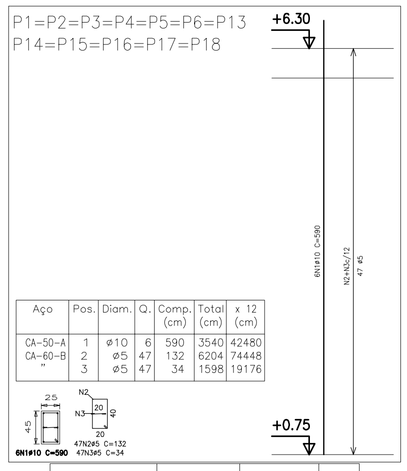
Pilares que terminam em
Piso 2
Concreto: C25, usina.rigor
Aço: CA-50-A e CA-60-B
Escala: 1:50

P1=P2=P3=P4=P5=P6=P13
P14=P15=P16=P17=P18

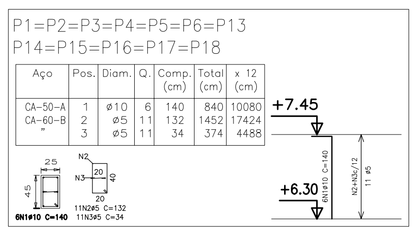


Aço	Pos.	Diam.	Q.	Comp. (cm)	Total (cm)	x 12 (cm)
CA-50-A	1	ø10	6	590	3540	42480
CA-60-B	2	ø5	47	132	6204	74448
"	3	ø5	47	34	1598	19176

Resumo Aço Piso 2 Pilares	Comp. total (m)	Peso+10% (kg)	Total
CA-50-A ø10	424.8	293	293
CA-60-B ø5	936.2	162	162
Total			455

Pilares que terminam em
Cobertura
Concreto: C25, usina.rigor
Aço: CA-50-A e CA-60-B
Escala: 1:50

P1=P2=P3=P4=P5=P6=P13
P14=P15=P16=P17=P18



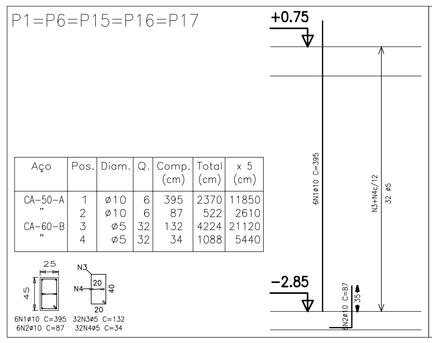
Aço	Pos.	Diam.	Q.	Comp. (cm)	Total (cm)	x 12 (cm)
CA-50-A	1	ø10	6	140	840	10080
CA-60-B	2	ø5	11	132	1452	17424
"	3	ø5	11	34	374	4488

Resumo Aço Cobertura Pilares	Comp. total (m)	Peso+10% (kg)	Total
CA-50-A ø10	100.8	70	70
CA-60-B ø5	219.1	38	38
Total			108

Pilares que terminam no
Piso 1
Concreto: C25, usina.rigor
Aço: CA-50-A e CA-60-B
Escala: 1:50

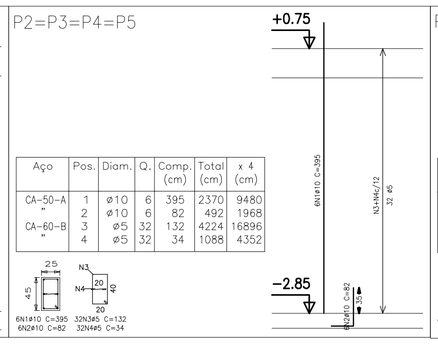
Resumo Aço Piso 1 Pilares	Comp. total (m)	Peso+10% (kg)	Total
CA-50-A ø10	656.2	453	453
CA-60-B ø5	1140.5	197	197
Total			650

P1=P6=P15=P16=P17



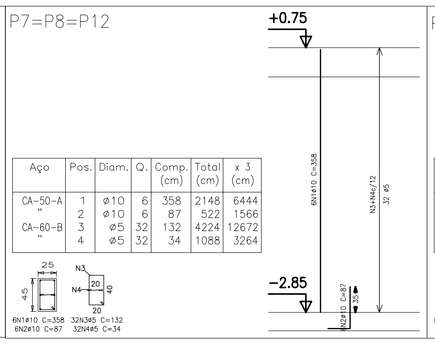
Aço	Pos.	Diam.	Q.	Comp. (cm)	Total (cm)	x 5 (cm)
CA-50-A	1	ø10	6	395	2370	11850
"	2	ø10	6	87	522	2610
CA-60-B	3	ø5	32	132	4224	21120
"	4	ø5	32	34	1088	5440

P2=P3=P4=P5



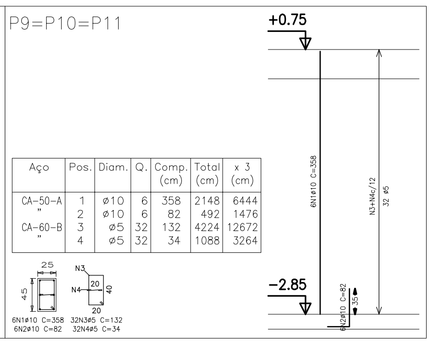
Aço	Pos.	Diam.	Q.	Comp. (cm)	Total (cm)	x 4 (cm)
CA-50-A	1	ø10	6	395	2370	9480
"	2	ø10	6	82	492	1968
CA-60-B	3	ø5	32	132	4224	16896
"	4	ø5	32	34	1088	4352

P7=P8=P12



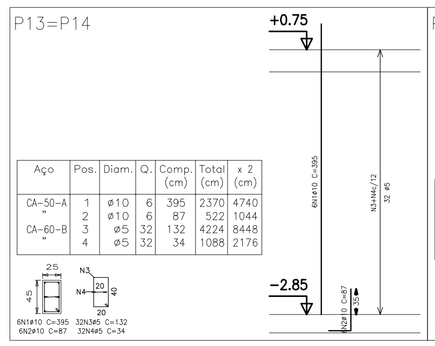
Aço	Pos.	Diam.	Q.	Comp. (cm)	Total (cm)	x 3 (cm)
CA-50-A	1	ø10	6	358	2148	6444
"	2	ø10	6	87	522	1566
CA-60-B	3	ø5	32	132	4224	12672
"	4	ø5	32	34	1088	3264

P9=P10=P11



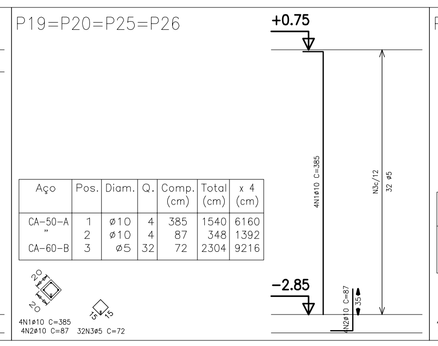
Aço	Pos.	Diam.	Q.	Comp. (cm)	Total (cm)	x 3 (cm)
CA-50-A	1	ø10	6	358	2148	6444
"	2	ø10	6	82	492	1476
CA-60-B	3	ø5	32	132	4224	12672
"	4	ø5	32	34	1088	3264

P13=P14



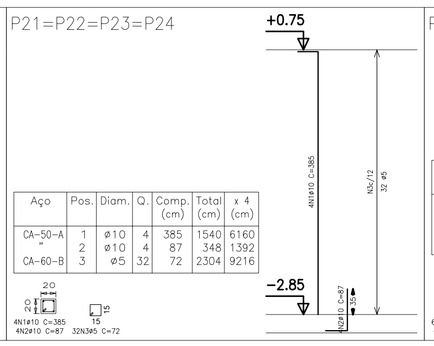
Aço	Pos.	Diam.	Q.	Comp. (cm)	Total (cm)	x 2 (cm)
CA-50-A	1	ø10	6	395	2370	4740
"	2	ø10	6	87	522	1044
CA-60-B	3	ø5	32	132	4224	8448
"	4	ø5	32	34	1088	2176

P19=P20=P25=P26



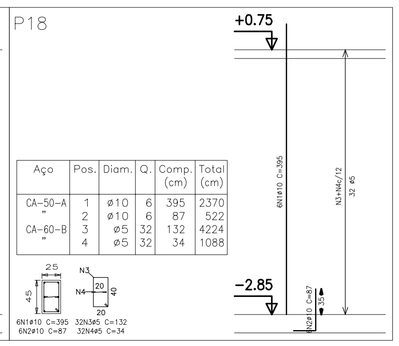
Aço	Pos.	Diam.	Q.	Comp. (cm)	Total (cm)	x 4 (cm)
CA-50-A	1	ø10	4	385	1540	6160
"	2	ø10	4	87	348	1392
CA-60-B	3	ø5	32	72	2304	9216

P21=P22=P23=P24



Aço	Pos.	Diam.	Q.	Comp. (cm)	Total (cm)	x 4 (cm)
CA-50-A	1	ø10	4	385	1540	6160
"	2	ø10	4	87	348	1392
CA-60-B	3	ø5	32	72	2304	9216

P18



Aço	Pos.	Diam.	Q.	Comp. (cm)	Total (cm)
CA-50-A	1	ø10	6	395	2370
"	2	ø10	6	87	522
CA-60-B	3	ø5	32	132	4224
"	4	ø5	32	34	1088

PREFEITURA MUNICIPAL DO RIO GRANDE
UNIDADE GESTORA DE PROJETOS - UGP
RIO GRANDE 2010 UMA VISÃO DE FUTURO

OBRA/LOCAL:
PROJETO DE ESTRUTURAL DA CASA DE BOMBAS PADRÃO

CASA DE BOMBAS

RESP. PROJETO: Engº Mauro Lippert - CREA 37973
Engº Gilberto Arabidian Junior - CREA/RS 159864
Engº Ataualpa da Silva Agostinho - CREA/RS 160757

DESENHO: GILBERTO A. JR. | ESCALA: 1/50 | DATA: AGOSTO/2010 | PRANCHA: 09/10

ESPECIFICAÇÃO: ARMAÇÃO DOS PILARES - DETALHAMENTO