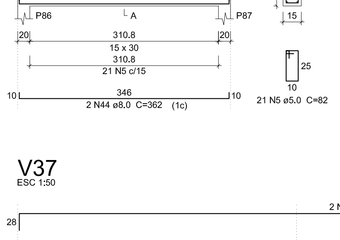


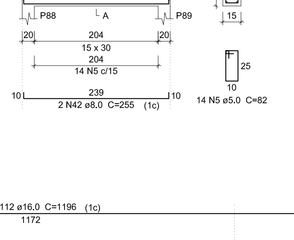


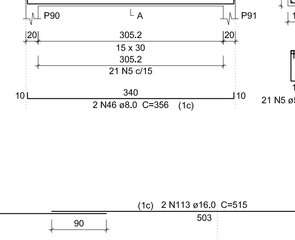


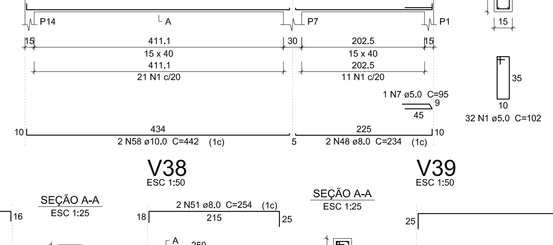


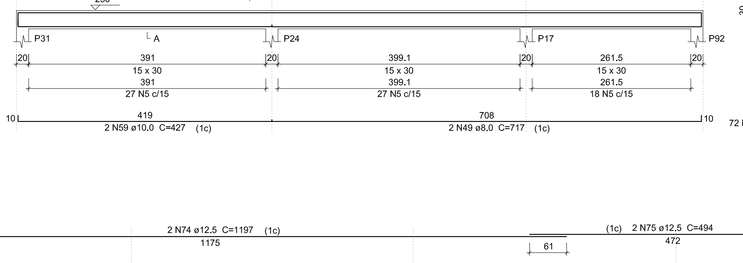


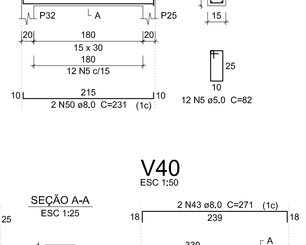


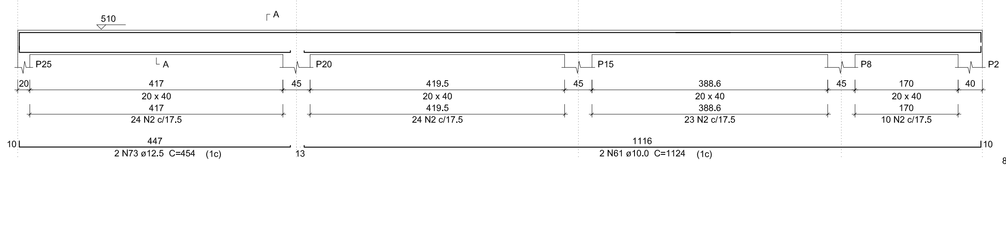


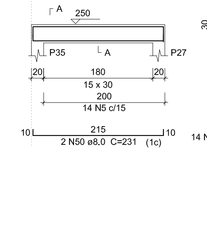


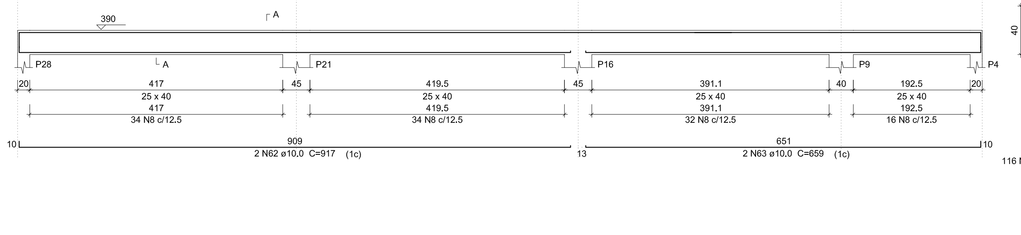


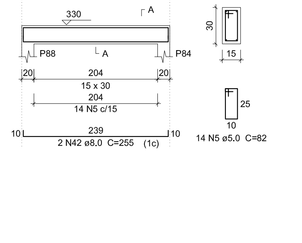












GOVERNO DO ESTADO DO PIAUÍ

SEDUC - SECRETARIA DE ESTADO DA EDUCAÇÃO

DEPARTAMENTO: GERÊNCIA DE ARQUITETURA E ENGENHARIA

DESENHO: EST1

TÍTULO DO PROJETO: PROJETO DE CONSTRUÇÃO - U.E MARTIN PINHEIRO

ENDEREÇO DO SERVIÇO: Rua Simão Borges, S/N, Centro

PRANCHA: 01/02

TÍTULO DO DESENHO: DETALHAMENTO DE VIGAS COBERTURA

ESCALA: INDICADA

ARQUITETO(A):

MUNICÍPIO: Palmeira do Piauí-PI

ZONA: URBANA

DESENHO:

FASE: PROJETO BÁSICO

DATA: DATA REV.ATUAL

REVISÃO: 01