

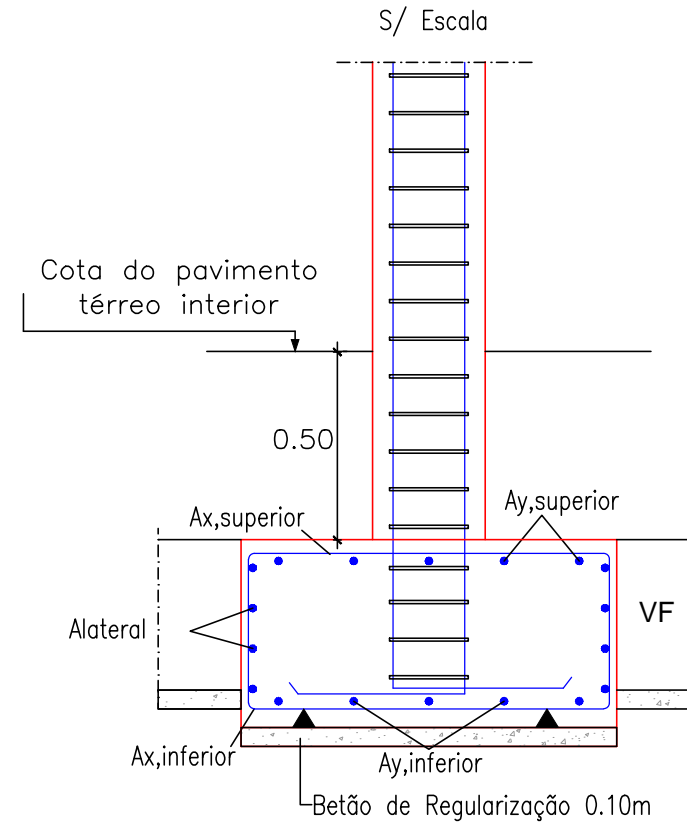
QUADRO DE SAPATAS DE PILARES

SAPATA	Dimensões		Altura	Armadura				
	X (m)	Y (m)		A _{x, inferior}	A _{x, superior}	A _{y, inferior}	A _{y, superior}	A _{lateral}
S1	1.75	1.75	0.90	Ø10 //20	Ø10 //20	Ø10 //20	Ø10 //20	4Ø10
S2	1.60	1.60	0.80	Ø10 //20	Ø10 //20	Ø10 //20	Ø10 //20	3Ø10
S3	1.20	1.20	0.60	Ø10 //20	Ø10 //20	Ø10 //20	Ø10 //20	3Ø10
S4	1.40	1.40	0.70	Ø10 //20	Ø10 //20	Ø10 //20	Ø10 //20	3Ø10
S5	0.50	0.50	0.50	Ø10 //20	Ø10 //20	Ø10 //20	Ø10 //20	2Ø10
S6	0.75	0.75	0.50	Ø10 //20	Ø10 //20	Ø10 //20	Ø10 //20	2Ø10
S7	1.90	1.90	1.00	Ø10 //20	Ø10 //20	Ø10 //20	Ø10 //20	4Ø10
S8	1.00	1.00	0.50	Ø10 //20	Ø10 //20	Ø10 //20	Ø10 //20	2Ø10
S9	1.50	1.50	0.90	Ø10 //20	Ø10 //20	Ø10 //20	Ø10 //20	4Ø10
S10	2.20	2.20	1.10	Ø10 //20	Ø10 //20	Ø10 //20	Ø10 //20	4Ø10
S11	1.25	1.25	0.75	Ø10 //20	Ø10 //20	Ø10 //20	Ø10 //20	3Ø10
S12	2.30	2.30	1.30	Ø12 //20	Ø12 //20	Ø10 //20	Ø10 //20	5Ø10

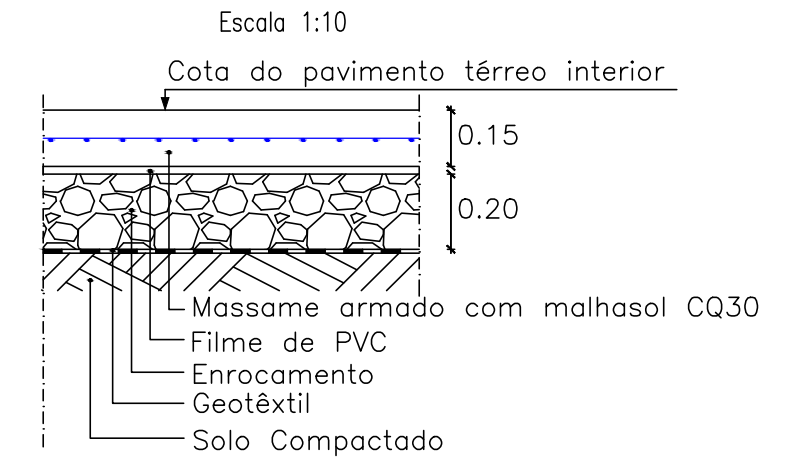
QUADRO DE SAPATAS DE PAREDES

SAPATA	Dimensões		Altura	Armadura				
	X (m)	Y (m)		A _{x, inferior}	A _{x, superior}	A _{y, inferior}	A _{y, superior}	A _{lateral}
S13	6.95	1.00	1.00	Ø10 //20	Ø10 //20	Ø12 //20	Ø12 //20	4Ø10
S14	3.88	1.00	1.00	Ø10 //20	Ø10 //20	Ø10 //20	Ø10 //20	4Ø10
S15	4.81	1.00	1.00	Ø10 //20	Ø10 //20	Ø10 //20	Ø10 //20	4Ø10
S16	6.00	1.00	1.00	Ø10 //20	Ø10 //20	Ø12 //20	Ø12 //20	4Ø10
S17	2.90	1.00	1.00	Ø10 //20	Ø10 //20	Ø10 //20	Ø10 //20	4Ø10
S18	2.05	1.00	1.00	Ø10 //20	Ø10 //20	Ø10 //20	Ø10 //20	4Ø10
S19	2.75	1.50	1.00	Ø10 //20	Ø10 //20	Ø10 //20	Ø10 //20	4Ø10
S20	2.43	1.50	1.00	Ø10 //20	Ø10 //20	Ø10 //20	Ø10 //20	4Ø10
S21	8.80	1.00	1.00	Ø12 //15	Ø12 //15	Ø10 //20	Ø10 //20	4Ø10
S22	3.19	1.00	1.00	Ø10 //20	Ø10 //20	Ø10 //20	Ø10 //20	4Ø10
S23	3.19	1.00	1.00	Ø10 //20	Ø10 //20	Ø10 //20	Ø10 //20	4Ø10

PORMENOR TIPO DA SAPATA

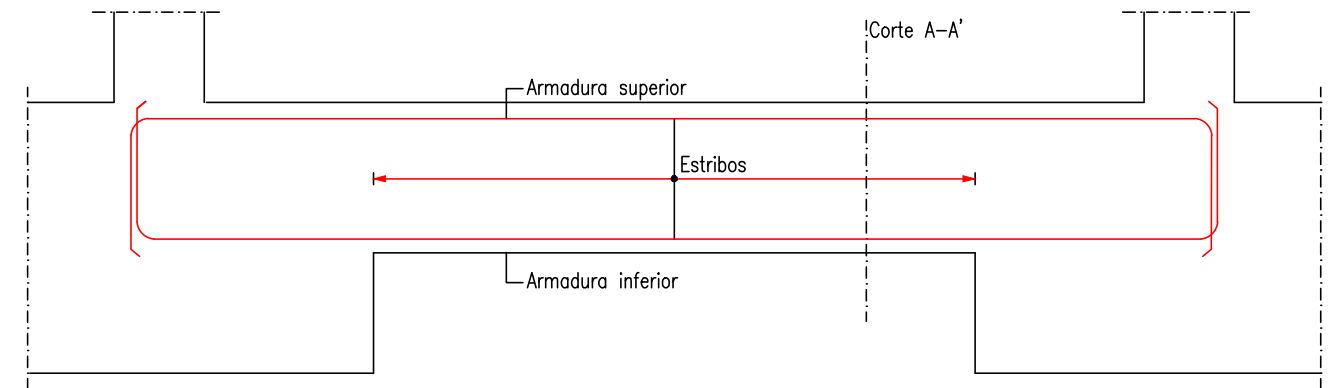


PORMENOR PAVIMENTO TÉRREO



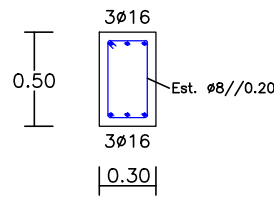
PORMENOR TIPO DAS VIGAS DE FUNDAÇÃO

S/ Escala



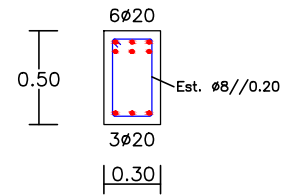
CORTE A-A' - Secção corrente

Escala 1:20



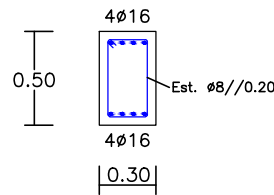
CORTE A-A' - VF61, VF62, VF66, VF68A

Escala 1:20



CORTE A-A' - VF63, VF78, VF79, VF95

Escala 1:20



COMPRIMENTOS AMARRAÇÃO (lbd) E EMENDA (lbe)		
Varão	lbd (m)	lbe (m)
Ø10	0.40	0.65
Ø16	0.70	1.00
Ø20	0.85	1.25

MATERIAIS		
BETÃO	Fundações	NP EN 206-1:C30/37*XS1(P)*CL0,20* $D_{m\acute{a}x}$ 22*S4
	Superestrutura	NP EN 206-1:C30/37*XS1(P)*CL0,20* $D_{m\acute{a}x}$ 22*S4
	Regularização	NP EN 206-1:C16/20*XS1(P)*CL0,20* $D_{m\acute{a}x}$ 22*S4
AÇO	Fundações	A400NR SD
	Superestrutura	A400NR SD

RECOBRIMENTOS	
Fundações	5cm
Pilares e Vigas	4.5cm
Lajes	4.5cm

	Área Departamental de Engenharia Civil Mestrado em Engenharia Civil	
	Trabalho Final de Mestrado	
Realizado por: Suzi Miranda N° 31449	BETÃO ARMADO Fundações - Quadro de Sapatas e Pormenores	Folha: 1/1 N°Des. 5/10 Escala: 1/10; 1/20 S/Escala Data: DEZEMBRO/14