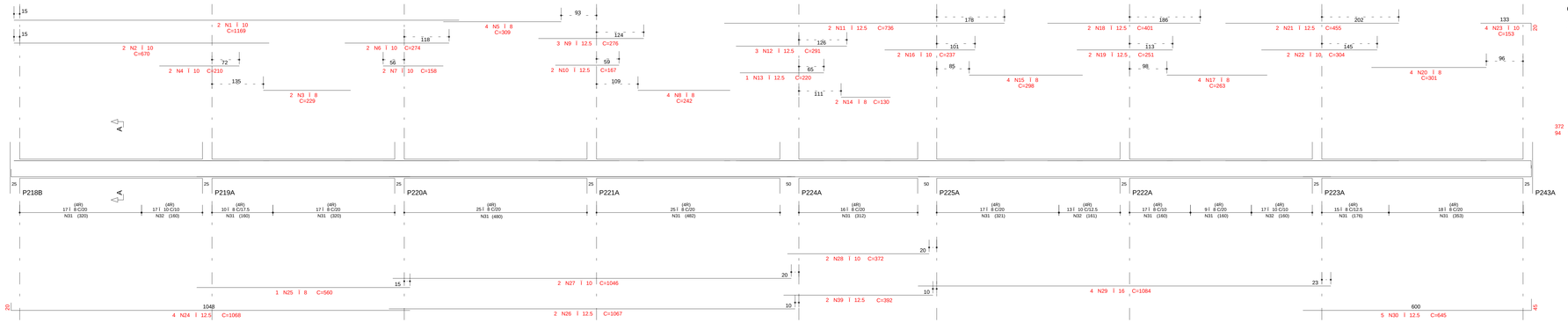
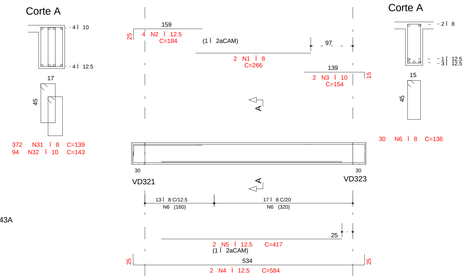
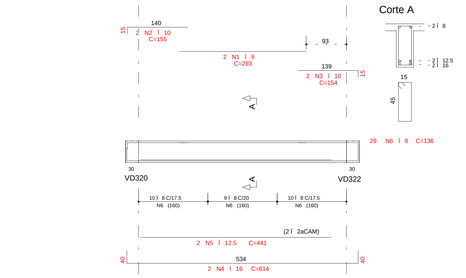
VD301/VD311 30/50



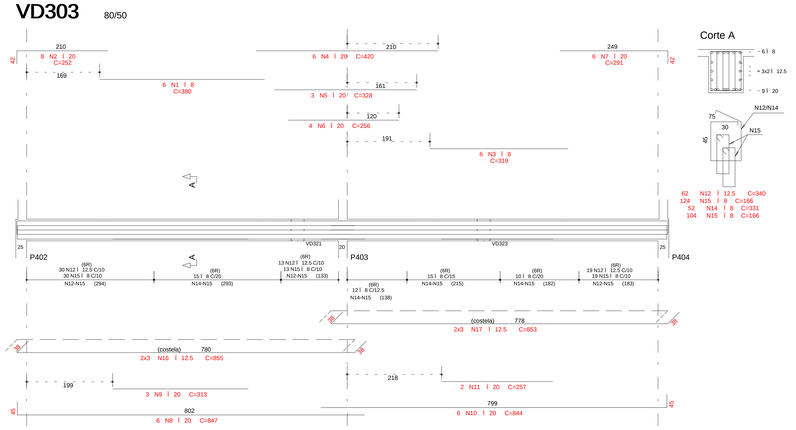
VD302 20/50



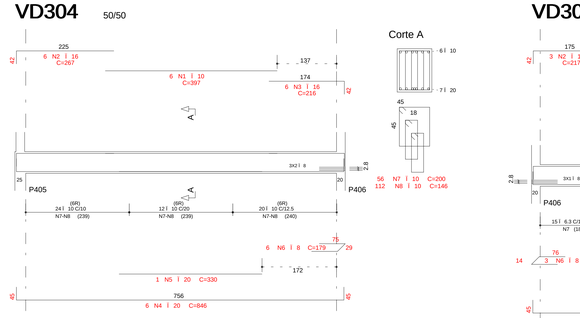
VD310 20/50



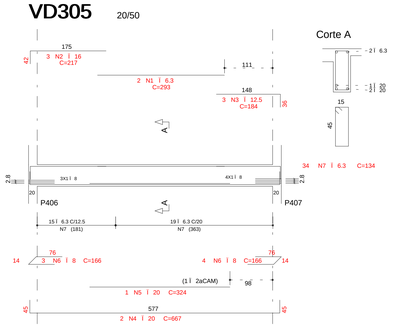
VD303 80/50



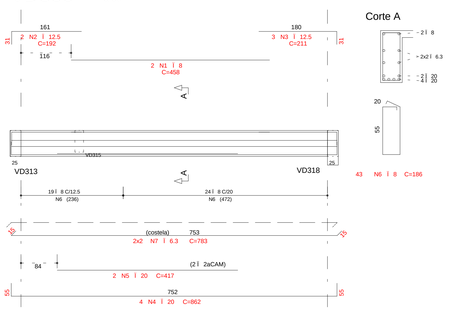
VD304 50/50



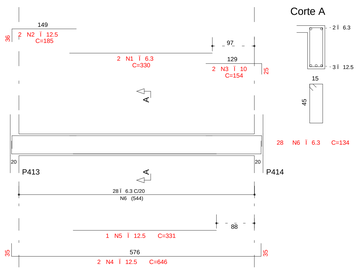
VD305 20/50



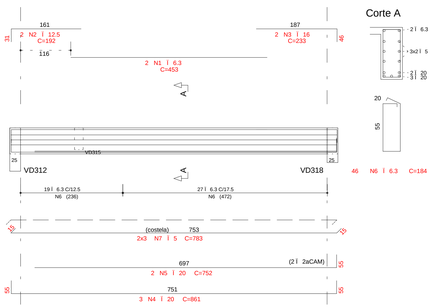
VD306 25/60



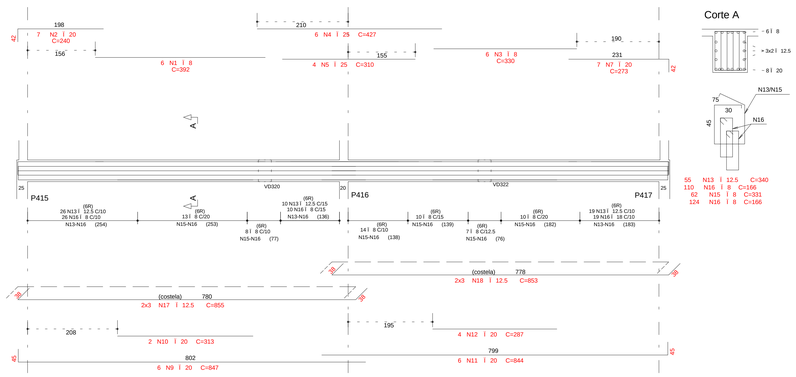
VD307 20/50



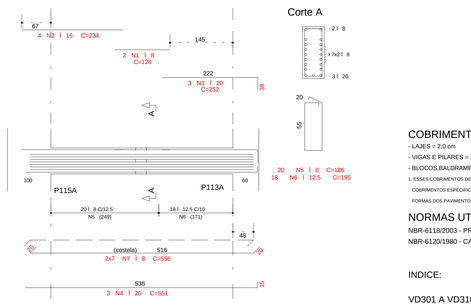
VD308 25/60



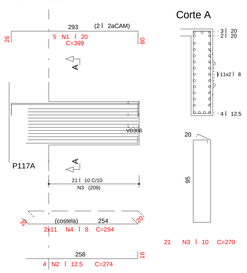
VD309 80/50



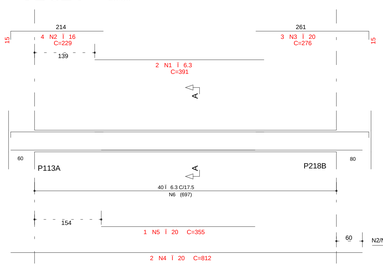
VD313 25/60



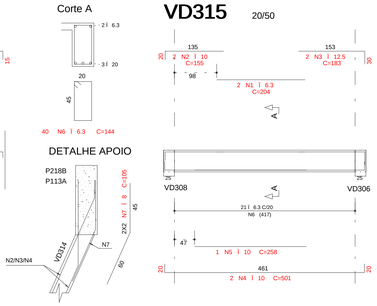
VD312 25/100



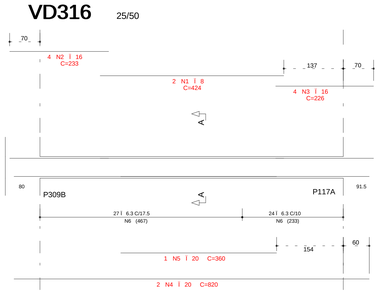
VD314 25/50



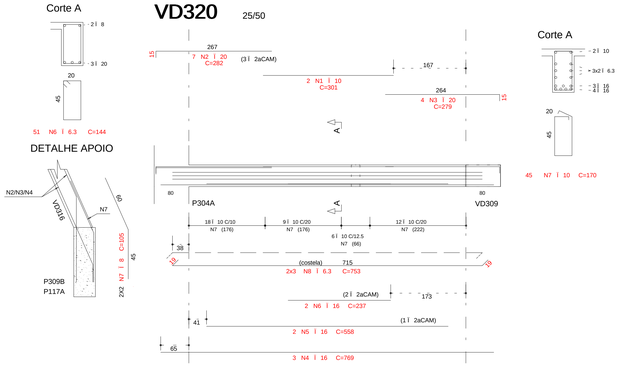
VD315 20/50



VD316 25/50



VD320 25/50



A4 O	POS	BIT (mm)	QUANT.	COMPRIMENTO UNIT (cm)	COMPRIMENTO TOTAL (cm)
VD301/VD311 (X2)					
50A	1	10	4	118	4676
50A	2	10	4	675	26980
50A	3	8	4	229	3648
50A	4	10	4	270	4316
50A	5	8	4	269	3472
50A	6	10	4	274	4396
50A	7	8	4	158	2528
50A	8	8	4	242	3872
50A	9	12.5	4	276	6896
50A	10	12.5	4	167	4176
50A	11	12.5	4	310	7752
50A	12	12.5	4	231	5776
50A	13	12.5	4	220	5500
50A	14	8	4	130	2080
50A	15	8	4	298	4768
50A	16	10	4	237	3792
50A	17	8	4	263	4208
50A	18	12.5	4	401	10024
50A	19	12.5	4	251	6276
50A	20	8	4	301	4816
50A	21	12.5	4	455	11375
50A	22	10	4	304	7600
50A	23	10	8	153	12240
50A	24	12.5	8	1068	85440
50A	25	8	4	153	2448
50A	26	12.5	4	1067	53350
50A	27	10	4	1046	41840
50A	28	10	4	1067	42680
50A	29	10	8	1084	86720
50A	30	12.5	12	645	96825
50A	31	8	8	1084	86720
50A	32	10	144	645	92880
50A	33	12.5	4	392	19600
VD302					
50A	1	10	2	184	368
50A	2	12.5	2	199	398
50A	3	10	2	154	308
50A	4	12.5	2	584	2336
50A	5	12.5	2	534	2136
50A	6	8	4	136	2176
VD303					
50A	1	8	6	380	2280
50A	2	20	6	252	3024
50A	3	8	6	319	1914
50A	4	20	6	319	3828
50A	5	20	3	328	984
50A	6	20	4	256	1024
50A	7	8	6	291	1746
50A	8	20	6	447	5682
50A	9	20	3	313	939
50A	10	20	3	257	771
50A	11	8	6	514	3084
50A	12	12.5	62	340	21080
50A	13	8	6	169	1014
50A	14	8	6	228	1368
50A	15	12.5	6	855	5130
50A	16	12.5	6	853	5118
VD304					
50A	1	10	4	397	1588
50A	2	20	6	267	1602
50A	3	16	6	216	1296
50A	4	10	6	397	2382
50A	5	20	1	130	130
50A	6	8	4	179	1074
50A	7	12.5	4	846	13536
50A	8	10	12	146	17520
VD305					
50A	1	6.3	2	293	586
50A	2	10	2	217	434
50A	3	12.5	2	184	552
50A	4	6.3	2	111	222
50A	5	20	1	324	324
50A	6	8	1	166	1162
50A	7	6.3	34	134	4556
VD306					
50A	1	8	2	458	916
50A	2	12.5	2	192	384
50A	3	12.5	2	211	422
50A	4	8	2	458	916
50A	5	20	2	417	834
50A	6	8	43	186	7998
50A	7	6.3	2	783	1566
VD307					
50A	1	6.3	2	130	260
50A	2	12.5	2	185	370
50A	3	10	2	154	308
50A	4	12.5	2	646	1292
50A	5	6.3	134	134	17956
50A	6	8.0	2	134	268
VD308					
50A	1	6.3	2	453	906
50A	2	8	2	184	368
50A	3	10	2	233	466
50A	4	20	2	853	1706
50A	5	8	2	734	1468
50A	6	6.3	46	184	8464
50A	7	8	2	794	1588
VD309					
50A	1	8	4	392	1552
50A	2	20	4	240	1920
50A	3	8	4	330	1380
50A	4	16	4	427	2708
50A	5	25	4	310	2240
50A	7	20	1	273	1521
50A	8	10	4	427	1708
50A	10	20	2	313	626
50A	11	20	4	844	5064
50A	12	12.5	4	853	2136
50A	13	12.5	55	340	12705
50A	15	8	62	331	20522
50A	16	8	110	156	17160
50A	17	12.5	8	855	5130
50A	18	12.5	8	853	5118
VD310					
50A	1	10	2	155	310
50A	2	8	2	159	318
50A	3	10	2	154	308
50A	4	12.5	2	414	1242
50A	5	6.3	29	134	3886
VD312					
50A	1	20	5	399	1995
50A	2	12.5	5	274	1096
50A	3	10	21	270	5670
50A	4	8	21	294	6174
VD313					
50A	1	8	2	128	256
50A	2	20	2	252	504
50A	3	8	2	391	782
50A	4	20	2	391	1563
50A	5	12.5	18	186	3348
50A	6	8	18	186	3348
VD314					
50A	1	6.3	2	391	782
50A	2	16	2	229	458
50A	3	20	2	276	552
50A	4	20	2	912	1824
50A	5	6.3	40	144	5760
50A	6	6.3	40	144	5760
50A	7	8	4	105	420
VD315					
50A	1	6.3	2	204	408
50A	2	10	2	155	310
50A	3	12.5	2	183	366
50A	4	10	2	561	1122
50A	5	10	1	258	258
50A	6	6.3	21	204	4284
VD316					
50A	1	8	2	424	848
50A	2	16	2	233	466
50A	3	16	4	226	904
50A	4	10	2	424	848
50A	5	20	1	360	360
50A	6	6.3	21	144	3024
50A	7	8	4	105	420
VD320					
50A	1	10	2	301	602
50A	2	20	2	282	564
50A	3	10	2	279	558
50A	4	16	2	769	1538
50A	5	16	2	558	1116
50A	6	16	2	237	474
50A	7	10	45	170	7650
50A	8	6.3	6	51	306

RESUMO A4 O CA 50-60			
A4 O	BIT (mm)	COMPR (m)	PESO (kg)
60B	5.0	30	0.2
50A	6.3	437	109
50A	8	2804	1127
50A	10	1	0.6
50A	12.5	3355	2025
50A	16	215	344
50A	20	18	44
50A	25	38	150
Peso Total 60B =			0 kg
Peso Total 50A =			4944 kg

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:

VD301 A VD316 E VD320

FCK= 35 MPa

EC = 28 GPa (MODULO DE ELASTICIDADE SECANTE AOS 28 DIAS).

A/C = 0,65 (FATOR AGUA CIMENTO)

REV	DATA	DESCRICAO
2	02/09/2014	NUMERACAO FINAL
1	20/03/2013	ALTERA4 4-O: VD301 A VD303, VD309 A VD311 E VD320
0	26/02/2013	EMISSAO INICIAL

Simetria Engenharia
SIA QUADRA 3C Nr.53 SALAS 201 a 203
BRASILIA-DF CEP: 71200-045
FIXO: (0XX61) 3036-9400
simetria@simetria.eng.br

PROJETO ESTRUTURAL

CLIENTE: GENT INCORPORADORA LTDA
OBRA: ED. RESIDENCIAL/COMERCIAL PAINEIRAS — No OBRA: XXX
ENDERECO OBRA: RUA 30 NORTE LOTE 03 - RUA DAS PAINEIRAS - AGUAS CLARAS DF
DESCRICAO: ARMACAO DAS VIGAS - EMBASAMENTO - JUNTA D TERREO (01/02)
DESENHO No: BL4 022-052
DESENHISTA: TQS/ PRISCILLA — DATA: 26/02/2013 — ESCALA: 1:50 — UNIDADE: CM — No PROJ. SIMETRIA: 478
ARQUIVO R.T.: 478 -EST-BL4- 022-052 -R02 -VIG.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 Fk: C:\TQS\WINAUTO - CODIGO/POLITAN - EMBAS - JUNTA D\QS-TERREO\VIGAS\VIGAS01.PLT 02/09/2014 08:59:38