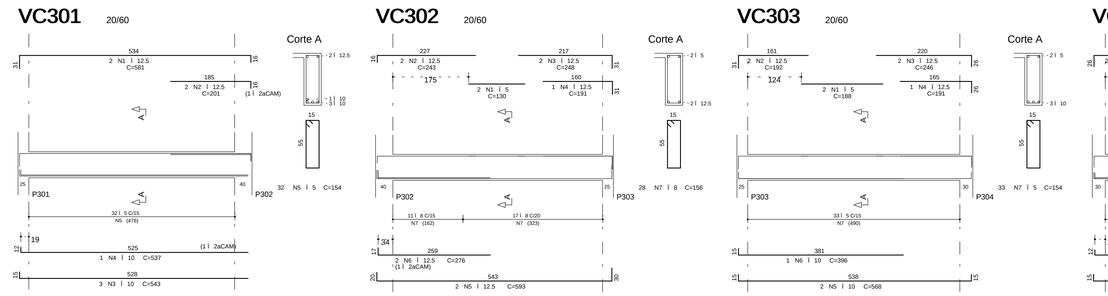
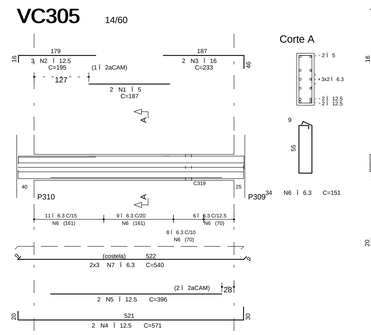
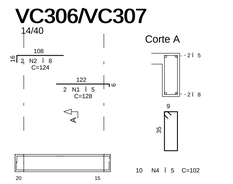
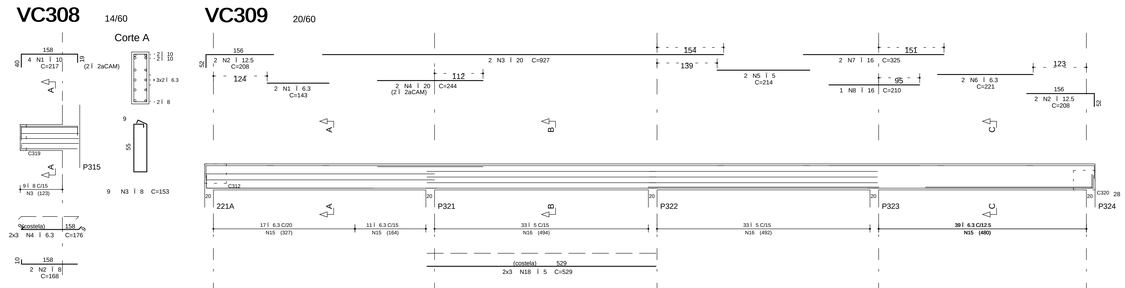
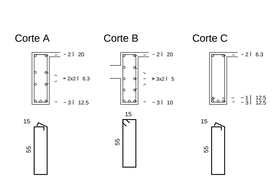
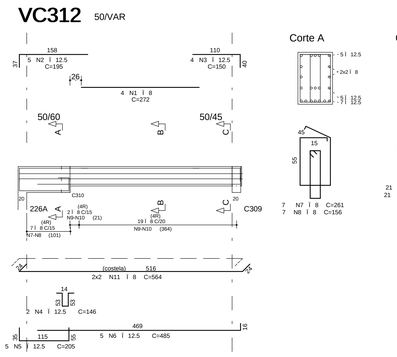








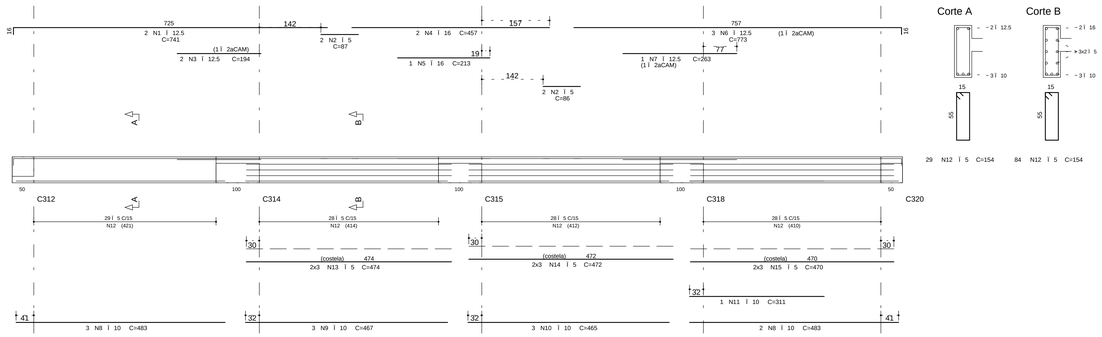




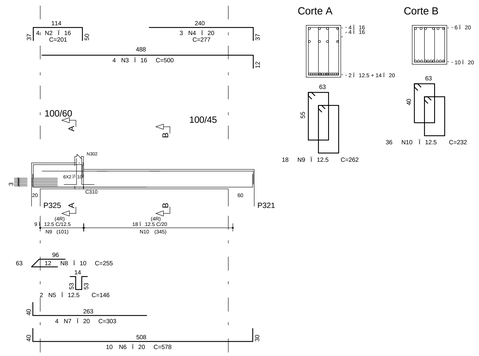
	A4 Ø	POS	BIT (mm)	QUANT	COMPRIMENTO UNIT (cm)	COMPRIMENTO TOTAL (cm)
VC301						
	50A	1	12.5	2	581	1162
	50A	2	12.5	2	201	402
	50A	3	10	2	543	1086
	50A	4	10	2	537	1074
	60B	5	5	32	154	4928
VC302						
	60B	1	5	2	130	260
	50A	2	12.5	2	243	486
	50A	3	12.5	2	248	496
	50A	4	12.5	2	191	382
	50A	5	12.5	2	276	552
	50A	6	12.5	2	276	552
	50A	7	12.5	2	28	56
VC303						
	60B	1	5	2	188	376
	50A	2	12.5	2	192	384
	50A	3	12.5	2	191	382
	50A	4	12.5	2	191	382
	50A	5	12.5	2	568	1136
	50A	6	12.5	2	284	568
	50A	7	5	33	154	5082
VC304						
	60B	1	5	2	162	324
	50A	2	12.5	2	197	394
	50A	3	12.5	2	239	478
	50A	4	12.5	2	545	1090
	50A	5	12.5	2	325	650
	60B	6	5	31	154	4774
VC305						
	60B	1	5	2	187	374
	50A	2	12.5	2	195	390
	50A	3	16	2	233	466
	50A	4	12.5	2	396	792
	60B	5	5.3	34	161	5474
	50A	6	5	8	540	4320
VC306 / VC307 (X2)						
	60B	1	5	4	128	512
	50A	2	12.5	4	124	496
	50A	3	8	8	254	2032
	60B	4	5	8	185	1480
VC308						
	50A	1	10	4	217	868
	50A	2	12.5	4	208	832
	50A	3	8	4	168	672
	60B	4	5.3	9	175	1575
VC309						
	50A	1	6.3	4	143	572
	50A	2	12.5	4	208	832
	50A	3	20	4	927	3708
	50A	4	16	4	124	496
	60B	5	5	2	214	428
	50A	6	5.3	2	221	442
	50A	7	16	2	325	650
	50A	8	16	2	329	658
	50A	9	12.5	2	573	1146
	50A	10	12.5	1	424	424
	50A	11	10	4	533	2132
	50A	12	10	4	534	2136
	50A	13	12.5	2	557	1114
	50A	14	12.5	2	557	1114
	50A	15	6.3	87	168	14616
	60B	16	5	86	154	13244
	60B	17	5.3	4	525	2100
	60B	18	5	4	525	2100
	60B	19	5	4	571	2284
VC310						
	50A	1	12.5	4	725	2900
	60B	2	5	4	87	348
	50A	3	12.5	2	741	1482
	50A	4	16	2	457	914
	50A	5	16	1	213	213
	50A	6	12.5	2	194	388
	50A	7	12.5	2	252	504
	50A	8	10	5	483	2415
	50A	9	10	2	480	960
	50A	10	10	2	465	1395
	50A	11	10	1	311	311
	50A	12	5	123	154	18942
	60B	13	5	4	474	1896
	60B	14	5	4	472	1892
	60B	15	5	4	470	1880
VC311						
	50A	1	12.5	1	620	620
	50A	2	12.5	1	780	780
	50A	3	12.5	1	181	181
	50A	4	16	1	760	760
	50A	5	12.5	1	564	564
	50A	6	12.5	1	564	564
	50A	7	12.5	1	245	245
	50A	8	10	4	482	1928
	50A	9	10	2	480	960
	50A	10	10	2	465	1395
	50A	11	10	1	311	311
	50A	12	5	123	154	18942
	60B	13	5	4	474	1896
	60B	14	5	4	472	1892
	60B	15	5	4	470	1880
VC312						
	50A	1	6.3	4	195	780
	50A	2	12.5	4	195	780
	50A	3	16	2	365	730
	50A	4	12.5	2	146	292
	50A	5	12.5	2	489	1426
	50A	6	12.5	2	146	292
	50A	7	8	7	261	1827
	50A	8	8	7	156	1092
	50A	9	8	21	231	4851
	50A	10	8	21	126	2646
	50A	11	8	4	564	2256
VC314						
	50A	2	16	4	201	804
	50A	3	20	4	500	2000
	50A	4	16	2	277	554
	50A	5	12.5	4	146	584
	50A	6	20	19	578	10982
	50A	7	20	4	303	1212
	50A	8	20	4	303	1212
	50A	9	12.5	18	292	5256
	50A	10	12.5	36	292	10512
VC315						
	50A	2	16	4	201	804
	50A	3	16	4	151	604
	50A	4	16	2	227	454
	50A	5	12.5	2	146	292
	50A	6	20	19	578	10982
	50A	7	20	4	396	1584
	50A	8	20	3	396	1188
	50A	9	20	8	295	2360
	50A	10	12.5	12	257	3084
	50A	11	12.5	22	257	5654
VC316						
	50A	1	4.2	2	34	68
	50A	2	16	4	252	1008
	50A	3	12.5	4	201	804
	50A	4	12.5	4	462	1848
	50A	5	5	4	462	1848
	60B	6	5	4	462	1848
VC317						
	60B	1	5	2	159	318
	50A	2	12.5	2	242	484
	50A	3	12.5	1	177	177
	50A	4	10	2	238	476
	50A	5	10	1	155	155
	50A	6	10	2	568	1136
	60B	7	5	26	114	2964
	60B	8	5	8	585	2340

RESUMO A4 O CA 50-60			
A4 Ø	BIT	COMPR. (m)	PESO (kg)
50A	4.2	34	50
50A	5	229	65
50A	6.3	143	32
50A	8	346	218
50A	12.5	449	449
50A	16	148	377
50A	20	37	372
Peso Total 60B =			311 kg
Peso Total 50A =			1303 kg

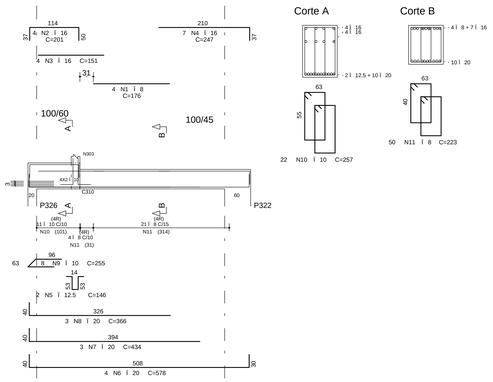
VC310 20/60



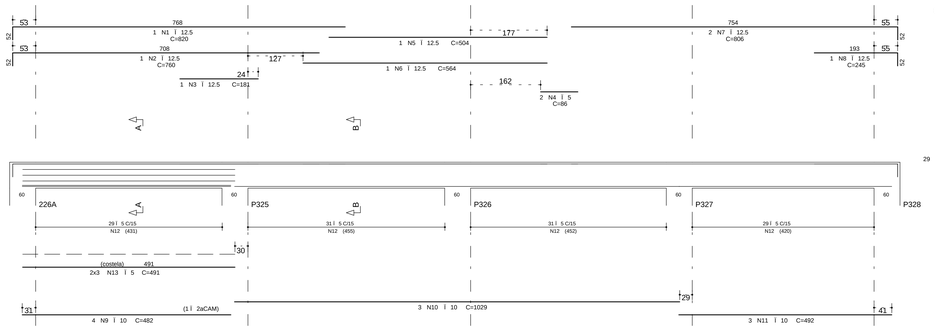
VC314 100/VAR



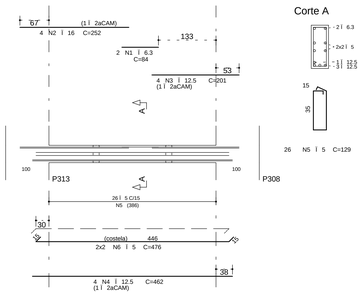
VC315 100/VAR



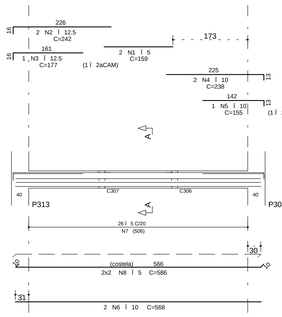
VC311 20/60



VC316 20/40



VC317 15/40



COBRIMENTO DA ARMADURA:

- LAJES = 2,0 cm
- VIGAS E PILARES = 2,5 cm
- BLOCOS,BALDRAMES E CONTENCOES (FACE EM CONTATO COM A TERRA) = 3,0 cm

1. ESSES COBRIMENTOS DEVERAO SER GARANTIDOS COM O USO DE ESPACADORES OU PASTILHAS.
COBRIMENTOS ESPECIFICOS EM CONTRARIO AOS VALORES INDICADOS ACIMA, ESTAO INDICADOS NOS DESENHOS DE FORMAS DOS PAVIMENTOS.

NORMAS UTILIZADAS:

NBR-6118/2003 - PROJETO E EXECUCAO DE OBRAS DE CONCRETO ARMADO
NBR-6120/1980 - CARGAS PARA O CALCULO DE ESTRUTURAS DE EDIFICACOES

INDICE:

VC301 A VC312 / VC314 A VC317

FCK= 35 MPa
EC = 28 GPa (MODULO DE ELASTICIDADE SECANTE AOS 28 DIAS).
A/C = 0,65 (FATOR AGUA CIMENTO)

REV	DATA	DESCRICAO
0	06/08/2010	EMISSAO INICIAL

Simetria Engenharia
SIA QUADRA AC Nº 04.53 SALAS 201 A 203
BRASÍLIA-DF CEP: 71200-045
PABX: (0XX61) 3036-9610
simetria@simetria.eng.br

PROJETO ESTRUTURAL

CLIENTE: DISCO INCORPORADORA IMOBILIARIA LTDA
OBRA: ED. RESIDENCIAL OLYMPIQUE — No OBRA: 001
ENDEREÇO OBRA: SRIA AREA ESPECIAL 04 LOTES G e H GUARA-DF
DESCRICAO: VIGAS DO PISO DO TERREO — TORRE B - JUNTA C - (01/02)
DESENHO No: 330-XXX

DESENHISTA:	DATA:	ESCALA:	UNIDADE	No PROJ. SIMETRIA:
TOSI GUSTAVO	06/08/2010	1:50	CM	421

ARQUIVO PLT: 421 -EST- 330-XXX -R00 .PLT

PROPRIETARIO:

RESPONSAVEL TECNICO:

RESPONSAVEL TECNICO PELO PROJETO ESTRUTURAL

SIMETRIA ENGENHARIA E PROJETOS S/C LTDA
CREA:2725/RF

SIMETRIA ENGENHARIA DE PROJETOS S/C LTDA K:\TYDSIS\VIVOC\VMPC JUNTA C\ TYDSIS\VIVOC\VMPC JUNTA C\ TORRE B\02-TERREO\VC\VC\VC301 A VC317.DWG 06/08/2010 14:21:16