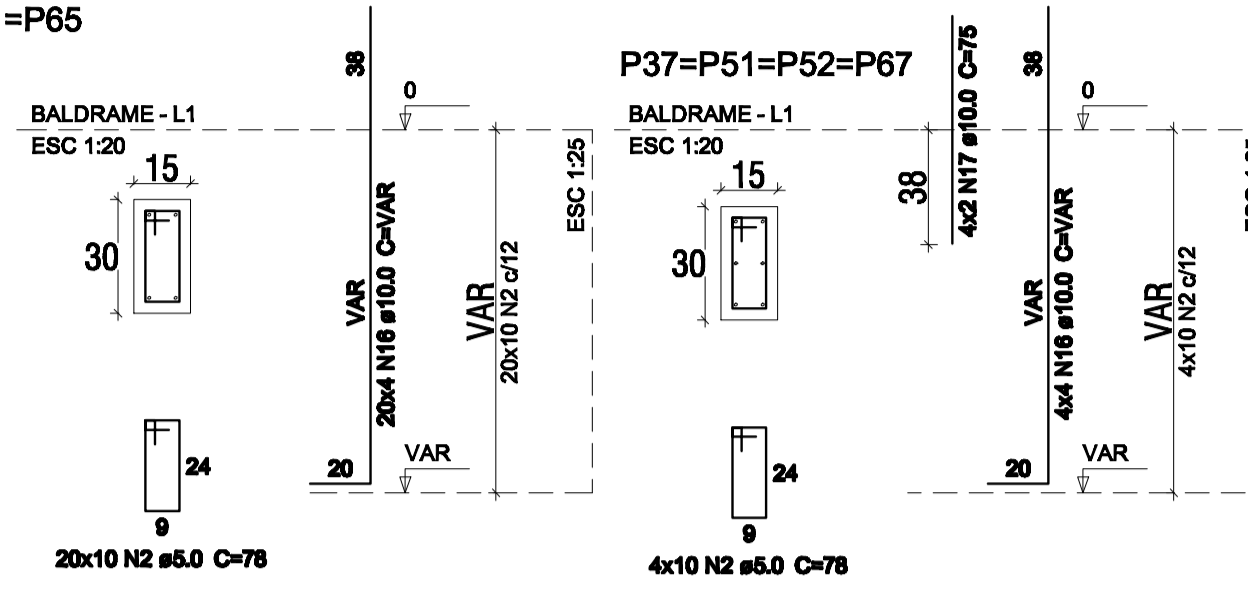
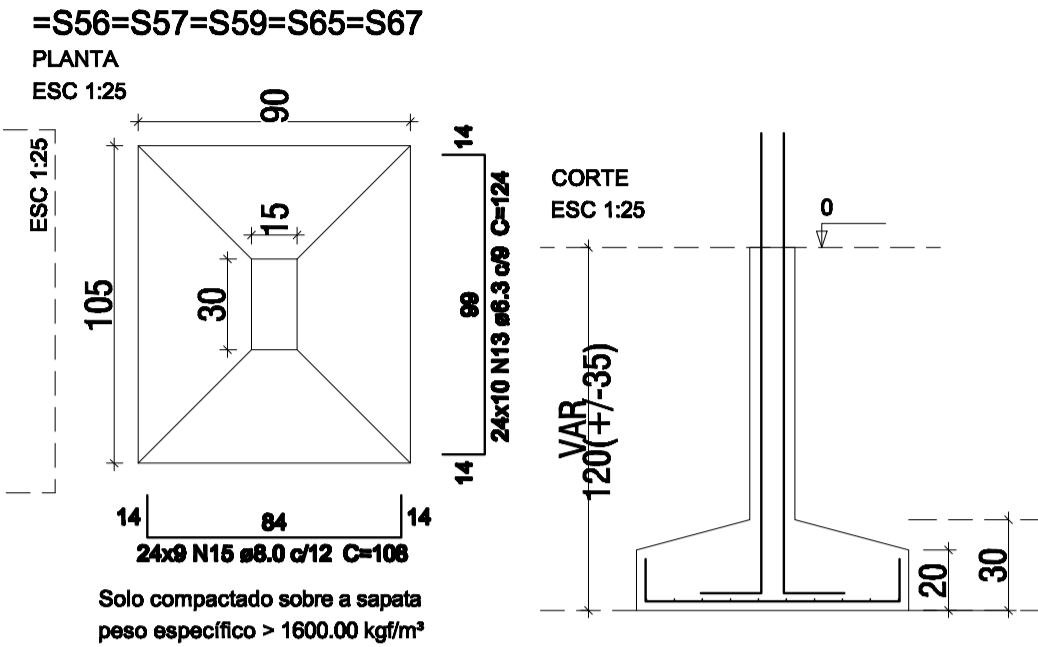


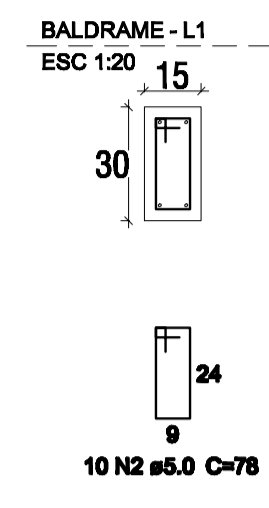
P11=P14=P15=P18=P24=P32=P33=P34=P36=P38  
 =P40=P43=P44=P45=P46=P54=P56=P57=P59  
 =P65



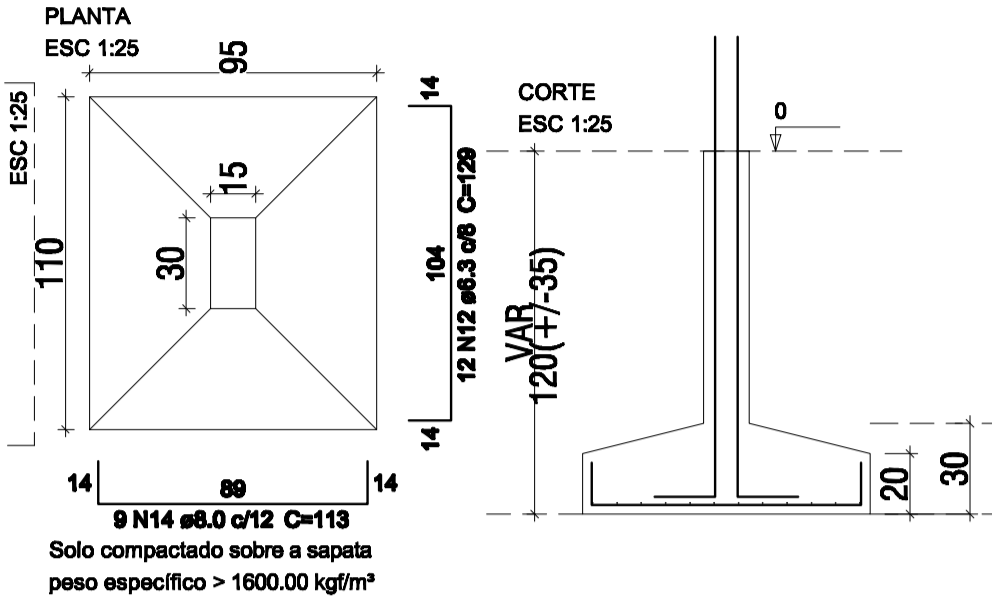
S11=S14=S15=S18=S24=S32=S33=S34=S36=S37  
 =S38=S40=S43=S44=S45=S46=S51=S52=S54  
 =S56=S57=S59=S65=S67



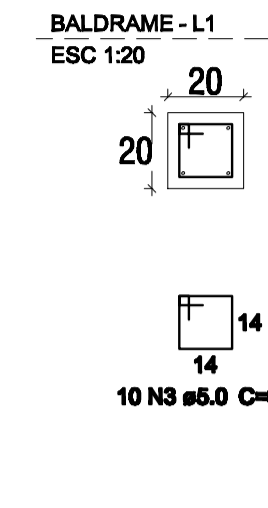
P2=P3=P5



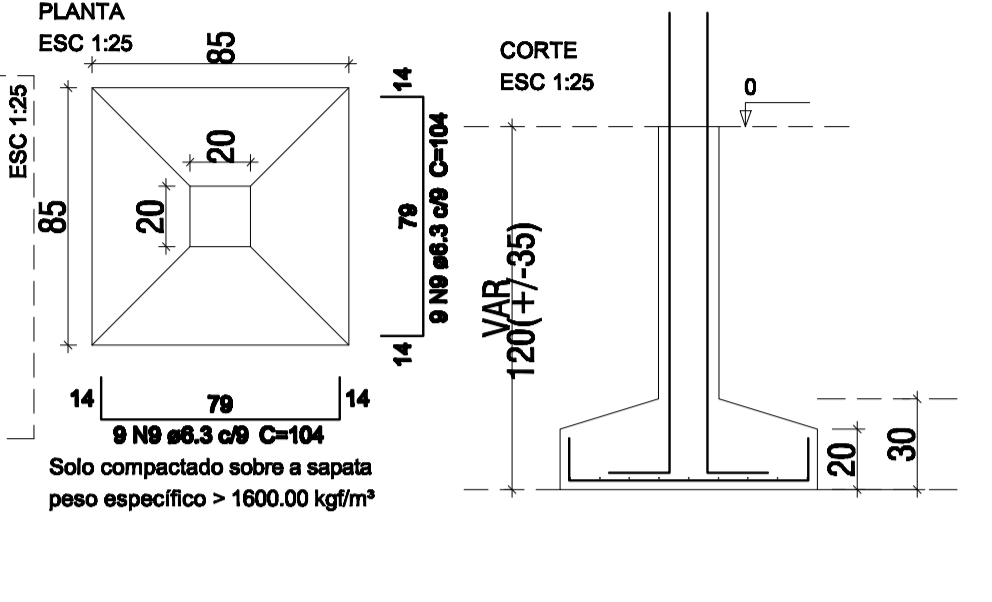
S2=S3=S5



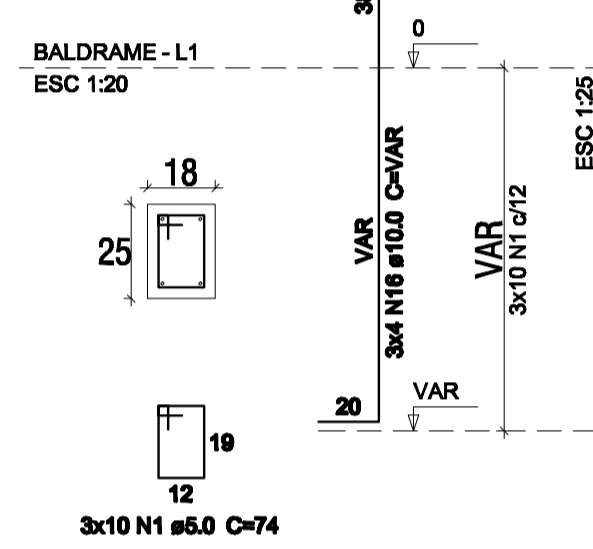
P19



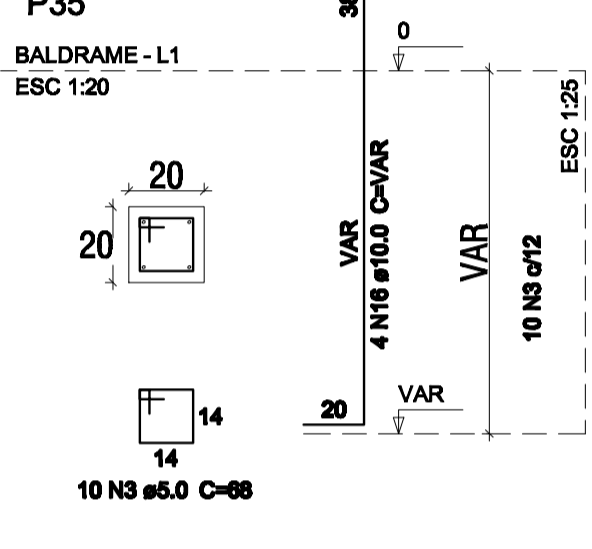
S19



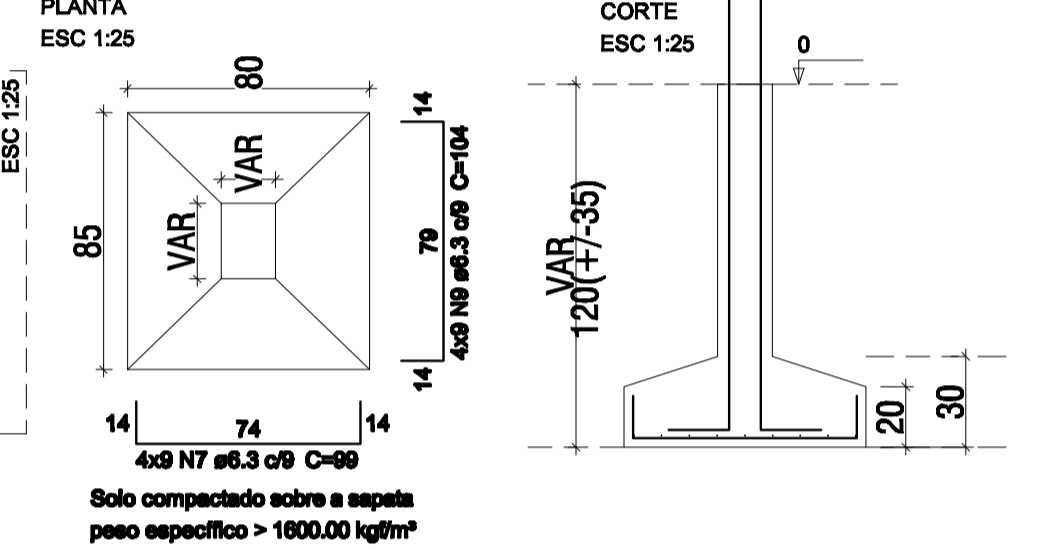
P1=P10=P42



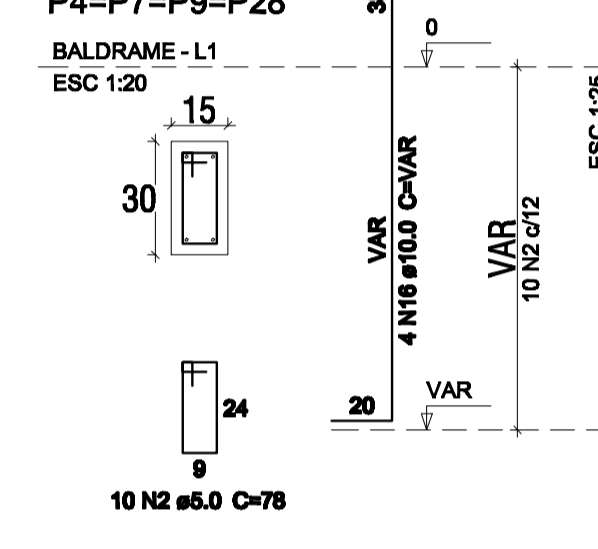
P35



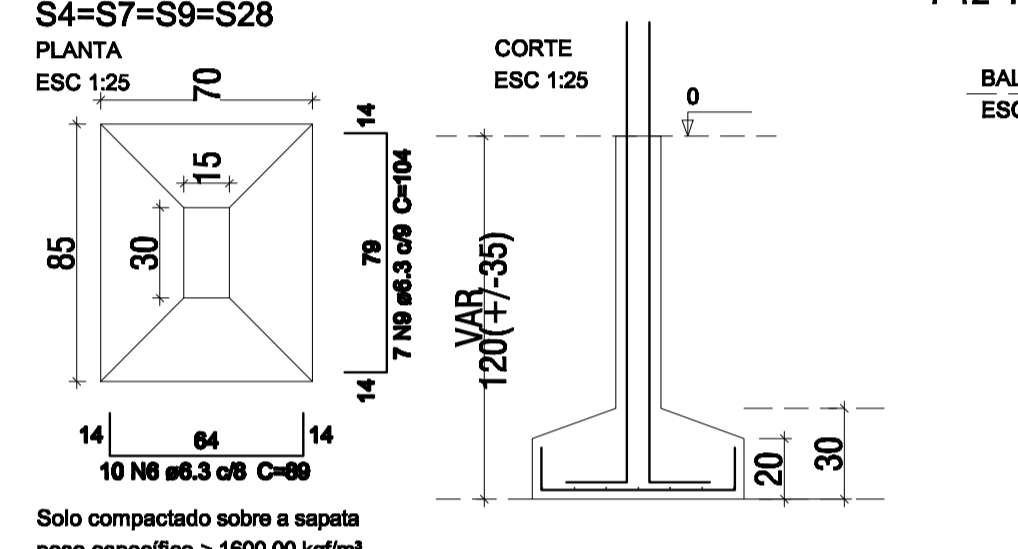
S1=S10=S35=S42



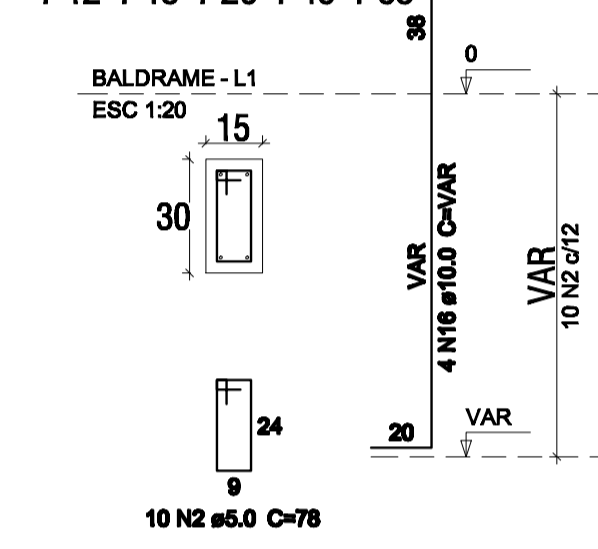
P4=P7=P9=P28



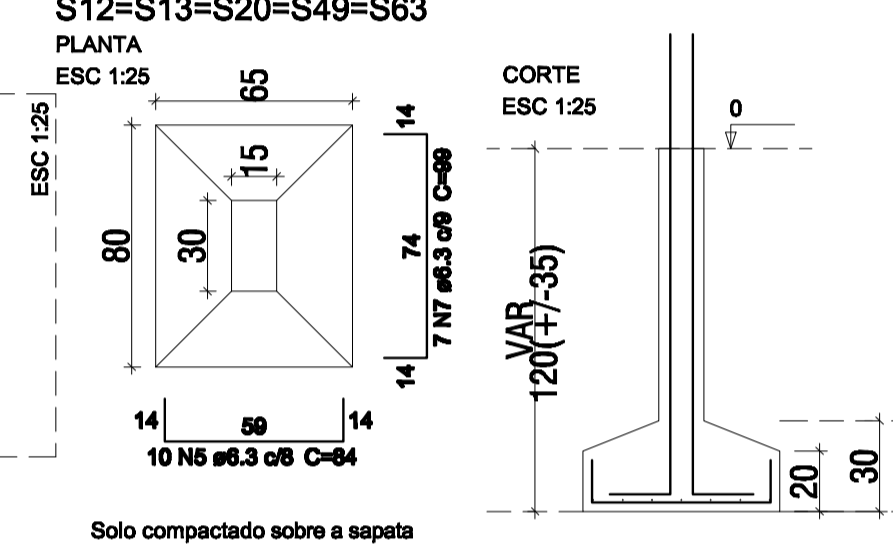
S4=S7=S9=S28



P12=P13=P20=P49=P63



S12=S13=S20=S49=S63



Relação do aço

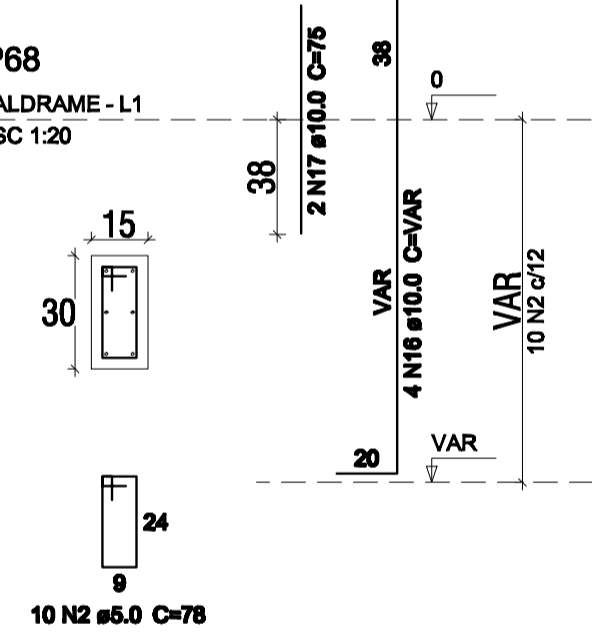
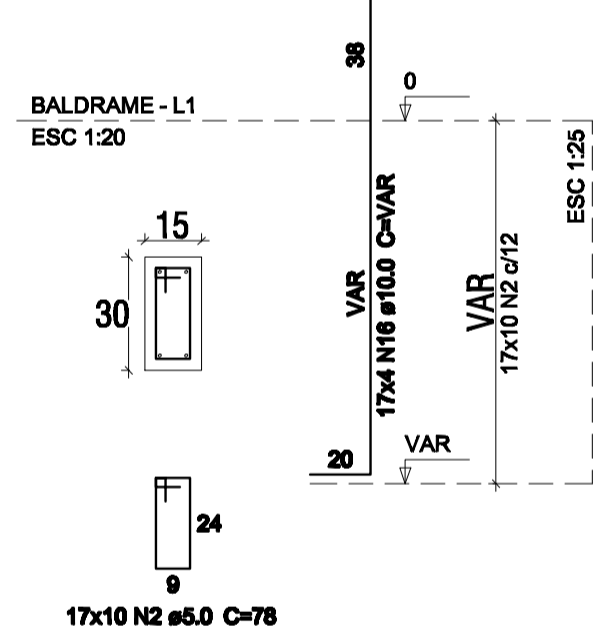
DIAM (mm)	QUANT (Barras)	UNIT (cm)	C.TOTAL (cm)
5.0	70	74	5180
5.0	590	78	43680
5.0	40	68	2720
5.0	10	84	840
6.3	86	84	7224
6.3	64	89	5696
6.3	311	99	30789
6.3	27	94	2538
6.3	82	104	8528
6.3	162	114	18468
6.3	42	109	4578
6.3	36	129	4644
6.3	240	124	29760
8.0	27	113	3051
8.0	216	108	23328
10.0	272	VAR	VAR
10.0	10	75	750

Resumo do aço

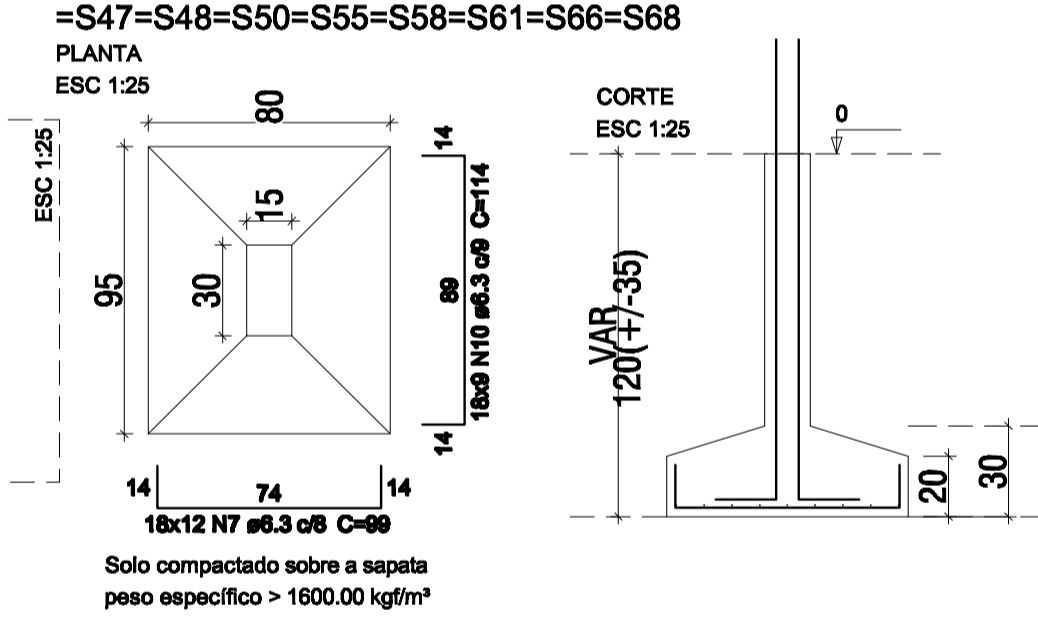
AÇO	DIAM (mm)	C.TOTAL (m)	PESO + 10% (kg)
CA50	6.3	1122.3	302.1
CA50	8.0	263.8	114.5
CA50	10.0	486.3	329.8
CA60	5.0	524.2	88.9
PESO TOTAL (kg)			
CA50		746.3	
CA60		88.9	

Volume de concreto (C-25) = 16.59 m³  
 Área de forma = 120.64 m²

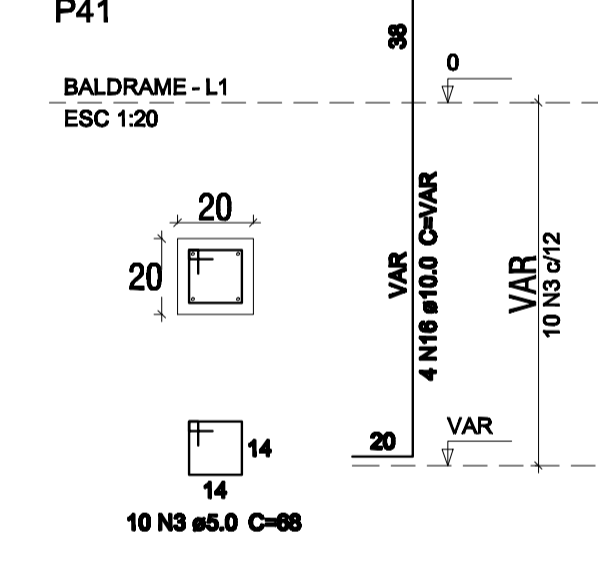
P16=P17=P21=P22=P23=P25=P26=P29=P30=P39  
 =P47=P48=P50=P55=P58=P61=P66



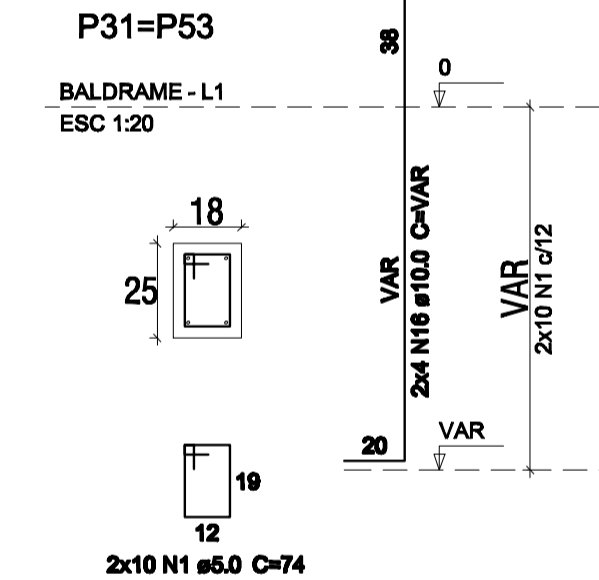
S16=S17=S21=S22=S23=S25=S26=S29=S30=S39  
 =S47=S48=S50=S55=S58=S61=S66=S68



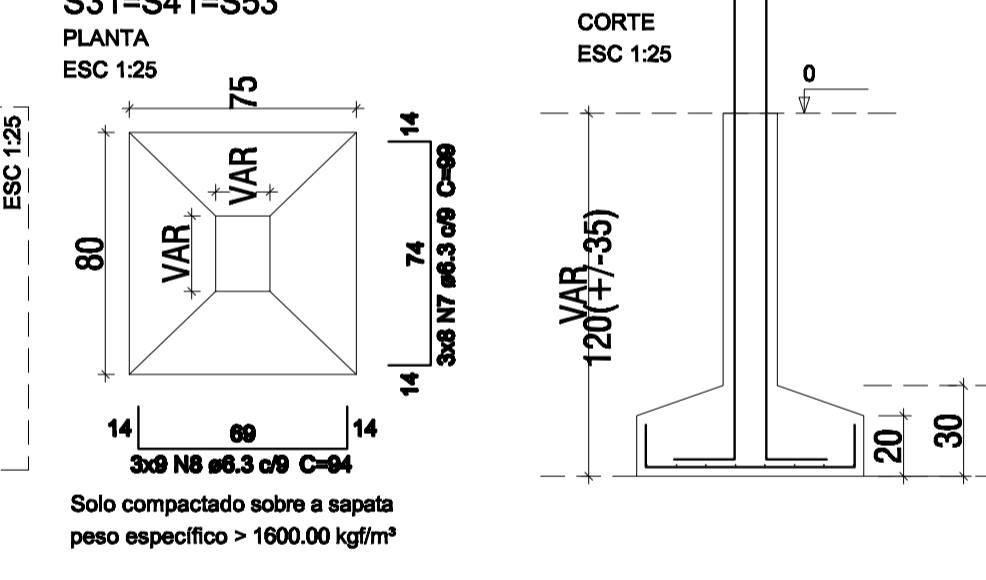
P41



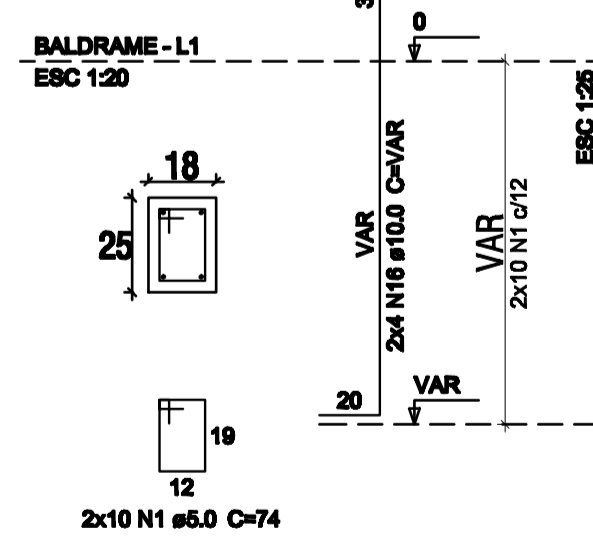
P31=P53



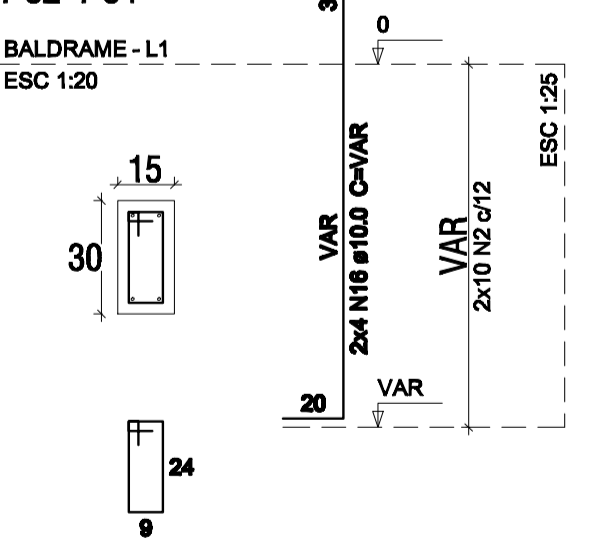
S31=S41=S53



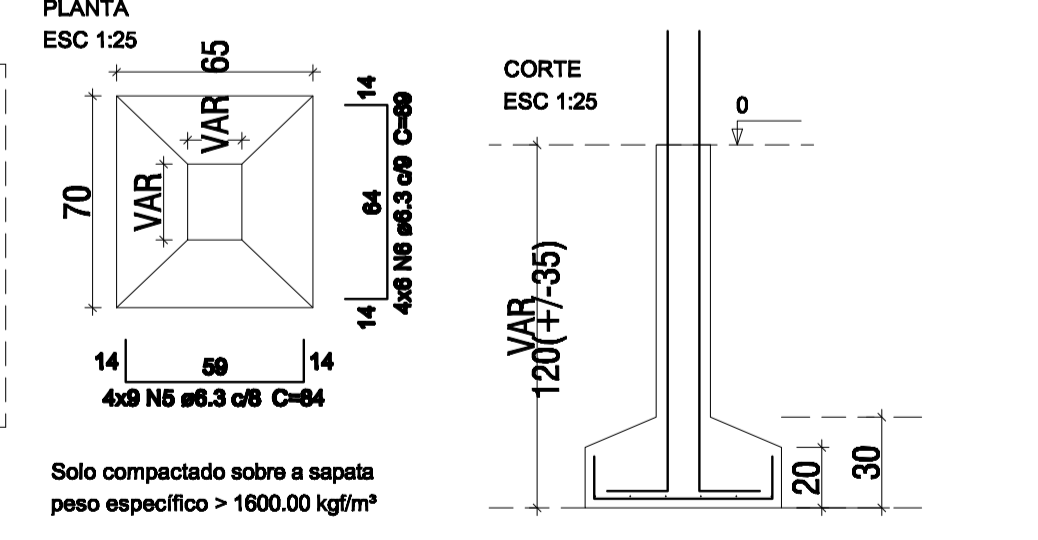
P27=P60



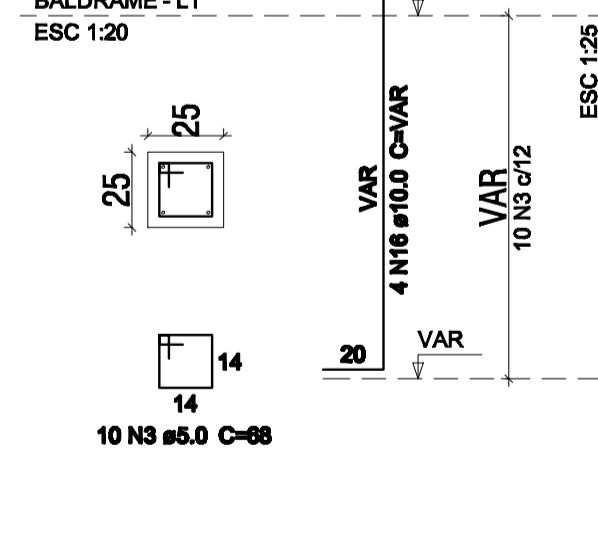
P62=P64



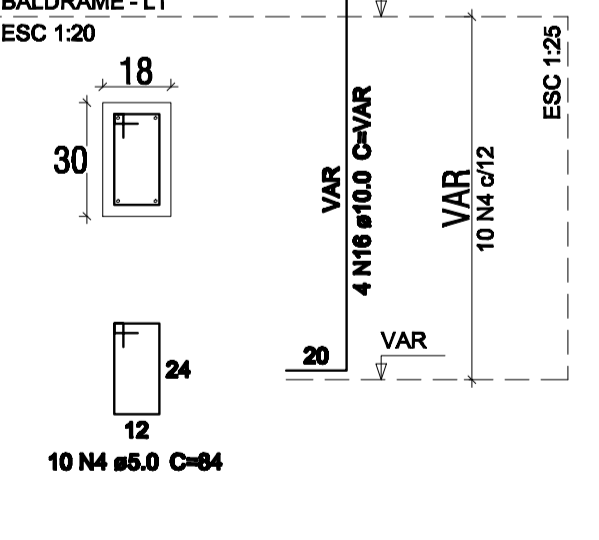
S27=S60=S62=S64



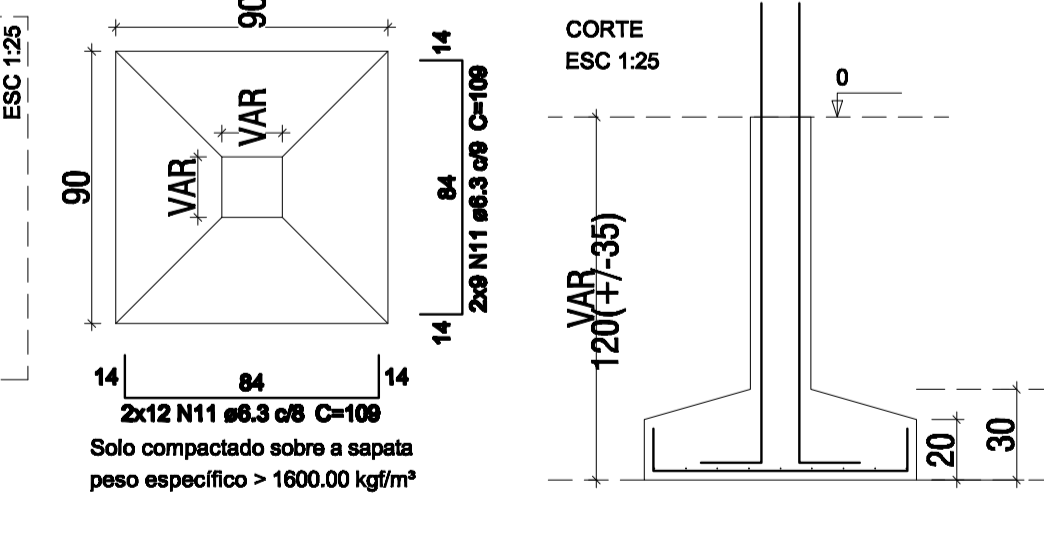
P6



P8



S6=S8



**PREFEITURA MUNICIPAL DE PARANAGUÁ**  
 ADMINISTRAÇÃO Dr. EDISON DE OLIVEIRA KERSTEN  
 SECRETARIA MUNICIPAL DE PLANEJAMENTO, ORÇAMENTO E GESTÃO

TÍTULO	PROJETO ESTRUTURAL		
OBRA	U.B.S. PRAIA DE ENCANTADAS - ILHA DO MEL		
CONTÉUDO	SAPATAS		
RESP. TÉCNICO PROJETO	RESPOSTA	PROPRIETÁRIO	
RAU JOSÉ RIBEIRO	MUNICÍPIO DE PARANAGUÁ	PREFEITO - Dr. EDISON DE OLIVEIRA KERSTEN	
CREA 18.286-0			
DATA	ESCALA	DESENHO	PRIMEIRA
JUN/2014	INDICADA	R/R	03/12