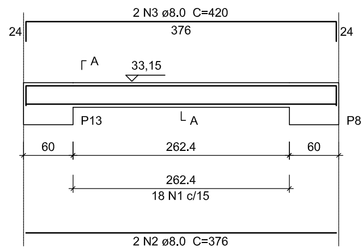
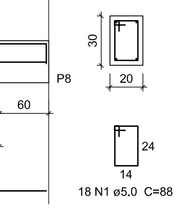
V1
ESC 1:50



SEÇÃO A-A
ESC 1:25



Relação do aço

V1

AÇO	N	DIAM (mm)	QUANT (Barras)	UNIT (cm)	C.TOTAL (cm)
CA60	1	5,0	18	88	1584
CA50	2	8,0	2	376	752
	3	8,0	2	420	840

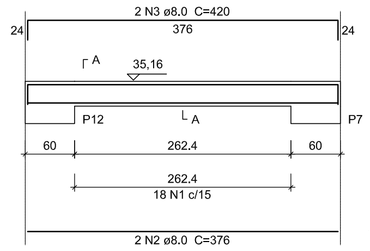
Resumo do aço

AÇO	DIAM (mm)	C.TOTAL (m)	PESO + 10 % (kg)
CA50	8,0	16	6,9
CA60	5,0	15,9	2,7

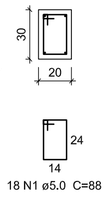
PESO TOTAL (kg)	
CA50	6,9
CA60	2,7

Volume de concreto (C-30) = 0,23 m³
Área de forma = 3,06 m²

V1
ESC 1:50



SEÇÃO A-A
ESC 1:25



Relação do aço

V1

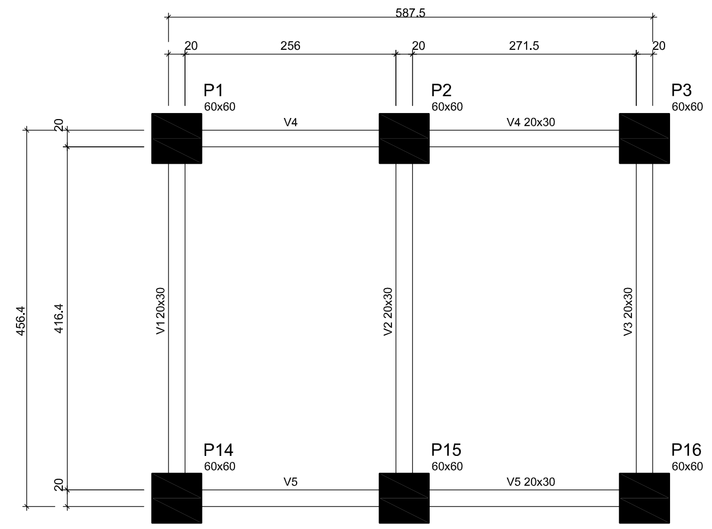
AÇO	N	DIAM (mm)	QUANT (Barras)	UNIT (cm)	C.TOTAL (cm)
CA60	1	5,0	18	88	1584
CA50	2	8,0	2	376	752
	3	8,0	2	420	840

Resumo do aço

AÇO	DIAM (mm)	C.TOTAL (m)	PESO + 10 % (kg)
CA50	8,0	16	6,9
CA60	5,0	15,9	2,7

PESO TOTAL (kg)	
CA50	6,9
CA60	2,7

Volume de concreto (C-30) = 0,23 m³
Área de forma = 3,06 m²



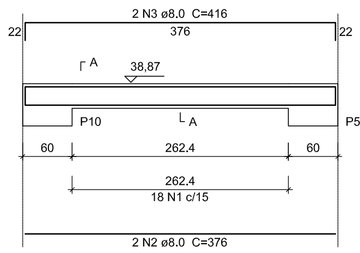
Vigas			
Nome	Seção (cm)	Elevação (cm)	Nível (cm)
V1	20x30	0	6123
V2	20x30	0	6123
V3	20x30	0	6123
V4	20x30	0	6123
V5	20x30	0	6123

Características dos materiais

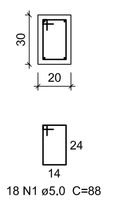
Elemento	fck (kgf/cm²)	Ecs (kgf/cm²)
Vigas	350	281605
Pilares	350	281605
Sapatas	300	260716

Forma do pavimento NIVEL 43,80
escala 1:50

V1
ESC 1:50



SEÇÃO A-A
ESC 1:25



Relação do aço

V1

AÇO	N	DIAM (mm)	QUANT (Barras)	UNIT (cm)	C.TOTAL (cm)
CA60	1	5,0	18	88	1584
CA50	2	8,0	2	376	752
	3	8,0	2	416	832

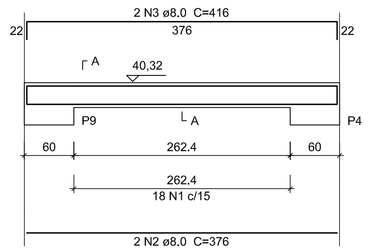
Resumo do aço

AÇO	DIAM (mm)	C.TOTAL (m)	PESO + 10 % (kg)
CA50	8,0	15,9	6,9
CA60	5,0	15,9	2,7

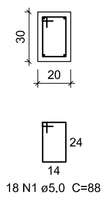
PESO TOTAL (kg)	
CA50	6,9
CA60	2,7

Volume de concreto (C-35) = 0,23 m³
Área de forma = 3,06 m²

V1
ESC 1:50



SEÇÃO A-A
ESC 1:25



Relação do aço

V1

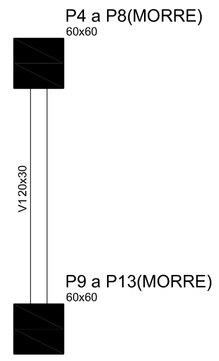
AÇO	N	DIAM (mm)	QUANT (Barras)	UNIT (cm)	C.TOTAL (cm)
CA60	1	5,0	18	88	1584
CA50	2	8,0	2	376	752
	3	8,0	2	416	832

Resumo do aço

AÇO	DIAM (mm)	C.TOTAL (m)	PESO + 10 % (kg)
CA50	8,0	15,9	6,9
CA60	5,0	15,9	2,7

PESO TOTAL (kg)	
CA50	6,9
CA60	2,7

Volume de concreto (C-35) = 0,23 m³
Área de forma = 3,06 m²



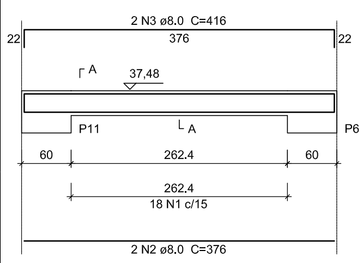
Vigas			
Nome	Seção (cm)	Elevação (cm)	Nível (cm)
V1	20x30	0	0

Características dos materiais

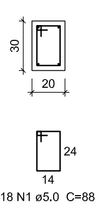
Elemento	fck (kgf/cm²)	Ecs (kgf/cm²)
Vigas	300	260716
Pilares	300	260716
Sapatas	200	212874

Forma do pavimento NIVEL33,15 a 43,8
escala 1:50

V1
ESC 1:50



SEÇÃO A-A
ESC 1:25



Relação do aço

V1

AÇO	N	DIAM (mm)	QUANT (Barras)	UNIT (cm)	C.TOTAL (cm)
CA60	1	5,0	18	88	1584
CA50	2	8,0	2	376	752
	3	8,0	2	416	832

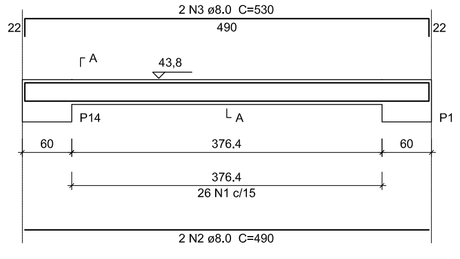
Resumo do aço

AÇO	DIAM (mm)	C.TOTAL (m)	PESO + 10 % (kg)
CA50	8,0	15,9	6,9
CA60	5,0	15,9	2,7

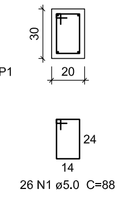
PESO TOTAL (kg)	
CA50	6,9
CA60	2,7

Volume de concreto (C-35) = 0,23 m³
Área de forma = 3,06 m²

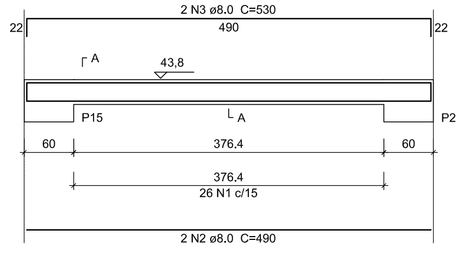
V1
ESC 1:50



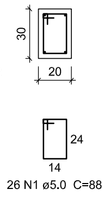
SEÇÃO A-A
ESC 1:25



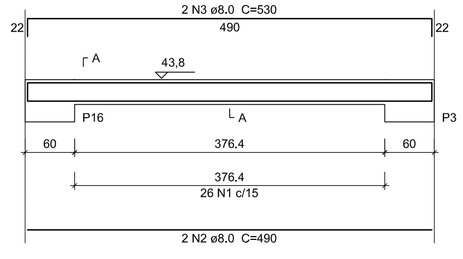
V2
ESC 1:50



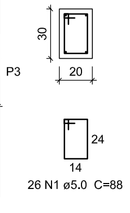
SEÇÃO A-A
ESC 1:25



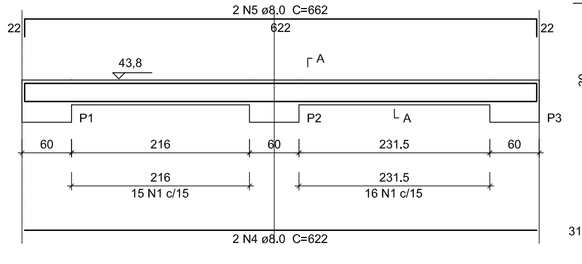
V3
ESC 1:50



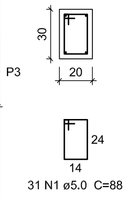
SEÇÃO A-A
ESC 1:25



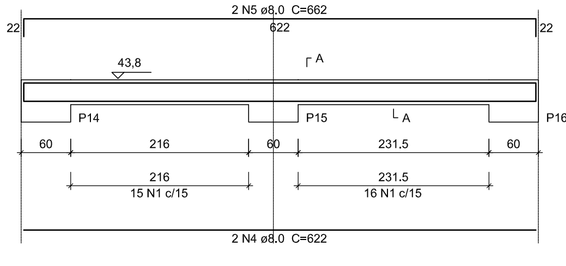
V4
ESC 1:50



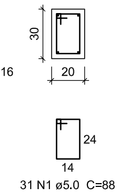
SEÇÃO A-A
ESC 1:25



V5
ESC 1:50



SEÇÃO A-A
ESC 1:25



Relação do aço

V1 V2 V3
V4 V5

AÇO	N	DIAM (mm)	QUANT (Barras)	UNIT (cm)	C.TOTAL (cm)
CA60	1	5,0	140	88	12320
CA50	2	8,0	6	490	2940
	3	8,0	6	530	3180
	4	8,0	4	622	2488
	5	8,0	4	662	2648

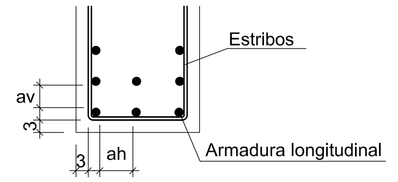
Resumo do aço

AÇO	DIAM (mm)	C.TOTAL (m)	PESO + 10 % (kg)
CA50	8,0	112,6	48,9
CA60	5,0	123,2	20,9

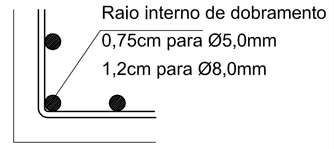
PESO TOTAL (kg)	
CA50	48,9
CA60	20,9

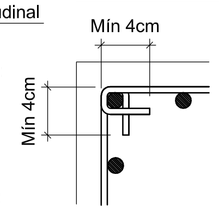
Volume de concreto (C-35) = 1,65 m³
Área de forma = 21,95 m²

Detalhe executivo das armaduras



Estribos





(ah) deve ter o maior dos seguintes valores:
- 20mm
- Diâmetro da barra longitudinal
- 1,20xdiâmetro(máx) da brita
- Diâmetro do vibrador

(av) deve ter o maior dos seguintes valores:
- 20mm
- Diâmetro da barra longitudinal
- 0,50xdiâmetro(máx) da brita

QUADRO DE REVISÕES

REVISÃO	DESCRIÇÃO	DATA	DESENHO

APROVAÇÕES

PROPRIETÁRIO
COMPANHIA HIDROMINERAL DE PIRATUBA
83.078.315/0001-40

RESPONSÁVEL TÉCNICO
JAIME FERNANDO SCHMIDT COSTA:34903380068
Assinado de forma digital por JAIME FERNANDO SCHMIDT COSTA:34903380068 Dados: 2023.08.16 16:25:25 -03'00'
JAIME F. SCHMIDT COSTA
CREA/SC: 31169-5

EQUIPE TÉCNICA DA EMPRESA

FERRARI ENGENHARIA

EMESON FERRARI
Engenheiro Mecânico
CREA/SC: 165014-3

MAURICIO CERUTTI
Arquiteto e Urbanista
CAU: A109041-0

JAIME F. SCHMIDT COSTA
Engenheiro Civil
CREA/SC: 0311169-5

RENATO BERGAMO
Engenheiro Eletricista
CREA/SC: 068830-4

PROPRIETÁRIO: COMPANHIA HIDROMINERAL DE PIRATUBA
EDIFICAÇÃO: ESTRUTURA DE FUNDAÇÃO - KAMICASE
ENDEREÇO: AV. DEZOITO DE FEVERREIRO, 2455 - PIRATUBA- SC

PROJETO: ESTRUTURA DE CONCRETO ARMADO
ARQUIVO: PALCO
DATA: 23.02.2023
CONTEÚDO: FORMA E ARMADURA VIGAS
ETAPA: PROJETO EXECUTIVO
ESCALA: INDICADA
FOLHA: E02-XX

FERRARI ENGENHARIA | CREA n° 165014-3 | CNPJ:35.949.131/0001-02
Rua Getúlio Vargas, 234 - SALA 01 - Centro - Concórdia | Fone: (49) 99997-3641 | e-mail: projetos@engenharia@ferrari.com.br

Formato A1 (841 x 594mm)