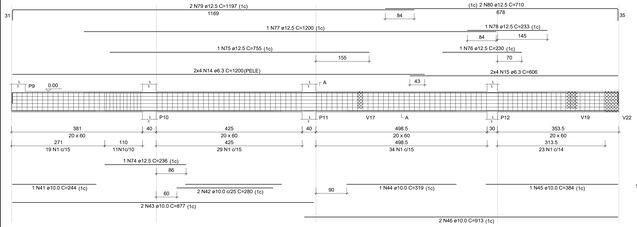
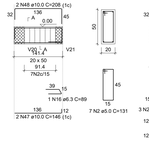
V1 (20 x 60)
ESC 1:50



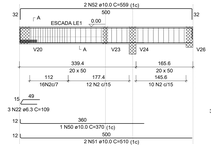
V2 (20 x 50)
ESC 1:50

SEÇÃO A-A
ESC 1:25



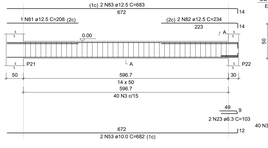
V4 (20 x 50)
ESC 1:50

SEÇÃO A-A
ESC 1:25



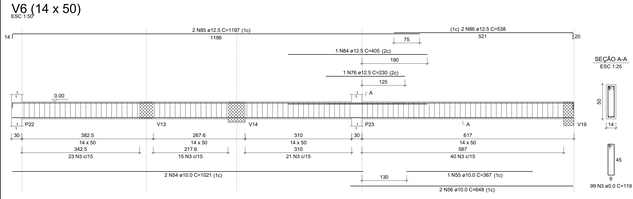
V5 (14 x 50)
ESC 1:50

SEÇÃO A-A
ESC 1:25



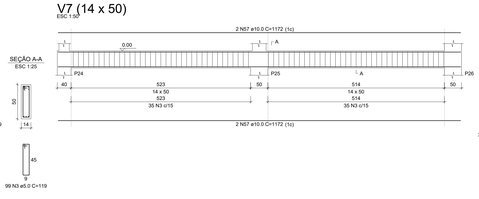
V3 (var)
ESC 1:50

V6 (14 x 50)
ESC 1:50



V7 (14 x 50)
ESC 1:50

SEÇÃO A-A
ESC 1:25

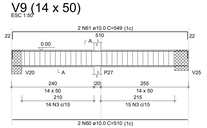


V8 (14 x 50)
ESC 1:50

SEÇÃO A-A
ESC 1:25

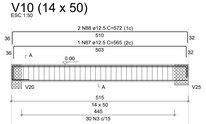
V9 (14 x 50)
ESC 1:50

SEÇÃO A-A
ESC 1:25

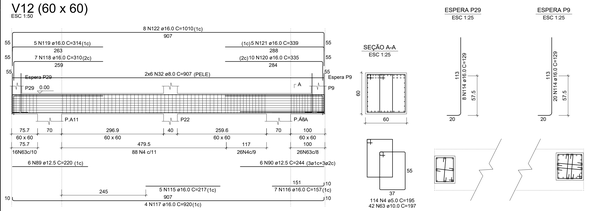


V10 (14 x 50)
ESC 1:50

SEÇÃO A-A
ESC 1:25



V12 (60 x 60)
ESC 1:50

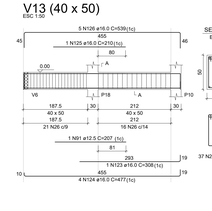


SEÇÃO A-A
ESC 1:25

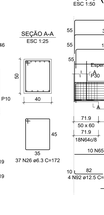
ESPERA P29
ESC 1:25

ESPERA P9
ESC 1:25

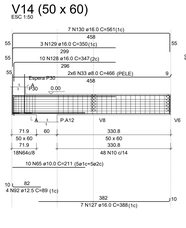
V13 (40 x 50)
ESC 1:50



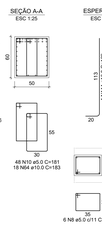
SEÇÃO A-A
ESC 1:25



V14 (50 x 60)
ESC 1:50



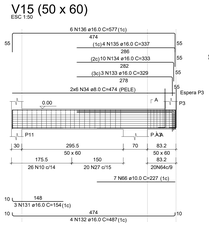
SEÇÃO A-A
ESC 1:25



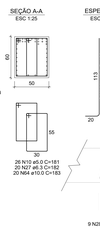
ESPERA P30
ESC 1:25



V15 (50 x 60)
ESC 1:50



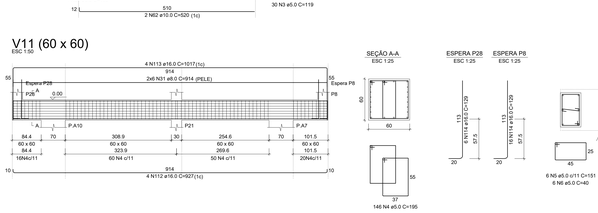
SEÇÃO A-A
ESC 1:25



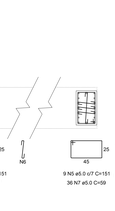
ESPERA P3
ESC 1:25



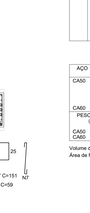
V11 (60 x 60)
ESC 1:50



SEÇÃO A-A
ESC 1:25



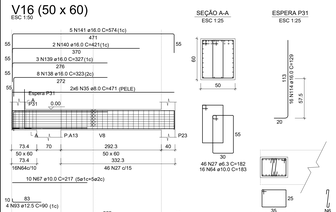
ESPERA P28
ESC 1:25



ESPERA P8
ESC 1:25

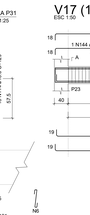


V16 (50 x 60)
ESC 1:50



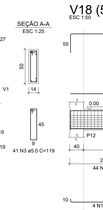
SEÇÃO A-A
ESC 1:25

ESPERA P31
ESC 1:25

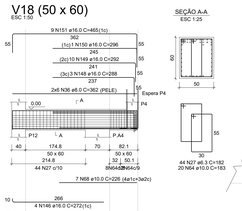


V17 (14 x 50)
ESC 1:50

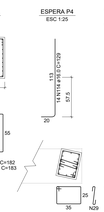
SEÇÃO A-A
ESC 1:25



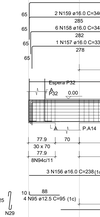
V18 (50 x 60)
ESC 1:50



SEÇÃO A-A
ESC 1:25

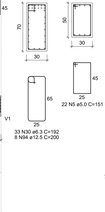


ESPERA P4
ESC 1:25

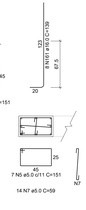


V19 (var)
ESC 1:50

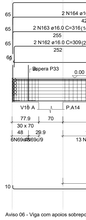
SEÇÃO A-A
ESC 1:25



SEÇÃO B-B
ESC 1:25

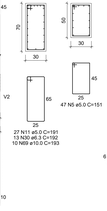


ESPERA P32
ESC 1:25



V20 (var)
ESC 1:50

SEÇÃO A-A
ESC 1:25



SEÇÃO B-B
ESC 1:25

ESPERA P33
ESC 1:25

V21 (20 x 50)
ESC 1:50

SEÇÃO A-A
ESC 1:25

OBSERVAÇÕES:

01- COTAS E NIVEIS DEVEM SER VERIFICADOS NO PROJETO DE ARQUITETURA
02- A LOCAÇÃO NO TERRENO DEVE SER VERIFICADA NA PLANTA DE SITUAÇÃO
03- ENTRAR EM CONTATO COM O PROJETISTA EM CASO DE TERRENO APRESENTAR RESISTÊNCIA DE SOLO MENOR QUE A ESTIMADA.
04- OS QUANTITATIVOS PODEM VARIAR CONFORME EXECUÇÃO IN LOCO

MULIN ARQUITETURA
ARQUITETURA | HIDROSSANITÁRIOS | ELÉTRICA | MÓVEIS | INTERIORES
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mulinarquitetura

PROJETO ESTRUTURAL PARA CONSTRUÇÃO DE FUTURA ESCOLA MUNICIPAL PROFESSORA LUCIA DE FÁTIMA FARAH NORONHA (TIA LUCINHA), COMPOSTA DE QUATRO PAVIMENTOS, SENDO UM SEMI-ENTERRADO, LOCALIZADA À RUA DOUTOR CHAPOT PREVOST, Nº 157, CENTRO, CANTAGALO - RIO DE JANEIRO, CEP 28.500-000

DET. ARM. VIGAS PÁTIO

DATA:	ESCALA:	PROJETO:	ENDEREÇO:	TIPO DE OBRA:
09/02/2026	INDICADA	ALOIR JR.	RUA CHAPOT PREVOST, CENTRO, CANTAGALO - RIO DE JANEIRO, CEP 28.500-000	CONSTRUÇÃO

PROPRIETÁRIO:	CNPJ 28.645.797/0001-60	CÓDIGO DO PROJETO:
MUNICIPIO DE CANTAGALO		25055-EST-PE-012-00
AUTOR DO PROJETO:	REGISTRO: P-147215-1	(código do projeto - disciplina - etapa projetual - nº da prancha - nº da revisão)
RESPONSÁVEL TÉCNICO: LUCAS DE PINHO MULIN ARQUITETURA E CONSTRUÇÃO ME	REGISTRO:	

FORMATO A1 ESTENDIDO - 594 x 1000

RELAÇÃO DO AÇO

V1	V2	V3	
V4	V5	V6	
V7	V8	V9	
V10	V11	V12	
V13	V14	V15	
V16	V17	V18	
V19	V20	V21	

AÇO	N	DIAM (mm)	QUANT	C.UNIT (cm)	C.TOTAL (cm)
CA60	1	5.0	116	131	15196
	2	5.0	70	131	9170
	3	5.0	329	119	39151
	4	5.0	280	195	54700
	5	5.0	18	40	720
	6	5.0	18	40	720
	7	5.0	50	59	2950
	8	5.0	18	131	2358
	9	5.0	12	50	600
	10	5.0	100	178	17800
	11	5.0	12	35	420
	12	5.0	12	30	360
	13	5.0	4	147	588
CA50	14	6.3	8	1200	9600
	15	6.3	8	1200	9600
	16	6.3	1	89	89
	17	6.3	14	132	1848
	18	6.3	94	1600	150400
	19	6.3	34	172	5848
	20	6.3	22	233	5126
	21	6.3	10	501	5010
	22	6.3	3	109	327
	23	6.3	3	103	309
	24	6.3	9	152	1368
	25	6.3	36	51	1836
	26	6.3	37	172	6364
	27	6.3	110	182	20020
	28	6.3	110	182	20020
	29	6.3	26	41	1476
	30	6.3	46	192	8832
	31	8.0	12	914	10968
	32	8.0	12	907	10884
	33	8.0	12	907	10884
	34	8.0	12	474	5688
	35	8.0	12	471	5652
	36	8.0	12	943	11316
	37	8.0	12	543	6516
	38	8.0	10	645	6450
	39	8.0	6	283	1698
	40	8.0	4	41	164
	41	10.0	2	240	480
	42	10.0	2	286	572
	43	10.0	2	877	1754
	44	10.0	1	319	319
	45	10.0	1	384	384
	46	10.0	2	1194	2388
	47	10.0	2	146	292
	48	10.0	2	208	416
	49	10.0	10	140	1680
	50	10.0	1	370	370
	51	10.0	1	384	384
	52	10.0	2	559	1118
	53	10.0	2	682	1364
	54	10.0	2	1021	2042
	55	10.0	2	641	1282
	56	10.0	2	448	896
	57	10.0	4	1172	4688
	58	10.0	2	395	790
	59	10.0	2	510	1020
	60	10.0	2	510	1020
	61	10.0	2	549	1098
	62	10.0	2	520	1040
	63	10.0	42	197	8274
	64	10.0	16	1322	21152
	65	10.0	10	211	2110
	66	10.0	7	227	1589
	67	10.0	10	217	2170
	68	10.0	7	226	1582
	69	10.0	10	217	2170
	70	10.0	9	121	968
	71	10.0	2	314	628
	72	10.0	1	208	208
	73	10.0	2	378	756
	74	10.0	2	230	460
	75	12.5	2	230	460
	76	12.5	2	230	460
	77	12.5	1	1197	1197
	78	12.5	1	233	233
	79	12.5	2	1197	2394
	80	12.5	2	710	1420
	81	12.5	1	208	208
	82	12.5	1	234	468
	83	12.5	2	683	1366
	84	12.5	1	405	405
	85	12.5	2	1197	2394
	86	12.5	2	538	1076
	87	12.5	2	572	1144
	88	12.5	2	572	1144
	89	12.5	6	220	1320
	90	12.5	6	244	1464
	91	12.5	1	207	207
	92	12.5	1	90	90
	93	12.5	4	90	360
	94	12.5	8	200	1600
	95	12.5	1	380	380
	96	12.5	6	529	3174
	97	12.5	1	207	207
	98	12.5	3	555	1665
	99	12.5	2	296	592
	100	12.5	1	296	296
	101	12.5	1	89	89
	102	16.0	2	239	478
	103	16.0	2	246	492
	104	16.0	1	337	337
	105	16.0	1	687	687
	106	16.0	1	445	1780
	107	16.0	1	345	345
	108	16.0	1	443	443
	109	16.0	1	453	453
	110	16.0	1	810	810
	111	16.0	2	1034	2068
	112	16.0	4	927	3708
	113	16.0	4	1017	4068
	114	16.0	96	129	12384
	115	16.0	7	561	3927
	116	16.0	7	157	1099
	117	16.0	4	920	3680
	118	16.0	4	843	3372
	119	16.0	2	316	632
	120	16.0	10	336	3360
	121	16.0	5	339	1695
	122	16.0	8	1010	8080
	123	16.0	1	477	477
	124	16.0	4	477	1908
	125	16.0	1	210	210
	126	16.0	5	539	2695
	127	16.0	10	388	3716
	128	16.0	7	388	2716
	129	16.0	3	352	1056
	130	16.0	7	561	3927
	131	16.0	3	154	462
	132	16.0	4	487	1948
	133	16.0	10	330	3300
	134	16.0	10	337	3370
	135	16.0	4	337	1348
	136	16.0	4	865	3460
	137	16.0	8	339	2712
	138	16.0	8	337	2696
	139	16.0	3	281	843
	140	16.0	2	421	842
	141	16.0	2	491	982
	142	16.0	1	491	491
	143	16.0	2	489	978
	144	16.0	2	247	494
	145	16.0	2	496	992
	146	16.0	2	520	1040
	147	16.0	2	575	1150
	148	16.0	3	288	864
	149	16.0	10	252	2520
	150	16.0	1	296	296
	151	16.0	1	296	296
	152	16.0	1	256	256
	153	16.0	3	307	921
	154	16.0	3	555	1170
	155	16.0	4	338	1352
	156	16.0	2	339	678
	157	16.0	1	339	339
	158	16.0	6	343	2058
	159	16.0	2	346	692
	160	16.0	2	346	3894
	161	16.0	8	139	1112
	162	16.0	2	309	618
	163	16.0	2	316	632
	164	16.0	10	337	3370
	165	16.0	1	630	630
	166	16.0	2	974	1948

RESUMO DO AÇO

AÇO	DIAM (mm)	C.TOTAL (m)	PESO + 10% (kg)
CA50	6.3	374	346
	8.0	578.5	731.1
	10.0	583.1	995.5
	12.5	279.7	298.4
	16.0	1211	2122.4
CA60	5.0	1564	850.2

PESO TOTAL (kg)

CA50	3291.4
CA60	850.2

Volume de concreto (C-30) = 21.54 m³
Área de forma = 164.30 m²