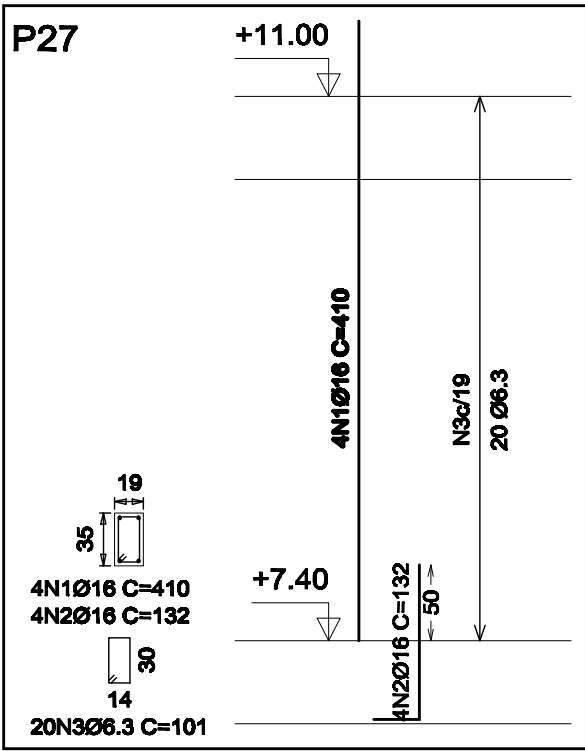
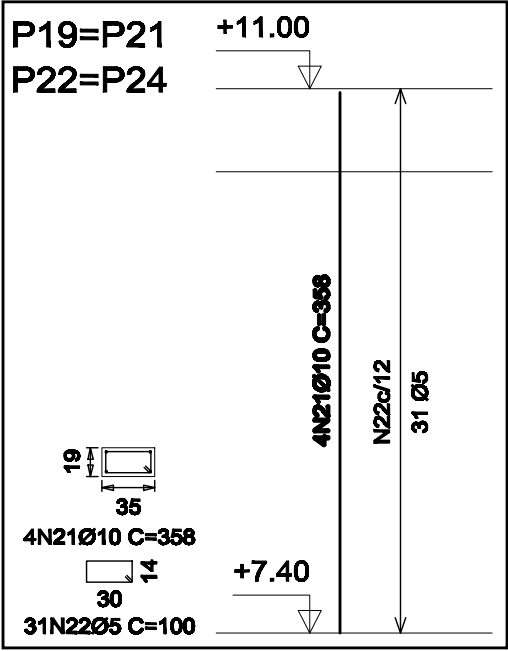
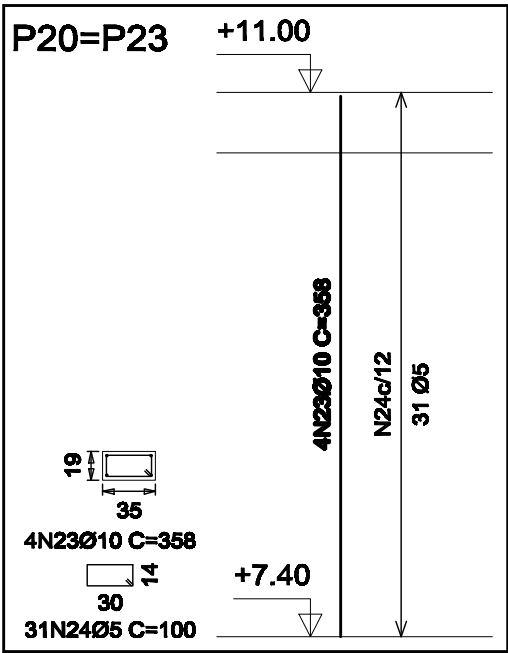
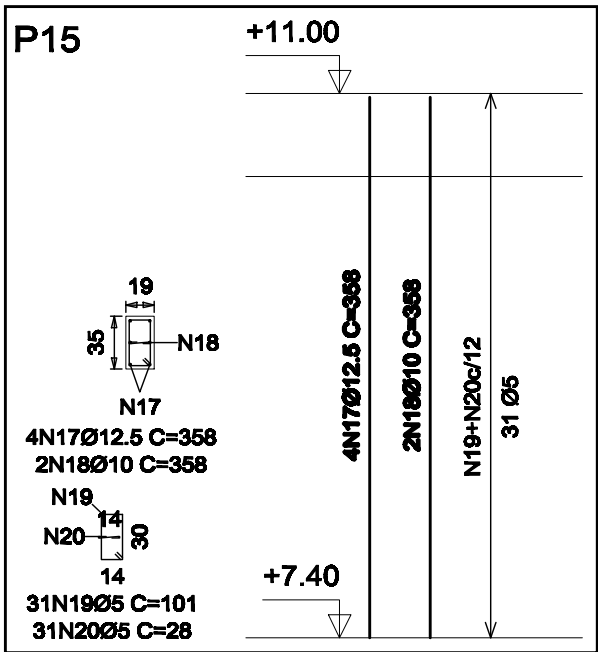
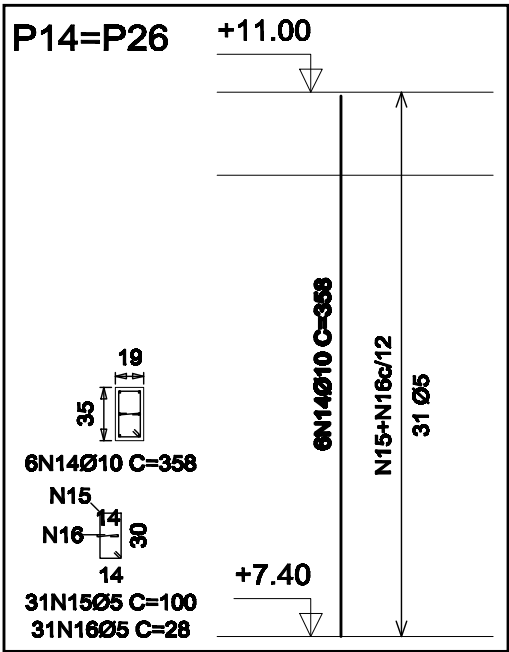
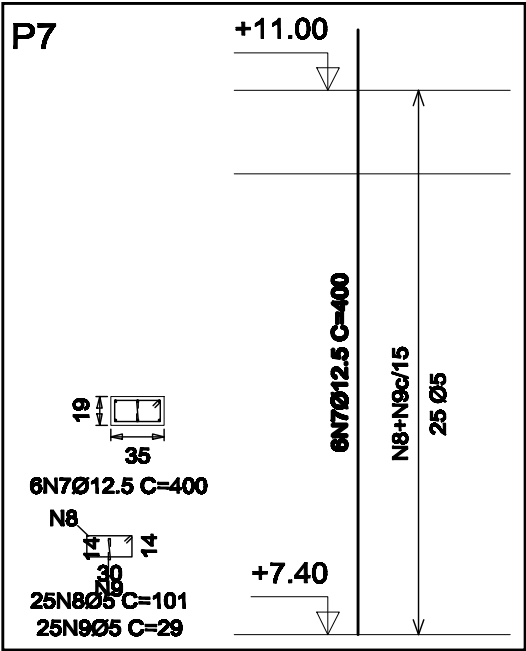
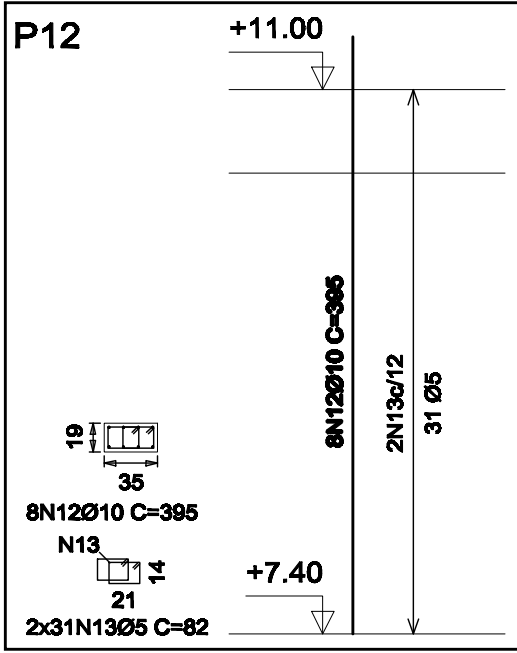
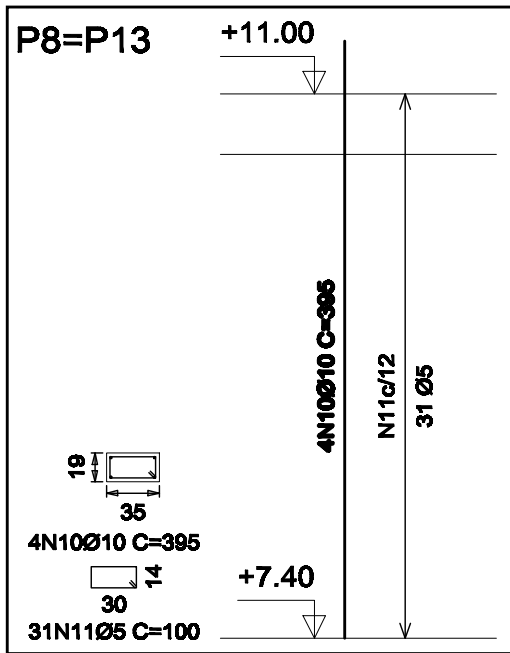
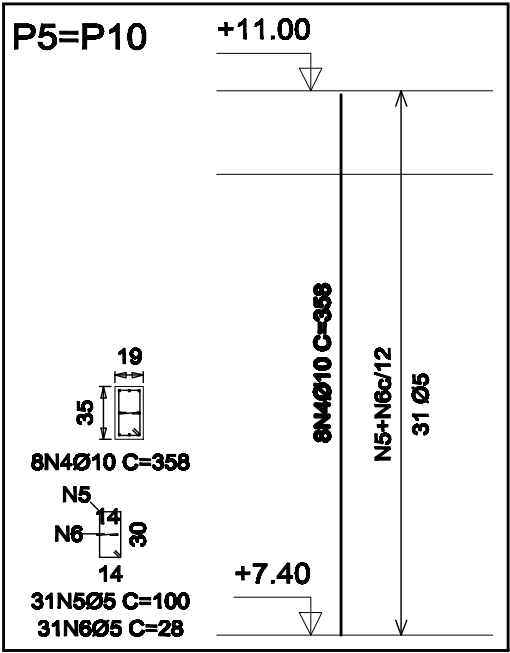


Pilares que terminam em Cobertura
Concreto: C30, usina.rigor
Aço: CA-50-A e CA-60-B
Escala: 1:50

Elemento	Pos.	Diam.	Q.	Dob. (cm)	Reta (cm)	Dob. (cm)	Comp. (cm)	Total (cm)	CA-50-A (kg)	CA-60-B (kg)
P27	1	Ø16	4		410		410	1640	25.7	
	2	Ø16	4	30	102		132	528	8.3	
	3	Ø6.3	20		101		101	2020	5.0	
Total+10%:									42.9	

Elemento	Pos.	Diam.	Q.	Dob. (cm)	Reta (cm)	Dob. (cm)	Comp. (cm)	Total (cm)	CA-50-A (kg)	CA-60-B (kg)
P5=P10	4	Ø10	8		358		358	2864	18.0	
	5	Ø5	31		100		100	3100		4.9
	6	Ø5	31		28		28	868		1.4
	Total+10%: (x2):								19.8 39.6	6.9 13.8
P7	7	Ø12.5	6		400		400	2400	23.6	
	8	Ø5	25		100		100	2500		3.9
	9	Ø5	25		29		29	725		1.1
	Total+10%:								26.0	5.5
P8=P13	10	Ø10	4		395		395	1580	9.9	
	11	Ø5	31		100		100	3100		4.9
	Total+10%: (x2):								10.9 21.8	5.4 10.8
	P12	12	Ø10	8		395		395	3160	19.8
13		Ø5	62		82		82	5084		8.0
Total+10%:								21.8	8.8	
P14=P26		14	Ø10	6		358		358	2148	13.5
	15	Ø5	31		100		100	3100		4.9
	16	Ø5	31		28		28	868		1.4
	Total+10%: (x2):								14.9 29.8	6.9 13.8
P15	17	Ø12.5	4		358		358	1432	14.1	
	18	Ø10	2		358		358	716	4.5	
	19	Ø5	31		100		100	3100		4.9
	20	Ø5	31		28		28	868		1.4
P19=P21=P22=P24	Total+10%:								20.5	6.9
	21	Ø10	4		358		358	1432	9.0	
	22	Ø5	31		100		100	3100		4.9
	Total+10%: (x4):								9.9 39.6	5.4 21.6
P20=P23	23	Ø10	4		358		358	1432	9.0	
	24	Ø5	31		100		100	3100		4.9
	Total+10%: (x2):								9.9 19.8	5.4 10.8
								Ø5:	0.0	92.0
								Ø6.3:	5.5	0.0
								Ø10:	177.4	0.0
								Ø12.5:	41.5	0.0
								Ø16:	37.4	0.0
								Total:	261.8	92.0

Resumo Aço Cobertura Pilares	Comp. total (m)	Peso+10% (kg)	Total
CA-50-A Ø6.3	20.2	5	260
Ø10	256.5	177	
Ø12.5	38.3	41	
Ø16	21.7	37	
CA-60-B Ø5	529.5	91	91
Total			351



Meta

ENGENHARIA E PLANEJAMENTO

15

ANOS

PROJETO	ESTRUTURAL
OBRA	8º BATALHÃO DE BOMBEIROS MILITAR - CONV. PMT AV. PATRÍCIO LIMA, 804 - HUMAITÁ - TUBARÃO - S.C.

ASSUNTO PILARES COBERTURA	ÁREA: 610,43 M²	PRANCHA C20 24
	ESC.: INDICADA	
	DATA : MARÇO / 2018 PROJ.: 18-003	

EQUIPE TÉCNICA	CHARLES MENDES DE SOUZA	CREA/SC 41.411-4
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REVISÃO Nº	DATA	COMENTÁRIO	COLABORADOR
00	19/02/2018	EMISSION PARCIAL	ENG. CHARLES
01	19/03/2018	EMISSION FINAL	ENG. CHARLES

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CHARLES MENDES DE SOUZA	PROPRIETÁRIO
R. Cel. José Martins Cabral, 42 - Sl 1 - Centro - Tubarão - S.C. (48) 3622-2534 - projetos@metaengenharia.eng.br	