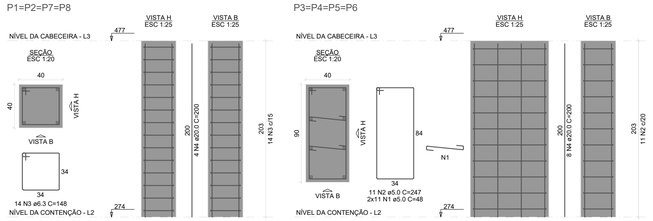
P1=P2=P7=P8



P3=P4=P5=P6

RELAÇÃO DO AÇO

4xP1 4xP3

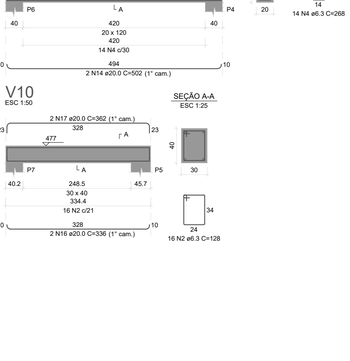
AÇO	N	DIAM (mm)	QUANT	C.UNIT (cm)	C.TOTAL (cm)
CA50	1	6.3	88	84	7224
	2	5.0	44	247	10868
CA50	3	6.3	56	148	8288
	4	20.0	48	200	9600

RESUMO DO AÇO

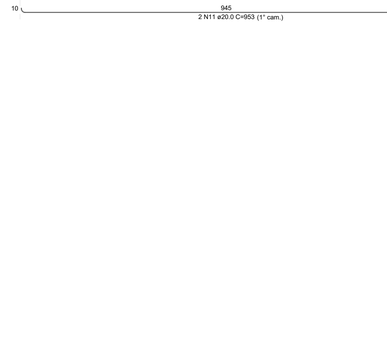
AÇO	DIAM (mm)	C.TOTAL (m)	PESO + 10% (kg)
CA50	6.3	82.9	22.3
	20.0	96	260.4
CA60	5.0	150.9	25.6
PESO TOTAL (kg)			
CA50	282.7		
CA60	25.6		

Volume de concreto (C-25) = 4.22 m³
Área de forma = 34.10 m²

P1=P2=P7=P8



P3=P4=P5=P6



RELAÇÃO DO AÇO

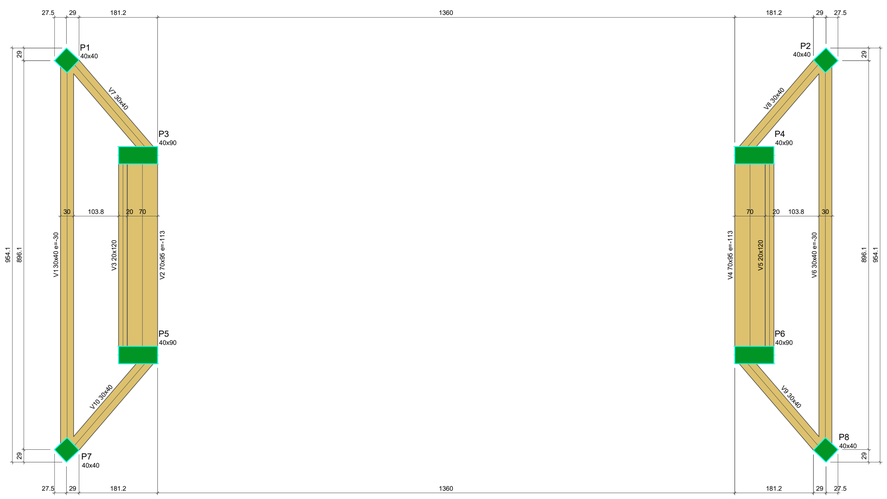
4xP1 4xP3

AÇO	N	DIAM (mm)	QUANT	C.UNIT (cm)	C.TOTAL (cm)
CA50	1	6.3	104	84	8736
	2	5.0	52	247	12844
CA50	3	6.3	76	148	11248
	4	20.0	48	348	16704

RESUMO DO AÇO

AÇO	DIAM (mm)	C.TOTAL (m)	PESO + 10% (kg)
CA50	6.3	112.5	30.3
	20.0	167.5	454.4
CA60	5.0	192.1	32.6
PESO TOTAL (kg)			
CA50	484.7		
CA60	32.6		

Volume de concreto (C-25) = 5.70 m³
Área de forma = 46.03 m²



Forma do pavimento Nível da cabeceira

escala 1:50

Vigas			
Nome	Seção (cm)	Elevação (cm)	Nível (cm)
V1	30x40	-30	447
V2	70x95	-113	364
V3	20x120	0	477
V4	70x95	-113	364
V5	20x120	0	477
V6	30x40	-30	447
V7	30x40	0	477
V8	30x40	0	477
V9	30x40	0	477
V10	30x40	0	477

Características dos materiais	
fck (kgf/cm²)	Eca (kgf/cm²)
250	241500

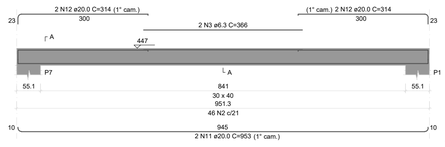
Dimensão máxima do agregado = 19 mm

Pilares			
Nome	Seção (cm)	Elevação (cm)	Nível (cm)
P1	40x40	0	477
P2	40x40	0	477
P3	40x90	0	477
P4	40x90	0	477
P5	40x90	0	477
P6	40x90	0	477
P7	40x40	0	477
P8	40x40	0	477

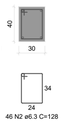
Legenda dos pilares
Pilar que morre

Legenda das vigas e paredes
Viga

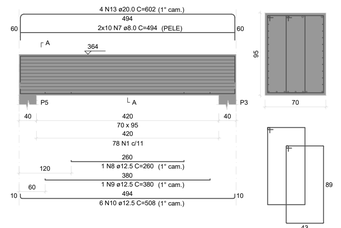
V1
ESC 1:50



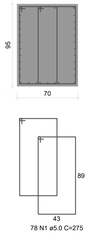
SEÇÃO A-A
ESC 1:25



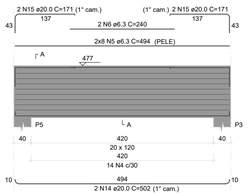
V2
ESC 1:50



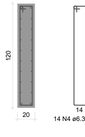
SEÇÃO A-A
ESC 1:25



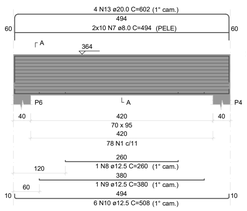
V3
ESC 1:50



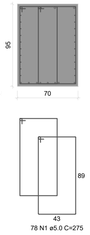
SEÇÃO A-A
ESC 1:25



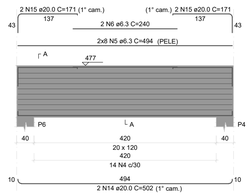
V4
ESC 1:50



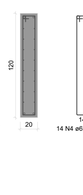
SEÇÃO A-A
ESC 1:25



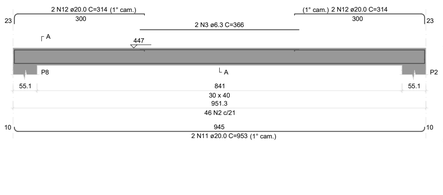
V5
ESC 1:50



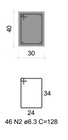
SEÇÃO A-A
ESC 1:25



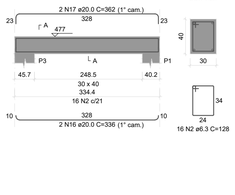
V6
ESC 1:50



SEÇÃO A-A
ESC 1:25

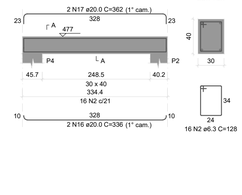


V7
ESC 1:50



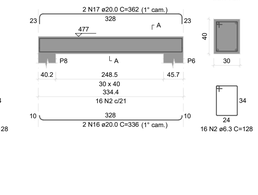
SEÇÃO A-A
ESC 1:25

V8
ESC 1:50



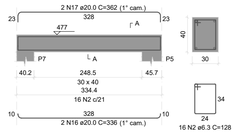
SEÇÃO A-A
ESC 1:25

V9
ESC 1:50



SEÇÃO A-A
ESC 1:25

V10
ESC 1:50



SEÇÃO A-A
ESC 1:25

RELAÇÃO DO AÇO

V1 V2 V3
V4 V5 V6
V7 V8 V9
V10

AÇO	N	DIAM (mm)	QUANT	C.UNIT (cm)	C.TOTAL (cm)
CA50	1	8.0	156	127	19812
CA50	2	6.3	156	123	19908
	3	6.3	4	366	1464
	4	6.3	28	366	7404
	5	6.3	32	444	10656
	6	6.3	2	540	900
	7	6.3	42	444	16576
	8	12.5	2	380	760
	9	12.5	2	540	1080
	10	12.5	12	508	6096
	11	20.0	8	366	2812
	12	20.0	8	514	3712
	13	20.0	8	540	4208
	14	20.0	8	721	7008
	15	20.0	8	1021	7888
	16	20.0	8	1021	2688
	17	20.0	8	1021	10088

RESUMO DO AÇO

AÇO	DIAM (mm)	C.TOTAL (m)	PESO + 10% (kg)
CA50	6.3	457	123
	8.0	197.6	85.8
	12.5	73.8	78.2
	20.0	201	545.3
CA60	5.0	429	72.7
PESO TOTAL (kg)			
CA50	832.2		
CA60	72.7		

Volume de concreto (C-25) = 10.96 m³
Área de forma = 74.44 m²

MANF Halfeld Clark
Consultoria em Administração Pública
Especializada em Convênios
Tel.: (32) 3571-4756
e-mail: mconvenios@yahoo.com.br

PROJETO: PROJETO ESTRUTURAL - PONTE

CONTEÚDO: PILARES - VIGAS

ESCALA: Indicada

LOCAL: Estrada de acesso a comunidade do Candongas, Zona Rural, Rio Pomba

DATA: 22/01/2026

CONTRATANTE: PREFEITURA MUNICIPAL DE RIO POMBA

RESPONSÁVEL TÉCNICO: EDUARDO FARIA HALFELD CLARK:11215736657 Assinado de forma digital por EDUARDO FARIA HALFELD CLARK:11215736657 Dados: 2026.01.23 09:48:14 -03'00'

Eduardo Faria Halfeld Clark
CREA MG-287.710/D

FOLHA: 04/05