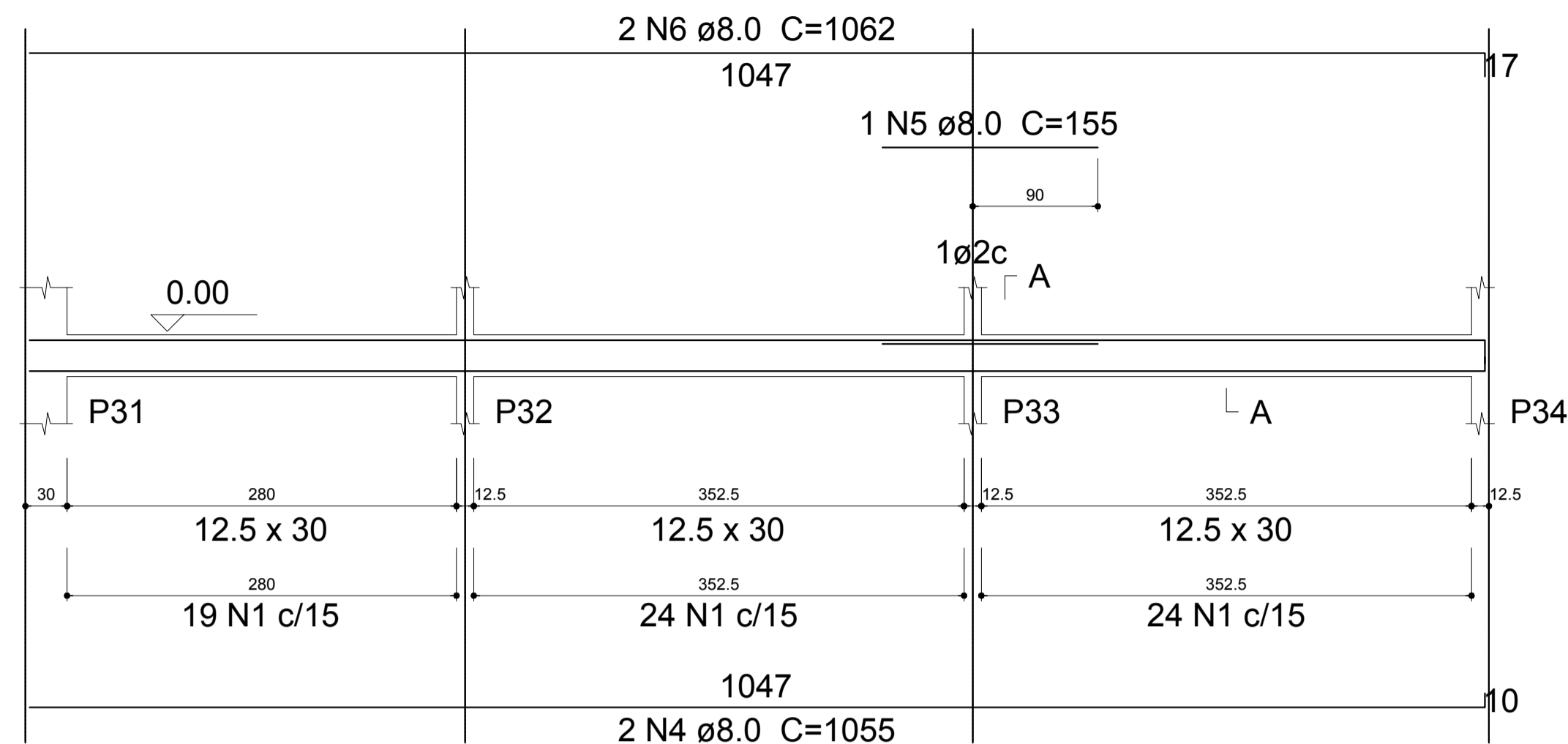


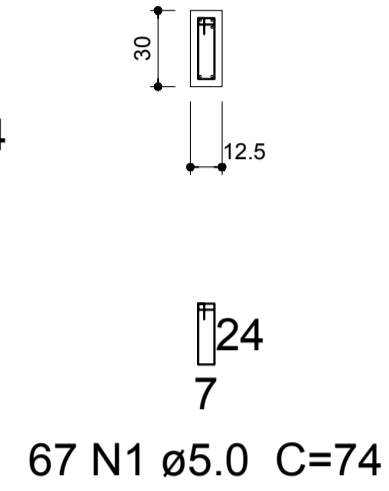
V10

ESC 1:40



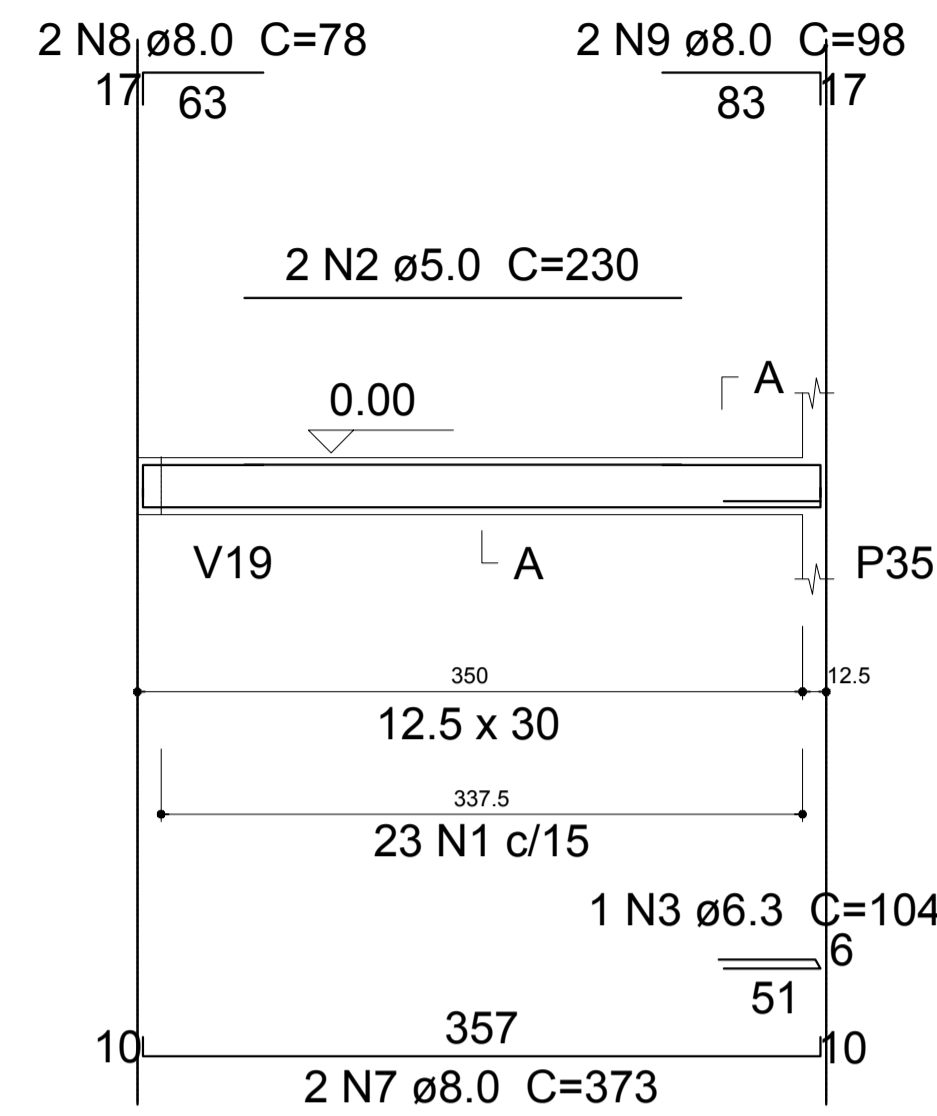
SEÇÃO A-A

ESC 1:30



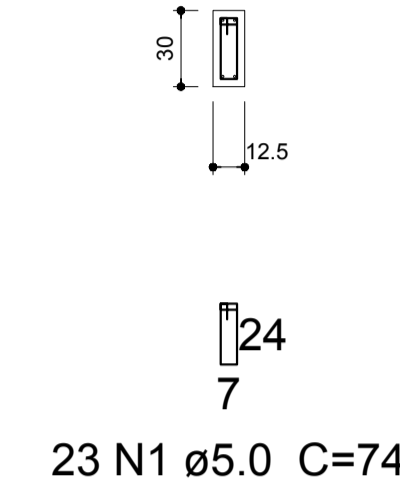
V11

ESC 1:40



SEÇÃO A-A

ESC 1:30

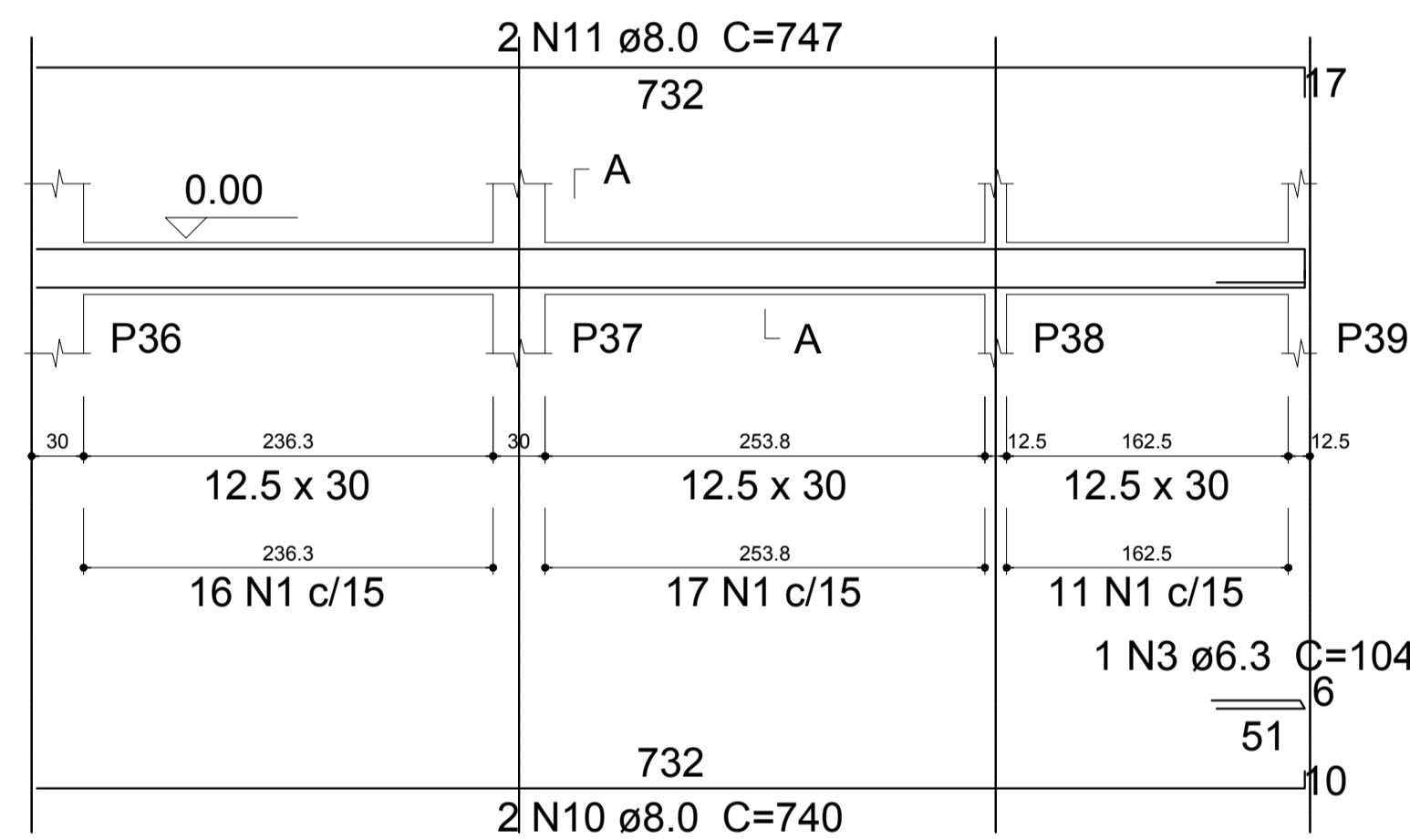


Relação do aço

ÇO	N	DIAM	Q	UNIT (cm)	C.TOTAL (cm)
CA60	1	5.0	258	74	19092
	2	5.0	2	230	460
CA50	3	6.3	4	104	416
	4	8.0	2	1055	2110
	5	8.0	1	155	155
	6	8.0	2	1062	2124
	7	8.0	2	373	746
	8	8.0	2	78	156
	9	8.0	2	98	196
	10	8.0	2	740	1480
	11	8.0	2	747	1494
	12	8.0	2	1068	2136
	13	8.0	2	888	1776
	14	8.0	1	165	165
	15	8.0	1	135	135
	16	8.0	2	1198	2396
	17	8.0	2	824	1648

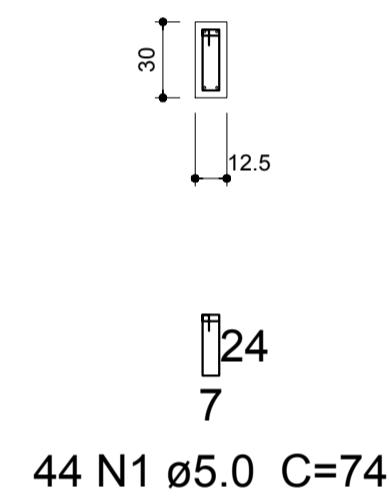
V12

ESC 1:40



SEÇÃO A-A

ESC 1:30



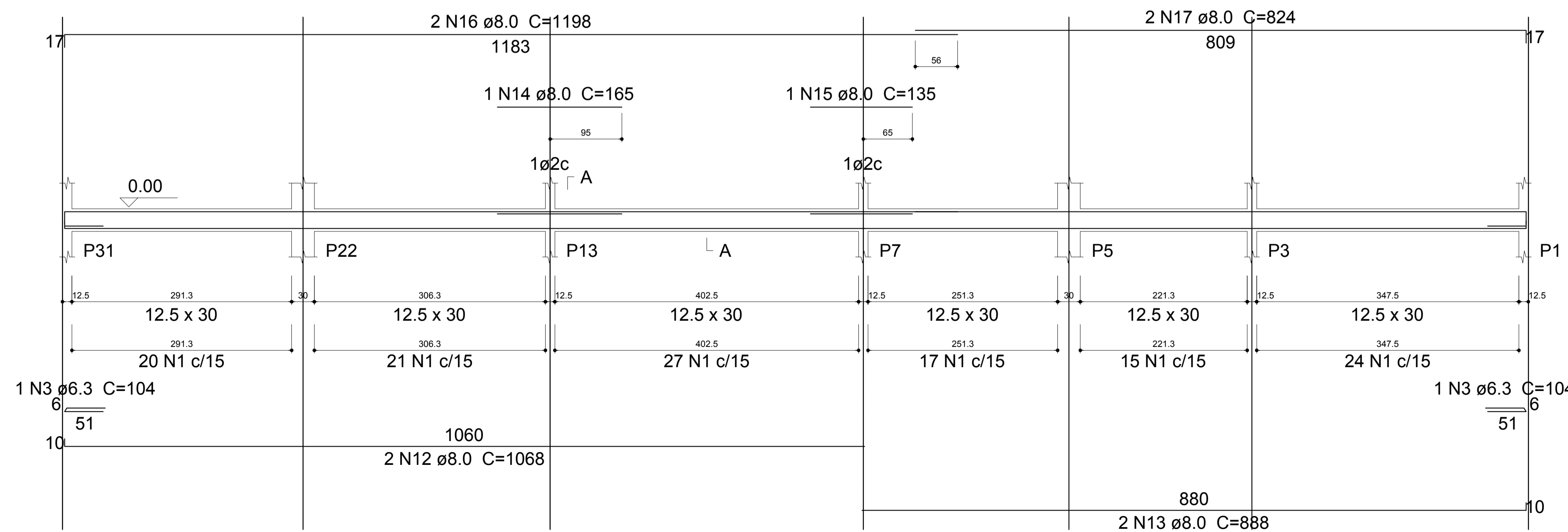
Resumo do aço

ÇO	DIAM	C.TOTAL (m)	PESO + 10 % (kg)
CA50	6.3	4.2	1.1
	8.0	167.2	72.6
CA60	5.0	195.6	33.1
PESO TOTAL			
CA50	73.7		
CA60	33.1		

Vol. de concreto total (C-25) = 1.54 m³
Área de forma total = 29.69 m²

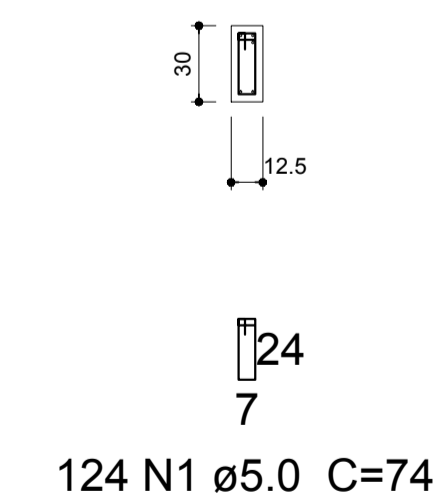
V13

ESC 1:40



SEÇÃO A-A

ESC 1:30



PREFEITURA MUNICIPAL DE PARANAGUÁ
ADMINISTRAÇÃO DR. EDISON DE OLIVEIRA KERSTEN
SECRETARIA MUNICIPAL DE OBRAS PÚBLICAS

TÍTULO PROJETO DE ESTRUTURA DE CONCRETO ARMADO

OBRA REFORMA E AMPLIAÇÃO CMEI - ZULEIDE PINTO ROSA

CONTEÚDO - VIGAS - BALDRAME

PROPRIETÁRIO: PREFEITURA MUNICIPAL DE PARANAGUÁ
AUTOR DO PROJETO: DEBORA TEMPORÃO DE AGUIAR RAMOS
CREA: PR-25847D

DATA: Julho/2016 ESCALA: indicada DESENHO: Debora ÁREA AMP.: 163.95m² PRANCHAS: 09/15
ÁREA TOTAL: 399.63m²