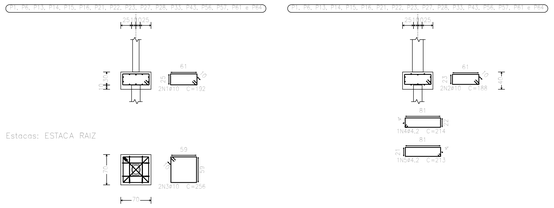
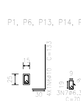
P1, P6, P13, P14, P15, P16, P21, P22, P23, P27, P28, P33, P43, P56, P57, P61 e P64

P1=P6=P13=P14=P15=P16=P21=P22=P23=P27=P28=P33=P43=P56=P57=P61=P64



Estacas: ESTACA RAIZ

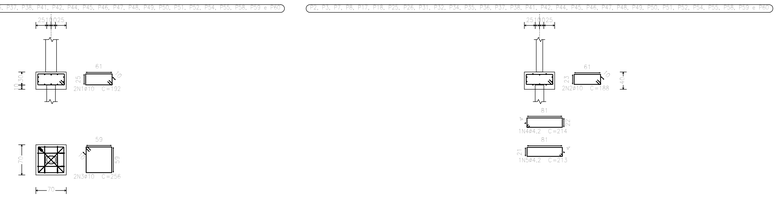
P1, P6, P13, P14, P15, P16, P21, P22, P23, P27, P28, P33, P43, P56, P57, P61 e P64



Elemento	Pos.	Diam.	Q.	Dob. (cm)	Reta (cm)	Dob. (cm)	Dob. (cm)	Comp. (cm)	Total (cm)	CA-50 (kg)	CA-60 (kg)
P1=P6=P13=P14=P15=P16=P21=P22=P23=P27=P28=P33=P43=P56=P57=P61=P64	1	ø10	2		192			192	384	2,4	
	2	ø10	2		188			188	376	2,3	
	3	ø10	2		256			256	512	3,2	
	4	ø4,2	1		214			214	214		0,2
	5	ø4,2	1		213			213	213		0,2
	6	ø10	4	30	133			133	532	3,3	
	7	ø6,3	4		70			70	280	0,5	
									Total: (x10):	116,9	0,4
									ø4,2:	0,0	6,8
									ø6,3:	8,5	0,0
									ø10:	190,4	0,0
									Total:	198,9	6,8

P2, P3, P7, P8, P17, P18, P25, P26, P31, P32, P34, P35, P36, P37, P38, P41, P42, P44, P45, P46, P47, P48, P49, P50, P51, P52, P54, P55, P58, P59 e P60

P2=P3=P7=P8=P17=P18=P25=P26=P31=P32=P34=P35=P36=P37=P38=P41=P42=P44=P45=P46=P47=P48=P49=P50=P51=P52=P54=P55=P58=P59=P60

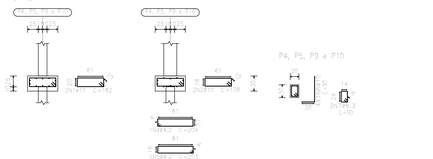


Estacas: ESTACA RAIZ

Elemento	Pos.	Diam.	Q.	Dob. (cm)	Reta (cm)	Dob. (cm)	Dob. (cm)	Comp. (cm)	Total (cm)	CA-50 (kg)	CA-60 (kg)
P2=P3=P7=P8=P17=P18=P25=P26=P31=P32=P34=P35=P36=P37=P38=P41=P42=P44=P45=P46=P47=P48=P49=P50=P51=P52=P54=P55=P58=P59=P60	1	ø10	2		192			192	384	2,4	
	2	ø10	2		188			188	376	2,3	
	3	ø10	2		256			256	512	3,2	
	4	ø4,2	1		214			214	214		0,2
	5	ø4,2	1		213			213	213		0,2
	6	ø10	4	30	133			133	532	3,3	
	7	ø6,3	4		70			70	280	0,5	
									Total: (x10):	116,9	0,4
									ø4,2:	0,0	6,8
									ø6,3:	8,5	0,0
									ø10:	190,4	0,0
									Total:	198,9	6,8

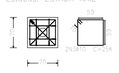
P4, P5, P9 e P10

P4=P5=P9=P10



P4, P5, P9 e P10

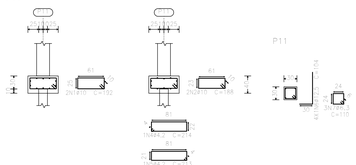
Estacas: ESTACA RAIZ



Elemento	Pos.	Diam.	Q.	Dob. (cm)	Reta (cm)	Dob. (cm)	Dob. (cm)	Comp. (cm)	Total (cm)	CA-50 (kg)	CA-60 (kg)
P4=P5=P9=P10	1	ø10	2		192			192	384	2,4	
	2	ø10	2		188			188	376	2,3	
	3	ø10	2		178			178	356	2,2	
	4	ø4,2	1		256			256	512	3,2	
	5	ø4,2	1		204			204	204		0,2
	6	ø10	4	30	203			203	812	5,0	
	7	ø6,3	4		90			90	360	2,2	
									270	0,7	
									Total: (x10):	17,5	0,4
									(+5)	42,0	1,6
									ø4,2:	0,0	1,6
									ø6,3:	2,8	0,0
									ø10:	39,2	0,0
									Total:	42,0	1,6

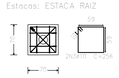
P11

P11



P11

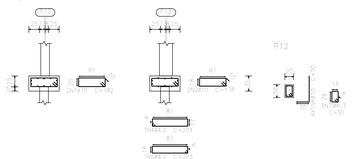
Estacas: ESTACA RAIZ



Elemento	Pos.	Diam.	Q.	Dob. (cm)	Reta (cm)	Dob. (cm)	Dob. (cm)	Comp. (cm)	Total (cm)	CA-50 (kg)	CA-60 (kg)
P11	1	ø10	2		192			192	384	2,4	
	2	ø10	2		188			188	376	2,3	
	3	ø10	2		256			256	512	3,2	
	4	ø4,2	1		214			214	214		0,2
	5	ø4,2	1		213			213	213		0,2
	6	ø12,5	4	35	74			74	296	4,6	
	7	ø6,3	4		110			110	440	0,8	
									Total: (x10):	17,3	0,4
									ø4,2:	0,0	0,4
									ø6,3:	0,8	0,0
									ø10:	7,8	0,0
									ø12,5:	4,0	0,0
									Total:	12,7	0,4

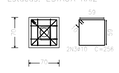
P12

P12



P12

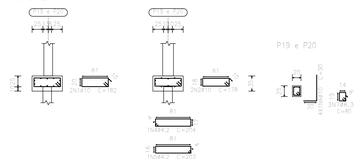
Estacas: ESTACA RAIZ



Elemento	Pos.	Diam.	Q.	Dob. (cm)	Reta (cm)	Dob. (cm)	Dob. (cm)	Comp. (cm)	Total (cm)	CA-50 (kg)	CA-60 (kg)
P12	1	ø10	2		192			192	384	2,4	
	2	ø10	2		188			188	376	2,3	
	3	ø10	2		178			178	356	2,2	
	4	ø4,2	1		256			256	512	3,2	
	5	ø4,2	1		204			204	204		0,2
	6	ø10	4	30	203			203	812	5,0	
	7	ø6,3	4		90			90	360	2,2	
									270	0,7	
									Total: (x10):	17,5	0,4
									ø4,2:	0,0	0,4
									ø6,3:	0,8	0,0
									ø10:	7,8	0,0
									Total:	10,5	0,4

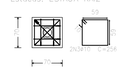
P19 e P20

P19=P20



P19 e P20

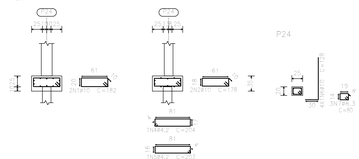
Estacas: ESTACA RAIZ



Elemento	Pos.	Diam.	Q.	Dob. (cm)	Reta (cm)	Dob. (cm)	Dob. (cm)	Comp. (cm)	Total (cm)	CA-50 (kg)	CA-60 (kg)
P19=P20	1	ø10	2		192			192	384	2,4	
	2	ø10	2		188			188	376	2,3	
	3	ø10	2		178			178	356	2,2	
	4	ø4,2	1		256			256	512	3,2	
	5	ø4,2	1		204			204	204		0,2
	6	ø10	4	30	203			203	812	5,0	
	7	ø6,3	4		90			90	360	2,2	
									240	0,6	
									Total: (x2):	20,8	0,4
									ø4,2:	0,0	0,6
									ø6,3:	1,2	0,0
									ø10:	19,6	0,0
									Total:	20,8	0,6

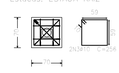
P24

P24



P24

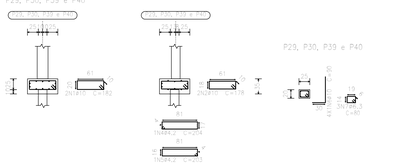
Estacas: ESTACA RAIZ



Elemento	Pos.	Diam.	Q.	Dob. (cm)	Reta (cm)	Dob. (cm)	Dob. (cm)	Comp. (cm)	Total (cm)	CA-50 (kg)	CA-60 (kg)
P24	1	ø10	2		192			192	384	2,4	
	2	ø10	2		188			188	376	2,3	
	3	ø10	2		178			178	356	2,2	
	4	ø4,2	1		256			256	512	3,2	
	5	ø4,2	1		204			204	204		0,2
	6	ø10	4	30	203			203	812	5,0	
	7	ø6,3	4		90			90	360	2,2	
									240	0,6	
									Total: (x2):	20,8	0,4
									ø4,2:	0,0	0,6
									ø6,3:	1,2	0,0
									ø10:	19,6	0,0
									Total:	20,8	0,6

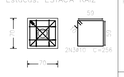
P29, P30, P39 e P40

P29=P30=P39=P40



P29, P30, P39 e P40

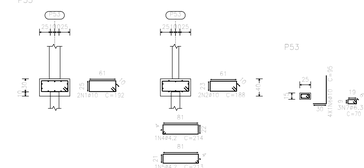
Estacas: ESTACA RAIZ



Elemento	Pos.	Diam.	Q.	Dob. (cm)	Reta (cm)	Dob. (cm)	Dob. (cm)	Comp. (cm)	Total (cm)	CA-50 (kg)	CA-60 (kg)
P29=P30=P39=P40	1	ø10	2		192			192	384	2,4	
	2	ø10	2		188			188	376	2,3	
	3	ø10	2		178			178	356	2,2	
	4	ø4,2	1		256			256	512	3,2	
	5	ø4,2	1		204			204	204		0,2
	6	ø10	4	30	203			203	812	5,0	
	7	ø6,3	4		90			90	360	2,2	
	8	ø6,3	4		80			80	320	2,0	
									Total: (x10):	41,6	1,6
									ø4,2:	0,0	1,6
									ø6,3:	2,4	0,0
									ø10:	39,2	0,0
									Total:	41,6	1,6

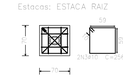
P53

P53



P53

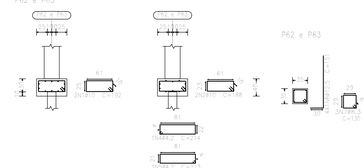
Estacas: ESTACA RAIZ



Elemento	Pos.	Diam.	Q.	Dob. (cm)	Reta (cm)	Dob. (cm)	Dob. (cm)	Comp. (cm)	Total (cm)	CA-50 (kg)	CA-60 (kg)
P53	1	ø10	2		192			192	384	2,4	
	2	ø10	2		188			188	376	2,3	
	3	ø10	2		256			256	512	3,2	
	4	ø4,2	1		214			214	214		0,2
	5	ø4,2	1		213			213	213		0,2
	6	ø10	4	30	45			45	180	1,1	
	7	ø6,3	4		70			70	280	0,5	
									Total: (x10):	10,7	0,4
									ø4,2:	0,0	0,4
									ø6,3:	0,5	0,0
									ø10:	10,2	0,0
									Total:	10,7	0,4

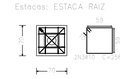
P62 e P63

P62=P63



P62 e P63

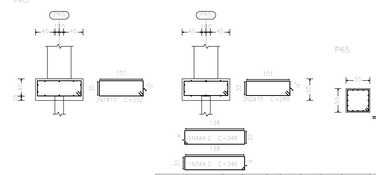
Estacas: ESTACA RAIZ



Elemento	Pos.	Diam.	Q.	Dob. (cm)	Reta (cm)	Dob. (cm)	Dob. (cm)	Comp. (cm)	Total (cm)	CA-50 (kg)	CA-60 (kg)
P62=P63	1	ø10	2		192			192	384	2,4	
	2	ø10	2		188			188	376	2,3	
	3	ø10	2		256			256	512	3,2	
	4	ø4,2	1		214			214	214		0,2
	5	ø4,2	1		213			213	213		0,2
	6	ø12,5	4	35	151			151	604	5,8	
	7	ø6,3	4		130			130	520	1,9	
									Total: (x2):	14,7	0,4
									ø4,2:	29,4	0,8
									ø6,3:	0,0	0,8
									ø10:	2,0	0,0
									ø12,5:	15,8	0,0
									Total:	11,6	0,0
										29,4	0,8

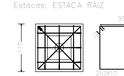
P65

P65



P65

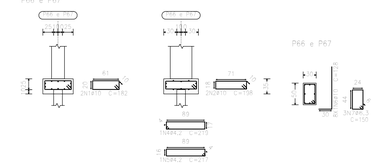
Estacas: ESTACA RAIZ



Elemento	Pos.	Diam.	Q.	Dob. (cm)	Reta (cm)	Dob. (cm)	Dob. (cm)	Comp. (cm)	Total (cm)	CA-50 (kg)	CA-60 (kg)
P65	1	ø10	5		192			192	960	5,4	
	2	ø10	5		288			288	864	5,3	
	3	ø10	5		418			418	836	5,1	
	4	ø4,2	1		348			348	348		0,4
	5	ø4,2	1		348			348	348		0,4
	6	ø10	10	30	113			113	1469	14,1	
	7	ø6,3	10		215			215	1505	6,5	
									Total: (x2):	71,4	0,8
									ø4,2:	0,0	0,8
									ø6,3:	13,5	0,0
									ø10:	257,5	0,0
									Total:	271,4	0,8

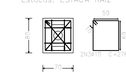
P66 e P67

P66=P67



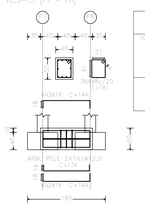
P66 e P67

Estacas: ESTACA RAIZ



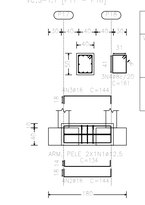
Elemento	Pos.	Diam.	Q.	Dob. (cm)	Reta (cm)	Dob. (cm)	Dob. (cm)	Comp. (cm)	Total (cm)	CA-50 (kg)	CA-60 (kg)
P66=P67	1	ø10	2		182			182	364	2,2	
	2	ø10	2		198			198	396	2,4	
	3	ø10	3		276			276	552	3,4	
	4	ø4,2	1		219			219	219		0,2
	5	ø4,2	1		217			217	217		0,2
	6	ø10	8	35	98			128	1024	6,3	
	7	ø6,3			150			150	450	1,7	
									Total: (x2):	10,4	0,4
									ø4,2:	35,8	0,8
									ø6,3:	2,2	0,0
									ø10:	26,6	0,0
									Total:	30,8	0,8

VC.S-1,1 [P7 – P8]



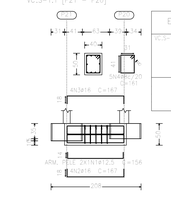
Elemento	Pos.	Diam.	Q.	Dob. (cm)	Reta (cm)	Dob. (cm)	Dob. (cm)	Comp. (cm)	Total (cm)	CA-50 (kg)	CA-60 (kg)
VC.S-1,1 [P7 – P8]	1	ø12,5	4	18	144	18	18	144	576	9,1	
	2	ø16	4	18	108	18	18	144	576	9,1	
	3	ø8	4	18	108	18	18	144	576	3,2	
					161			161	483	1,9	
									Total:	22,7	
									ø8:	1,9	0,0
									ø12,5:	2,6	0,0
									ø16:	18,2	0,0
									Total:	22,7	0,0

VC.S-1,1 [P17 – P18]



Elemento	Pos.	Diam.	Q.	Dob. (cm)	Reta (cm)	Dob. (cm)	Dob. (cm)	Comp. (cm)	Total (cm)	CA-50 (kg)	CA-60 (kg)
VC.S-1,1 [P17 – P18]	1	ø12,5	4	18	144	18	18	144	576	9,1	
	2	ø16	4	18	108	18	18	144	576	9,1	
	3	ø8	4	18	108	18	18	144	576	3,2	
					161			161	483	1,9	
									Total:	22,7	
									ø8:	1,9	0,0
									ø12,5:	2,6	0,0
									ø16:	18,2	0,0
									Total:	22,7	0,0

VC.S-1,1 [P21 – P20]



Elemento	Pos.	Diam.	Q.	Dob. (cm)	Reta (cm)	Dob. (cm)	Dob. (cm)	Comp. (cm)	Total (cm)	CA-50 (kg)	CA-60 (kg)
VC.S-1,1 [P21 – P20]	1	ø12,5	4	18	167	18	18	167	668	10,5	
	2	ø16	4	18	131	18	18	167	668	10,5	
	3	ø8	4	18	131	18	18	167	805	3,2	
									Total:	27,2	
									ø8:	3,2	0,0
									ø12,5:	3,5	0,0
									ø16:	21,0	0,0
									Total:	27,2	0,0

NOVA FRIBURGO PREFEITURA

SECRETARIA DE OBRAS

CONSTRUÇÃO - UBS RUI SANGLARD

ASSUNTO:

PROJETO BÁSICO DE ESTRUTURAS DA EDIFICAÇÃO

PLANTA:

DETALHAMENTO FUNDAÇÃO

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Bernardo Coelho Verly - Matrícula: 62.009

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