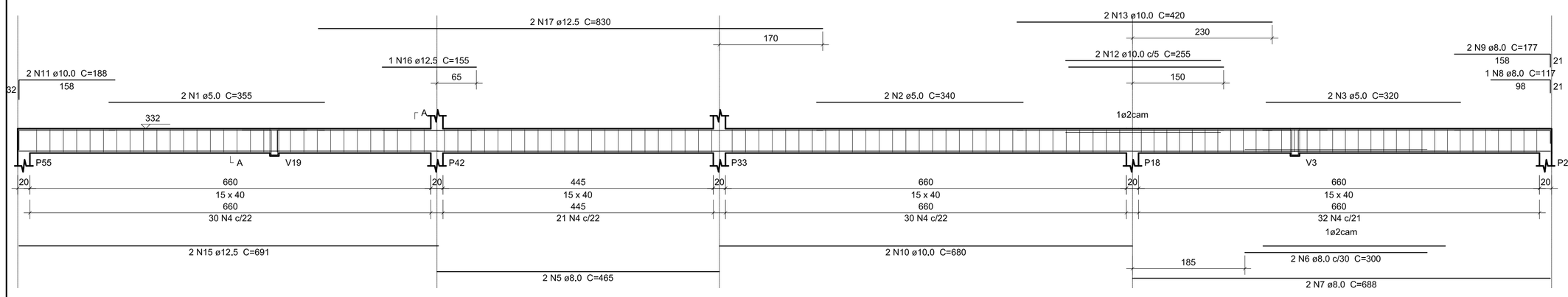
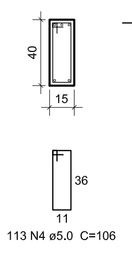
V22
ESC 1:50

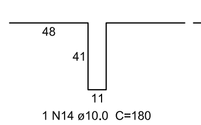


SEÇÃO A-A
ESC 1:25



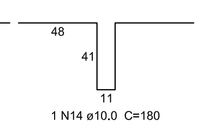
113 N4 ø5.0 C=106

SUSPENSÃO V19
ESC 1:25



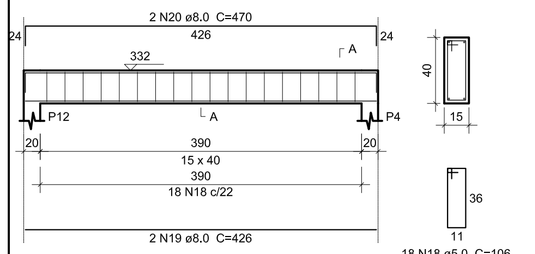
1 N14 ø10,0 C=180

SUSPENSÃO V3
ESC 1:25



1 N14 ø10,0 C=180

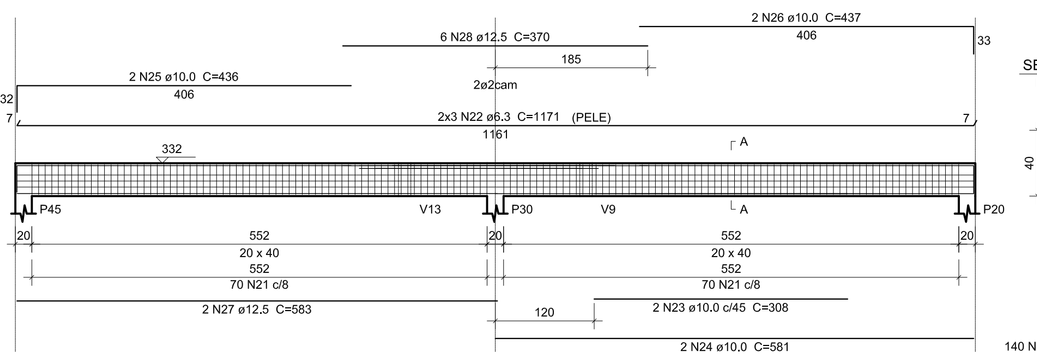
V26
ESC 1:50



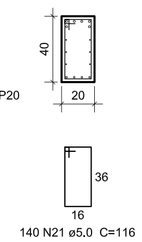
SEÇÃO A-A
ESC 1:25

18 N18 ø5.0 C=106

V27
ESC 1:50

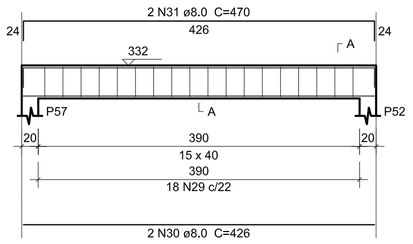


SEÇÃO A-A
ESC 1:25

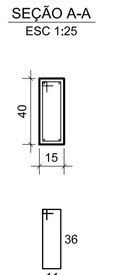


140 N21 ø5,0 C=116

V28
ESC 1:50



SEÇÃO A-A
ESC 1:25



18 N29 ø5.0 C=106

V29
ESC 1:50

SEÇÃO A-A
ESC 1:25

18 N32 ø5.0 C=106

V30
ESC 1:50

SEÇÃO A-A
ESC 1:25

18 N35 ø5,0 C=106

V31
ESC 1:50

SEÇÃO A-A
ESC 1:25

18 N38 ø5,0 C=106

V32
ESC 1:50

SEÇÃO A-A
ESC 1:25

18 N41 ø5.0 C=106

V33
ESC 1:50

SEÇÃO A-A
ESC 1:25

52 N46 ø5,0 C=106

V34
ESC 1:50

SEÇÃO A-A
ESC 1:25

7 N54 ø5.0 C=106

V35
ESC 1:50

SEÇÃO A-A
ESC 1:25

19 N57 ø5.0 C=106

V36
ESC 1:50

SEÇÃO A-A
ESC 1:25

18 N59 ø5.0 C=106

V37
ESC 1:50

SEÇÃO A-A
ESC 1:25

51 N63 ø5.0 C=106

V38
ESC 1:50

SEÇÃO A-A
ESC 1:25

6 N67 ø5.0 C=106

V39
ESC 1:50

SEÇÃO A-A
ESC 1:25

39 N71 ø5.0 C=116

SUSPENSÃO V19
ESC 1:25

1 N73 ø10.0 C=180

Relação do aço

ELEMENTO	AÇO	N	DIAM (mm)	QUANT (Barras)	UNIT (cm)	C.TOTAL (cm)
V22	CA60	1	5,0	2	355	710
	CA60	2	5,0	2	340	680
	CA60	3	5,0	2	320	640
	CA60	4	5,0	113	106	11978
	CA50	5	8,0	2	465	930
	CA50	6	8,0	2	300	600
	CA50	7	8,0	2	688	1376
	CA50	8	8,0	1	117	117
	CA50	9	8,0	2	177	354
	CA50	10	10,0	2	680	1360
	CA50	11	10,0	2	188	376
	CA50	12	10,0	2	255	510
	CA50	13	10,0	2	420	840
	CA50	14	10,0	2	180	360
	CA50	15	12,5	2	691	1382
	CA50	16	12,5	1	155	155
	CA50	17	12,5	2	830	1660
V26	CA60	18	5,0	18	106	1908
	CA50	19	8,0	2	426	852
	CA50	20	8,0	2	470	940
V27	CA60	21	5,0	140	116	16240
	CA50	22	6,3	6	1171	7026
	CA50	23	10,0	2	308	616
	CA50	24	10,0	2	581	1162
	CA50	25	10,0	2	436	872
	CA50	26	10,0	2	437	874
	CA50	27	12,5	2	583	1166
	CA50	28	12,5	6	370	2220
V28	CA60	29	5,0	18	106	1908
	CA50	30	8,0	2	426	852
	CA50	31	8,0	2	470	940
V29	CA60	32	5,0	18	106	1908
	CA50	33	8,0	2	426	852
	CA50	34	8,0	2	470	940
V30	CA60	35	5,0	18	106	1908
	CA50	36	8,0	2	426	852
	CA50	37	8,0	2	470	940
V31	CA60	38	5,0	18	106	1908
	CA50	39	8,0	2	426	852
	CA50	40	8,0	2	470	940
V32	CA60	41	5,0	18	106	1908
	CA50	42	8,0	1	225	225
	CA50	43	8,0	2	426	852
	CA50	44	8,0	2	470	940
V33	CA60	45	5,0	2	205	410
	CA60	46	5,0	52	106	5512
	CA50	47	6,3	1	135	135
	CA50	48	6,3	1	266	266
	CA50	49	6,3	2	331	662
	CA50	50	8,0	2	1063	2126
	CA50	51	8,0	2	190	380
	CA50	52	12,5	2	714	1428
V34	CA60	53	5,0	2	166	332
	CA60	54	5,0	7	106	742
	CA50	55	8,0	2	166	332
V35	CA60	56	5,0	2	426	852
	CA60	57	5,0	19	106	2014
	CA50	58	12,5	2	426	852
V36	CA60	59	5,0	18	106	1908
	CA50	60	8,0	2	426	852
	CA50	61	8,0	2	470	940
V37	CA60	62	5,0	2	448	896
	CA60	63	5,0	51	106	5406
	CA50	64	8,0	2	1161	2322
	CA50	65	8,0	2	228	456
	CA50	66	8,0	2	520	1040
V38	CA60	67	5,0	6	106	636
	CA50	68	8,0	2	182	364
	CA50	69	8,0	2	180	360
V39	CA60	70	5,0	2	388	776
	CA60	71	5,0	39	116	4524
	CA50	72	8,0	3	95	285
	CA50	73	10,0	1	180	180
	CA50	74	12,5	4	388	1552
	CA50	75	12,5	2	691	1382
	CA50	76	16,0	1	196	196
	CA50	77	16,0	2	296	592

Resumo do aço

AÇO	DIAM (mm)	C.TOTAL (m)	PESO + 10 % (kg)
CA50	6.3	80.9	21.8
	8.0	238.2	103.3
	10.0	71.5	48.5
	12.5	118	125
	16.0	7.9	13.7
CA60	5.0	657.1	111.4
PESO TOTAL (kg)			
CA50	312.3		
CA60	111.4		

Volume de concreto (C-30) = 6,67 m³
Área de forma = 100,63 m²

CALCULO ESTRUTURAL

KENNEDY VASCONCELOS
ENGENHEIRO CIVIL

CÁLCULO ESTRUTURAL
INSTALAÇÕES PREDIAIS
(85) 9115.9136

PROPRIETÁRIO: **PREFEITURA MUNICIPAL DE SOBRAL**

OBRA/LOCAL: **UNID. BASICA DE SAÚDE - CONJ. NOVA CAIÇARA - SOBRAL - CE**

PROJETO:
Fº KENNEDY M. VASCONCELOS
ENGº CIVIL - CREA CE13268D

REVISÕES:

CONTEÚDO: VIGAS DA COBERTA

PRANCHA Nº: **16/20**

DATA: DEZ/2014

FORMATO A1 - INTERNO: 806 x 574 mm.
EXTERNO: 841 x 594 mm.
MARGEM: F-A1-100.DWG / MATRIZ: A1-100.DWG